

AI and Disruptive Innovation in Healthcare

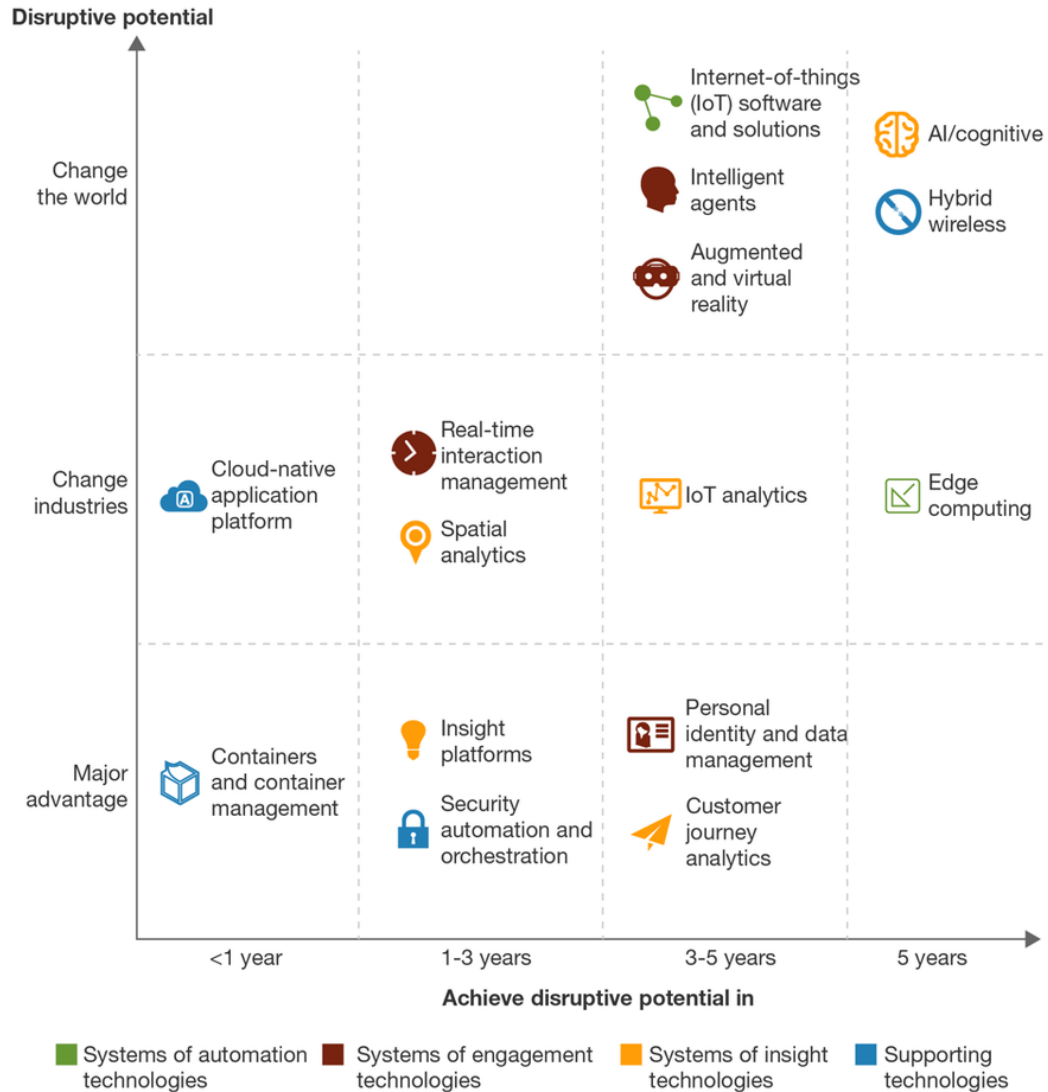
Fatih Çiftci
Pusula

- 1 Disruptive Innovation
- 2 Ideal Patient Experience
- 3 Pusula AI Based Clinical Platform
- 4 Summary

