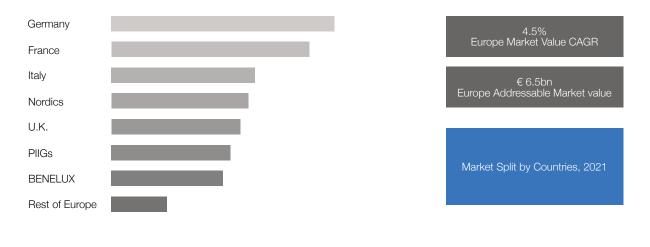


Platform thinking, a business model that promotes value creation through interactions between different user groups, has become a mainstay in various sectors of the modern digital age. By definition, a platform is a space that promotes interactions and from transforming the way we shop with e-commerce platforms to changing how we travel with rideshare apps, platform thinking has proven itself to be a dynamic force. A 2020 report suggested that 30% of global economic activity - as much as \$60 trillion - could be mediated by digital platforms in six years' time. As industries evolve, healthcare is no exception, and it too has started to incorporate the scalability and the potential for seamless information exchange inherent in platform thinking. Germany has telematik infrastrukture, Portugal with the open EHR system through the citizens portal, and Sweden 1177.se are just examples of platforms where this business model starts to be implemented.

What is the impact though?

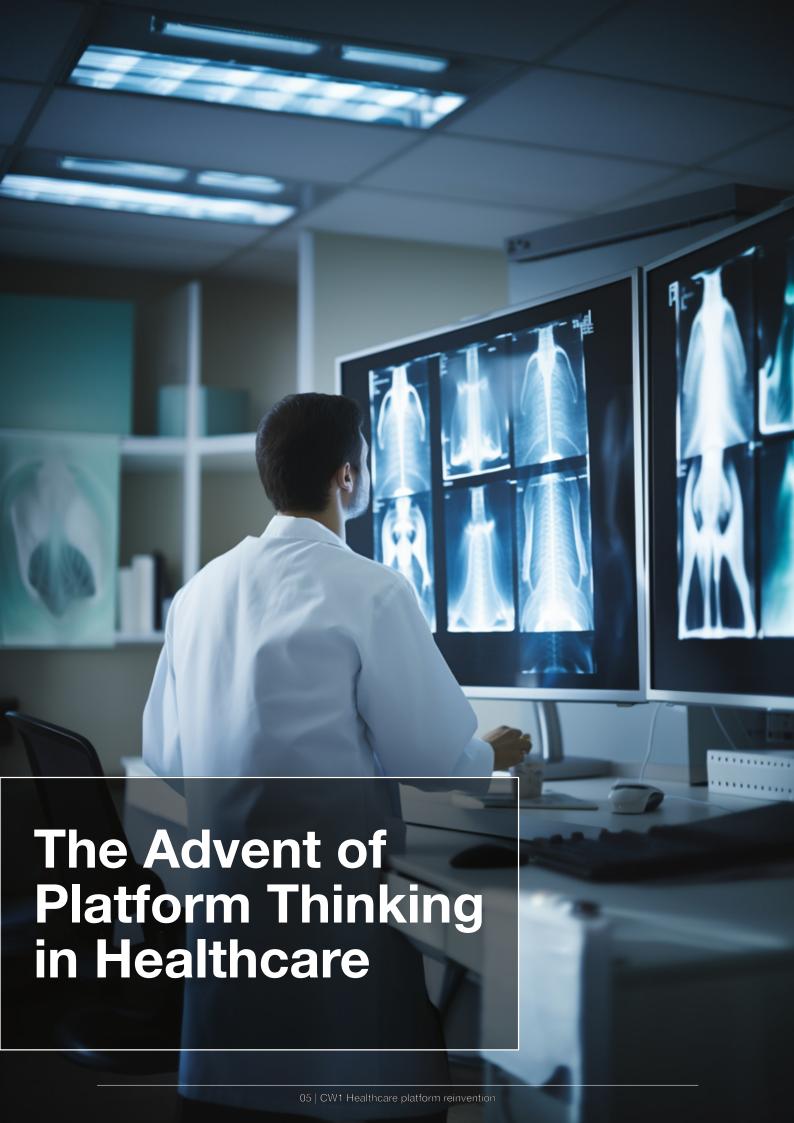
Embracing platform thinking is no longer optional, but an imperative for healthcare players wanting to stay ahead in the race. To truly leverage its potential, the players need to evolve beyond the conventional and integrate the power of digital platforms into their core strategy. As the famous adage goes, 'Change is the only constant,' and in the healthcare sector, that change is increasingly shaped by platform thinking.



