

The customer now has real-time visibility of detailed sales performance across the breadth of its diverse operations, tailored at a granular level that fulfils the needs of all users and is delivered through a robust application and intuitive toolset. The **visualmetrics** Solution Architect commented:

“Locked inside their operational applications was richly detailed data concerning products, sales teams, customers, financial performance, etcetera. The solution we developed together consolidated and distilled this data into meaningful Management Information. It has transformed the way managers evaluate their sales teams and product lines, and enabled real Business Performance Management in the boardroom. They have cut costs and freed up IT resources, within twelve months the ROI has paid back the cost of the solution and they're undergoing significant growth.”

**Profile** This multinational tools manufacturer and retailer is a multi-billion dollar corporation with nearly 100 years of history, and a leading diversified manufacturer of advanced industrial technology. Designing and producing an array of highly engineered fasteners and components, equipment and consumable systems, and speciality products and equipment for customers around the world. The corporation comprises 750 decentralised business units located in 50 countries including the UK, and employs over 50,000 men and women focused on creating innovative customer solutions.



## The Challenge

Through a focus on customers, productivity, innovation and profitability, this manufacturer and retailer achieves continual process and product improvements while delivering solid financial results to its shareholders. As part of this strategy, its UK division saw the need for a Business Intelligence (BI) based solution to monitor and manage the sales and financial performance of its operation.

With an inventory of several thousand different finished goods, parts and items being sold both directly to customers and through a range of independent distributors, a flexible and responsive sales performance application was seen as essential to maximise revenues and to cross sell products and services within and between the separate operating companies.

The historical reporting mechanism presented a set of challenges:

### Quality of Reporting System

The old method of reporting was built around a series of flat file extracts of sales activity and financial data from the ERP application, coupled with separate spreadsheet based target and forecast data. This data was then manually manipulated and a report was compiled. The solution was client server based - the result being that the static report had either to be downloaded over the internal network by those with client access, or posted on CD, or sent hardcopy to remote users.

### Quality of Information

While the base data held in ERP and other applications was sound, its selection and aggregation against key reporting categories such as Sales Focus Cells, Customer Groups, Customer Branches, Product Types and Margin Bands was not provided by the Charisma extracts. The manual manipulation necessitated to produce the static report also introduced unnecessary errors, limiting data quality.

### Relevance of Information

Users did not have access at the level of detail relevant to their needs. As standard, reporting was mostly by transaction within Branch. Manual summarisation was needed to produce Group and Company reports.

### Timeliness of Information Delivery

The limitations of the reporting system, both in terms of the manual manipulation of data and the means of distribution, meant that reporting was only practical on a monthly cycle. Monitoring daily and weekly performance was not possible. A new solution was required to deliver automated information in the time frame set by the business.

### Modelling of Information

The old methods were unintuitive without the capability to query, drill down from summary reporting to transactions and pose “what if” questions. Improved data analysis and modelling capabilities that could be employed by personnel with only basic IT skills and literacy were necessary.

## The Solution

The customer identified **visualmetrics** as an experienced BI solutions provider with a proven track record in delivering business driven KPI projects. The project started with a review of the customer's business requirements using **DRIVE**, a project implementation methodology developed by **visualmetrics** specifically for BI based projects. A Project Charter and Requirements Definition set out the scope, deliverables, resources and project plan.

The architecture designed involved the upgrade of the customer's existing BI software and the creation of a more robust and extensive Data Warehouse. The ERP application continued to supply base sales activity and financial data while sales volume, revenue and margin targets, formerly retained by spreadsheet, were consolidated into a secure data store. **visualmetrics** designed, developed and deployed a data warehouse to selectively extract, cleanse and organise this data. The application generates the different reporting required by the separate levels of business users, with the results being distributed immediately over the web to both office and remote users. The design also ensures that administrative tasks, such as adding new targets or organisational structures, are simplified.

