



Smart is...

Using analytics to predict demand and manage blood donations more efficiently

Belgian Red Cross-Flanders supplies 99 percent of the blood required by Flemish hospitals. Safe blood management and proper reporting is a vital aspect of its service, especially in the light of market liberalisation and the threat of increased competition. Numius, an IBM Business Partner, helped the Belgian Red Cross-Flanders team to implement IBM Cognos 8 Business Intelligence, delivering automated reporting, in-depth analysis and a powerful tool for managers, staff, and customers to review accurate real-time data on blood supplies and inventory.

Belgian Red Cross-Flanders opts for IBM Cognos 8 BI

Enhancing efficiency, safety and reporting in blood collection with better business intelligence

The Red Cross-Flanders is part of the Belgian Red Cross and serves as an autonomous organisation for the Flemish region of Belgium. The organisation consists of a network of more than 260 local divisions, and has over 14,000 volunteers and 1,300 trained professionals. Around 600 of these work for the Blood Transfusion Service (BTS), which collects between 340,000 to 350,000 units of blood, plasma and platelets every year, supplying 99 percent of the blood required by Flemish hospitals.

The BTS faces a number of challenges: the number of voluntary blood donors has seen a steady decline over the years; blood processing has become more expensive; and liberalisation regulations may open the doors for third parties to enter the market. To maintain its position as Flanders' premier blood service, the BTS needed to increase transparency, enhance its internal operations and become more agile. The Belgian Red Cross-Flanders decided to implement a new business intelligence solution that would help the BTS withstand the rigours of its highly regulated business environment, improve its operational efficiency, and become more competitive in the face of market liberalisation.

Karin Genoe, Chief Operations Officer of the Belgian Red Cross-Flanders, comments: "Changes had to be made because there was no proper system in place. Our previous IT environment had a number of limitations, but most importantly it lacked a stable, clear and transparent reporting system. We operate in a very regulated business environment, and reporting is the life-blood of our services. We report to government agencies, hospitals and companies that buy our plasma. They all ask us for lots of reports. This is why a solution that could provide us with rich information in a quick and clear manner was vital for us."

The challenge was to find a solution that would automate and simplify the reporting system, enable a structured and organised view of the blood supplies available, help increase efficiency, reduce waste, and improve the BTS's ability to react swiftly to changes in its blood stock.

The Belgian Red Cross-Flanders evaluated products from several vendors and selected IBM Cognos 8 Business Intelligence. The BTS then worked with Numius, an IBM Business Partner, to complete the implementation and configure the software to meet the organisation's unique needs.



Business Benefits

- Automated reporting helps enhance inventory management, establish when and where donations are needed, and identify required blood-types.
 - Reports can be made visible to hospitals and other clients, enabling more efficient stock management.
 - Data-mining allows donor profiling, increasing the chance of attracting new, healthy donors and significantly reducing waste and costs.
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Increasing safety and speed

Blood transfusion plays a central role at the Belgian Red Cross-Flanders, and the BTS invests heavily in the quality and safety of blood products. Each and every unit has to be tested. Strict quality measures for the laboratories, blood-processing services, blood banks, and for all other sections of the BTS must be in place to guarantee the quality and safety of the blood that it provides. By introducing a new IBM Cognos 8 Business Intelligence solution, the BTS aimed to be able to improve safety standards, offer quick and easy analysis and improve overall efficiency.

Genoe explains: “The IBM Cognos solution helps us improve the sufficiency and the safety of our blood products by providing quick and automated reporting. It is crucial to keep a proper track of our overall stock levels as blood can only be safely kept and used for forty-two days after donation. After that it has to be thrown away, and since donations are limited, it is vital to avoid wasting any of the blood that we collect. Blood platelets only have a shelf-life of five days and plasma has a storage life of one year, so we need to keep a very close eye on what is available and for how long.”

Previously the Belgian Red Cross-Flanders needed to manually check its inventory twice a day in order to preserve and keep track of its stock levels. Reporting was also an issue as data was held in several locations, and staff spent time trying to eliminate inconsistencies and establish the truth. Now the Cognos solution provides a centralised, accurate version of the data, and performs automatic reporting that allows the organisation to easily analyze its inventory.

