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Healthcare Systems & Services

Digital health ecosystems: Voices of key healthcare leaders

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By Stefan Biesdorf, Ulrike Deetjen, and Basel Kayyali

COVID-19 has made it more pressing than ever to integrate online and offline offerings and to establish integrated health ecosystems. We asked key healthcare leaders about their views to make this change happen.

Amid the disruption of traditional medical care caused by COVID-19, some patients have found assistance via new online services, including digital bill submission, medical assistance, online teleconsultations, and online medications. Perhaps for the first time, these patients found themselves part of digital health ecosystems, which are networks of digital service providers that offer a single solution for users' healthcare needs (see sidebar "Existing digital health ecosystems").

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Article (13 pages)

Two recent McKinsey articles—“The next wave of healthcare innovation: The evolution of ecosystems” and “Digital health ecosystems: A payer perspective”—highlight the importance and potential of evolving digital health ecosystems, particularly for healthcare stakeholders. Questions remain, however, about the roles of different healthcare players, because they can differ significantly depending on each player’s market, strategy, customer base, and position in the value chain.

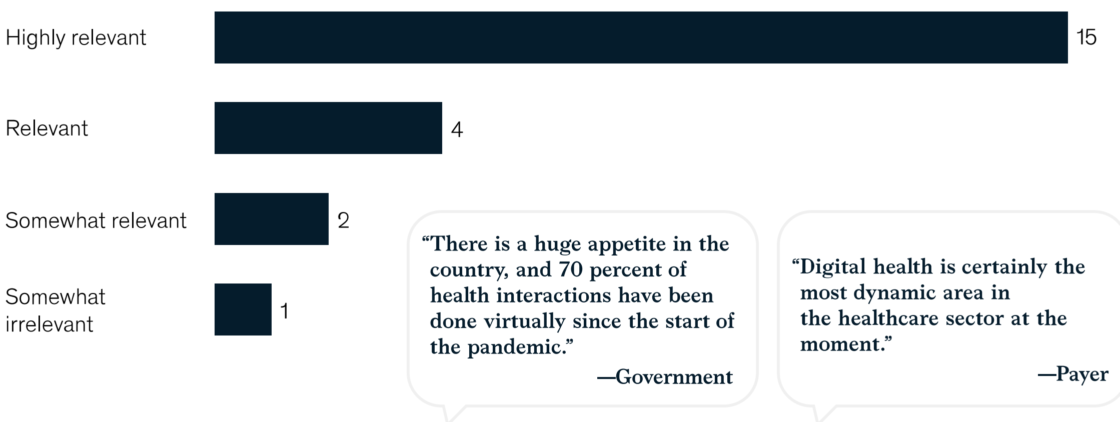
This article analyzes data from an interview series with 22 key international industry experts, as well as with 81 participants of our ninth Digital Healthcare Roundtable, to explore the following three themes: why and when healthcare players seek to provide digital healthcare solutions, what kind of digital health ecosystem healthcare players should provide, and how the implementation of a digital health ecosystem should be approached.

1. Why and when do healthcare players seek to provide digital healthcare solutions?

Digital health ecosystems have become increasingly relevant since the onset of the COVID-19 pandemic

Digital healthcare solutions were perceived as a highly relevant topic by 68 percent of survey respondents. There was a rise in demand for convenient digital health solutions after the outbreak of COVID-19 as traditional channels not only exposed patients to the virus but also were seen as less convenient.[1]

How relevant are digital healthcare solutions for your business?



