

Healthcare IT solutions for the digital transformation of the health providers



The GrowthEnabler InFocus reports uniquely address the top priorities for technology leaders and their teams; by recommending potential solutions, in the context of business growth. Each business priority is broken down to point level/function-specific solutions that are further linked to technologies with a list of vendors. Business Solutions are sourced from GrowthEnabler Pii, our intelligence gateway to over 525K high growth tech companies. This report is designed to navigate the ever-changing technology landscape, and enable more informed, and quicker, decision making.

3Step Guide
DocumentCreated for the:
**CIO, CDO, CTO,
CSO, CEO**Reading Time:
15 minutes

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How will digital transformation impact Health Providers?

An introduction

This report aims to focus on the business priorities of the global healthcare industry and how the upcoming **technologies are aiding the digital transformation to help address these business priorities. Rapidly evolving technologies, along with demographic and economic changes, are expected to alter hospitals worldwide by transforming the ecosystem into patient-centered care.**

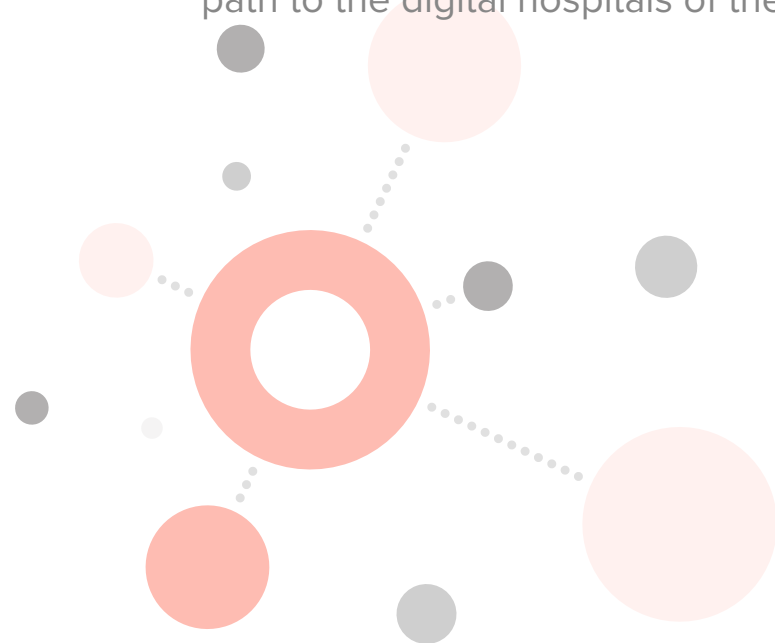
Hospitals may not realise immediate returns from investments across technology and automated business processes but in the longer term, as digital technologies improve care delivery, create operational efficiencies and enhance patient/provider experience, will see results such as higher quality care and improved patient experience. Following are the core priorities that will pave the path to the digital hospitals of the future:

Redefining care delivery:

Hospitals need to provide personalized care through better patient engagement and enhanced patient experience through several digital solutions such as patient data access, clinical diagnostics assistance during treatments, remote patient monitoring, tele-health facilities for remote care and personalised digital information kits for post care management.