Source Fact.MR

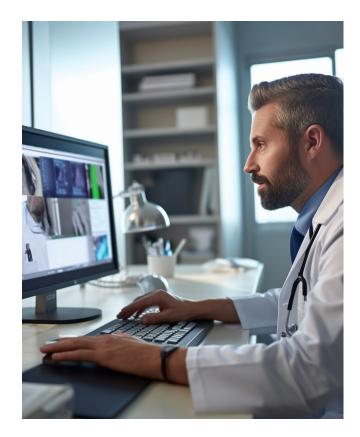
The European Commission has adopted a set of critical step towards to foster platform business models in healthcare by adopting a recommendation on the Electronic Health Records (EHR) exchange format. This forward-looking initiative is designed to drive cross-border interoperability across the European Union (EU). In the essence of a platform-based approach, this measure enables a secure and seamless flow of health data, creating a digital space where citizens can readily access and exchange their health information no matter their location within the EU. Furthermore, this platform model empowers patients to share their health records with healthcare professionals as necessary, thereby enhancing the continuity of care and facilitating more personalized treatment plans.

The success of this digital transformation in healthcare is largely dependent on the active engagement of a variety of stakeholders. National competence centers, healthcare professional organizations, national authorities, patient groups, and others are all crucial contributors. These parties together form a collaborative network, embodying the essence of the platform model, where all players come together to create, share, and utilize value.



The healthcare industry, once characterized by in-person consultations, paper records, and disjointed systems, has seen a a big shift with the advent of digital health platforms. These platforms have given rise to a more patient-centric approach to healthcare, acting as a catalyst for improved patient experiences and outcomes. Companies such as Zocdoc, Doctorlib and Teladoc have been instrumental in driving this change, offering a simplified user interface for patients to access healthcare services. Patients can easily schedule appointments, find specialists, or access urgent care with a few clicks, making healthcare more accessible and user-friendly.

The same platforms have also significantly influenced how patients view and access their health records. The traditional methods of handling physical copies of health records have given way to digital EHR (Electronic Health Records) systems. Platforms like TelematiksInfrasturkture (Germany), Epic Systems (US), 1177 (Sweden) and SNS (Portugal) offer patients the ability to access their health records from anywhere at any time. This not only brings convenience but also facilitates better patient engagement. Patients can now actively monitor their health indicators, view lab results as they become available, and gain a better understanding of their overall health status. According to a 2020 survey by the



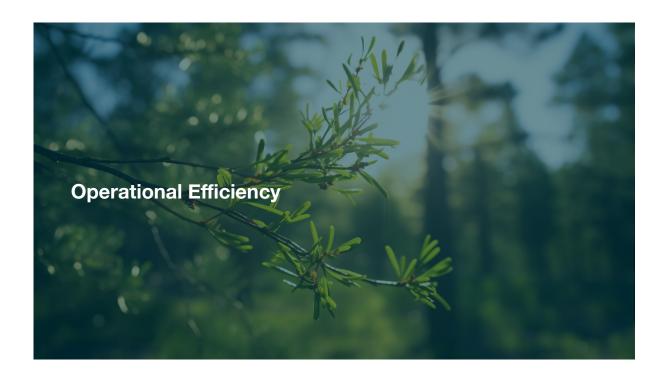


Office of the National Coordinator for Health Information Technology, 52% of patients accessed their health records electronically in the past year.