N = 22 (structured-interview respondents)

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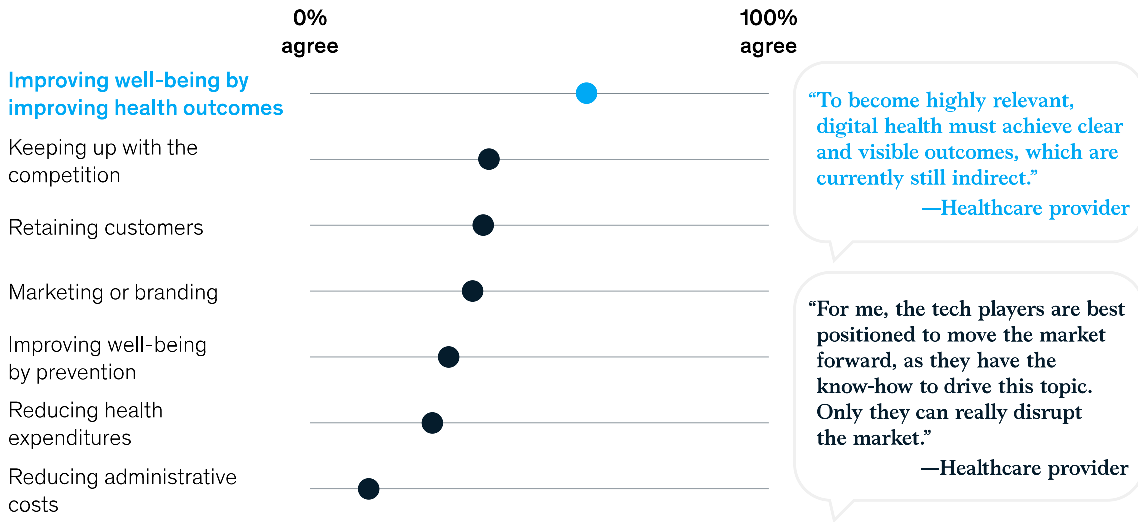
Furthermore, 61 percent of respondents consider the main purpose of digital health services to be improving well-being. They wish to “achieve clear and visible outcomes, which are currently still indirect.” In addition, 39 percent wish to keep up with the competition and “fear being disrupted, as big-tech players and digital start-ups can leverage their technological capabilities and their [customer-generated] data as a core advantage.” This response was prominent among four of the eight interviewed groups: big-tech companies, healthcare providers, the pharmaceuticals sector, and payers and insurers. Other primary purposes mentioned include a wish to increase customer retention (38 percent) and marketing or branding (35 percent); digital health is seen as “a good area for marketing.” The latter topic was especially chosen by respondents from start-ups and payers and insurers.

What is the main purpose of providing digital health services?



N = 71 (22 structured-interview respondents and 49 roundtable participants)

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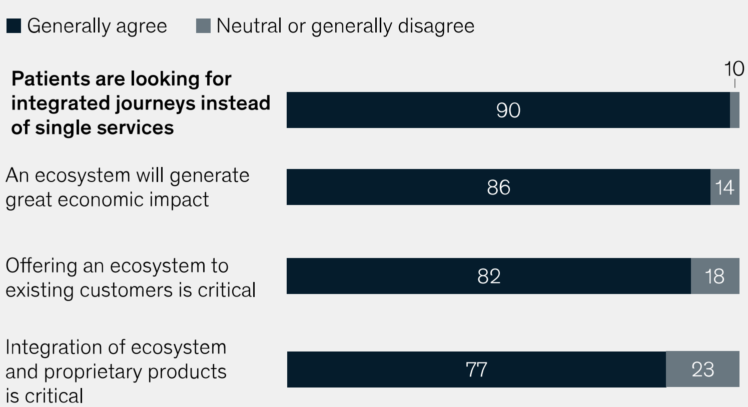
Integrating core products into digital health ecosystems and offering patient journeys are seen as critical

When prompted by several statements about digital health ecosystems, a vast majority of survey respondents generally agreed that ecosystems will generate great economic impact (86 percent), are critical to offer to existing customers (82 percent), and need to be integrated with existing products (77 percent). The most common core belief about digital health ecosystems is that patients are looking for integrated journeys rather than single solutions (90 percent).

Furthermore, 63 percent of respondents believe they are best positioned to orchestrate a health ecosystem. Of the groups that generally agreed they could orchestrate a digital ecosystem, payers and healthcare providers expressed the most confidence, while pharma respondents were the least confident. This suggests there can be different natural owners depending on medical conditions or journey steps, such as when moving from awareness to diagnosis or from treatment to adherence management.