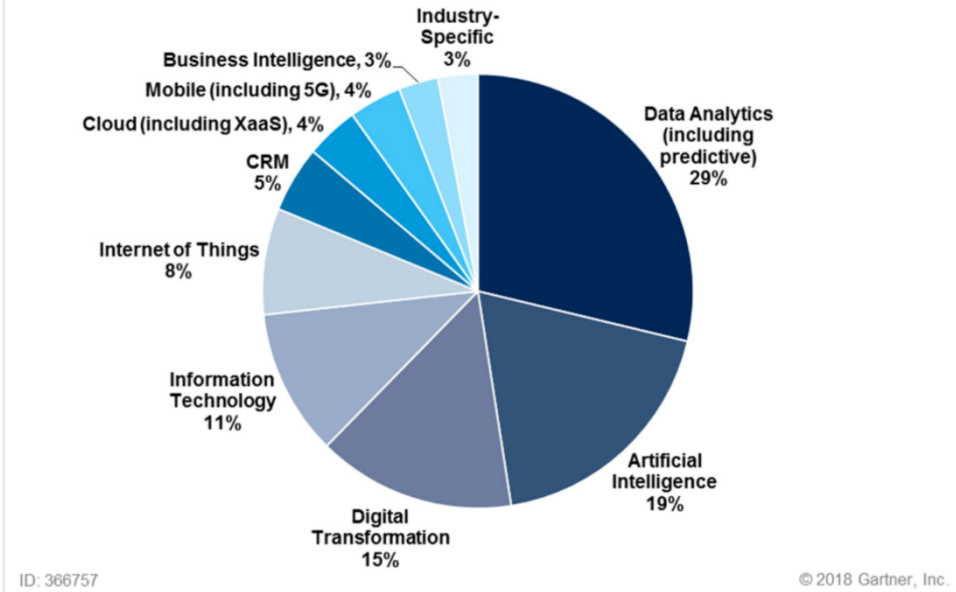


Identify The Disruptive Potential And Time Frame Of Impact For Your Industry

The Top Emerging Technologies For Digital Predators



Game-Changing Technologies



Top Priorities for 2018 and 2019

Percentage of Respondents

	Healthcare Providers (n = 97)	Top Performers (n = 225)	Typical Performers (n = 2,244)	Trailing Performers (n = 274)
1	Revenue/business growth 32%	Digital 31%	Digital 23%	Revenue/business growth 24%
2	Digital 12%	Revenue/business growth 20%	Revenue/business growth 21%	Operational excellence 15%
3	Cost optimization/reduction 12%	Operational excellence 16%	Operational excellence 13%	Cost optimization/reduction 11%
4	Operational excellence 9%	Customer experience 11%	Customer experience 9%	Digital 10%
5	Modernization (of legacy systems) 8%	Data and analytics 7%	Cost optimization/reduction 8%	Business or financial goals 8%
6	Business model change 7%	New products and services 7%	Business or financial goals 7%	Modernization (of legacy systems) 7%
7	Business or financial goals 7%	Cost optimization/reduction 7%	Business model change 6%	Data and analytics 7%
8	Customer experience 6%	Artificial intelligence or machine learning 6%	Industry-specific 6%	Industry-specific 7%
9	Security 6%	Business model change 6%	Data and analytics 5%	ERP 6%
10	Data and analytics 5%	Industry-specific 6%	New products and services 5%	Business model change 5%

Base: All answering, excluding "prefer not to answer"; n varies by segment. Showing the 10 most common answers per segment, coded open-text responses, multiple responses allowed. Q: What would you say is your organization's top priority for 2018 and 2019? ID: 367583

The Reign of Digital Disruption – 2017 and Beyond



Digital Disruption



Social is Business

86 %

Stop doing business

94 %

Will pay more for great experience

26 %

Post Negative comments



Sophisticated Customers

"Engage me everywhere."