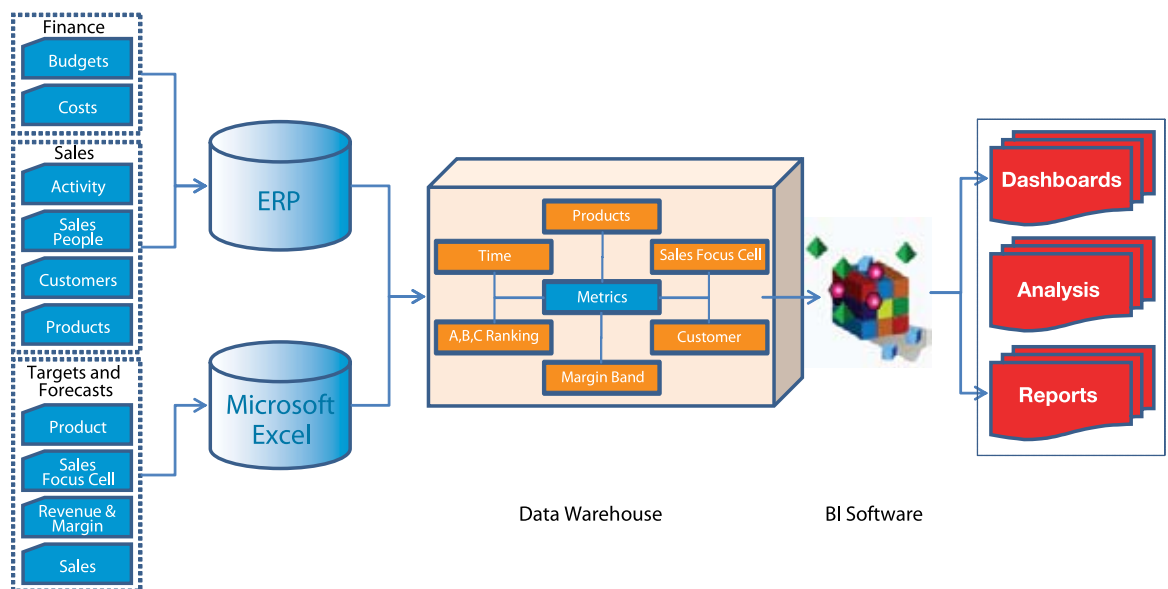
### The reporting structure through which the customer manages its business is designed into the Data Warehouse:

- UK
- Focus Cells (regions)
- Salesperson (areas within region)
- Customer Group
- Customer Branch
- Product

### The solution identified a set of KPIs through which business performance is monitored:

- Revenue
- Gross Margin
- Gross Margin%
- Quantity
- Product Target
- Revenue Target
- Gross Margin Target
- Revenue Forecast

## Analysis & Reporting



### Key Reports

The degree of detail required in reporting varies according to user needs. Business Managers need only a high level summary view with the ability to drill down to the underlying detail, whereas sales people may wish to perform detailed analysis directly at Group or Branch and Product level. The solution produces a set of standard reports as well as enabling users to build new reports directly against their specific information requirements.

The KPI Summary report is structured by Dimension and KPI with analysis available by different entities within the Dimension. The ability to enquire against different entities allows scrutiny of performance at multi levels within the hierarchy. Focus can also be narrowed by selecting by KPI. Traffic lighting alerts by KPI warn of out of tolerance performance.

## The Benefits

The customer now has a BI solution in place to support the business as it grows. The company is already attaining significant business benefits:

### Business Effectiveness

Business managers at company, focus cell and group as well as branch sales people all now benefit from tailored reporting which is suitable to their individual needs.

Marketing managers can see in sales figures the cause and effect relationship between marketing promotion and sales achievement. Customer Services Managers can compare the take up of services between regions and groups, identify shortfall against target and take remedial action. The application offers more extensive

and better quality operational and historical information. This has resulted in improved levels of customer service and financial performance. The customer has benefited from reduced "opportunity cost" and decision makers now spend less time on collating and accessing information and more time servicing their clients and operations demands.

The migration from a client server to web based solution ensures all personnel can make effective use of company information, costs are reduced by removing the need for more functional and expensive PCs and a lower level of impact on data volumes moved across internal networks has reduced bandwidth capacity demands. There has also been a reduction in Cost of Ownership. IT administration costs are reduced by new functional BI tools and there is no longer a need to produce specific MI reports. Maintenance costs are reduced as software is only deployed in one central location.