Do you agree with the following statements?

%



"Patients want integrated patient journeys; they just don't know it yet because they haven't experienced it in Germany."
—Healthcare provider

"If pharma won't play a role in digital health in the future, they will become just a manufacturer and won't be real, active health players anymore."
—Pharma

N = 22 (structured-interview respondents)

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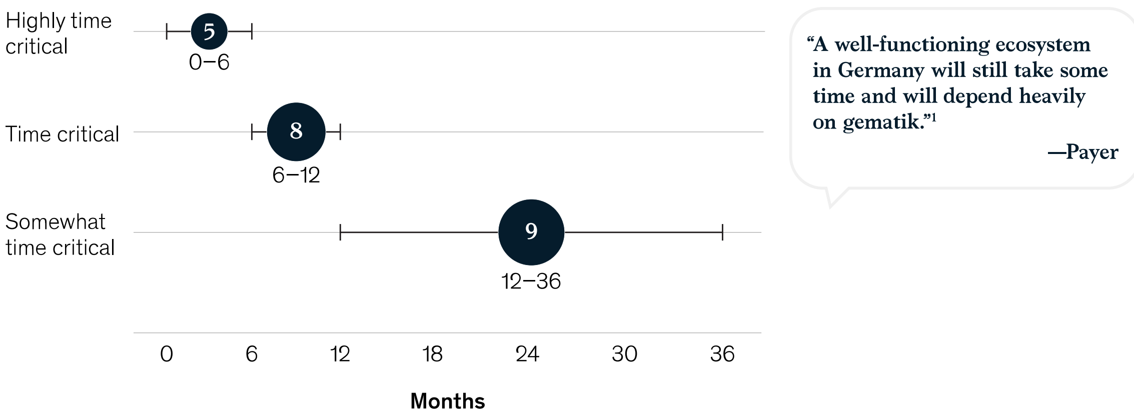
The implementation of digital healthcare solutions is often considered time critical but requires careful planning

A majority of survey respondents anticipate implementing digital healthcare solutions within the next three years. Specifically, players believe that “a well-functioning ecosystem will still take some time,” with 41 percent expecting to move on this topic within one to three years, 36 percent within six months to one year, and 23 percent within the next six months. In addition, respondents do not believe that a time span of more than three years is needed because many already include ecosystems in their strategic plans. This underlines the point that if healthcare players want to be part of the creation of digital health ecosystems, they should start conversations as soon as possible.

How time critical is the implementation of digital healthcare solutions for you?

Time horizons, # of respondents



N = 22 (structured-interview respondents)

[1] gematik is the national agency for the digitalization of the healthcare system in Germany. For more, see gematik.de.

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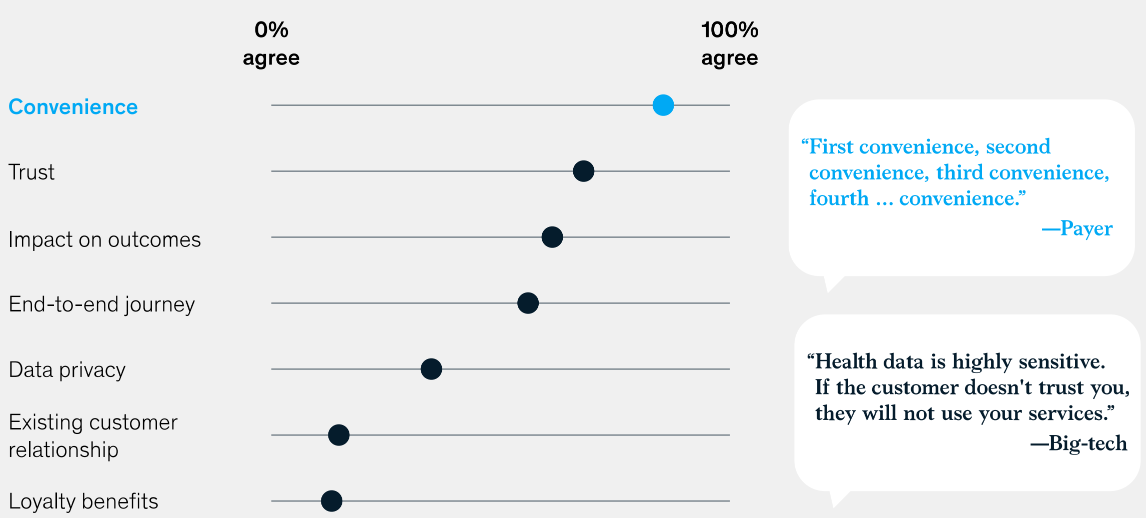
2. What kind of digital health ecosystem should healthcare players provide?