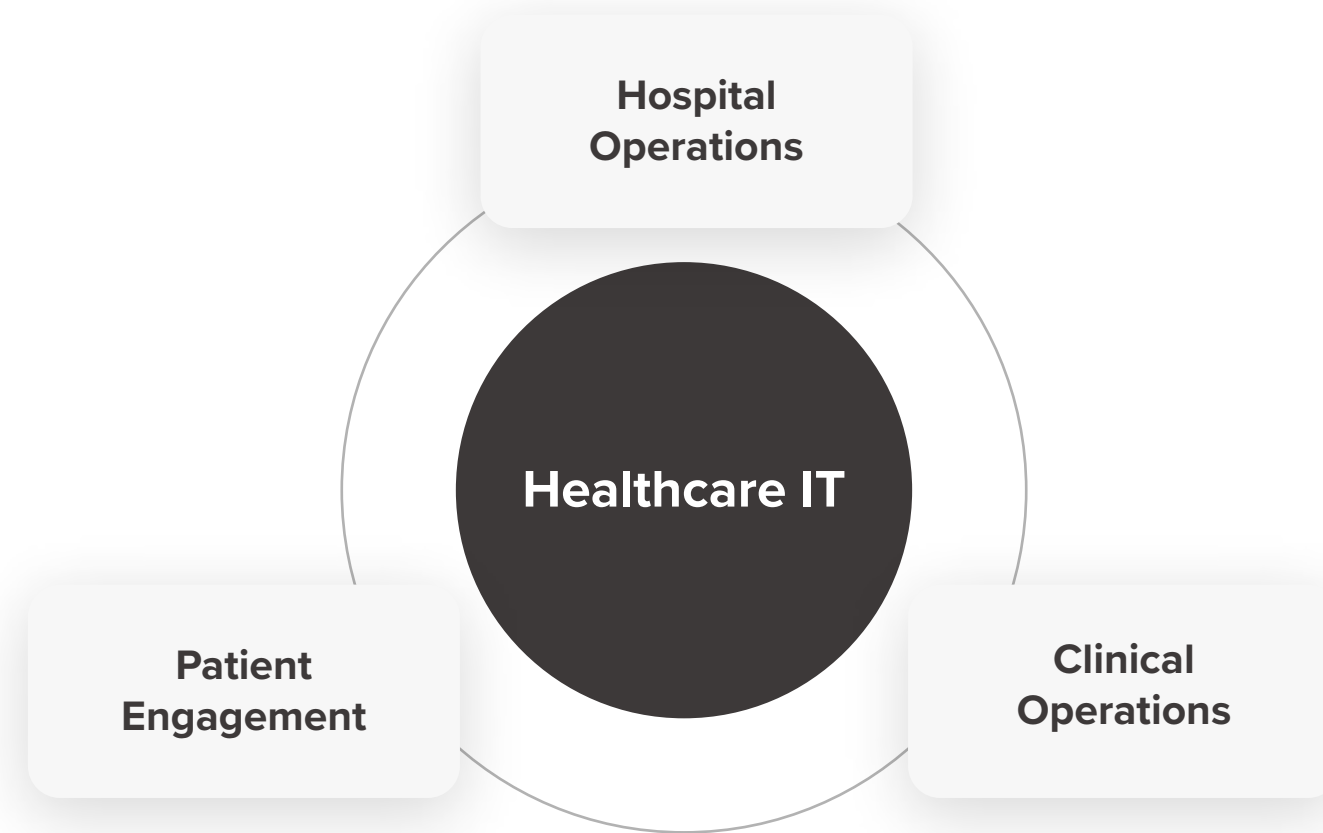
Enhanced operations & workforce management:

Health provider inefficiencies such as poor hospital workflow management and siloed patient data have risen at an alarming rate in the face of growing global healthcare demands. Hospitals need to be efficient in their staff scheduling, appointment booking, bed management and continuous skill development to deliver quality patient-centric care. Health providers can use technologies like Augmented Reality & Virtual Reality for workforce training, build AI based predictive analytics models for hospital capacity planning, revenue cycle management and claims management solutions for efficient financial operations management.



Business Priorities

Sub-segments



From Sub-segments to Solutions

The 3 Steps.



Startup Growth Stage Definitions

EMERGING:

Early stage startups typically at beta product stage and seeking investment capital

SCALING:

Typically funded, with a market ready product and revenue positive

MATURE:

Established product, exploring new growth markets and partnerships

Healthcare IT



A. Hospital Operations

Workforce scheduling management



Staff scheduling software



OnShift
Cleveland, United States
onshift.com

Cloud based staff schedule and shift management solution for healthcare industry. The solution helps prevent overtime and understaffing scenarios through its simple schedule manager.

MATURE

Patient flow management



OpenTempo
Williston, United States
opentempo.com

Developer of cloud-based tool for staff scheduling along with cost management features for both private and public healthcare organizations. Features include patient demand forecasting.

MATURE

B. Clinical Operations

Secure patient registration



StaffReady
Spokane, United States
staffready.com

Developed a cloud-based scheduling solution that lets hospitals automatically build staff schedules based on the rules set and requirements.

MATURE



Hospital asset & people management

C. Patient Engagement

Find more solutions on GrowthEnabler Pii...

www.growthenabler.com

Healthcare IT



A. Hospital Operations

Workforce scheduling management

Patient flow management

Resource utilization analytics

B. Clinical Operations

Secure patient registration

C. Patient Engagement

Hospital asset & people management

LeanTaaS
Santa Clara, United States
leantaas.com
SaaS based platform (iQueue) for efficient resource utilisation and patient time optimisation provided to hospitals to improve their operational performance.
MATURE

Allocade
Menlo Park, United States
allocade.com
Developed an AI engine powered patient and caregiver logistics manager (OnCue) for hospitals to help optimize patient flow in hospitals. Claims to deliver real-time visibility of schedule changes to personnel
MATURE

