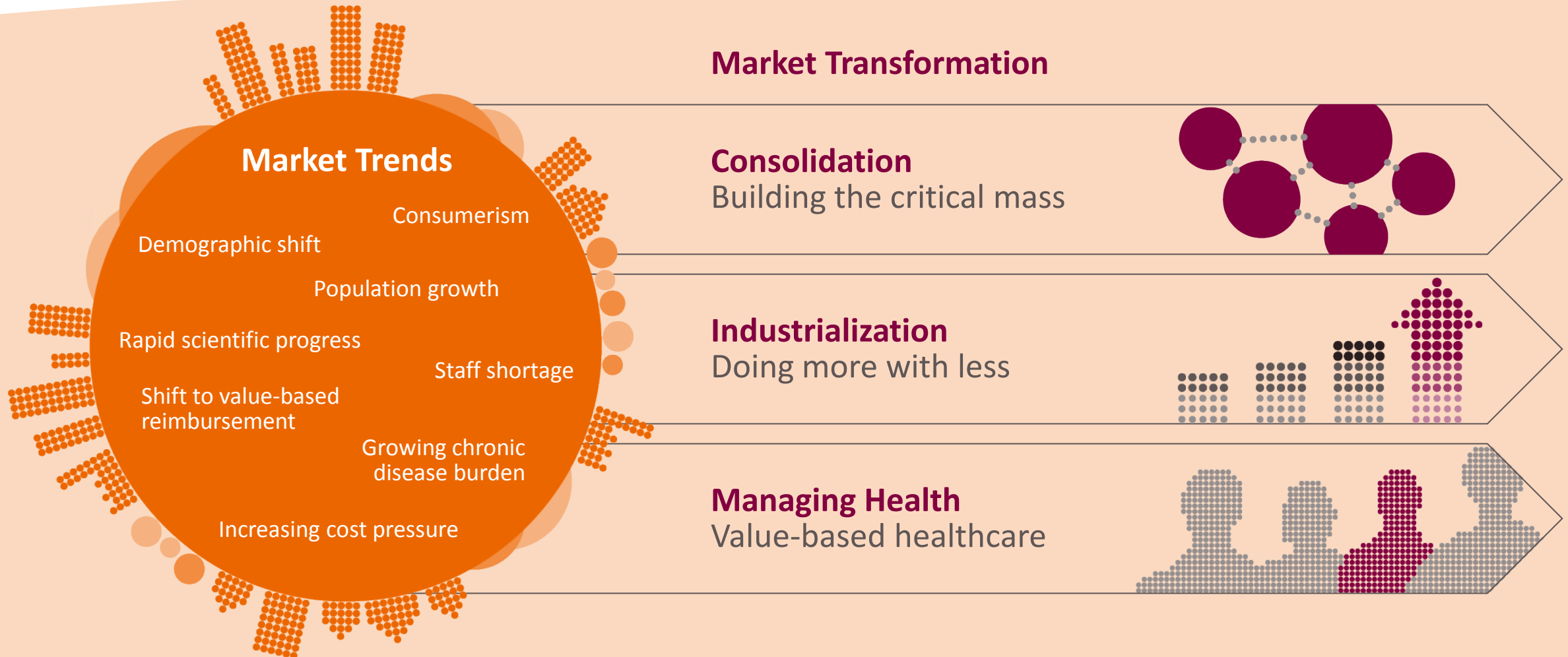


Enabling
better outcomes –
at lower costs

The Medtech Industry strive to become our customers inspiring partner: Why?



The changing healthcare market



The changing healthcare market creates multiple challenges on our customers end ...