Virtual consultations, also known as telemedicine, are another major development enabled by digital health platforms. Patients can now consult with physicians without leaving their homes, using platforms like Amwell and Doctor On Demand. This has proven to be especially crucial amidst the ongoing COVID-19 pandemic, allowing continuity of care while reducing exposure risks.

These platforms have a profound impact on promoting efficiency in healthcare delivery, when streamlining appointment scheduling, billing, and record maintenance. The reduction of administrative tasks through health platforms, liberates time and attention to patients, enhancing care quality and patient satisfaction.





Appointment Booking: Traditional appointment booking often involves back-and-forth phone calls, resulting in substantial time expenditure. Health platforms automate this process, leading to increased efficiency. For instance, a 2019 study by the Journal of Medical Practice Management noted that healthcare facilities that used digital appointment systems saw a 45% reduction in administrative time related to appointment management. This time saving translates to approximately 1.8 hours saved per 8-hour workday if an administrative staff member spends an average of 4 hours on appointment management daily.

Prescription Management: Electronic prescription services reduce errors and save time. According to the Center for Health Information and Decision Systems, digital prescription management can reduce prescription errors by up to 70%. In terms of time saved, it's estimated that electronic prescription systems can reduce the time spent on prescription-related activities by about 50%, freeing up considerable time for healthcare professionals to focus on patient care.

Billing and Records Maintenance: Health platforms automate these tasks, significantly reducing the administrative burden and cost. According to a 2020 report by the Healthcare Financial Management Association, electronic billing can reduce the cost of producing a bill by up to \$11.23 per bill and improve cash flows by reducing the payment cycle by 7-14 days. Furthermore, electronic health records enhance data accessibility and reduce errors. A study in Health Affairs suggested that digital record-keeping could lead to a net savings of \$142 billion in U.S. primary care over a period of ten years.

Fig X. Healthcare facilities that used digital appointment systems saw a 45% reduction in administrative time related to appointment management

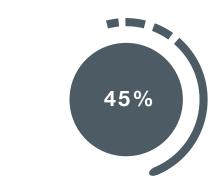
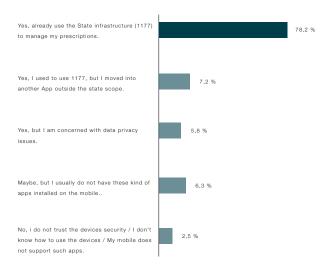
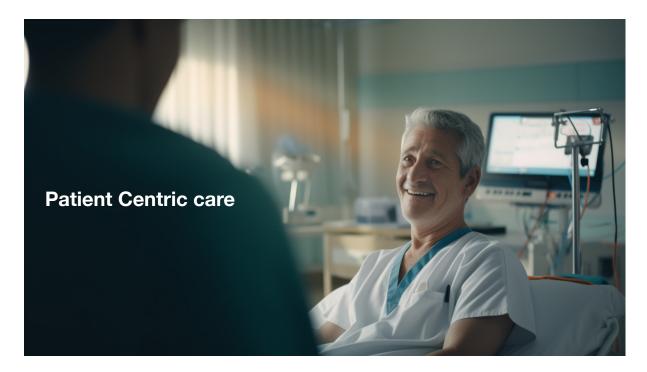


Fig Y. CW1 performed a study on a group of 100 individuals dispersed by different counties of Sweden with the question. Would you use (or do you use) an App to manage your prescriptions?





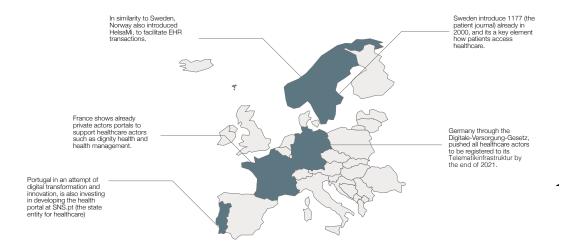
A study shows that the use of patient portals in the United States has surged from 10% in 2013 to 60% in 2022.