CentralLogic
South Jordan, United States
centrallogic.com
Developer of web-based patient flow software and bed management solutions to help hospitals and other healthcare systems to optimize patient flow.
MATURE

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Healthcare IT



A. Hospital Operations

Workforce scheduling management

Patient flow management

B. Clinical Operations

Secure patient registration

Patient registration solutions

C. Patient Engagement

Hospital asset & people management

Phreesia
New York City, United States
phreesia.com
Cloud platform for patient check-in management at the front office. Provides patient self-service solutions like electronic payment applications, clinical data collection and consent form management

MATURE

CheckinMD
Southlake, United States
checkinmd.com
Cloud based patient pre-registration and check-in solution a solution to set appointments, collect patient information and collect co-payments and outstanding balances prior to a patient's visit.

MATURE

Code Blue
Detroit, United States
codeblueapp.com
Web platform/mobile application that enables patients to discover urgent care centers nearby, compare wait times, estimate the medical bills and check in right from the platform based on their coverage.

SCALING

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Healthcare IT



A. Hospital Operations

Workforce scheduling management

Patient flow management

B. Clinical Operations

Secure patient registration

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Hospital asset & people management

Location tracking solutions

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Tagnos

Irvine, United States
tagnos.com

Develops real-time smart location systems to track the status of patients, staff, and equipment within a hospital. Offers products to track patient information in real-time with HIPAA-compliant communication

MATURE



Radianse

Rochester, United States
radianse.com

Developed Wifi based RFID solutions for asset tracking, patient tracking and staff tracking solutions for healthcare industry using real-time location systems. Helps automatically collect and process real-time.

MATURE



Intelligent InSites

Fargo, United States
intelligentinsites.com

Provider of location based healthcare operations management for clinics and hospitals through real-time location tracking systems, helps gain enterprise-wide visibility for continuous process improvements.

