TRUSTWORTHY PARTNERSHIPS
START WITH A CONVERSATION
**managetopia**, founded in 2004 is a dynamic, young and innovative software company located in Aschaffenburg and Dusseldorf. Both managing directors acquired long standing BI and analytics project experience with BCG (The Boston Consulting Group).

Over the years we have firmly established ourselves as specialists in the market, facilitating international companies with management reporting solutions. We currently account for 15 employees and deployment of over 500 development projects. Every solution is tailored and streamlined specifically to meet our client’s needs and requirements.

All our services are developed under one roof and are coupled with the digitization of business procedures: Phase 1 commencing with identifying critical automated business processes, followed by a compilation of suitable solutions in-line with the goals and objectives of the project. This is followed by drafting a list and proposing different solutions in-line with the scope of the project. Once a decision is made and the most appropriate approach chosen, a requirements specification document is drafted. The main focus lies with the analysis and data collection and compilation process of relevant data before development of a customized software solution or adaption of standard software commences. The roll-out and onsite training as well as our proactive support and long-term support service available is all part of our comprehensive service available to clients.

Top priority lies with delivering measurable and tangible value added services to our clients. Each investment is treated as a commitment guaranteeing long-term sustainable value for our clients, combining outstanding services with emerging technology.

Our technology portfolio is ever-changing and is continuously evolving. By keeping up with technology trends and developments our clients are guaranteed to benefit long-term from the latest technology applied. As a Microsoft Silver partner we utilize Microsoft technology to form the basis for our analytical approach. In addition, our core competencies focus on the development and implementation of a range of the latest tools and technology adapted for database, analytics, BI and Cloud development.

**Looking forward to transforming your business!**

*Gunter Sichert and Ralf Pirzkall*
He studied Business Information Technology at Bamberg University and started his career as an intern and IT analyst with the Deutsche Bank in Cologne and Frankfurt. From 2004 to 2009 he headed up the global Competence Center for “Analytics Solutions” for the Boston Consulting Group in Dusseldorf and Chicago.

As co-founder of managetopia GmbH (Limited Liability Company) the company’s ethic was to start and develop a high performance company offering intelligent, sustainable and tailored digital solutions, a strategic and logical move in the continuation of his career.

Gunter is a certified expert in the areas of process optimization, complex data analysis, simulations as well as standardized and customized BI solutions. He offers clients conceptual and technical support in process optimization and change management processes in the context of PMI or cost cutting projects. He develops client segmentation and portfolio analyses, scenario and churn-prevention strategies, especially for the banking and telecommunications sectors. Across all sectors he has successful spearheaded, supported and delivered countless projects.

In his free time he enjoys hiking and climbing and likes to relax outdoors. He is married and has 2 daughters.
RALF PIRZKALL

is managing partner of managetopia and ultimately responsible for technology, sales and marketing. He studied electrical engineering in Vienna and Frankfurt.

In 2004, he founded managetopia and serves in an active role as a consultant and project leader. In 2010 as co-founder of managetopia GmbH (Limited Liability Company), the foundation was laid for the long-term professional development of an extensive service portfolio.

After his graduation, he studied electrical engineering at the University of Applied Sciences in Vienna and Frankfurt. He started his career at The Boston Consulting Group including a posting abroad in the Boston, US office.

With Ralf’s wealth of experience over the years he has developed and deployed countless projects for different industries worldwide. He is a certified expert in software engineering and project management.

The ongoing realization and deployment of professional software applications and solutions derives from extensive knowledge in developing management tools, thereby demonstrating strong analytical skills and utilizing the latest technology available.

Working closely with clients devising solution and goal orientated objectives is Ralf’s passion. The list of international clients includes divisions from the automobile, pharmaceutical and petroleum industries and various ministries worldwide.

He is responsible for preparing training concepts, conducting workshops and holding comprehensive software development training sessions. Ralf is also responsible for specifications and documentation and requirements analysis and preparation of decision templates for management boards.

Ralf is passionate about cycling and is an avid traveler using every opportunity to travel the world discovering new countries and cultures. He is married and has a daughter.
plays a central role as Project Leader in the company and heads up the software development center in Aschaffenburg. He is also part of the managetopia management team.

He was the first employee in the company and started his career as a Solution Developer. Over the years Patrick has gained long standing experience in the conceptualization and implementation of multi-international projects. As Project Leader and head of IT he is responsible for the IT infrastructure for managetopia, using only the latest technology fortified by the partnership with Microsoft. Furthermore he has played a significant role in the conceptualization, development and integration of client tailored software solutions, whatever the size of the project for the client. Besides these areas, he boasts a proven track record in Business Intelligence, Azure and AWS Cloud Computing and holds a certificate for “Microsoft Solutions Associate SQL Server” which he has demonstrated in particular in the Data Management and Reporting areas with over 100 hybrid applications to account for. He has managed complex restructuring projects as Project Leader and Solution Developer and has acquired invaluable technical know-how in the banking sector, human resources, manufacturing, retail and wholesale cross sectors.