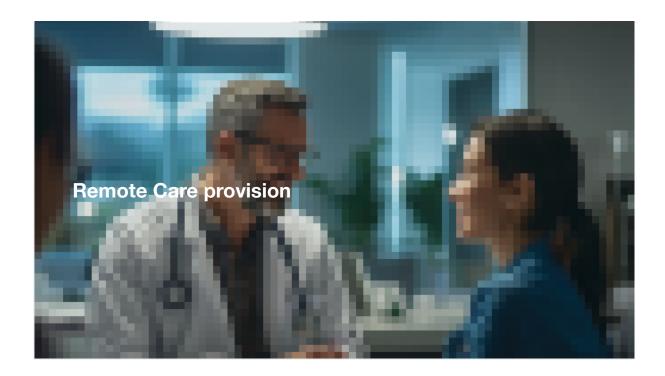
The advent of digital technology in healthcare is fueling a shift towards a more patient-centric care model. The growing prevalence of patient portals remains as a key element, since patients can at anytime and anywhere access to their personal health information. These portals serve as an essential touchpoint for patients to view their health records, lab results, and treatment plans. This accessibility fosters a more transparent patient-doctor relationship, enhances patient engagement, and facilitates better self-management of health conditions. Studies suggest that patients with

access to their test results through these portals are 24% more likely to follow up on these results, marking a step-change in patient engagement and care outcomes.

Empowering patients to participate actively in their care planning by allowing them to schedule appointments, request prescription refills, and communicate with their healthcare providers seamlessly became a normal practice. The ease of access these portals provide has a direct correlation with adherence to treatment, with patients using online portals 50% more likely to follow their treatment plans.

In essence, patients need to be at the center of the care continuum. Patient-provider communication leads to more personalized and effective care, ultimately contributing to improved patient satisfaction and health outcomes.





Digital health platforms have been instrumental in bringing the vision of telemedicine to life. The COVID-19 pandemic served as a catalyst for the acceleration of telemedicine adoption. McKinsey¹ data indicate a substantial shift in consumer behavior, with telehealth utilization in the U.S. jumping from 11% in 2019 to 46% in 2020. More importantly, the appeal of telehealth appears to be enduring, with 76% of patients indicating a high or moderate likelihood of continued use post-pandemic.

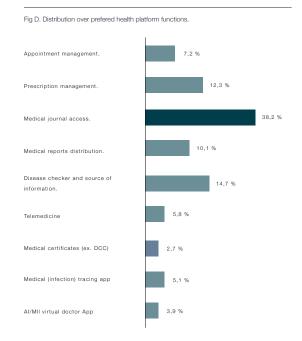
The role of digital health platforms in this transformation cannot be overstated, since these platforms provide a secure, intuitive interface for services such as video consultations, appointment scheduling, and prescription management. Many of them are integrating innovative features such as Al-based symptom checkers and remote patient monitoring capabilities to further enhance the delivery of care.

Telemedicine is an invaluable tool in bridging healthcare accessibility gaps, particularly for patients in remote regions and those with mobility challenges. Nonetheless, there are challenges, such as digitalization level, the necessity for reliable internet access, the need for digital literacy, particularly among older patients, and the complexities surrounding regulations and reimbursements.

Fig C. Distribution over adoption of telemedicine (European measure)



Survey conducted with 100 persons in Sweden, 100 Germans and 100 Portugues



Sources:

 $^{{\}color{blue} \textbf{1}} \ \text{https://www.mckinsey.com/industries/healthcare/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality} \ {\color{blue} \textbf{1}} \$



Interoperability refers to the ability of disparate healthcare systems, devices, or applications to access, exchange, and seamlessly integrate data. It is a key pillar of patient-centered care. As per a 2022 report from the Office of the National Coordinator for Health Information Technology, hospitals that demonstrated higher levels of interoperability were 30% more effective in delivering optimal patient care.