Clinical



Extend
Clinical Capabilities



Improve
Quality of Care



Standardize
Care

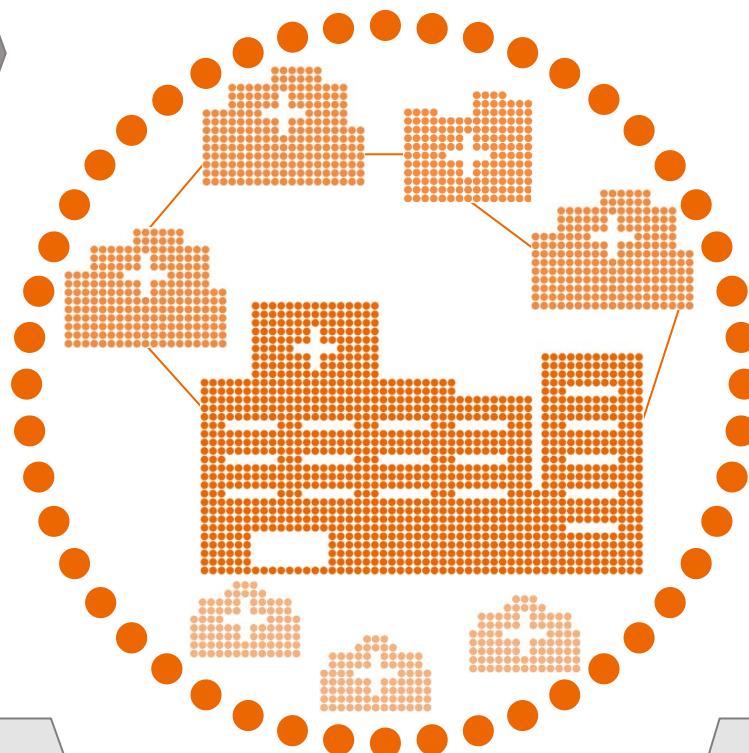
Operational



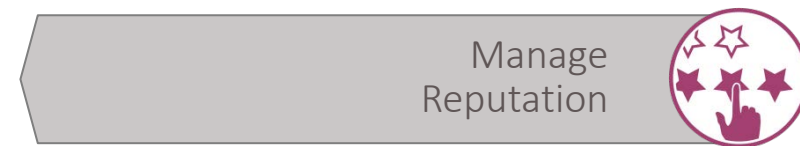
Increase
Efficiency



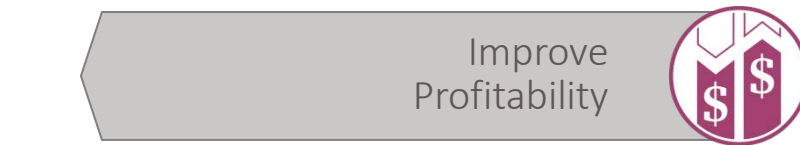
Attract, Retain,
Develop Workforce



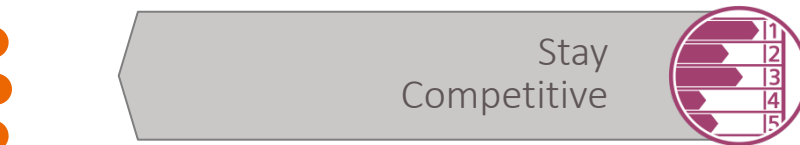
Financial



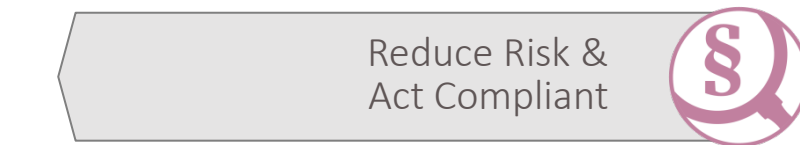
Manage
Reputation



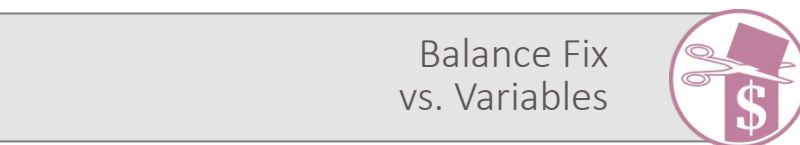
Improve
Profitability



Stay
Competitive



Reduce Risk &
Act Compliant



Balance Fix
vs. Variables

