Situation
This organisation needed to develop a number of world-wide reporting solutions to improve business’ participation, to give better access to the data warehouse and to improve the effectiveness and efficiency of data warehousing projects. It also needed to transition from developing independent data-marts to implementing enterprise data warehousing. The company had a multi-vendor and light outsourcing policy and BusinessMinds was contracted to act as an advisor and project manager during the global developments.

BusinessMinds did the following:

- Facilitated business intelligence strategy formulation with main stakeholders from marketing, sales, e-business, finance, services, logistics and operation
- Gathered the requirements for a Booking Information Data Warehouse solution
- Facilitated workshops in Copenhagen, Singapore and New York
- Provided systems architect for vendor project, data architecture and data quality reporting assistance
- Gathered requirements for a sales forecasting solutions based on the data warehouse (The main requirement was to compare historical sales forecasts to actual sales in order to improve sales forecasting.)
- Developed a business case for inclusion of equipment and moves in order to track actual costs and compare planned to actual routing
- Established and implemented a data-warehousing method and process used by the company and vendors (The main vendor was IBM.)
- Conducted data quality assurance and established master data processes for the world wide ERP implementation
- Managed the outsourced data warehousing projects
- Established requirements including developing and refining the data model for the enterprise data warehouse and dependent data marts
- Conducted source systems analysis, data profiling, data mapping and ETL process design
- Established testing requirements
- Developed rapport as trusted advisors ensuring solution delivery and success

Information and Data Management - Global
This company is the largest in its field globally and BusinessMinds has had broad experiences with them in relation to Information and data management, and data warehousing.

In order to achieve successful business intelligence, it was important for the company to have a well-established business model and well-functioning information management practices. The business model included core products, value added services, channels, brands, pricing structure, regulatory framework and organisations.
Information Management is a prerequisite for achieving effective business intelligence and was defined in this instance as encompassing the following disciplines:

- Developing and maintaining data standards
- Developing and maintaining an enterprise data warehouse data model
- Master data management
- Data quality management
- Establishing and maintaining data stewardship
- Metadata management

BusinessMinds developed their data standards including data modelling standards, naming standards and defined roles and responsibilities for the data warehouse group. Input and assistance was also provided for standardisation with the Application and Data Architecture Group. Our key role was to obtain an agreement between the company's business executives on common definitions of terms in order to achieve uniform definition of data elements to avoid inconsistencies and data duplication.

Further, BusinessMinds was responsible for the maintenance and quality of the enterprise data warehouse model including a data catalogue, describing all available data warehouse information in business terms. There was a need to establish and maintain an enterprise information model in order to understand the information that the business was using and to make effective use of this information. This involved the planning as well as the development the model.

Our involvement in the enterprise data warehouse programme included the setting up of standards and procedures to determine and measure (in an ongoing manner) the quality of source systems data. This included data profiling of source systems and ensuring data quality anomalies were corrected (in development projects and on an ongoing basis). This role was also carried out for the ERP programme.

BusinessMinds were responsible for metadata management in the Enterprise Data Warehouse project. This included maintaining and base-lining data models for the enterprise data warehouse and data marts, ETL-specifications, interface definitions, data dependency diagrams, and overall descriptions and explanations of the Enterprise Data Warehouse project. It also included internal marketing of the project activities and publishing of information on the company intranet.

Performance Management - NSW Health

BusinessMinds established the business and information requirements and a detailed project plan for a consolidated performance reporting solution at Greater Western Area Health Service (GWAHS). The vendors and system integrators would then use this as input into the solution implementation phase of the project.

The project encompassed:

- Providing a path forward to complete a successful and sustainable implementation of a Performance Reporting System
- Allowing GWAHS to understand and agree on the scope of the initial implementation based on the proposed requirements
- Allowing GWAHS to further develop a process framework to enable units within the Area Health service to provide performance reporting under a unified framework
Financial Reporting - TrygVesta *(Leading Danish Insurance Company)*

The client was being introduced on to the stock exchange and needed to improve their financial reporting. Their existing reporting was complex, slow and dependent on two specialists. As requested by the CFO, the new financial reporting was created from scratch. The project required budgeting to be aligned with financial and operational reporting therefore the reporting process, the architecture and the supporting technical platform were all redesigned. In the process various tools for the new technical platform were systematically evaluated.

Business Intelligence and Data Warehousing - PostDanmark *(Danish Post)*

The organisation needed to transition from developing independent data marts to integrated enterprise data warehousing. It needed to establish the necessary infrastructure within the data warehouse department, and develop a large data warehouse solution following the established practice.

- A data warehousing handbook including standards and guidelines for data warehousing was completed and accepted within the user and IT-organisations
- A pre-study was completed for a large data warehousing project and a project plan for the implementation was delivered
- Project management and advice was provided for project participants
- BusinessMinds provided project management for the subsequent development

Business Intelligence and Data Warehousing - Energi E2 *(Large Danish Energy Producer)*

The client wanted to replace their complex Excel-based weekly financial report with a data warehouse based report. The old report incorporated many undocumented business rules which had to be audited through interviews and workshops with business professionals. These rules were documented and implemented in the ETL flows in the new platform. Input to the financial report was extracted from legacy systems and third party data providers on a daily basis. The new platform was based on PowerCenter from Informatica, Oracle database on Windows, and Business Objects for reporting and analysis.