DATA MANAGEMENT AND DATA ANALYSIS
- Alteryx
- Microsoft SQL Server (MCSA)
- Microsoft Excel, Power Pivot and Access
- Oracle
- Amazon Redshift

SOFTWARE DEVELOPMENT
- C#.Net Winforms
- SimpleInjector / Ninject
- WPF
- Entity Framework
- NLog
- InstallShield
- Complete MS Office application environment (VBA, VSTO)
- ASP.Net Webforms and MVC
- Java Script
- Git / SVN

REPORTING AND VISUALIZATION
- Tableau Professional and Server
- Microsoft Excel, PowerPivot and PowerPoint
- Dev Express Winforms and Webforms
- Report Designer
- Microsoft SQL Server Integration Services (SSIS)

PROJECT MANAGEMENT
- Jira / Jira Agile (Scrum and Kanban board)
- Microsoft Project

IT INFRASTRUCTURE
- Microsoft Active Directory
- Microsoft Hyper-V Virtualization
- Microsoft Azure Cloud Services
is Project Leader and part of the managetopia Management Team. Dirk studied Computer Science at Dortmund University.

He started his career with the Boston Consulting Group (BCG) and gained extensive knowledge as a Project Leader, in particular the financial sector for a range of clients around the globe. As a distinguished technology expert and Project Leader he is responsible for the concept, development and implementation of customized software solutions. Apart from software development he brings with him extensive knowledge in Business Intelligence, Public Cloud Computing and Data Analytics. To date, he has successfully implemented over 100 hybrid applications. Furthermore as Project Leader and Data Analyst he has managed complex Data Analysis projects as well as planned and carried out extensive trainings in Big Data, Python, MS Access, SQL-Server and Excel.

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**REPORTING AND VISUALIZATION**
- Tableau Professional and Server
- Microsoft Excel, Power Pivot and PowerPoint
- Dev Express Winforms and Webforms Report Designer
- Microsoft SQL Server Integration Services (SSIS)

**PROJECT MANAGEMENT**
- Jira / Jira Agile (Scrum and Kanban board)
- Microsoft Project
Our roots lie in Strategic Project Management. Over the past 2 decades we have learned that delivering smart solutions is a key factor for our continued successful relationship with our clients. As a result the development and integration of digital solutions along with cutting-edge technology provides the foundation of our portfolio.
Over the years managetopia has evolved into an impressive team of multi-faceted analysts proving again and again their outstanding realization skills reflected in every project deployed, all developed in-house in our own software development center in Aschaffenburg. Today, most of our clients work with us on a long-term basis, starting point is our approach identifying a diversified range of digital solutions to meet our clients’ needs, followed by customized development, implementation and support. The process and workflow applied is illustrated in the graphic below. From the beginning our focus started in the field of management reporting and a Business Intelligence objective to provide our clients with graphic user-friendly dashboards that are easy and transparent highlighting the problems related to the business process. By doing so, our clients get back control and are in a position to take action. We know that most problems arise in poor quality and insignificant reports which derives from insufficient or error prone data handling. As a result companies are restricted in their capacity to act and rectify the problem. In this respect “BI” for us is a lot more than a high-performance standard software presentation module. Compelling Business Intelligence solutions can only be achieved by having access to good quality, relevant and accurate data.

Our first course of action is to analyze the current situation and identify and discuss the underlying problem. Next, a list is compiled with alternative solutions and together we will decide which solution will best meet the client’s needs, factoring in external aspects. This way effective deliverables and long-term client satisfaction is guaranteed.

**Rapid Prototyping (Make) or adaption (Buy), delivering the first results within a short period of time enabling intervention if needed from an early stage**

**Project status report, Timelines, Major Milestones, itemized online using JIRA**

**Development of a test environment and definition and execution of test scenarios. Step by step implementation of the application.**

**Training session for Power Users (Administrators) and end users conducted, ensuring users are capable of handling the system independently**

**Create a Knowledge Base for the client’s organization, SLA (Service Level Agreement) available on request to ensure long-term support**

**Full documentation including technical specifications, User Acceptancy Testing and Performance Test protocols**

**Testing and Handover Protocol**

**Iterative – Agile in-house development or integration and adaption of a standard software package (Make or Buy)**

**DESIGN AND DEVELOPMENT OR STANDARD SOFTWARE INTEGRATION**

**TESTING AND DEPLOYMENT**

**TRAINING AND SUPPORT**
BUSINESS CASES

OUR PROJECTS ARE OUR CALLING CARDS
Renowned global companies and institutions across different industries trust in our services and continue to adopt effective and successful solutions from managetopia.

The following case studies will give a first impression of the diversity, range of services and typical approach to our work.