MATURE

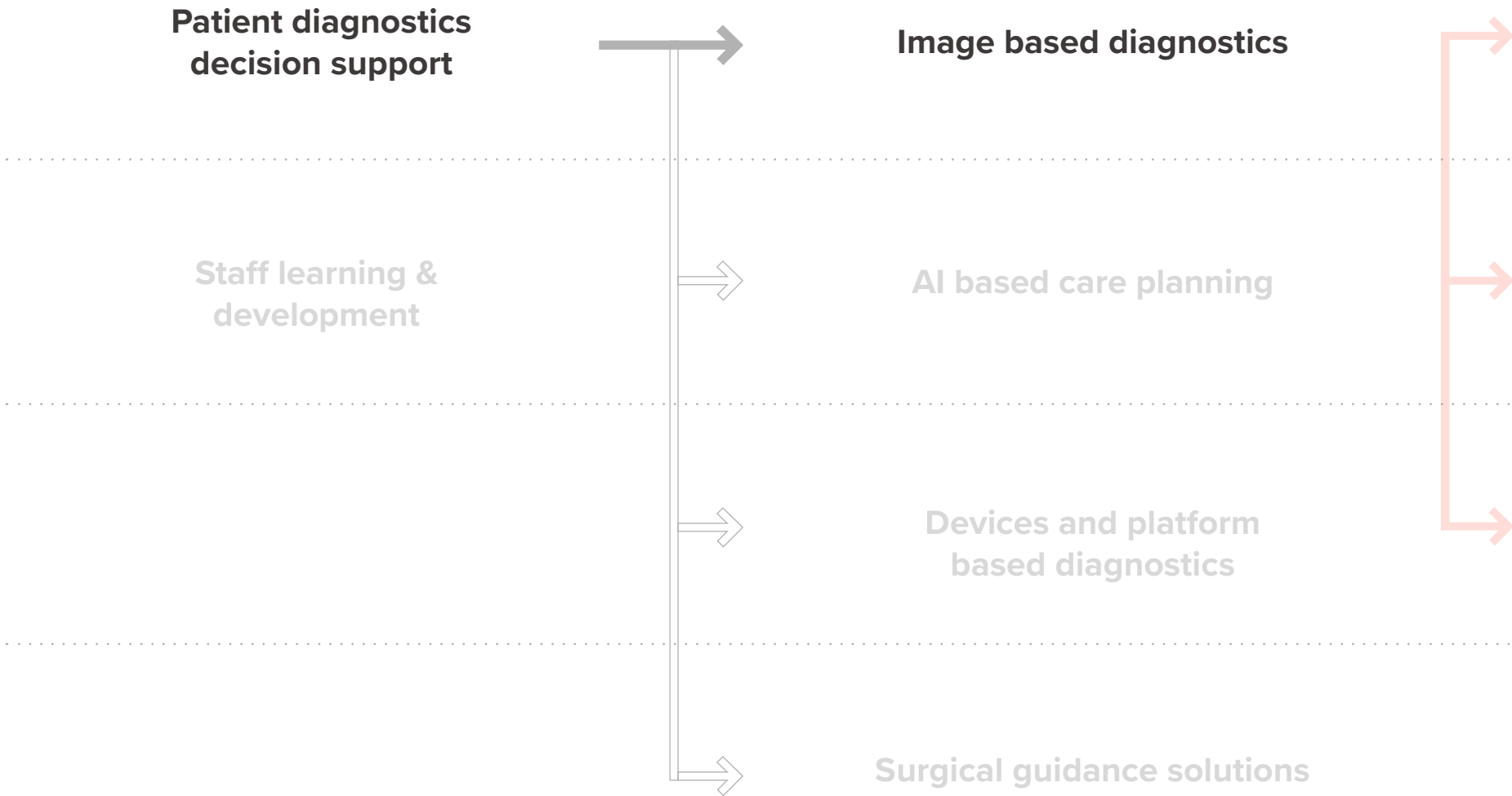
Healthcare IT



A.
Hospital
Operations

B.
Clinical
Operations

C.
Patient
Engagement



Arterys
San Francisco, United States
arterys.com
Cloud based SaaS analytics platform for analysis of medical imaging using ML; enables clinicians to visualize and quantify blood flow non-invasively in the human body. Has received first FDA clearance...

SCALING

VoxelCloud
Los Angeles, United States
voxelcloud.io
Uses AI and cloud-computing technology to provide medical image analysis by building medical image knowledge graph based on medical semantics.

SCALING

Brainomix
Oxford, United States
brainomix.com
Medical imaging software to help in the automated interpretation of brain CT scans.

SCALING

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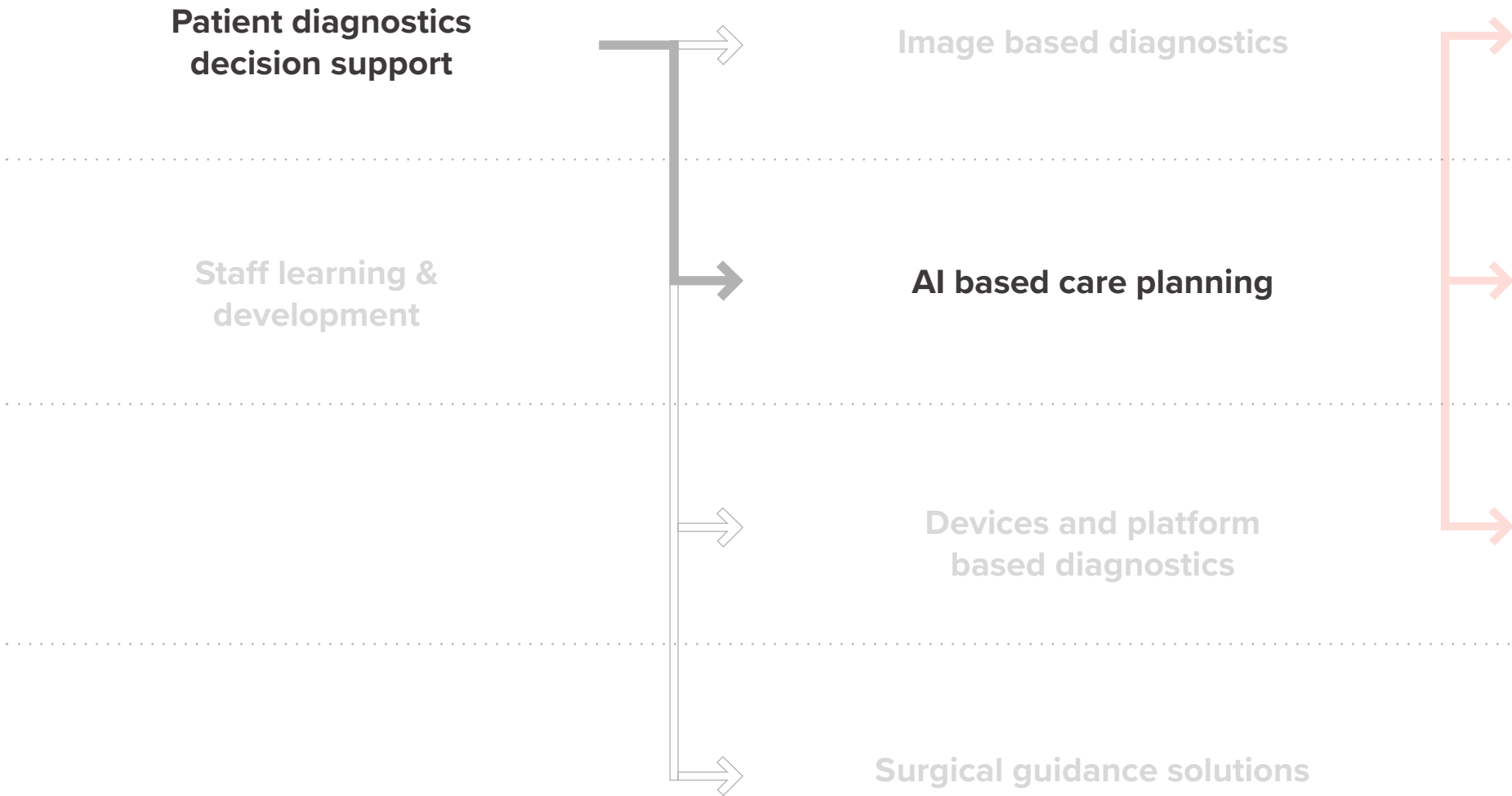
Healthcare IT



