

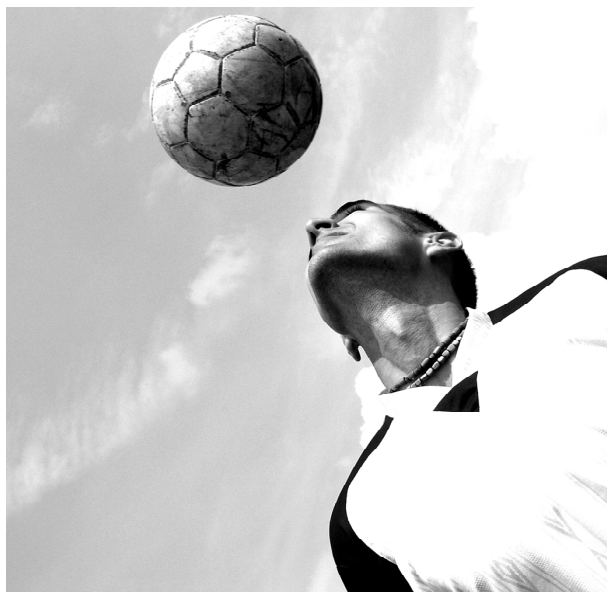
CASE STUDY
MEDICAL-SPORTS DEPARTMENT
of the Ministerial Department of Sports (Luxembourg)



THE POSSIBILITIES ARE INFINITE

“Easier for making appointments, faster transfer of information, reduction in the use of forms and, in particular, the data is given a history and background for statistical purposes. This web application will change the life of sportsmen!”

Anik Sax, Chief Departmental Doctor, Ministerial Department of Sports



Customer's Challenge

With more than 119,000 people licensed to play sport and 10,000 medical examinations per year. Luxembourg is alive and well in the sporting department! Due to new regulation, a large number of sportsmen and sportswomen, who belong to a federation or club, are required to undergo an annual medical examination in an official centre. Luxembourg has approximately fifty doctors who specialise in sports medicine.

These examinations are carried out in 14 local centres located across Luxembourg and are governed directly by the Medical-Sports Department of the Ministerial Department, headquartered at the National Institute of Sport.

Fujitsu Solution

By computerising the appointments, the Medical-Sports Department aims to simplify the way appointments are made, as well as lighten the burden of administrators. Finally, it intends to facilitate access to information for medical staff, who are now able to use a secure collaborative portal to access a wide-range database. The project is part of the eLuxembourg government initiative, putting into effect the eEurope action plan approved at the Feira European Council meeting by the Heads of State and Government in June 2000.

“Until then, making appointments and managing examinations was not automated. As a result, it required a heavy administrative workload - particularly on the part of the secretaries, most of whom are volunteers.” explains Dr. Anik Sax, Chief Departmental Doctor in the Ministerial Department of Sports. “The appointments made by telephone were not always accurately written down and people often didn't notify us when they were unable to attend. There were the same problems in terms of the examinations, where the results were handwritten on to a form. The forms then had to be put together and sent by post to the Medical-Sports Department, which sometimes posed problems in terms of having enough time before an event, meeting or match...”

The project began in March 2005, after Fujitsu won a competitive tender.

Benefits to our Customer

As well as being a virtual window open on the applications and information of an organisation, the collaborative portal is also an access point that centralises external sources of information and services. It is aimed at both sports people and the managers of clubs and federations, as well as specialist doctors. This is designed to provide a central access point (via a web interface) to all of the resources and knowledge in the area of sports medicine.

SUMMARY OF KEY FACTS:

Organisation

Medical-Sports Department

Contract signing date:

April 2005

Service/s delivered

Introduction of a system for the integrated management of medical and sports controls based on a highly secure web application.

Key Metrics

Out of a total of 119,000 people licensed to play sport, approximately 10,000 to 12,000 are required to undergo a medical examination every year. 14 medical centres across Luxembourg are managed by over forty specialist doctors and assistants.

Benefits

- Online entry of information by the local examination centres.
- Retention of records of medical examinations.
- Ability for federations and clubs to view the results of examinations, subject to having authorisation.
- Ability for sports clubs to manage their members' appointments with local centres.
- Easier distribution of results via e-mail, the Internet or through the post.

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In practical terms, this means that the manager of a sports club is able to request an appointment in the centralised diary. Once the appointment has been made, the sportsman simply has to attend; the doctor examines him, then fills in and registers his electronic record. The conclusions of the examination, once they have been validated by the Chief Departmental Doctor, are sent immediately by e-mail to the managers of the federations and clubs.

Having the project in place improves the process of handling examinations by enabling:

- the online entry of information by the various local examination centres
- the retention of the history of the medical records
- the ability for federations and clubs to view the results of examinations, subject to having authorisation
- the ability for sports clubs to manage their members' appointments with local centres
- easy and rapid distribution of results via e-mail, the Internet or through the post

Our Approach

The main components of the application are structured into different layers:

- Java Business Classes encapsulate the trade logic for handling the data and authorised transactions
- Java Model Classes carry the data between the various layers in a coherent and reusable fashion (e.g. from the trade entities to the Struts Actions)
- the Struts Actions monitor the requests so that the data requested can be sent back to the correct page
- Struts Form Beans carry the data from the jsp pages to the Struts Actions
- the CICS Transactions Gateway Services framework calls up the CICS transactions
- COBOL programs centralise DB2 access

The application is hosted in the State Computer Centre calculation unit. It can be accessed via the future topic-based sports portal. A URL currently goes straight to the application. Doctors, secretaries and sports clubs and federations access the application via a browser; the application GUI is a web-type interface that meets XHTML 1.0 / CSS2 / WAI AA standards.

Secretaries can access the application both from the local examination centres and remotely. Access to the application by the examining doctors is provided exclusively from the 14 local examination centres. In total, 32 laptops (and 13 DSL routers) make up the access infrastructure.

"The benefits of the application are immediate," notes Anik Sax with satisfaction. "Firstly, the secure Internet access greatly facilitates making appointments. Then there is the immediacy of the transfer of information. Also very much appreciated is the reduction in the use of paper forms. Finally, we are expecting a great deal from creating a history of the data for statistical purposes."

This latter benefit, will clearly make it easier to monitor the health of sports people, especially younger age groups. The data conforms to National Data protection policy and the centre intends to use it for statistical and research purposes, linking up with Schools Medicine allowing for the health of Luxembourgers to be monitored more closely.

A further advantage of placing the records online is that doctors are able to read the history of their patients' records from the time they began playing sport, even if they have been with another doctor previously. The result is better medical monitoring. Finally, the application is integrated with the system at the National Register and it is possible to consolidate with other information sources, such as birth, marriage and death registers.

Our Expertise

Dr. Anik Sax says she is very happy working with Fujitsu Services. *"They understood our needs immediately. We were very quickly able to get to the heart of the matter and outline a solution..."*

Apart from the technical aspects - the portal was developed based on Java technology and integrated with COBOL programs on the mainframe at the State Computer Centre - many constraints had to be taken into account regarding access to information, data security and specific medically-related issues.

"Unlike other applications developed for the benefit of the people as part of the eLuxembourg programme," says Anik Sax, "this one - which is based on communication sports people and healthcare professionals - is intrinsically sensitive. Fujitsu Services managed to translate our imperatives for extreme care at the same time as our sense for the slightest nuance, based on listening to the patient."

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