Happy Browsing!
BUSINESS CASES

CHANGE MANAGEMENT

Our client is planning the worldwide launch of a new financial accounting system to adhere to the rising demands of transparency for state institutions. Phased rollouts will be carried out over an 18 to 24 month period.
The project goal: within the framework enable extensive project monitoring, by viewing the status and progress of the project on all levels (countries, regions, phases, functional entities) at any given time. Thus, it should be possible to forecast problems and have the ability to act and initiate countermeasures at all times.

General conditions apply to the development of our solutions. The client has explicitly requested real-time data management and capability to generate centralized and decentralized reports based on user groups. Additionally, the rollout of BI software (Tableau) is planned for the company, and ideally the solution should incorporate this software.

For the current case, the technology framework and the preference to incorporate Tableau in the end-product was noted. Alternative approaches would entail the development of a customized web application, as well as the purchase and, if necessary, adaption of an off-the-shelf project tracking software.

And here the story behind the project: the essence of our handling in ever project – as we did here – lies in our aptitude to listen to the client. We aspire to understanding the goals and objectives defined by our clients and look to adapt our solution approach individually to meet the objectives in accordance with the preexisting framework of the organization. At the beginning communication is key and focus lies on the intense interaction with the client, including the project assessment and analysis process (tasks) and roles involved and definition of the (partial) project life cycle together with the client’s project management team. This way, it becomes clear which user groups would most likely be used for the BI application.

Additionally and in close collaboration with the client management team, the development of the customized set of reports needed to incorporate the traits of the project and organizational structure of the client. The initiation and test of the configuration of the Tableau software infrastructure for the client was the key prerequisite for the implementation of the project and therefore enforced and monitored by us.

Our analysts built the architecture parallel to configuring the structure of the database to store and control the project processes. Next, the development of the dashboard for the reports for the specific user groups in Tableau. The server-side implementation of the Tableau dashboard for the client proved to be particularly challenging, as the Tableau dashboard had to be built using the desktop version. We learned that the Tableau Server License did not depict all elements one-to one for the desktop version. A learning curve which we easily mastered and where the client benefited enormously.

Part of the project delivery involved intensive training sessions and the handover of a detailed user-guide, which enabled our clients to perform their own changes to the application, thereby drastically reducing the maintenance costs.

Typically after deployment we are available to assist and support with any modifications, questions, or upgrades based on our flexible SLA agreement.
Image 1: shows the central navigation of the Tableau Dashboard: Fly/Mouse-Over effects provide a user-friendly overview and functionality to select specific elements.

Image 2: Status reports with compelling shapes and colors facilitate quick identification of critical areas. This is also where you can drill down to retrieve further details by clicking on the symbols.
Image 3 shows the milestone overview using colors for better visualization and highlights the break-down by phases. By clicking on an icon (individual milestones listing a specific day) detailed information will be displayed for the selected milestone.

### MANAGETOPIA RESOURCES ALLOCATED TO THE PROJECT:

**For the Analysis and Conceptual phase:**

- **1 Project Manager / Lead IT Analyst:** 3 months (50-100%)

**For the realization of the Tableau implementation, integration, training and documentation:**

- **IT Analyst:** 4-6 Weeks (100%)
BUSINESS CASES

CONCEPT AND DEVELOPMENT OF A WEB-BASED KPI COCKPIT

Show data. But how?
During the course of restructuring our client was confronted with a task, how to give access to KPI’s and key facts and figures to his senior management team, and how to assist during the implementation and improving the process in general. A high acceptancy rate and support by the employees was based on the particularly high importance and significance of the restructuring measures taken. The client roughly sketched out what he had in mind and asked us to evaluate and scrutinize the possible implementation variations listed. The concept of the client was based on using Tableau for data extraction and visualization using the dashboard, empowering internal users to access all the information.

**The tip of the iceberg**

After studying the initial concept we started a dialogue with the decision makers and potential users of the dashboard. We collected valuable feedback from each business partner and information regarding additional features and further requirements crucial for the model. It quickly became apparent in our discussions that aside from the initial concept numerous additional requirements were needed, which only became clear while conducting the conversations and asking specific questions: **Should external users from other institutions gain access to the dashboard?**

*Can the data be automatically updated, or do we need to setup an admin group to handle? How much flexibility should we allow for the customization of data and graphs?*

The Tableau Desktop and Tableau Public products are used to connect data with a graphical user interface per drag and drop. Data analysis can be compiled and interlinked using the dashboard. The browser-based Tableau server with data warehouse integration capabilities ensures the support of large volume data and exchange of data and results.

Based on the feedback from the discussions, it quickly became apparent that a lot of the requirements could only be partially achieved or with considerable effort using Tableau. For example, it was necessary to ensure that users only had permission to access their own data. Using Tableau the implementation would have involved the setup of each dashboard per user group. This and other restrictions would have led to high operational and maintenance running costs for the Tableau Dashboard.