"Meet my expectations"

"Know me. Wow me."

"Understand and reward me."



Cloud

2014 51 % of workloads in the cloud.

2020 1/3 of all data in the cloud.

87% of organizations using public cloud.



Data Explosion

90 % Created within the last 2 years.

50X Growth by 2020

2012 9 Billion Internet Device.

2020 50 Billion Internet Device.



Rise of Mobility

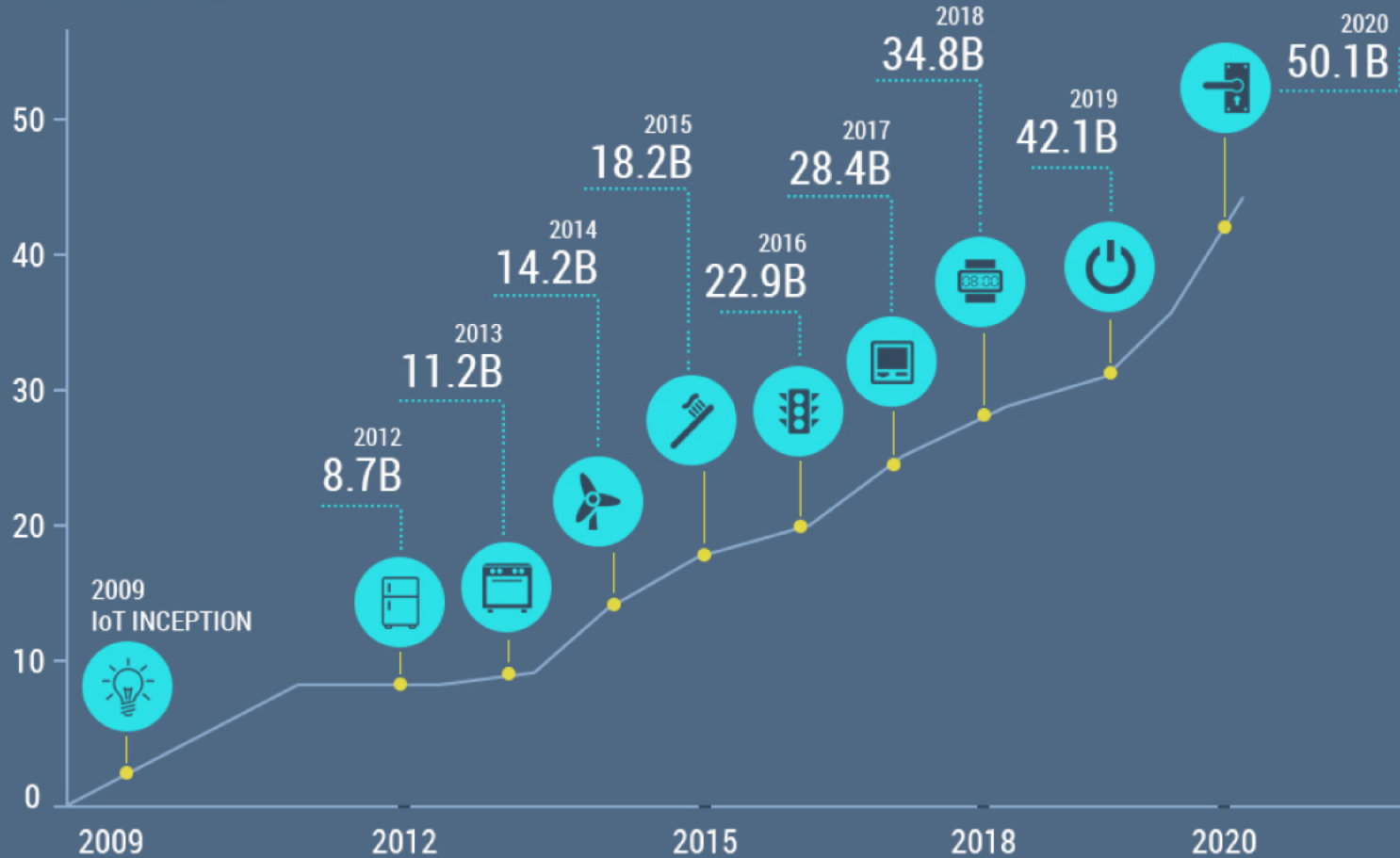
50.3 % of ecommerce traffic coming from mobile.