Convenience is seen as the main success factor for customers, followed

by trust and impact on health outcomes

Seventy-seven percent of survey respondents expected high demand for convenient digital health ecosystems among customers. While one of the core beliefs is that patients want integrated journeys (as noted in the previous section, 90 percent generally agreed), there are three success factors that are considered even more important than end-to-end journeys. Respondents “consider convenience as success factor number one to reach and retain customers with [their] digital health solutions.” Following this, trust (60 percent) and impact on health outcomes (53 percent) are seen as important requirements to satisfy the needs of the customer.

What do you consider the main success factors from a customer’s view?



N = 70 (22 structured-interview respondents and 48 roundtable participants)

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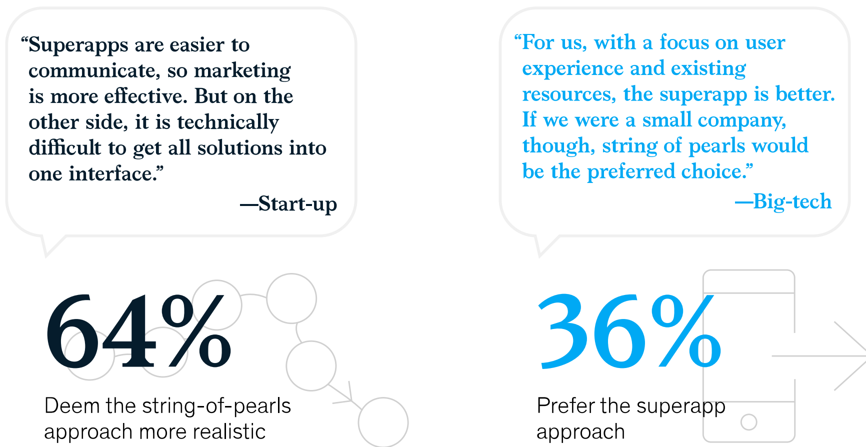
The string-of-pearls approach, which is predominant across sectors in Europe, is preferred

Respondents largely prefer the string-of-pearls approach, in which individual applications reference one another, with the customer needing only a single sign-on account. This is especially true for players in the pharmaceuticals sector, pharmacies, medtech, start-ups, and governments. By contrast, healthcare providers, big-tech players, and payers and insurers prefer the so-called superapp approach, in which an app integrates several functionalities from multiple providers in one place. While players assume customers will demand integrated patient journeys, 64 percent deem the string-of-pearls approach to be “more realistic” because integrating various solutions into a single app is highly complex and requires significant effort per solution.

The string-of-pearls approach is predominantly present in European countries across all sectors. This is due to existing rules such as General Data Protection Regulation (GDPR)[1] and additional regulations specific to certain countries, as well as concerns over privacy and data security. However, for several years, China and other Asian countries have predominantly used superapps, which include a range of services from food delivery to telemedicine.

Would you like to offer a string of pearls or a superapp?



N = 70 (22 structured-interview respondents and 48 roundtable participants)

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An ideal minimal patient journey is 'telemedicine to online pharmacy'

Seventy-one percent of respondents see the "telemedicine to online pharmacy" patient journey as an ideal starting position. An agile development with a minimal viable patient journey as its starting point can help further solutions such as “symptom checker to telemedicine.” Starting with the telemedicine-to-online-pharmacy journey includes the use of e-prescriptions (eRx), which have significant potential to accelerate digitalization in healthcare. For example, in the years to come, approximately 8 to 10 percent of the German pharmacy market could be supplied exclusively by this online channel.[1] On the other hand, “health-management solutions to telemedicine” is not seen as a viable starting position by respondents.

