### DIGITALIZATION IN HEALTHCARE

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# Patients expect simple and innovative tools to manage their health



65% of consumers want digital access to their medical data



72% of internet users search online for health related information

72% of consumers would prefer a Multichannel-provider.

54% prefer to book their physicians appointments online.



67% of consumers noted that a better understanding for costs influences their choice of provider significantly.

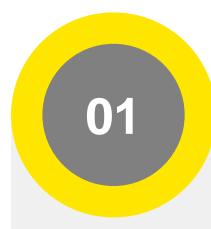
52% of smart phone users use their device to search of health related information





## We have assessed the digital sphere to understand the implications for Healthcare

Our approach included 4 steps:



### Digital in Healthcare

We have analyzed digital initiatives in the Healthcare sector



## Best in class digital models

We have looked at best in class digital models across sectors which might be transferrable to Healthcare



### Digital startups

We collected and analyzed start ups with innovative, digitally enabled business models



#### Development of digital concepts

We have extracted the main digital enablers for Hospitals, Medical device & Medical Service Providers

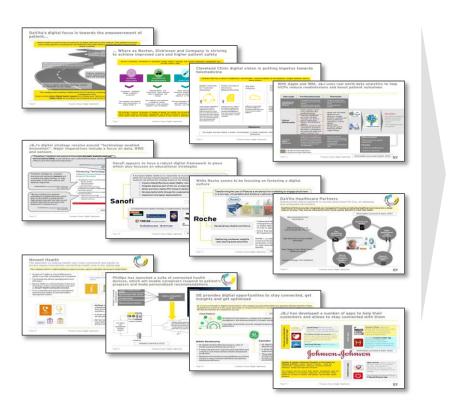




### We have analyzed digital activities in the Healthcare sector



Analysis of digital activities of large players in the Healthcare sector



Focus areas for digitalization in the Healthcare sector



Information exchange based on electronic health records



Convenient access to care through mobile solutions



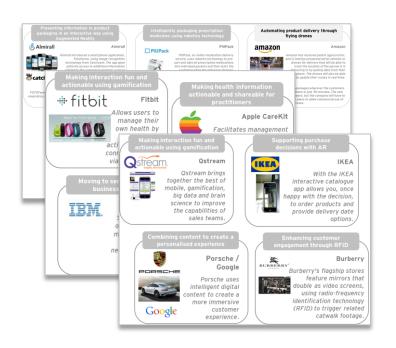
**Data generation and remote monitoring** via smart solutions



# We have looked at best in class digital models changing customer interaction



Analysis of organizations' business models and their best in class digital capabilities



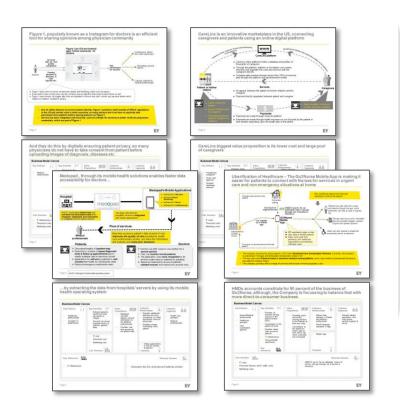




# We have looked at digitally enabled Start-ups



Analysis of business models of digitally enabled Start-ups in Healthcare



Major trends for digital health start-ups



**Data Sharing**between Healthcare
professionals & patients



**Digital marketplace** for Healthcare products and services



Mobile Health apps for Healthcare professionals and patients



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Digital
concepts for
Hospitals,
Medical Device
Manufacturers
and Medical
Service
Providers



### Digital initiatives in Hospitals



Digital initiatives for Hospitals



Digital discharge management

**Digital knowledge sharing** between experts in different hospitals **Digital decision making support** for physicians

Predictive modeling

Digital patient history

Utilization of **robotics** in Hospital logistics

Official admission (from home) to reduce wait times

Smart medical devices

**Digital supply chain** to improve efficiency

**Digital education** of patients

Extend treatment from hospital to patient at home

Big data analytics

Alarms/ push notifications for physicians/ nurses



## Digital initiatives for Medical Devices manufacturer



Digital initiatives for Medical Devices



Optimized reimbursement models

Connected medical devices generating and exchanging patient & machine data

**Value based healthcare**optimizing outcome, considering
risk-sharing models

Production of personalized products based on patient data

Patient self-management through tele-monitoring and smart medical devices

Improve **patient mobility** by establishing a network of specialist clinics

Leverage data for **predictive maintenance** 

Using predictive analytics for machine inventory management

Utilization of data for optimized product development



# Digital initiatives for Medical Services provider



Digital initiatives for Medical Services



Value based Healthcare with outcome care Holistic discharge management to homecare environment