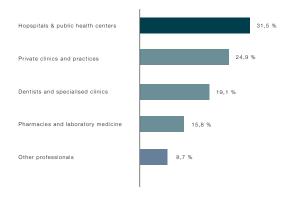
The sharing of health records is a significant byproduct of interoperability facilitated by digital health platforms. With the ability to effortlessly exchange digital health records (EHR and PHR), providers can ensure up-to-date information for all involved parties, thereby enhancing care effectiveness and reducing potential medical errors.

A 2021 study in the Journal of Patient Safety suggests that efficient data sharing could prevent nearly half of medical errors.

Care models led to a 20% improvement in health outcomes for patients with multiple chronic conditions.

Digital health platforms also encourage a model of collaborative care, providing a shared platform for specialists, primary care doctors, and therapists. A collective approach, particularly beneficial for managing complex health conditions, allows comprehensive treatment plans to be formulated and implemented. A 2023 report by the National Institute of Health highlights that coordinated care models led to a 20% improvement in health outcomes for patients with multiple chronic conditions.

Fig E. Sector distribution on the access to EHR and PHR European zone



 $\label{eq:Fig-F} \textit{Fig-F.} \ \textit{Resistance to EHR} \ \ \textit{and improvement on health institutions using EHR systems}.$



Even if there is 27% obstacle from the overall European population due to GDPR reasons, the availability of EHR and PHR to public entities improve ER flows in 48% under 2022.



1. Reinvent Business Models



Healthcare providers should view platform thinking as an opportunity to innovate their business models. This can involve adopting patient-centric practices, integrating digital health solutions, and creating value-added services like telemedicine or health record management.

Leveraging data analytics, AI, and machine learning can provide insights for personalizing patient care and predicting health trends. Embracing this shift requires a willingness to change and the flexibility to adapt to new ways of delivering healthcare.

Business models need to be reinvented. Medical practices that are based on a specific subset of service provision need to adjust and integrate with other medical parties in order to improve patient experience.

Thinking outside the box and including syndication or value-chain thoughts into the existing current models, will produce positive impact in healthcare, driving and increasing innovation in a sector constrained by different regulatory impedments.

Fig G. Forecasting over company management systems

SME health players who regularly

engage autorneys due to data breach

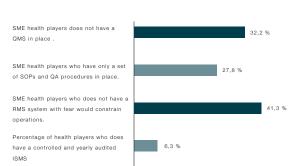
2. Assure a proper QMS, ISOs, GDPR and HIPAA compliances.

A key QMS (Quality Management System) is crucial nowadays to any medical provider. From medical manufacturers (ISO13485), to medical Labs (ISO9001) and hospitals (ISO 14001), standardized practices are essential for the well being of healthcare organisations.

Furthermore the 21st century increase concern on dataprivacy, pushes regulation to be even more strict and focused on improving the current QMS, RMS (Risk Management System) and ISMS (Information Security Management System) standards.

Compliance with key regulatory standards like General Data Protection Regulation (GDPR), Health Insurance Portability and Accountability Act (HIPAA), and Service Organization Control 2 (SOC2) is crucial for securing sensitive patient data.

Also for European Healthcare providers, the NIS2 makes regular audits be conducted regularly to ensure compliance, while also staying abreast of any changes in these regulations. Investing in secure data storage and transmission systems, employing data protection officers, and implementing privacy-by-design principles can all contribute to stronger data protection.



3. Educate patients through shared decision making and centric approaches

Empower patients by involving them in their healthcare decisions. Explain possible approaches and risks associated to medical decisions and let the patients participate and have responsability in their decisions.