A.
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C.
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Engagement



Syapse
Palo Alto, United States
syapse.com
Provides a precision medicine data platform that enables laboratories, registries, and providers to use molecular profiling to diagnose and treat patients.
MATURE

MedCPU
New York City, United States
medcpu.com
Provides clinical decision and advisory support platform from the data captured through clinicians' notes, dictations and EMR.
MATURE

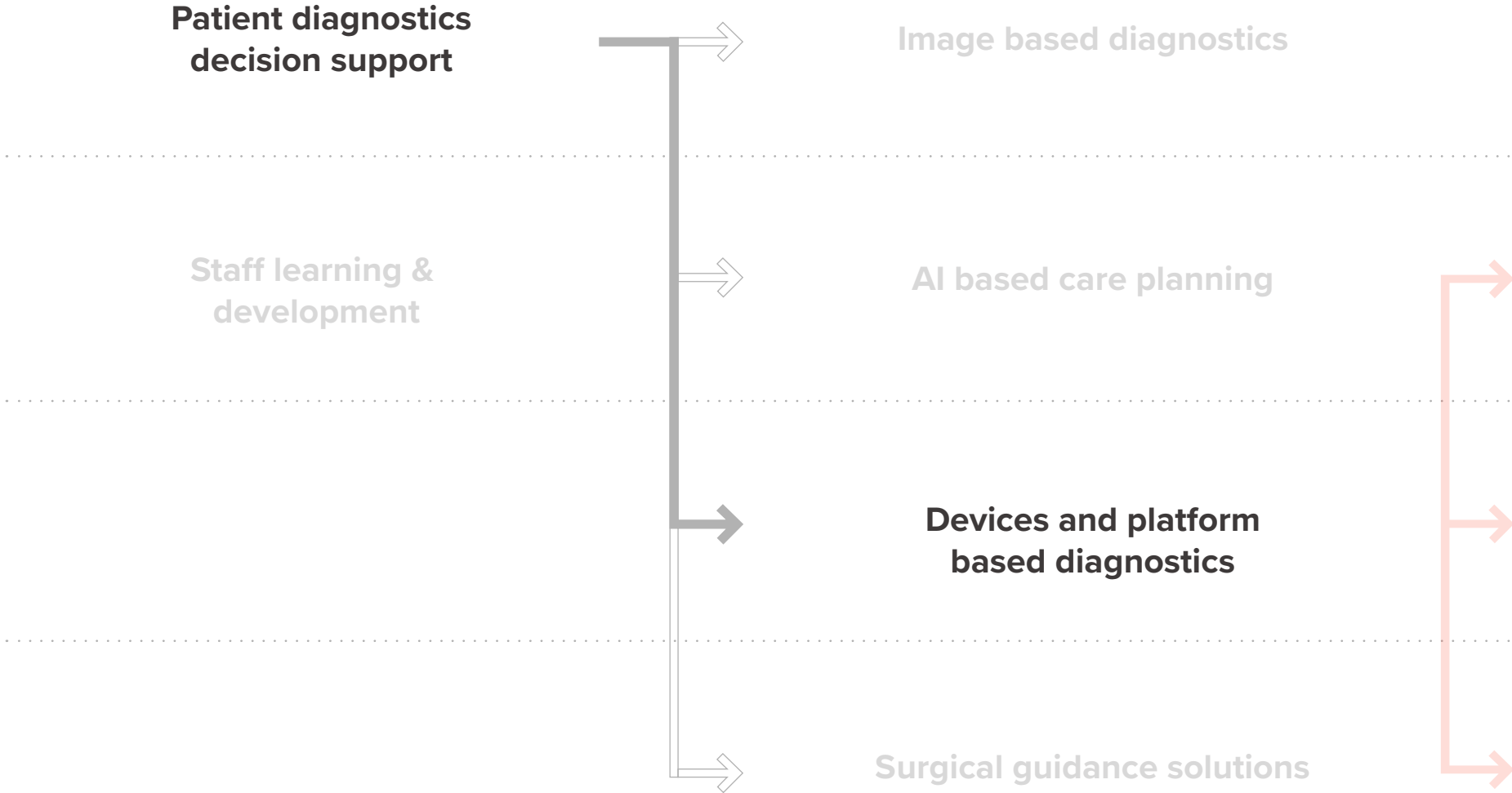
Stanson Health
Los Angeles, United States
stansonhealth.com
Provides evidence-based decision support solution for point of care and aims to reduce low value and unnecessary care for cost control in hospitals.
SCALING

