

# SYNAPSE TECHNOLOGY REVIEW

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## Healthcare IT

# MEDICAL INFORMATICS TECHNOLOGY REPORT



Azienda Ospedaliera di  
Desio e Vimercate

## Synapse technology involves all of the workflow from the patient's arrival until their departure



### Introduction

Vimercate Hospital is part of the Regional Healthcare society and manages the prevention, diagnosis, care and rehabilitation of the Lombardy residents, with the prime goal of driving improvements in their general health and wellbeing. Moreover, since 2017, Vimercate achieved level 6, out of 7, of the Electronic Medical Record adoption model (EMRAM) by HIMSS, that represents internationally acknowledged excellence in computerizing clinical healthcare processes.

### Challenge

With more than 20 million clinical documents managed, the main aim was complete dematerialization of clinical papers and patient images. This has been planned to achieve a double objective: maximise technological support for the physicians and simplify the access procedures to the health service for the patients. To implement these aims, Fujifilm made its innovative imaging solutions available for creating patient-centric solutions, designed and implemented to manage mission-critical data in real-time. The Synapse solution provided tools to aid the clinical workflows, ensuring the highest quality of care, and improving the value delivered in terms of clinical outcomes. The innovation path followed three fundamental objectives, organization, integration of processes and performance of services.





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## Solutions

The innovation and efficiency path followed in Vimercate Hospital has been achieved due to the realization of many initiatives over the years. Reaching the final objective of creating a unique and reliable informatics architecture to provide the service for the hospital's physicians and patients. The Synapse platform has played a crucial role for the correct and effective development of the entire patient care pathway, from acceptance of requests for diagnostic tests, to reception of out/in-patient patients, to planning of clinical services and production and delivery of digital reports.

## Digital Interface

Kiosks have a touchscreen video interface and allow patients to book and pay for appointments, collect reports by printing them or saving them on a USB device, reducing avoiding waiting time at reception desks. In a wider vision, Kiosk usage should represent a temporary phase necessary to promote the gradual shift to online services; with an end goal that the patients will be able to handle every aspect of

their healthcare pathway directly from home in real time. Synapse technology supports every step, from a patient's arrival at the hospital until the completion of the service: Synapse manages all the diagnostic procedures and all documentations.



## Radiology Service

A revolution in the management of ambulatory pathways. In Vimercate Hospital as part of the planning and design there are only two macro-ambulatory areas where the patients go to be registered and are then automatically directed to the correct waiting-room before the medical appointment. All of this process is automatic and is integrated with the physicians workflow management system from Fujifilm. Following completion of the patient's registration at the desk, the doctor in his office is automatically informed about the patient's physical presence in the waiting-room by the coloured graphic representation, on their calendar schedule of appointments. In the waiting-room the patient is constantly informed about their appointment's progress via the dedicated information display. When the time for the medical examination arrives the patient is presented with a message on the dedicated information display and automatically invited to go to the specific area, thereby simplifying the access to the services and reducing waiting times. Digitalization and computerization of cardiology ECG exam management has been achieved thanks to the customization of the Fujifilm solution. It has been possible to automate and speed up the acknowledgement of the patient submitted to ECG exam via integration of the information contained into the Patient ID bracelet with the diagnostic signals coming

from the device. This solution makes the acknowledgement process safer, especially in the case of uncooperative patients. For example, in an Emergency, this information can be distributed via the hospitals Wi-Fi network, ensuring that the information is provided to all the physicians who need them in the fastest way (and without the use of easily lost paper notes), increasing both the diagnostic value and improving the car process. Users themselves can have access to their exams and the related results through the multifunctional Kiosks or directly online.

## Conclusion

By integrating the installation of the Synapse platform, from Fujifilm, into the wider context of evolution and automation, Vimercate has reached the target of significantly streamlining its workflows, facilitated by digitalization. The future plans of Vimercate Hospital continue in the direction of a progressive delivery of a new hospital model in which patients' physical presence is strictly limited to specialist visits, and diagnostic exams. The strategic goal to follow is to ensuring the highest degree of efficiency in the processes and the highest possible quality of the services and patient outcomes.