Healthcare providers should also aim at the more personalisation and accessability from the doctor. Rerouting patients from hospital and ERs to private physicians and clinics would allow more personalisation.

Telemedicine and electronic diagnostics platforms in collaboration with laboratory medicine allows also to

expand the shared-responsability and accessibility with the end patient.

Platforms should aim to provide understandable health information and promote two-way communication. Features like accessible health records, decision aids, and secure messaging can help patients make informed choices. Importantly, patients who feel involved in their healthcare decisions are more likely to follow treatment plans and achieve better health outcomes.

4. Develop Inclusive Design with a Patient-Centric Approach

An effective health platform must be designed with the end-user in mind. It should be easily navigable, accessible to people with various abilities, and compatible across different devices and operating systems. Consideration should also be given to varying levels of digital literacy among users. Features like user-friendly interfaces, easy-to-understand language, and comprehensive help resources can make a platform more inclusive and patient-friendly.

Indirect actors



Medical Manufacturers	Primary Care Physicians
Biotechnology Firms	Specialist Physicians
Pharmaceutical Companies	Dentists
Medical Device Manufacturers	Medical Assistants
Secondary Providers	Therapists
Laboratory Services	Pharmacies

Primary providers

Laboratory Services Pharmacies Research Institutions Clinics Healthcare IT Companies Hospitals Healthcare Consultants Urgent Care Centers

Primary Supporters

Nursing Homes

Home Health Care Providers

Regulatory Bodies

Regulators & indirect policy makers

Health Insurers

Patient Advocacy Groups

Health Associations

Public Health Departments

Government Health Agencies



Tech companies will play the key-opening role to amplify the customer-centric experience of health platforms.

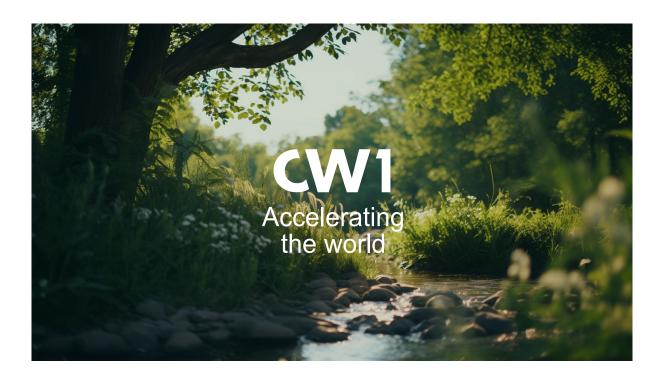
Collaborative data innovation, for example, could leverage Al capabilities to model new offerings and create transformative value for platform users and ecosystem partners alike.

The CW1 healthcare vision

In the forthcoming years, we anticipate healthcare organizations will enhance their platform strategies to sustain the flexibility necessary to swiftly incorporate emerging technologies like generative AI and edge computing. Simultaneously, they must stay abreast of evolving geopolitical scenarios and regulatory obligations.

At CW1, we foresee a future where these advancements not only transform operational efficiency but also fundamentally redefine patient care. With the power of Al and edge computing, healthcare providers could offer more personalized, accurate, and proactive care. However, the successful adoption of these technologies hinges on effective platform strategies. Thus, we continue to emphasize the importance of platform thinking and its crucial role in shaping the future of healthcare.

In the coming months, CW1 will be releasing series of focused articles on LinkedIn that will dive deeper into how health players can accelerate their journey through the dynamic and evolving platform economy. Stay connected and follow our unfolding CW1 insights #cw1healthacceleration.





CW1 I Accelerating Growth

CW1 exists to reinvent the world. To push the limits of what is conceivable and to push the worl to innovate. The line does not exist to anyone who belongs to the CW1 universe and ecosystem, which allows to everyone dare to defy the established rules and innovate.

Working across assurance, consulting, law, strategy, tax and transactions, CW1 teams ask better questions to find new answers for the complex issues facing our world today.

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