Says Genoe, “With Cognos we can review a variety of information in a crystal-clear manner and ‘drill down’ into the data for further detail. We can get a very quick and consolidated overview of where we are today, how we are doing, how we did last month, last week and so on, without the need to manually collect and check the data. This saves the organisation significant resources in both time and money.”

Enriching data increases efficiency

The IBM Cognos solution provides the Belgian Red Cross-Flanders with timely, accurate data on which it can quickly act.

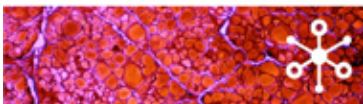
Smarter Healthcare

Analysing blood donation data to meet demand patterns



Instrumented

Data is collected from a range of source systems at blood donation and processing centres into a central data warehouse, where it can be analysed.



Interconnected

Users from the Blood Transfusion Service (BTS), hospitals and the government will in future be able to access detailed reports on every aspect of blood donation, processing and distribution.



Intelligent

Donor profiling enables prediction of changes in donor populations, helping to maximise successful donations – avoiding shortfalls in blood supplies and ultimately saving lives.

Solution Components

Software

- IBM Cognos 8 Business Intelligence

IBM Business Partner

- Numius
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“A major advantage of the Cognos system is being able to analyze trends and form real insights into potential donors. By profiling healthy donors and finding patterns, we can reduce the chance of unsuccessful donations.”

— Karin Genoe, Chief Operations Officer,
Belgian Red Cross-Flanders

Genoe notes: “IBM Cognos spurs activity in the right places. We can easily report on how many donors we have, the number of donations provided, the number of tests we run, the level of specific types of blood available and much more. We can take swift action based upon that information – for example, we can adapt the frequency and number of donations, or see where we need to raise additional donors for particular blood types.

“Similarly, as soon as we see an increase in stock we can act upon that and review the amount of deliveries we make to hospitals in order to increase our deliveries and review the number of donors we invite . With Cognos, we can follow up and react to things much faster and more accurately. Reporting now provides us with clear business benefits in increased sales and reduced waste, and has shifted from being a ‘time vacuum’ to a real business driver.”

The Cognos solution also allows the Belgian Red Cross-Flanders to easily share reports, analysis, and information with its clients, including government organisations and hospitals.

Says Genoe, “Cognos offers the Belgian Red Cross-Flanders the flexibility to present all our data to our clients. We can report to the government on the incidence of diseases. We can also give hospitals the information they need to monitor when and where there is a scarcity of a particular blood type, enabling them to take measures to administer less of that type. It allows both the hospitals and us to manage scarce blood resources more efficiently, ultimately to the benefit of hospital patients where the availability of blood may be a life-and-death matter.”

The IBM Cognos solution is configured to send automated alerts when blood supply levels fall too low, and this data is combined with information about the blood processing pipeline to see where shortfalls are likely to occur. The organisation also uses statistics from past events to predict likely demand patterns (certain events and certain times of year tend to be associated with higher levels of demand). By combining this data, the Belgian Red Cross-Flanders can act quickly to combat shortfalls – importing blood from other regions if necessary.

Developing better services

Cognos presents the Belgian Red Cross-Flanders with in depth analysis and reporting. Enriching the data and information helps the organisation adapt the frequency and number of donations or raise additional donors for specific blood types when and where this is necessary. This creates a much more efficient infrastructure for the organisation.

Genoe comments: “A major advantage of the Cognos system is being able to analyze trends and form real insights into potential donors. By profiling healthy donors and finding patterns, we can reduce the chance of unsuccessful donations. We will soon be able to increase the percentage of successful donations and thereby reduce the operational costs.”

One area where donor profiling helps is in predicting changes in the donor population. By using historical data and performing trend analyses, the organisation can predict the areas and demographics where donor populations are growing or declining, and can focus on raising awareness or maximising donations as appropriate.

Genoe concludes: “In the past it was up to the donors to decide when and where to give blood. With Cognos we want to change that relationship and work more closely with our donors to ensure that their donations are more precisely aligned to hospitals’ and patients’ needs.”

For more information

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IBM Belgium/Luxembourg
Avenue du Bourget / Bourgetlaan 42,
1130 Brussels

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