Other solution approaches such as the development of a desktop application or an off-the-shelf solution were disregarded based on the limitations and requirements documented.

**Web is the answer**

Due to the numerous restrictions and client requests and focus of the client on user acceptancy and a user-friendly solution, we pushed for the implementation of a customized web-based application. Thereby fulfilling every feature and requirement specified, at the same time keeping the maintenance to a minimum and offering a solution that could be extended or upgraded at any given time. The main advantage for our client, it provided users with an extremely user-friendly platform that could be accessed by any user from any computer worldwide.

**A Picture is Worth a Thousand Words**

In further client discussions our recommended web-based model was presented using design mockups with relevant user stories, which after evaluation the client authorized the implementation. Ha-
ving built the design mockups we were able to use these during our discussions and work together with the client to document client requests and design requirements which resulted in the starting point of creating our specification for designing the front-end.

**Agile - the center of attention**

After our discussions the implementation of the web-based application was handed over to the managetopia development team. In order to use the most agile solution for development possible and initially reduce the workload for the specifications, we selected JIRA and created a scrum board and workflow. This enabled access for the project owner, in-house QA team, development team but also the client that profited by accessing the board, so they could view the real-time status and progress of the development of the application at any given time. Additionally, they were able to post their own feedback on the board. In addition, a test environment was set up for the client that made it possible to provide the customer with regular updates and collect feedback on the overall development status. Based on the processes and short official channels within managetopia, we were able to identify and prevent any potentially problems quickly.

**The first User**

After completing the functional implementation and subsequent quality check, a web server was set up and the website uploaded in collaboration with the client’s IT department. Initially, restrictions were imposed for selected user groups that represented a subset of the user groups. On the User Group admin page on the website, these users were assigned a role and respective permissions and the access data for the website was subsequently forwarded automatically to the user by e-mail. After several days of intense testing, we asked users for their feedback and comments which we consolidated and added to the overall specification.

**Whet your appetite**

User acceptancy was the key criteria for the development approach which exceeded all expectations. Many users saw the potential of the website performing as a single inventory platform, helping users to search for information and offering assistance. As a result lots of ideas sprung to mind, how we could make the website accessible to an even wider audience. In follow-up discussions with the project managers this and other topics were taken on board and extending the website was signed off. One of the new functionalities approved was the realization of a responsive design ensuring the website was compatible with a multitude of devices, such as iPhone, iPad and Android, ensuring an optimal display of all data and images on all devices (all fully customizable by the user). Finally, as part of the new brief, the integration of an Arabic version of the website was included.

> "Nothing in the history of mankind is more constant than change."

Heraclitus (around 500 BC)

By choosing the right technology and introducing an agile development approach we were in the position to implement modifications and extensions in a timely manner without encountering insurmountable hurdles or susceptible to costly workarounds.

As a Microsoft Silver Partner we profit from utilizing a multitude of industry leading tools and this is why we use and provide solutions based on Microsoft technology. Microsoft’s ASP.Net was selected together with the entity and identify framework to develop the website. A Microsoft SQL Server was selected to host the database and the Internet Information Services (IIS) to host the website.
Examples of the user interface for the responsive website
With Redshift, top dog in cloud technology Amazon Web Service (AWS) offers managed cloud data warehousing services at significantly cheaper costs and a higher level of flexibility in comparison to an onsite solution in your own data center. Besides, it is the ideal opportunity for companies to get acquainted with the cloud without having to relocate critical operational systems. managetopia has an experienced AWS certified solution architect to assist and support clients with the AWS Cloud.

Our client has increased their focus on cloud solutions since the opening of the first AWS Data center on German soil. The advantages are apparent: no investments or fixed costs needed for the purchase of an expensive server, no commitment to server technology companies for the next few years, the flexibility of increasing or reducing server capacity, cost savings for IT staff and security in their own Data-center and transparent cost structures.

As the analysis of several dozen gigabytes of transaction data for a large retail company was to be carried out, it quickly became apparent that AWS was the only way forward, as essential resources could be provided in a timely manner. There was not enough capacity onsite and the purchase of a new server would have been too costly and it would have taken too long. Initially the decision needed to be made, how to transfer the data to the cloud. In principle there were 3 options to choose from:

- **Transfer using the standard ISP connection**
- **Transfer using a direct dedicated connection to the AWS Backbone to one of the many AWS Direct Connect locations**
- **Send as Snowball (*)**

In principle, the latter involved a multiple layered secured SSD hard-drive, the size of an Amazon package, with dedicated security personnel and high level encryption used to secure the data. After dispatch to AWS the data can be imported quickly by AWS.
Although our client had access to a dedicated AWS connection and it was possible to transfer all data within a couple of hours, Snowball was ruled out as an option; even though postal delivery times took 3 to 4 days, it would have only stood to our advantage if the data volume was in the terabyte region.

