

# CASE STUDY

**HUS, Finland's largest hospital district, employs digital workers to combat financial pressures and fortify patient care**



## The organisation

The Hospital District of Helsinki and Uusimaa (HUS) is a joint authority. It spans 24 municipalities. Functioning as part of HUS, the Helsinki University Hospital (HUH) has national responsibility for treating severe and rare illnesses that require special expertise and technology.

HUS hospitals employ over 24,000 professionals. The most sizable personnel group is its nursing staff; it accounts for approximately 56 percent of all employees. Approximately 13 percent of personnel are physicians.



# THE SOLUTION

HUS started its automation journey back in 2015. It sought to find new tools to combat financial pressures and free healthcare personnel from performing tedious back-office tasks.

The relationship between Digital Workforce and HUS began in 2015 with a pilot RPA scheme. As a public sector organisation, specific requirements govern the HUS tender process. Following competitive bidding, a partnership contract was signed in the spring of 2018.

HUS selected Digital Workforce as its strategic partner. It decided the company's flexible and scalable Robot as a Service solution was ideal for delivering automation across its organisation. A key element in selecting the service was its pricing model. The model allows billing by the minute – so HUS pays only for what it uses, not by capacity.



**Another critical reason** to choose the solution was its Azure-based cloud delivery model. This allows for the integration of complementary technologies such as Machine Learning and Artificial Intelligence (AI). HUS is the owner of one of Europe's most extensive Azure healthcare environments. Choosing Digital Workforce's cloud service enabled HUS to utilise its existing internal capabilities and benefit from rapid implementation.

**Digital Workforce's Robot as a Service** offering is the first cloud-based RPA service in the EU that can be used to automate CE-marked clinical processes regulated by the European Medical Devices Directive (93/42/EEC and 629/2010) and legislation on medical devices.

Digital workers currently operate on the healthcare provider's existing IT systems. Around the clock, they perform processes in the same way as any remote human user would. They are given access only to the systems needed to perform the assigned operations. Their actions are pre-programmed by Digital Workforce's RPA developers. The solution is secure and reliable. It allows HUS to eliminate the risk of human error and speed up lead time.

## The first automated processes

The first process to be automated at HUS involved creating and sending out radiology request forms. This robotic solution has, so far, been scaled to three locations. It has freed up the healthcare staff's time – enabling staff to focus on customer service and patient care.

**The second process selected** for automation was a process where the robot receives and redirects digital primary care referrals to specialised care. Once fully scaled, it will handle over 300,000 referrals. In the future, machine learning will be used to classify the referrals before sending.

## RPA + HUS digital strategy

Robotic Process Automation supports HUS in its goal of dedicating more of its healthcare professionals' time to patient care by freeing them up from performing routine back-office work. The automation of routine work has also enabled HUS to cut human error from its processes and improved system integration – both critical factors in ensuring quality of care.

Along with its internal objectives, the hospital district has to comply with the national objectives set by the Finnish Ministry of Social Affairs and Health. Finnish public healthcare and social services are undergoing reform with the goal of cutting overall operational costs by €3 billion. Automation is seen as a strategic tool to reach this demanding financial objective, while simultaneously improving service quality.

**When selecting potential processes** to automate, HUS always considers patient safety and care quality. It also puts weight on cost savings and scalability. One important criterion in choosing a process for automation is its potential to be scaled to run across several different units. This mindset has helped HUS to quickly and strategically ramp-up its use of RPA and optimally improve cost efficiency.

1

**GIVE HOURS  
BACK TO THE  
BUSINESS**

2

**DELIVER BETTER  
CUSTOMER  
SERVICE**

3

**IMPROVE  
PROCESS  
PERFORMANCE**

4

**REDUCE  
OPERATING  
COSTS**

## NEXT STEPS

The HUS management team sees RPA as a key strategic tool. It has plans to ramp up its use across the organisation, together with other cognitive technologies, such as Machine Learning, which can be used to extend the robots' capabilities.

By Spring 2019, HUS had 48 processes in production, including one using Machine Learning for request classification. The organisation has set a goal of automating 100 processes by the end of 2019. The long list of potential target processes includes clinical, administrative and logistics tasks.