78 % Mobile Data Growth.

GROWTH OF THE IoT

THE NUMBER OF CONNECTED DEVICES WILL EXCEED 50 BILLION BY 2020

BILLIONS OF DEVICES



SOURCE CISCO



20.8
BILLION

connected things by 2020'



1.3
TRILLION

worldwide spending on IoT by 2019



500 + %

Growth in health consumer IoT connections from 2015- 2020



680 %

Growth of installed base of healthcare IoT devices by 2020



\$70bn
 estimated size of AI-based analytics market by 2020, up from \$8.2 billion in 2013
 Source: IDC



China

is the largest buyer of industrial robots and now makes up 25 per cent of the global market, forecast to rise to 38 per cent by 2018
 Source: IFR



Up to **\$1.9trn**
 potential positive impact to the global economy from driverless cars by 2025
 Source: McKinsey



10x
 increase in US military spending on unmanned aerial vehicles between 2000 and 2016 to \$2.9 billion,
 Source: US Department of Defense



\$2.2trn
 of assets could be managed by robo-advisers by 2020, up from \$255 billion in 2018
 Source: AT Kearney/MyPrivateBanking/KPMG/McKinsey



90-115bn
 hours spent performing household tasks could be saved a year in developing markets by 2025, equal to cost-savings of \$200-500 billion
 Source: McKinsey