Parallel to the transfer of the data, the Redshift Cluster needed to be drafted and setup. Crucial for the performance and of course the costs was the number of computing nodes that the Redshift Cluster has: more servers, quicker queries. Each server is charged by the hour. With around 300 million datasets in the main Fact Table of the DWH (Data Warehouse), the run-time for most of the queries only needed one node in a matter of seconds, although some complex SQL queries needed in some instances a couple (few) minutes. So, we asked ourselves if we could improve the performance by adding more computer nodes. As we were relying on one analyst, instead of a team to handle the analysis, the decision was made to accept the run-time, thereby keeping the costs down. Besides, it is possible to resize the Cluster at any time. This followed the initial setup of the DWH Cluster that was ready to use in a matter of minutes, using just a few clicks.

As in all data intensive projects data cleansing was necessary, often the main driver for the effort involved. With large volume data the approach needs to be structured: individual steps take several minutes, sometimes hours. After several days needed for data cleansing, it was possible to move forward with populating the Data Warehouse with the data, which took no time at all. Using the AWS Backbone the transfer of several Gigabytes is extremely quick, similar to a local network.

After the successful setup and population of the Redshift DWH it was time to analyze the data. Redshift acts the same as a local DWH. Using PostgreSQL, Redshift interprets statements as standard SQL. Analysts connect using standard SQL clients, Tableau, Alteryx and other BI tools. After several weeks the client was presented with the results of the analysis. On project completion, the data was archived and the Redshift Cluster was shut down – similar to the setup only taking a matter of minutes. As a result costs were no longer incurred. Within just a few weeks it was possible to complete a complex analysis project with large volume data. It clearly demonstrated the potential of the cloud, in particular the flexibility and cost saving that can be achieved.

(*) With the launch of Amazon Snowmobile at the end of 2016 a further data transfer service was added. It entailed moving extremely large amounts of data (Exabyte-scale data sets) to AWS that needed to be collected by truck (https://aws.amazon.com/snowmobile/)

This service from AWS is called: Direct Connect (https://aws.amazon.com/directconnect/)

AWS Snowball (https://aws.amazon.com/snowball/)

MANAGE TOPIA RESOURCES ALLOCATED TO THE PROJECT:

For data preparation, the setup of the Redshift Cluster and transfer to the cloud:
AWS Solution Architect, 2 Weeks (50-100%)

For performing the analysis, creating the visualizations and documentation:
IT Analyst: 8 Weeks (100%)
BUSINESS CASES

IMPLEMENTING A REPORTING SYSTEM FOR THE MONITORING OF A CALL CENTER
Client:
Global Financial Services Provider

Project Scope:
The customer plans to implement a reporting system for measuring the fulfillment of the Service Level Agreement (SLA) after the launch of a new Information System and setup of a call center to process customer requests for a bank in Germany.

Project Goal and Objectives:
Generate and implement customized reports for various SLAs (service quality, accessibility, operational efficiency) using the data stored in the ticket system database.

Special Requirements, Limitations and Framework:
Prerequisite: continue using existing infrastructure and tools: consolidation of multiple data sources (Oracle, MySQL ticket database, PBX, Excel) using MS SQL Server Integration Services (SSIS)

Feasible Solutions and Scenarios:
Realization achieved by the implementation of Microsoft Applications (SQL Server, SSIS) due to the existing infrastructure and cost implications

Significant Implementation Steps:
1. Define the requirements for the KPIs to be evaluated
2. Feasibility and cost analysis using the information available
3. Reporting requirements definition
4. Implementation of data handling standards and generation of reports using SSIS
5. Automated report generation and integration into the client’s archiving system

MANAGE TOPIA RESOURCES ALLOCATED TO THE PROJECT:

1 - 3:
Project Manager / Lead IT Analyst: 6 Weeks (50-100%)

4 - 5:
IT Analyst: 6 Weeks (100%)
Everyone is talking about Big Data, Cloud and Data Science, as a result Data Scientists are in high demand. At managetopia it is no different, we have seen an increase in requests by clients to support Data Science projects. Clients have relied on SQL databases and Excel to perform basic analysis in the past, but today they are no longer satisfied. They need something more powerful.
Although managetopia has watched the boom in Data Science over the years, we were still surprised when a long-term client approached us and requested we build a predictive model. The goal, to conduct a feasibility study to support investment decisions by utilizing a forecasting model. The question raised: can you draw conclusions on the success of companies today by using different KPI’s from the past.

Apart from the time needed to build the model, a large chunk of the workload was needed for data cleaning, because most of the data sources consisted of Excel files – approx. 100 files incorporating information about different companies - and typically for Excel using a multitude of sheets using different structures. As a result it was clear that the solution would entail applying Microsoft Office techniques for development: Excel and VBA.