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www.growthenabler.com

Healthcare IT



- A. Hospital Operations
- B. Clinical Operations
- C. Patient Engagement



Butterfly
Connecticut, United States
butterflynetwork.com
An iPhone-connected portable ultrasound scanner that uses an easy-to-manufacture semiconductor chip rather than traditional piezoelectric crystals. Has FDA clearance for 13 different clinical use cases...
EMERGING

Eyoto
Birmingham, United States
astoneyetech.com
Develops a range of hardware and software solutions to help opticians make more accurate and consistent diagnoses of eye conditions. Also a suite of lightweight, handheld, low-cost eye examination tools.
SCALING

MuscleSound
Denver, United States
musclesound.com
Developed a patented technology and methodology to measure muscular glycogen levels in approximately 15 seconds and generate real-time data based upon muscle-specific ultrasound images.
SCALING

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Healthcare IT



A.
Hospital
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Patient diagnostics
decision support

Staff learning &
development

Image based diagnostics

AI based care planning

Devices and platform
based diagnostics

Surgical guidance solutions

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GaussSurgical

Los Altos, United States
gaussurgical.com

Developer of mobile vision-based platform for real-time measurement of surgical blood loss on surgical sponges.

SCALING



SurgicalTheater

Ohio, United States
surgicaltheater.net

Developer of VR medical applications for intra-operative navigation & surgical guidance.

SCALING



Fluoptics

Grenoble, France
fluoptics.com

Develops imaging systems for real-time guided surgery based on an intra-operative near infra-red fluorescence detector and fluorescent probes which specifically target tumors.

MATURE

Healthcare IT



A.
Hospital
Operations

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Patient diagnostics
decision support

Staff learning and
development

Medical training solutions

TouchSurgery
London, United Kingdom
touchsurgery.com
Developer of surgical simulation app for virtual surgery training to rehearse operations outside the operating room. The app enables users to learn, rehearse and teach surgical procedures using interactive 3D simulations

SCALING

Level Ex
Chicago, United States
level-ex.com
Offers virtual surgery mobile app for physicians to master critical skills in endoscopic and interventional procedures of the airway.

EMERGING

OssoVR
San Francisco, United States
ossovr.com
Platform for surgical simulation training in virtual reality. Offers hand-based interactions in an immersive training environment.

EMERGING

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Healthcare IT



A. Hospital Operations

Quality point of care



Patient POC education



PatientPoint

Cincinnati, United States

patientpoint.com

Patient engagement solutions at the point of care. Claims to serve 70,000+ healthcare providers and 800+ hospitals nationwide. Acquired by Healthy Advice Networks leading to the development of PatientPoint.

SCALING



WelkinHealth

San Francisco, United States

welkinhealth.com

Provides a platform for building long-term relationships with patients across multiple communication channels, allowing care managers to focus on patients.

SCALING



Welvu

Portland, United States

welvu.com

Cloud-based patient engagement platform which gives healthcare providers digital tools to create personalized educational content aimed to improve patient satisfaction and outcomes.

