During a patient’s journey through the health system, his or her medical information is often stored in multiple databases focusing on specific elements of the needed care and the patient’s condition – even within one hospital. These databases generally cannot interact, which makes it impossible to draw up all information belonging to one patient at the click of a button.

Wearables and other compact devices that work with physiological sensors are creating a lot of possibilities to monitor patients when they are not in the hospital. Integrating this information with the hospital’s data could open up an information treasure chest that can stimulate better treatment and lower costs for both patients and hospitals.

The PARTNER project, gathering 20 partners from Belgium, Canada, the Netherlands and South Korea, has developed an architecture that makes it possible to let different systems, offered by multiple vendors, communicate with each other. The solution also includes these self-monitoring solutions for patients.

The system has been demonstrated using a fictitious patient’s journey through cardiac care. The demonstration clearly showed
the system’s comprehensiveness: thanks to its architecture based on interoperability standards, it enabled the different partners’ systems to exchange information.

**Strong international collaboration for better care worldwide**

Worldwide, over 40 million people suffer from heart failure. A global challenge requires a global solution, so one of PARTNER’s primary achievements has been bringing together partners from three continents. In addition to providing a wider reach, such collaboration has clear commercial opportunities for the consortium; every contributor involved has released new products and services, ready to be installed in several hospitals for further trials.

iClinic, for instance, developed the iClinic Heart Failure system during the PARTNER project and has successfully implemented the system at the Heart Failure Clinic at Vancouver General Hospital, with further deployment of the system at Kelowna General Hospital expected in Q4 2023. A recent audit of the iClinic Heart Failure system by the British Columbia College of Pharmacy reviewer described the system as “the most streamlined, functional and safe e-charting system [he has] seen in all the Province.” For iClinic itself, participation in the PARTNER project led to three additional full-time employees. The unique collaboration led to a greater understanding of the issues and to subsequent solutions that were more robust. In 2021, €200,000 of additional revenue was achieved and much more is expected in the future.

MEDrecord succeeded in showcasing the (semantic) interoperability with several international partners and licensed their platform as a service, enabling four additional sales in 2022 based on the developments done within the PARTNER project. MEDrecord has also become a Microsoft partner in order to sell the MEDrecord APIs via the Azure marketplace. Sopheon has brought the MS Teams integration designed in the PARTNER project to the market under the name Microsoft Connect. This application was launched as part of their Accolade 13 release and has already been sold and implemented many times at new
and existing customers as a feature component of the standard offering. In addition, Sopheon has launched a series of new 'InnovationOps' products in 2022, including AcclaimProducts and AcclaimIdeas. Like Accolade, these innovation management products contain smart analytics functionalities while running in a scalable, cloud-based environment. The PARTNER experiments impacted the nature of these products; they are being launched to the global market and already have thousands of initial users.

The successful participation of these SME partners highlights PARTNER’s role in circumventing dominance by larger companies and the resulting lock-in. Nonetheless, the project has opened doors for large players too.

Barco’s Synergi - a solution for meetings between multi-disciplinary healthcare professionals - has been used in a pilot in two hospitals in the UK and Australia, which represents a new business case and has allowed Barco to push further into the health domain. Synergi collects and organises the information and data to make it easily presentable and understandable. This also enables the rapid transfer of the outcome of the discussion and the decisions made to all staff involved in the patient’s care. This can lead to a significant improvement in the efficiency of the multi-disciplinary team meetings, as well as a significant reduction in the time between the referral of the patient and the commencement of treatment. Barco Healthcare had two startup initiatives, one of which was Synergi. As a result of PARTNER, some Synergi components are now being used in existing products and Barco is currently working on new, innovative collaborative features for their radiology displays based on the work performed in the project.

Finally, thanks to the PARTNER Hub prototype developed by Korean partner ETRI, patients have ownership of and access to their medical data that is scattered across several hospitals. In addition, ETRI and the Korean consortium demonstrated collaboration between doctors through a medical workflow for a chronic disease patient.

In 2021, ETRI transferred the technology to DATAIZE, a Korean startup, and has been providing technical support for their success in medical services based on the My Data concept. In addition, ETRI has developed a separate governance management system to be used for automating a wide variety of medical data processing by linking it with the PARTNER Hub.

‘One patient, one team’

For hospitals, the benefits of PARTNER’s uptake are twofold. Firstly, for healthcare professionals, it demonstrates that a patient-centric approach with an optimised collaborative care team leads to greater efficiency – up to a 10% improvement compared to traditional workflows – and a knock-on effect of lower healthcare costs. Secondly, improved transparency allows professionals to provide the best services for each individual patient.

PARTNER’s maxim is ‘one patient, one team’; its central philosophy is driven by dedicated, personalised patient care. When combined with the greater degree of freedom and comfort enabled by smart wearables, this should result in better health outcomes and, above all, a higher quality of life even when ill.