Which of these minimal viable patient journeys would be your starting position?

N = 21 (structured-interview respondents)

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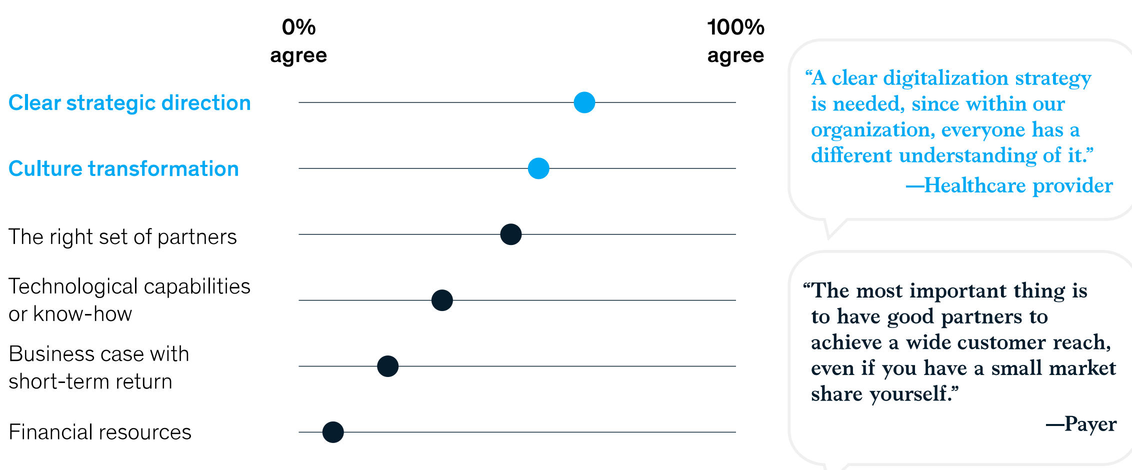
3. How should the implementation of a digital health ecosystem be approached?

Clear strategic direction and cultural transformations are seen as the main success factors for implementation, as well as collaborating with the right partners and having technological know-how

A clear strategic direction (74 percent) and cultural transformation (62 percent) are considered the most important success factors for the implementation of a digital health ecosystem. This shows that many players would like to build up ecosystems but are not sure how to proceed strategically or how to shift cultural mindsets. In addition, 54 percent of respondents identify collaboration with the right set of partners and 38 percent identify technological capabilities or know-how as being important to achieving "a wide customer reach, even if you have a small market share yourself." Ecosystem participants do not see short-term returns as a requirement because they believe in a long-term effort when building a digital health ecosystem.

Respondents also repeatedly pointed to interoperability as a success factor beyond the suggested survey answers. As an example, one respondent said, "Providing interoperability just in data management is not sufficient for a successful ecosystem. It also needs an interoperable identity, consensus, and workflow management" to create a consistent customer experience. Another said, "We need a broad and integrated data pool that can easily exchange data from one point of the patient journey to another."

What do you consider the main success factors for the implementation of a digital health ecosystem?



N = 76 (22 structured-interview respondents and 54 roundtable participants)