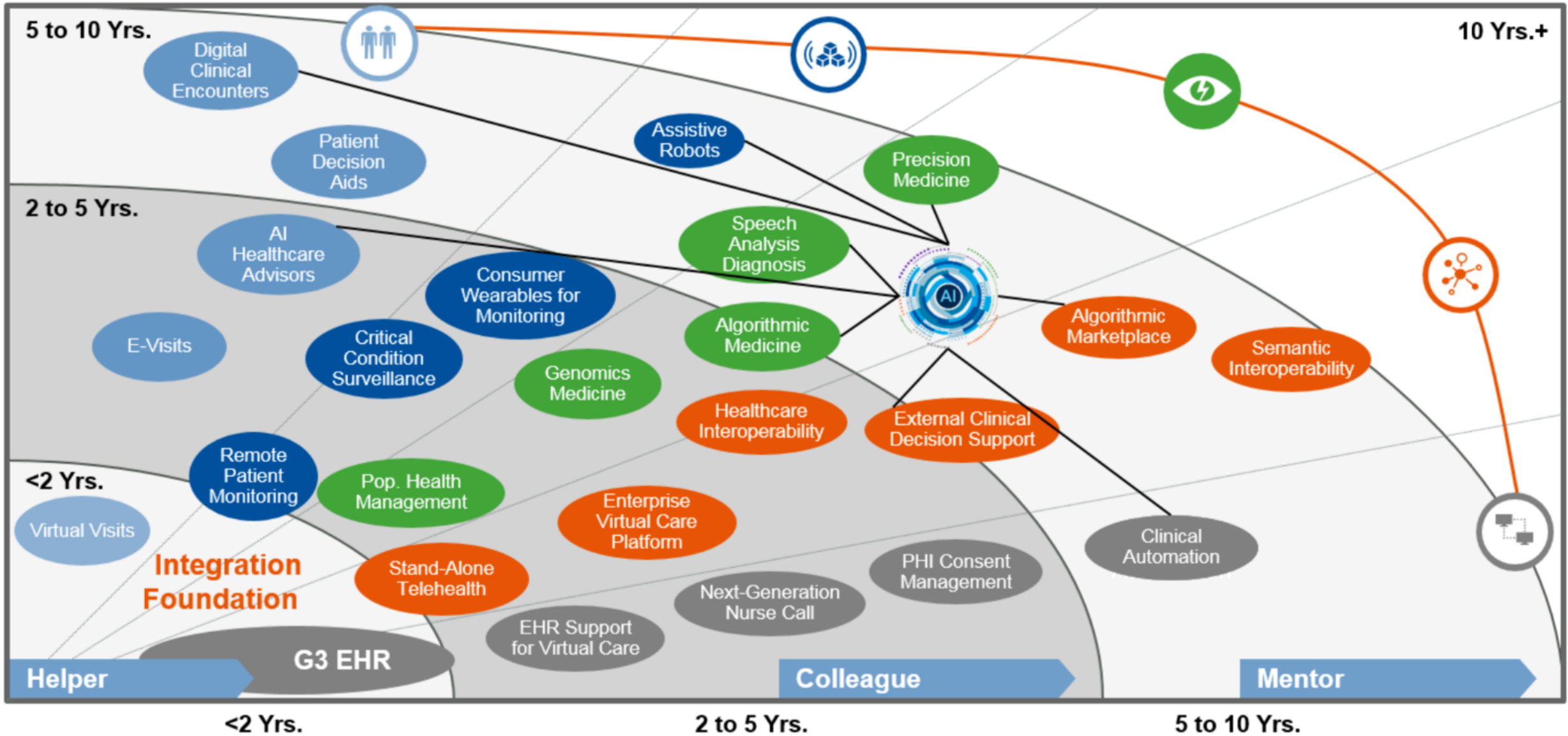


\$16.3bn
 estimated size of the global agribot market by 2020, up from \$817 million in 2013
 Source: WinterGreen



570k
 robo-surgery procedures were performed in 2014, compared with 1,000 in 2000
 Source: Intuitive Surgical

Determine Your Capability Roadmap for Digital Care



This **"Amazonification effect"** is transforming everything from retail, to finance, and now the healthcare industry.



1 Million
Logging In



4,5 Million
Videos Viewed



3,8 Million
Search Queries



18.1 Million
Text Send



390,030
Apps Downloaded



2,1 Million
Snaps Created



87,500
People Tweeting



347,222
Scrolling Instagram



188 Million
Emails Sent



694,444
Hours Watched



\$ 996,956
Spent Online



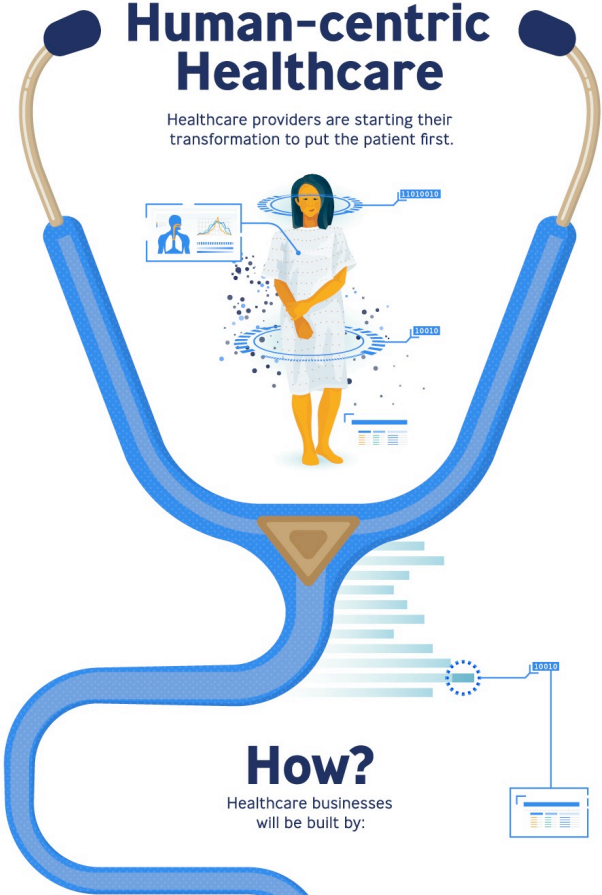
Digital disruption has already happened.