After drafting the specifications, it was clear that an alternative solution was needed, at least a supplementary tool to Excel and VBA. The forecasting model should be built using machine learning techniques: decision trees or if necessary, alternative methods such as logistic regression or support vector machines. In addition, optimization of the models should be possible by applying automated tests from different model parameters. Based on the requirements the decision made was to use Python, as the whole process involved data cleansing, analyzing, building the forecasting model and using the tool for visualization of the results.

One of the main advantages of Python lies in the large data science community support and countless extensions available. 2 extensions in particular proved to be invaluable during the project: Pandas and Scikit-learn. The Pandas extension delivers pre-defined data structures and functions for data cleaning and analysis. The Scikit-learn extension was needed for the forecasting model and included an optimization functionality. By applying these methods for the project in comparison with using VBA there was a considerable saving of both time and costs and shorter period needed for realization of the model.

The decision about the success of the feasibility study for the functional forecasting model is pending and it is not clear if the approach will be pursued. Python as a language with its built-in extensions has proved that the increasing utilization of corporate data will be used by managetopia for other upcoming analytics projects.
PORTFOLIO

OUR SOLUTIONS
FOR YOUR PROBLEM
From a high-performance web application to a highly complex data warehouse system: the following specialized areas provide an overview of our extensive range of skillsets and core competencies based on projects deployed.
PORTFOLIO
SOFTWARE DEVELOPMENT

WEB-APPLICATIONS
Implementation of a Single-Point-of-Entry platform with integrated Authenticated Management for an array of applications with a refined user management administration and personalized user-friendly workflow or implementation of a customized responsive reporting dashboard.

DESKTOP APPLICATIONS
Implementation of a Winforms Management application that can be adjusted on asset level to incorporate a flexible user management administration, generated to exceed the clients highest expectations.

MOBILE AND APP DEVELOPMENT
Implementation of a user-friendly iOS app for surveys and evaluation reports including dedicated Web Services for data consolidation.

INTEGRATION
Application integration in the client’s existing IT infrastructure, addition of new functionality and integration on the live server, based on the terms agreed in the Service Level Agreement.

TECHNOLOGY
Implementation of a complex and user-friendly VBA driven project management tool using Excel templates for data entry, MS Access for data consolidation and PowerPoint to generate reports automatically.

Implementation of an Excel application for continuous data cleansing and single use for specific tools to download and consolidate hundreds of PDF’s.

Implementation of Microsoft Outlook forms to extend the functionality of calendar entries. PowerPoint Add-in integration containing multiple convenient functions for easy use and operation.


TECHNOLOGY

Microsoft Visual Studio, Microsoft Excel, Microsoft PowerPoint, Microsoft Outlook, Microsoft Word, Microsoft Access, Microsoft Project, Microsoft Visio
PORTFOLIO

REPORTING AND VISUALIZATION

Creating Dashboards in Tableau

Concept development and design, implementation, test and deployment of a global web-based Project-Tracking (PMO) and Reporting Tool, providing a comprehensive visual and tabular layout and KPI reports.

MS Office Hybrid Solutions

Having deployed hundreds of visual reports and KPI dashboards over the past 10 years this has developed into one of our core areas of expertise, primarily developing user-friendly Hybrid solutions in Excel, ThinkCell and PowerPoint.

Web Application Development

Implementation of easy-to-use, multi-level KPI Dashboards with first class visual effects realized with DevExpress Web-Forms.

TECHNOLOGY

Tableau, QlikSense, Microsoft Excel, Microsoft PowerPoint, Visual Basic for Application, Thinkcell, Power Pivot, SQL Server Reporting Service, BIRT Reporting, Winforms, Webforms, Photoshop
PORTFOLIO

DATA MANAGEMENT & ANALYTICS

DATA WAREHOUSE DESIGN AND DEVELOPMENT
Design and development of data models for Data Warehouse systems in AWS Redshift and SQL server. Analysis and optimization of data models realized by normalization and indexing.

CONCEPT AND IMPLEMENTATION OF ETL PROCESSES
Implementation of SSIS Packages for consolidating data from different sources (Oracle, MySQL, Excel) in a SQL Server database. Data Storage (>100GB) in AWS Redshift including data cleansing and performance optimization.

IN-DEPTH DESIGN AND ANALYSIS BEST PRACTICES FOR DATA PROCESSING
Cost analysis with a SQL Server
HR KPI data aggregation and calculations using Alteryx.
Revenue analysis using Redshift.

INDIVIDUAL DATA ANALYSIS CONCEPT AND ANALYTICAL TOOL TRAINING
Preparation of training concepts and hands-on training held for: “Introduction to Big Data”, “Programming with Python” and all Microsoft Office products.