Business Intelligence and Data Warehousing – Nykredit *(Leading Danish Bank)*

**Basel II**

This project involved the implementation of Basel II for business customers. BusinessMinds were contracted to project manage, conduct business analysis and mentor for the analytical process. The project described and documented the fundamental business case and requirements clarification with business users and the group of statisticians who developed the bank’s credit scoring models. Based on this a formal requirements specification was created leading to the formal design documentation. The final solution encapsulated the credit scoring models. BusinessMinds’ participation required deep knowledge and interpretation of the Basel II requirements, understanding of the bank’s data in their operational systems, and knowledge of how the requirements could be met in a data warehouse based Basel II solution.
Financial Reporting
The project saw the implementation of financial reporting based on the enterprise data warehouse and introduction of Hyperion as the new reporting and budgeting tool. BusinessMinds were responsible for the overall technical architecture, data architecture, data modelling and ETL design. BusinessMinds also took on lead role in implementing Hyperion’s BI components.

Master Data Management
BusinessMinds assisted the client in establishing master data management disciplines in source systems as well as the data warehouse. Master data included simple reference data as well as complex client and product information. (As the client encompasses multiple legal entities certain master data could not be managed centrally.)

Business Intelligence and Data Warehousing - Scandinavian Airlines
This organisation needed to improve business participation, allow better access to the data warehouse, and improve the effectiveness and efficiency of data warehousing projects. A very complex data warehousing project had been delayed and required completion. It also needed to adapt from developing independent data marts to implementing enterprise data warehousing.

- Delivered a Booking Information Data Warehouse solution
- Provided project management, data architecture and data quality reporting assistance (utilising a very complex source system)
- Delivered data and system architecture for a Market Information Data Warehouse project
- Delivered a data warehouse audit for key data warehousing projects and the total data warehousing platform
- Presented the results for a large management group and provided input for changes to the data warehouse organisation and architecture
- Education of management and staff in both business and IT
- Management of a central data warehouse department
- Established roles and recruited for the department

Business Intelligence and Data Warehousing – Sonofon (Danish Telco)
The company needed assistance to establish, improve, and operate a data warehouse and BI solution. Engagements were the result of strategic need as well as specific needs caused by changing legal requirements.

- Established technical architecture and data modelling
- Developed customer segmentation solution
- Assisted with performance optimisation handling large data volumes
- Developed number portability solution
- Developed support for new products in the data warehouse
- Maintained general focus on data quality
- Provided project management, business analysis and implementation
- Provided a solution for export of information to TDC 118, KRAK etc. (§ 34)
- Reverse engineered billing system e.g. documentation of data model
Business Intelligence and Data Warehousing – TDC *(Largest Danish Telco)*

A large enterprise warehouse had been established yet there was a need to establish a data quality assurance process and improve the understanding of the data resources established in the data warehouse in order to gain higher value from the data.

- Project managed data quality improvement projects, identified causes for data quality defects and improved data quality in source systems and ETL processes
- Established ongoing data quality processes
- Data Modelling for mobile and internet data inclusion
- Established data marts for private and business marketing and sales functions
- Education of project team and end users to increase the understanding and use of data
- Established procedures for management and metadata management

**BI Strategy**

The IT steering committee concluded that the global company had multiple on-going initiatives within individual portfolios which had much alignment in their business drivers and underlying technology (data warehouse, e-commerce, sales, marketing (scorecards), service delivery, global KPI's etc.) yet did not share a common approach.

Furthermore, the budget for these portfolios was around USD $10-15m though it was unclear how the company was getting value from the investment or whether the investment was too much or too little. A small working group, consisting of the Director of e-commerce, the Data Warehouse Manager and a consultant from BusinessMinds was therefore formed to establish and commence a BI Strategy for the company (the first three elements of the diagram) including:

- Conduct interviews with central functions, North America and Asia Pacific
- Align strategy - Workshop with interviewees
- Verify strategy
- Start execution of BI-strategy
- Planning, implementation, delivery

The interview group was purposely limited in size and constituted important stakeholders / knowledge sources. The task force established the first version of a BI strategy.

Founded in the company’s mission, the BI strategy established:

- An aligned BI mission and vision (purpose/why) with a definition of BI (boundaries)
- A set of strategic objectives for BI with a view to best in class (value, cost/benefit)
- A description of the types of BI solutions the company was capable of delivering, giving illustrative examples
- A framework describing governance structures, delivery and consumer organisations (how and which standards)
- A high level BI roadmap (sequence)
The task force also assessed the company’s current BI status using relevant maturity models, and included an inventory of main, current BI solutions.

The strategy was devised so as to provide a strategic framework to the organisational units planned to be responsible for tactical and operational planning and execution of the BI strategy therefore dealt with technology in generic enabling terms.

The deliverables were a formulated strategy and a defined framework, documented as a standard operating procedure to inform requirement specifications for business intelligence related projects. The Gartner General IT Strategy Framework and the Business Intelligence Competency Centre Framework were the most important external sources for formulating the strategy.