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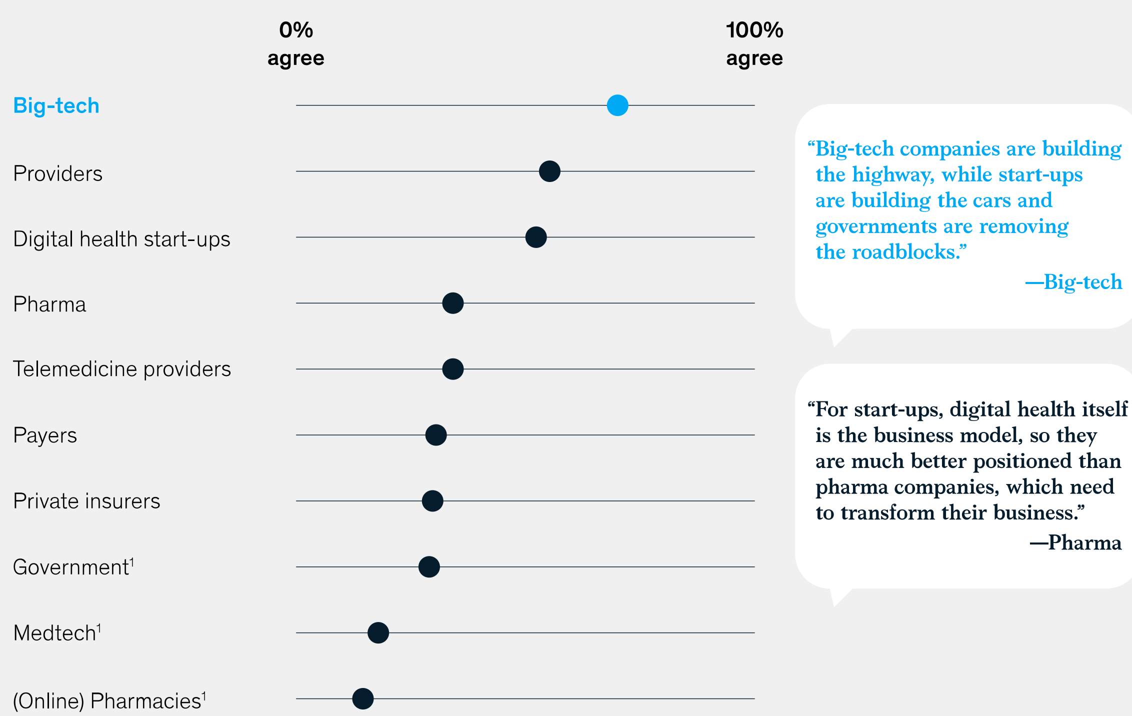
Big-tech players, healthcare providers, and digital health start-ups are seen as the driving forces in the digital health ecosystem

A majority of survey respondents see big-tech players (62 percent), healthcare providers (50 percent), and digital health start-ups (47 percent) as driving forces for digital health solutions. One respondent summarizes the role of the different stakeholders in this way: “Big-tech companies are building the highway, while start-ups are building the cars and governments are removing the roadblocks.” Hence, while governments are expected by respondents to be among the least important players when implementing digital health ecosystems, they may also play an important role in enabling others.

While all players assume that big-tech companies will be the driving force in developing digital health ecosystems, big-tech players do not rank themselves in the top category. Rather, they see payers, digital health start-ups, and healthcare providers at the top. Interestingly, this view is reflected by the fact that payers, digital health start-ups, and healthcare providers are the only players that rank themselves in the top category.

Who do you think will be the driving force in the field of digital health solutions?



N = 74 (22 structured-interview respondents and 52 roundtable participants)

[1] Option added in a later version of the questionnaire; results were scaled accordingly.