- The world's largest taxi company owns no taxis (Uber)
- The largest accommodation provider owns no real estate (Airbnb)
- The largest movie house owns no cinemas (Netflix)
- Largest software vendors don't write the apps (Apple/Google)
- Large phone companies own no teleco infra. (Skype, WeChat)
- Popular media owners create no content (Facebook)
- The fastest growing banks have no actual money (SocietyOne)

FIND ME / KNOW ME / HELP ME:

Human-centric Healthcare

Healthcare providers are starting their transformation to put the patient first.



How?

Healthcare businesses will be built by:

REACHING
people wherever they are in their journey

IDENTIFYING
when people are at risk and knowing what they need before they need it

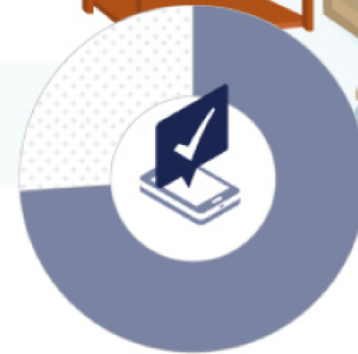
DESIGNING
personalized interventions and deploying them in a timely manner, predictively

What is the **ideal healthcare experience** for these consumers?



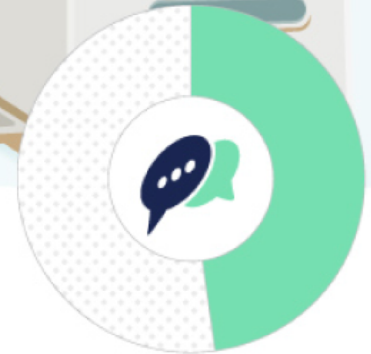
Convenient access

Interactive Patient Care System



Digital channels

Patient Portals & Virtual Assistants & Personnel Health Management Tools



Ongoing relationship

Data Driven Marketing & Campaign Management

Increasing Level of Activation >>>>>



Does not play an active role in their health.



Some knowledge with large gaps.