Support patient **mobility** 

**Escort the patient** throughout the lifetime

Access to **tools for training** on right
product usage

Support adherence using digital tools

Report **critical health status** for immediate intervention

Enable real time interaction and data flow

Provide **Tele- support** for patients and relatives at home for improved selfmanagement

Digital solutions reducing administrative tasks

healthcare professionals



Digital in Healthcare



## The digital future will bring innovations to all stakeholders in the Healthcare market

### **Hospitals**

Connecting patients, staff and stakeholders along the health continuum

#### MedTech / Pharma

Smart connected products for improved diagnosis and treatment

### Healthcare providers

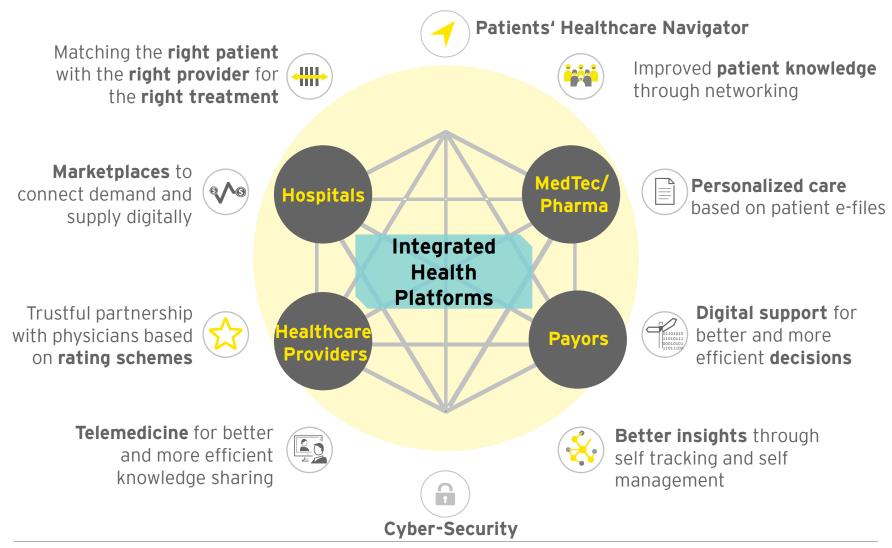
Connected diagnosis and coordinated care

### **Payors**

Improving health of the insured population and contain costs

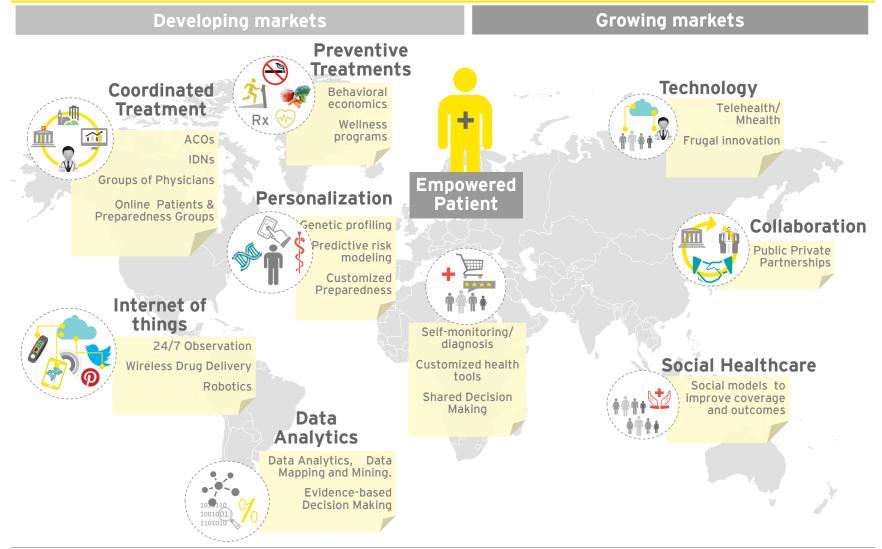


# As ecosystems emerge, networked platforms become increasingly important





# 2025 will be a shift of paradigm regarding the supply of health care services





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