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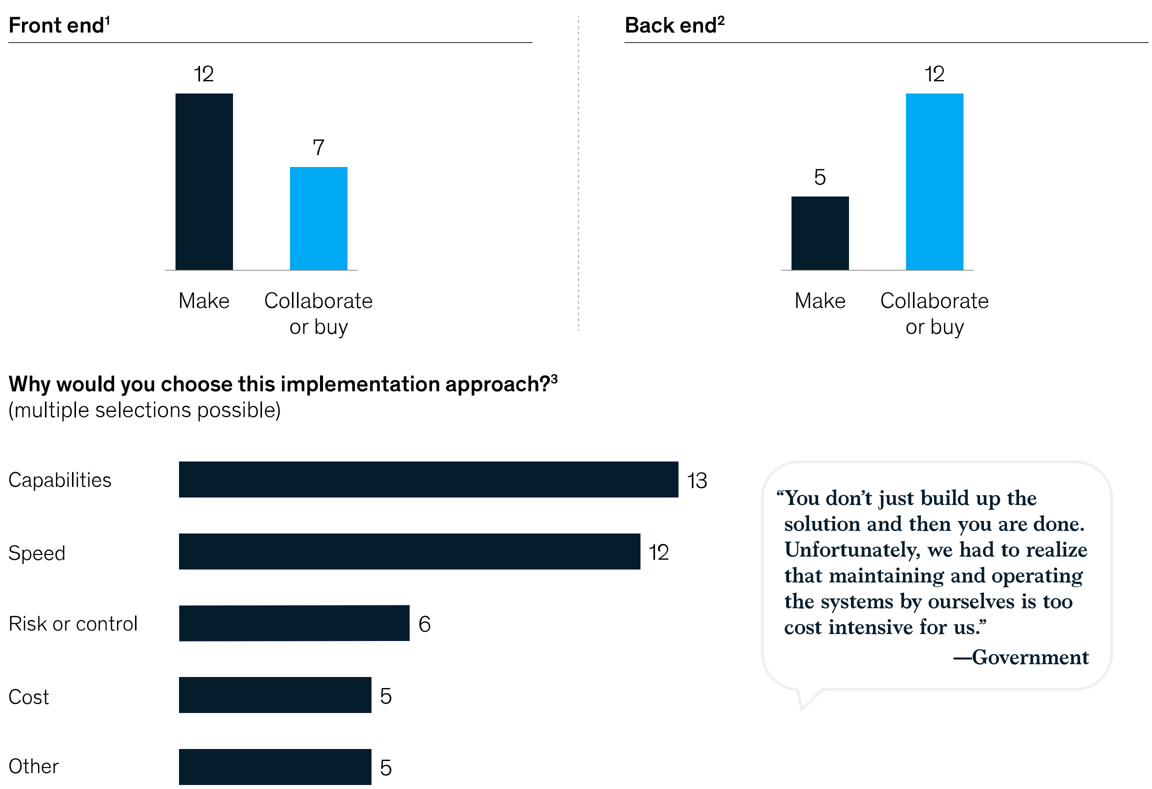
Participants prefer 'making' the front end while 'collaborating on or buying' the back end, with capabilities and speed being key decision factors

Sixty-three percent of respondents prefer to build the front end. They want to “control customer touchpoints to access and guide patients” and believe they “have the in-depth understanding of the patient’s needs.”

By contrast, 71 percent are willing to collaborate with partners or buy back-end technology. Potential advantages named by respondents include compensating for missing capabilities and increasing speed. Subsequently, risk, control, and cost play less important roles. Nevertheless, some players realized that “maintaining and operating the system by themselves is too cost intensive.”

What would be your preferred sourcing model for ecosystem technology?



[1] Front end N = 19 (structured-interview respondents).
[2] Back end N = 17 (structured-interview respondents).
[3] N = 19 (structured-interview respondents).

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About the survey methodology

Our findings are based on the opinions of 103 key healthcare experts, collected through structured interviews with business, innovation, and digital-transformation managers from 22 businesses. The structured interviews were conducted from November 2020 to June 2021, and questions were answered and discussed in one-on-one video calls. Five of the interview questions were also asked of participants at our ninth Digital Healthcare Roundtable on May 7, 2021.

Interviewed groups included healthcare providers, pharmacies, big-tech companies, start-ups, governments, payers and insurers, pharma companies, and medtech companies. Of the 79 participants who disclosed their location, approximately 82 percent were in Europe, 11 percent in Asia, 5 percent in North America or South America, and 1 percent in Australia.

The voices of 103 healthcare leaders were represented in our survey.