SCALING

B. Clinical Operations

Chronic disease patient management

Patient provider communication

C. Patient Engagement

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Healthcare IT



A. Hospital Operations

Quality point of care

Chronic disease patient management



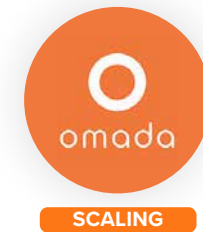
Digital therapeutics solutions



Virta
San Francisco, United States
virtahealth.com

Develops and delivers individualized clinical therapies to restore metabolic health in chronic disease patients.

SCALING



Omada
San Francisco, United States
omadahealth.com

Provides a mobile app for chronic disease prevention through behavior change programs.

SCALING



Senscio Systems
Boxborough, United States
sensciosystems.com

AI based inference engine and applications to help individuals better manage their chronic illnesses.

SCALING

Patient provider communication

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B. Clinical Operations

C. Patient Engagement

Healthcare IT



A. Hospital Operations

Quality point of care

Chronic disease patient management

B. Clinical Operations

Patient provider communication

Remote patient monitoring platforms

Remote patient monitoring devices

C. Patient Engagement

Sentrion
Aliso Viejo, United States
sentrion.com
Provides a cloud-based remote patient monitoring and analytics platform intended to reduce preventable hospital admissions, increase the efficiency and effectiveness of care teams.

SCALING

Lindacare
Brussels, Belgium
lindacare.com
Integrated platform for telemonitoring to improve quality of care and patient safety for chronic disease management.

EMERGING

Somatix
New York City, United States
somatix.com
Big data platform for an end-to-end body motion detection, tracking, analysis and management for preventative and rehabilitative healthcare.

SCALING

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Healthcare IT



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Remote patient monitoring
platforms

Remote patient monitoring
devices

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Patient
Engagement

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VitalConnect
Campbell, United States
vitalconnect.com

Biosensor patch developer for body vitals monitoring, applying biosensor technology and data management systems to aid in decision-making paradigms of physicians.

SCALING



Infobionic
Lowell, United States
infobionic.com

Wireless remote patient monitoring system focused on cardiac arrhythmia detection, to improve clinical efficiency and patient care.

SCALING



PeerBridge
New York City, United States
peerbridgehealth.com

Develops wearable wireless technology to monitor vital signs of heart rate and rhythm information. The platform includes a wearable two-channel along with three-lead ECG sensor.

SCALING

Recommendations

How is digital innovation transforming the global Healthcare industry?

i.

Adopt or partner with clinical decision support platforms for specific verticals like radiology, cardiovascular diagnostics and other similar focus areas to collect and analyze patient data in real time. This helps clinicians monitor any errors or discrepancies in the medical procedure.

ii.

Implement a cloud based data analytics platform to improve operational performance. Such a platform can be used to increase resource usage by finding gaps in real-time and also lead to the objective of reducing patient wait times and thus improving the quality of care delivery.

iii.

Partner with a cloud-based enterprise-grade payments solution provider to enable the patients in your facility input their medical insurance information and their HSA (Health Savings Account) details. This will help reduce patient processing times in the hospitals and make provider services more efficient.

iv.

With the rising demands for innovative methods to train the staff, virtual surgery simulation solutions should be integrated into the hospital training ecosystem going forward. The solution would serve as an educational platform that combines surgical procedure training and cognitive task analysis to operate on anatomically accurate virtual patients.

v.

Interpreting medical images is a highly specialized profession that requires practitioners to undergo many years of extensive training. AI based medical imaging analysis tools will help save doctor's time and act as an assistant in the diagnostic decision making process.



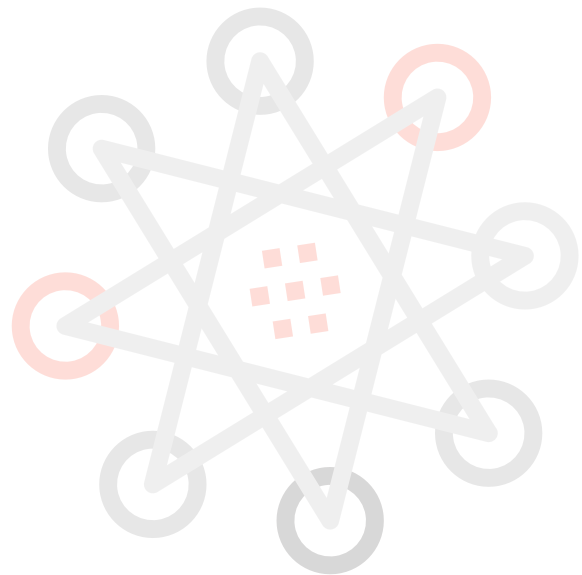
How should Corporates work with Startups?