TECHNOLOGY
Tableau, QlikSense, Microsoft Excel, Microsoft PowerPoint, Microsoft Access, SQL Server, Integration & Reporting Services, Oracle, Alteryx, Quicksight, Redshift, Elastic Map Reduce, Machine Learning (AWS), Machine Learning (Azure), Python & Tools (Anaconda and Jupyter Notebooks)
As we know in today’s modern digital world we have become accustomed to searching the World Wide Web quickly and easily. User-friendly results are listed and commonly optimized so they can be displayed on a variety of devices. The Web doesn’t just offer users and end-consumers new possibilities to extract information.

Retrieving information only a few decades ago involved a cumbersome and tedious exercise of flicking through books, catalogues and any other printed materials available. Nowadays, information is available at the press of a button.
This type of easy accessibility is creating new problems for companies. In more and more cases, the information is what depicts the value of a company — but to make it freely accessible often brings potential risks with it. As a result, companies looking for a professional data extraction solution are faced with countless constraints.

Knowledge is Power
Based on one of Sir Francis Bacon's famous quotes a lot of companies only offer limited access to their wealth of information. As an example, a dilemma promptly encountered by an online shop: For the shop's online presence it is essential to have enticing descriptions, good illustrations, easy to use and reliable search and filter capabilities. At the same time, the product portfolio and product details for each individual product represents a sensitive asset that needs to be protected from competitors. Using a digitization method realizes a new and faster way to automate data extraction and handle data analysis. Lots of companies simply don't allow access to their data interfaces and go to great lengths to implement security best practices to stop unauthorized access to their data. Generally the only possibility to access any data is achieved by using an everyday standard website search. Based on prevention measures imposed by numerous companies and notably enforcing special requirements that need to be fulfilled, the flexible capabilities of existing tools used for data extraction fall short of providing satisfactory results. This has resulted in countless companies having no choice but to build huge data centers in order to overcome the problem of compiling information. Once established the first step is to define a workflow, then split based on available resources, followed by applying a manual website search process to extract information. This ad-hoc solution has several drawbacks pre-dominantly due to lack of alternatives available:

**High Error-Rate**
Manual incorrect data entries und transmission errors lead to poor quality data

**Linear processing time dependent on data volume**
The processing time increases linearly in proportion to the volume of data extracted

**Impractical Repetition Process**
Repeating the process will only lead to doubling up on time and costs

**High Costs (applicable for medium sized data volumes)**
The linear increase in processing time commonly transpires into high costs even for medium sized data volumes

**The Alternative**
If existing web crawler tools are not suitable due to their intricacy and a manual search process is outweighed by a myriad of disadvantages, then take the alternative approach by using a customized tool that can be tailored and optimized to handle acute queries.

To explain the implementation process let's go back and use the example of the Web shop:

**Problem**
An automated data extraction process needs to be developed for various products and competitor web shops and the results presented one after another in a structured report.

**Specification of the required information**
At the beginning of the implementation phase, the first step is to define all information required for the analysis. In our example different product types and their respective compositions will need to be matched and subsequently the pricing compared.

**Manual Web Crawler**
Once the information for the analysis is defined a manual website crawling process is activated. Before the process is activated it is essential to make sure the pre-defined information is available and simultaneously decide on which automated process should be applied.

**Web indexing (Create a Sitemap)**
For the automated process it is important to compile a list of scanned pages after the completion of the web crawler process. This so-called Sitemap is available for several shops but must be compiled into one single document. Thereby extracting unique features of a product page, while scanning them at the same time. If the website conforms to the predefined criteria then it will be added to the sitemap.
Saving extracted website data
Upon completion of generating the Sitemap, the contents of all the websites compiled will be downloaded simultaneously. This speeds up the consecutive data extraction process and enables the iterative scan of the data, irrespective of server outages or website updates. This process can specifically be aligned and adapted in accordance with the security policies in place for each of the shops.

Data Parsers
For the compilation of the specified information, the screened results compiled in Point 2 will be used to extract the pre-defined information from the downloaded websites, e.g. using regular expressions. Captured data will be cached using the data-parsing tool that can be processed and used later on.

Data Consolidation
In the last step, the captured data based on unique features cached in the previous step can now be matched and a data cleansing process can take place before the data is converted and subsequently populates a pre-defined template. The provision of data will depend on how the data needs to be used, e.g. CSV (Comma delimited) text file or an Excel Workbook. In comparison to the manual data extraction process, the automated approach brings with it many advantages:

Low Error-Rate
Eliminates cumbersome data entry

Processing time no longer dependent on data volume
Downloading and analyzing the extracted data only takes a couple of hours

Simplified Repetition Process
If the automated process needs to be repeated, or requirements revised or extended it will be more cost-effective and quicker based on the shorter processing time

Low Costs (applicable for medium sized data volumes)
The short processing time reduces costs even for medium sized data volumes or if the process needs to be repeated

It is easy to weigh up the list of advantages in comparison to the implementation costs. After the initial screening and implementation of the basic functionality, further enhancements and performing further data extraction processes is available with little extra effort and at low cost.