22 participants (C-suite executives and high-level managers) from structured interviews

Provider
- French elderly-care provider (CTO)[1]
- German hospital chain (CIO)[2]

Government
- An Asia–Pacific health agency (CEO)
- An Americas government agency (CEO)

- An Asia–Pacific government agency (CEO)

Pharmacy
- Brazilian pharmacy chain (VP,[3] health business)
- Swiss e-pharmacy chain (CEO, Switzerland)

Payer and insurer
- German payer (CIO[4] and head of innovation)
- European payer (head of digital and innovation)
- German insurer (executive board member)

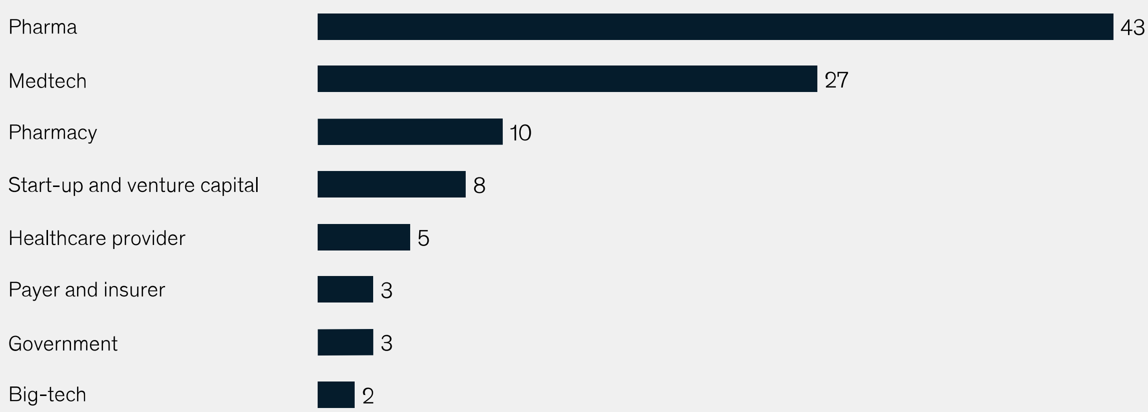
Big-tech
- US-based global tech player
- European tech provider
- China-based global tech player (VP, healthcare)

Pharma
- Swiss-based global pharma player (SVP,[5] Digital Health Solutions)
- Denmark-based global pharma player (global project lead)
- Germany-based global pharma player (SVP, translational medicine)

Start-up
- German digital healthcare start-up (CEO)
- German health management start-up (founder)
- UK telemedicine start-up (managing director)

Medtech
- Germany-based global medtech (SVP, digital platform)
- German medtech
- US-based global medtech (head of digital health and general manager, acute therapies)

81 participants from our ninth Digital Healthcare Roundtable, %



[1] Chief technology officer.
[2] Chief information officer.
[3] Vice president.
[4] Chief information officer.
[5] Senior vice president.

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Digital health ecosystems are more likely to succeed if players can identify their individual contributions and create their own road maps. Doing so depends on a number of factors, including size, business model, cultural fit, capabilities, experience, existing partnerships, and regulations specific to certain countries. Considering that all the respondents to our survey predict that digital health ecosystems will evolve in the next three years—or even within this year—it's clear that players should move quickly to reflect on their position in the status quo and to determine the strengths of their roles in the digital healthcare landscape.

Do you want your voice to be heard? Share your views on digital health ecosystems by answering our digital health ecosystem survey on McKinsey.com and receive an analysis of how your views compare with those of your peers.

1. For more on rising demand during COVID-19 lockdowns and the need for convenience in digital health solutions, see "Digital health ecosystems: Users, usage, utility," forthcoming on McKinsey.com.
2. See "General Data Protection Regulation," Intersoft Consulting, gdpr-info.eu.
3. "E-prescription study 2019," Dr. Kaske, 2019, drkaske.de; Benjamin Rohrer, "'Study': 7500 pharmacies less because of the e-prescription," DAZ.online, April 24, 2019, deutsche-apotheker-zeitung.de; IQVIA (Deutschland), iqvia.com; German National Statistics Office, destatis.de.

ABOUT THE AUTHOR(S)

Stefan Biesdorf

Partner, Munich

LinkedIn Email

Ulrike Deetjen

Partner, Stuttgart

LinkedIn Email

Basel Kayyali

Senior Partner, New Jersey

LinkedIn Email

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