### Information Integrity

Utilising **visualmetrics** data integration techniques to load data into the Data Warehouse from the ERP and the sales forecast system enforces controls on the validation of data. More accurate and unambiguous information is now available for users to use with confidence.

### Relevance of Information

As the Data Warehouse is refreshed nightly and the reporting is distributed over the web, all users – both remote and office based – have access to up to date information. Information is now built specifically for the needs of the user, assisting the decision making processes that directly influences performance.

### Independence of Users

The new solution brings users a consistent, timely and easy to use reporting and analysis capability. They can now perform their own ad-hoc reports without the limitations of the old centrally based reporting system.

### Ease of Use

Easy to use tools for interactive reporting now allow users to manipulate the standard views and independently manage their own custom built reporting. The BI tools also offer more advanced analysis capabilities, increased functionality and faster reporting performance. The Data Warehouse and Analytical Application are held on the server eliminating the former need for users to download the application to their PCs or receive them on CD.

### Communication across the Organisation

This delivers clearer communication between operating units, ensuring more effective and informed decision making, and facilitates the opportunities for cross selling of products and services.

# The case for Business Intelligence

## We are familiar with the maxim.

- We know what we know
- We know what we don't know
- We don't know what we don't know
- There is another dimension, just as important.

## We don't know what we know

To quote a former HR head of Hewlett Packard "if Hewlett Packard knew half of what it knows, it would be twice the size". This was an eloquent way of saying that HP understood that realizing its untapped knowledge was the most productive singular step the business could take. This is a situation familiar to many organisations. They know that within the wealth of data they have is knowledge that would help to run the business better. They often know where to find this information but the time and cost it takes to make it coherent diminishes its usefulness. Worse, they know that there is business critical knowledge within this data, if it could be identified.

### They don't know what they know

This is the Business Intelligence challenge. To identify topics that are critical to business performance. To identify information within the data stores relevant to these topics. To mine the data and organize it in patterns that illustrate relationships. To manipulate this information to show the behaviour and trends which flow from these relationships. And finally to present the findings to decision makers in a time frame and form that allows insight to be drawn and action to be taken.

Business Intelligence (BI) answers this challenge through solutions based on a number of key principles.

### One Version of the Truth

A common problem organisations face is that information used by different parts of the business is often collected from disparate sources of data. This can lead to inconsistency and conflict. BI applications developed by **visualmetrics** are based upon a single repository of data. There is always only one **version of the truth**.

### Business Intuitive

Traditional reporting often delivered little more than large reports containing even larger volumes of data. Interpretation was left to the reader. A key characteristic of the BI solution is that it presents information in a multidimensional format that allows cause and effect relationships to be interactively explored. By being **business intuitive** a BI application quickly brings insight into how the business is working.

### Fit for Purpose

Different members of an organisation will require information pulled from the same sets of data but pitched at differing levels of detail and scope. The needs of the Board will differ from that of the Functions even when the same topic is being examined. BI applications present information that is **fit for purpose** for its user.

### Just in Time

A reporting solution should optimally present up to date performance information with sufficient time for effective consequential actions to be taken. BI applications are designed with this **just in time** concept in mind.

### Self Service

While information is designed so it is fit for purpose, there is often the need to manipulate it further by drilling down to greater detail, or to look for behavioural relationships between other sets of data. This needs to be achieved quickly and cost effectively. BI applications provide for a high level of **self service**.

### Information Supply Chain

None of the preceding benefits of a BI application are possible without there being the capacity to identify, capture and consolidate data from an organisation's functional applications. To do this in the required time frame, and without operationally impacting these applications, requires sophisticated automation. **visualmetrics' visualintegrator** software automates the **information supply chain**.



Metrics House, Hilliards Court, Chester Business Park, Chester CH4 9QP  
T: +44 (0) 870 7606467 F: +44 (0) 870 7606468  
[www.visualmetrics.co.uk](http://www.visualmetrics.co.uk) [sales@visualmetrics.co.uk](mailto:sales@visualmetrics.co.uk)

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