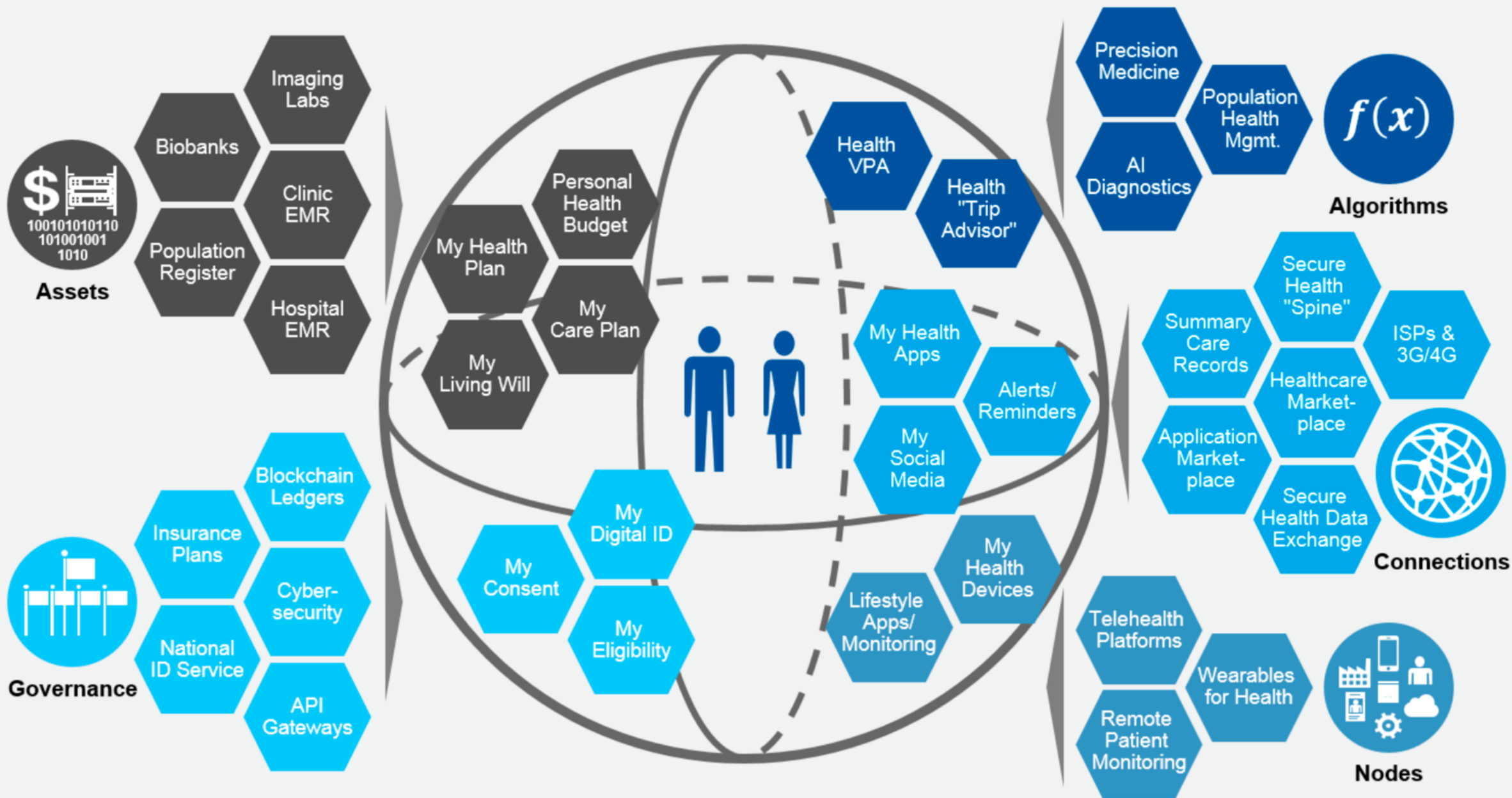


Believes that they are part of their healthcare team.



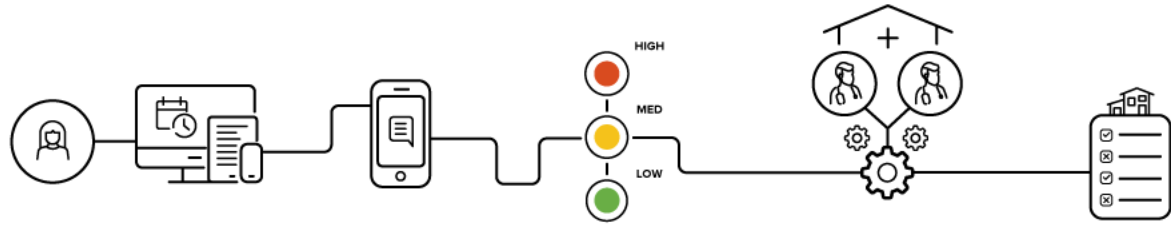
Believes that they are responsible for their health.

Many Components Required



PUSULA AI BASED CLINICAL PLATFORM

COORDINATE COMMUNUCATE PERSONALIZE AUTOMATE



BIG DATA WAREHOUSE



Patient Portal

Clinical Portal

Health Tourism Portal

Nursing Suite

Virtual Health

Oncology

Care Coordination & Data Driven Marketing

ICU

Wearables

Operating Theater