Summary
Designing a client tailored solution brings many advantages in comparison with a labor intensive manual data extraction process and in most cases is the cheapest alternative. Especially when it comes to handling large data volumes and repetition processing routines. Bottom Line: the alternative reduces the automation process considerably, thereby saving time and minimizing costs significantly.
The sheer amount of information accessible nowadays, let alone getting to grips with the maintenance of an abundance of systems or portals is mind-blowing. With a proliferation of indispensable data sources and handling of multiple data formats, data consolidation has transpired into being a cumbersome and time-consuming exercise.
One of the first articles I read earlier last year predicted that one of the biggest trends would see a paradigm shift in data consolidation and automation. 1 year on and ... thankfully the answer is a big fat “YES”.

Reflecting on all the projects deployed last year certainly the vast majority encompassed data consolidation and export automation to some degree. Today, generating reports at the press of button is common knowledge. Depending on one’s needs reporting tools come in all shapes and sizes and with different price tags. Great, but what about doing the same with presentations?

Who hasn’t dreamt of creating a presentation at the click of a button? Well certainly I have. I have prepared countless numbers of presentations over the years. The vast majority using most of the same slides with a few tweaks here and there; illustrating the latest financials and forecasts, or portraying client specific information. A tedious and time-consuming exercise, inevitably involving a “calm, cool, and collected” methodical approach.

**Typical time-consuming key obstacles have involved:**
- Generating different reports from different Sources
- Unravelling countless spreadsheets
- Painstakingly converting the information extracted into different other formats
- Compiling all information into a single file
- Quality control of the aggregated data (typical garbage-in garbage-out scenario)
- Create graphs and charts to illustrate the latest financial figures

Usually now is when the “Copy & Paste” fun starts. My approach in the past has always resulted in long days at the office and an overdose in caffeine, so when my colleague was briefed on a recent project, my chair went into automatic gear and I instantaneously rolled across the office. The Project Goal was clear and the concept and deliverables were simple:

- Import data from different sources - at the click of a button.
- Export compiled clean data to a presentation - at the click of a button.
- Export financial results into predefined multiple reports, yes, you guessed it - at the click of a button!

I practically took up permanent residence at the far end of the office during the beta testing phase. Standing with my arms folded looking on left me speechless. I was amazed at the simplicity and speed achieved for the whole process from beginning to end. A simplified dashboard with slick design displaying 3 buttons that Import, Create and Export in minutes.

Preparation time...what preparation time?!

It involves clicking ONE button on the dashboard and within minutes all the information and data needed for the presentation will be imported automatically. No more compiling, merging or converting is required. For me personally with the elimination of fiddling with the design and copying and pasting I can turn my attention to the actual content and focus on the quality of the presentation. After all isn’t that the whole purpose of the presentation? The actually presentation can be built in front of your audience’s eyes. Imagine starting your presentation with your arms folded with thrilling visual effects?
Apart from the obvious - eliminating endless over-time in the office and less intake in caffeine surely something as dynamic as an automated presentation will undoubtedly leave your audience fully engaged and sitting up straight in their chairs rather than fiddling with their mobiles!

At the end of the presentation there is always the need to distribute a copy or extract reports illustrating the latest financials presented to your peers or potential clients. Again, you’re only a click away.

Of course technology won’t sit still and in this big data era it is only a matter of time when new system releases are scheduled or new developments are inevitable. Coincidentally as our businesses continue to grow and new partnerships emerge upgrades will play a vital role.

A “One Size Fits All” or premium package solution can ultimately lead to focusing on a specific element, it could be just the design or the import and consolidation functionality of multiple complex systems, instead of a fully-fledged solution tailored to meet all your specific needs. Long-term viability is a key denominator and a precise conceptualized “A to Z” solution is our hallmark and competitive edge with proven track record. A customized solution generally triggers budget alarm bells, I guarantee you will be very surprised.

5 Significant benefits why you should choose a tailored solution:
• Efficient and low cost solution
• Long-term viability
• More valuable time spent on the quality of the presentation
• Plug and Play: integration of complex 3rd party systems
• Less experienced staff have the opportunity to hold presentations

In today’s technology-driven environment automation is a MUST! So, what are you waiting for?

Trustworthy Partnerships start with a conversation.
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Industry: Management Consulting
Business Case: Staff Compensation
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Industry: Container Shipping
Business Case: Cost Cutting
Application developed to calculate potential cost savings. Assessment of unused containers worldwide. Huge cost cutting potential identified by large volume of unused containers.

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Industry: Mining
Business Case: Degree of Capacity Utilization
A modelling framework developed for the calculation of the utilization of individual mines located throughout the country.
MANAGETOPIA

KEY FACTS

15
STAFF

2
STUDENTS

2
APPRENTICES

5
LANGUAGES SPOKEN
German, English,
French, Russian,
Chinese
>500

PROJECTS DEPLOYED