Managing Risk and Compliance

Startups bring critical innovation, problem solving and the potential of entirely new markets to Corporates. Innovation is high on the CIO agenda today; however partnerships that drive this innovation are becoming harder to find. Creating real change by fighting against static bureaucracy is one such stumbling block in the success of startup-corporate collaboration.

Corporates can run accelerators and invest/partner with small firms directly. Through this initiative, big firms can offer startups professional operation management, programming resources and core research facilities. Firms can collaborate with academic institutions, biotech firms and pharmaceutical companies on drug discovery throughout the clinical deployment process.

Large companies should look to nurture collaborations, where both the parties benefit - pharmaceutical companies receive the tech expertise of the startups while startups receive aid in their growth of business. One of the most effective way for a pharmaceutical company to benefit from digital innovations is to partner with multiple, compatible digital health startups, and to have these startups build innovative patient and provider-facing digital health solutions.



**Find out more about
GrowthEnabler Research
Methodology**

GrowthEnabler Research Methodology

Proprietary Research

INTRODUCTION

GrowthEnabler uses its proprietary research methodologies to analyse the business impact of disruptive technologies and digital innovations on the future growth of large corporations and their industries. GrowthEnabler applies its deep-data analysis tools, scoring logic and algorithms to create intelligence that enables senior executives to make informed business growth decisions. The GrowthEnabler Personalised Intelligence Interface (Pii) is an interactive platform that provides corporates the ability to Find, Select, Connect and Manage global Startups based on their business priorities and problems.

1. MARKET ANALYSIS



To create and report leading technology-related market trends and industry analysis with a focus on industry sub-sectors, real-life implementations, industry and market landscapes and competitor dynamics, GrowthEnabler analyses large sets of data and information aggregated from various private and public sources, including online databases, market reports, online surveys, journals, and in-depth phone interviews.

To further enrich the efficacy of analysis, GrowthEnabler undertakes formal and informal interviews and RFI's and surveys with key decision makers and executives in corporates, as well as founders and owners of Startups. Following this exercise, large volumes of data is categorised and curated, based on, industry and market drivers, risks, opportunities and challenges specific to an industry vertical or technology area, and then injected into a pre-configured regression model to forecast and predict market movements and trends.

2. STARTUP TECHNOLOGY LANDSCAPE & ANALYSIS



The Startup eco-system is built using an exhaustive primary and secondary research analysis model, led by dedicated team of tech analysts and subject matter experts (SMEs), who also use Machine Learning and Natural Language Processing (NLP) technologies for data mining and curation.

Primary Research – The Primary research data is sourced directly from GrowthEnabler Market Surveys, RFI's with Startups, One-on-One Interviews, Calls and Product briefings, including Startup and Client Registration Information available on the GrowthEnabler Pii platform.



Secondary Research – A team of Machine Learning and NLP experts scan thousands of private and public data sources using data scraping and crawling methods to extract relevant secondary data, which is then validated and verified using GrowthEnabler automated data-cleansing methods, industry and technology segmentation taxonomies and mapping protocols and core intelligence from pre-populated Startup profiles and reviews.



Analyst Validation – A team of Analysts and Subject Matter Experts validate both the primary and secondary data while using internal peer reviews to substantiate core assumptions and data points, and external discussions with senior decision makers to assess business relevancy, timing and need.



The major sources of Secondary research are:

- i. Global Startup websites
- ii. Data aggregators
- iii. VC and Investor portfolios
- iv. News Feeds
- v. Industry reports
- vi. Regional Company registration websites
- vii. Social Sources (Social Sites, Blogs, Articles, Media sites)

A total of 57 data-points and parameters are applied in analysing and predicting the growth potential and health of a Startup, including:

- i. Company information
- ii. Leadership Team
- iii. Business Model
- iv. Financial Strength/Funding/acquisition data
- v. Product Innovation - patent data and core features and functions analysis
- vi. Customer value & sentiments
- vii. Social Media and Branding coverage
- viii. Business Traction and progress

Out of the total 57, 30 parameters are classified under 5 broad categories used to calculate the GE Pii Score.

- i. Product & Innovation
- ii. Leadership Team
- iii. Market Traction
- iv. Financial Strength
- v. Social media and Branding



Further Resources:

01.

GrowthEnabler Tech Pulse Report
InsuranceTech 2018

02.

GrowthEnabler Tech Pulse Report
FinTech 2018

03.

GrowthEnabler InFocus Report
Insurance

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www.growthenabler.com