... requiring our customers to increase outcomes while decreasing costs

Clinical



Extend
Clinical Capabilities



Improve
Quality of Care



Standardize
Care

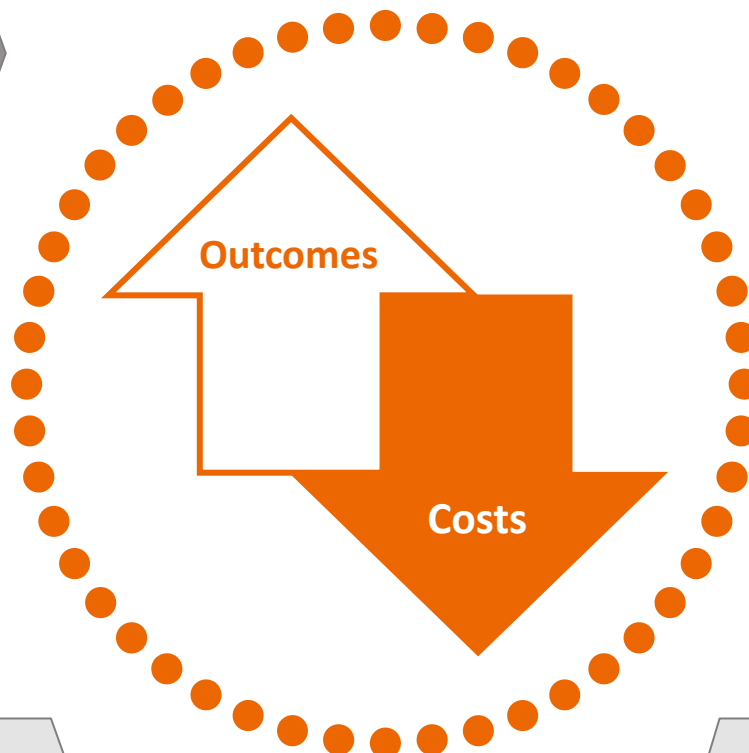
Operational



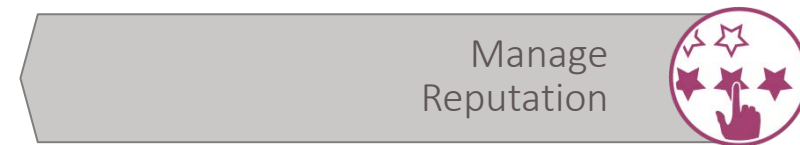
Increase
Efficiency



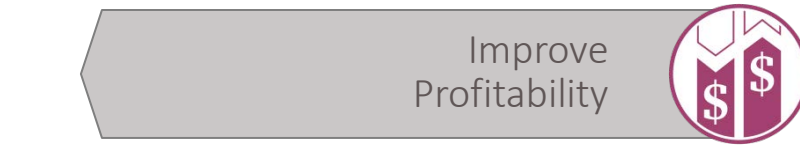
Attract, Retain,
Develop Workforce



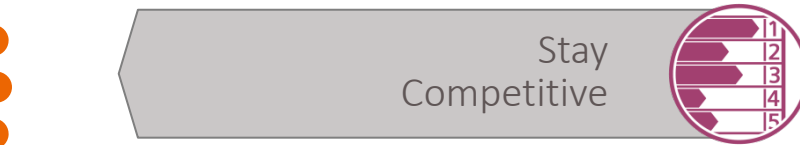
Financial



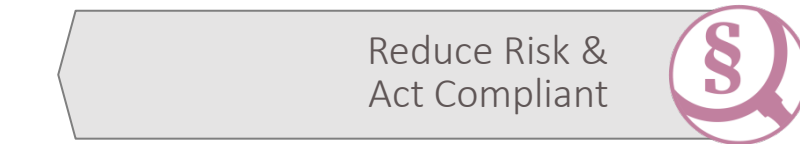
Manage
Reputation



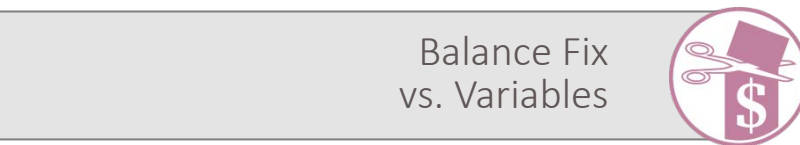
Improve
Profitability



Stay
Competitive



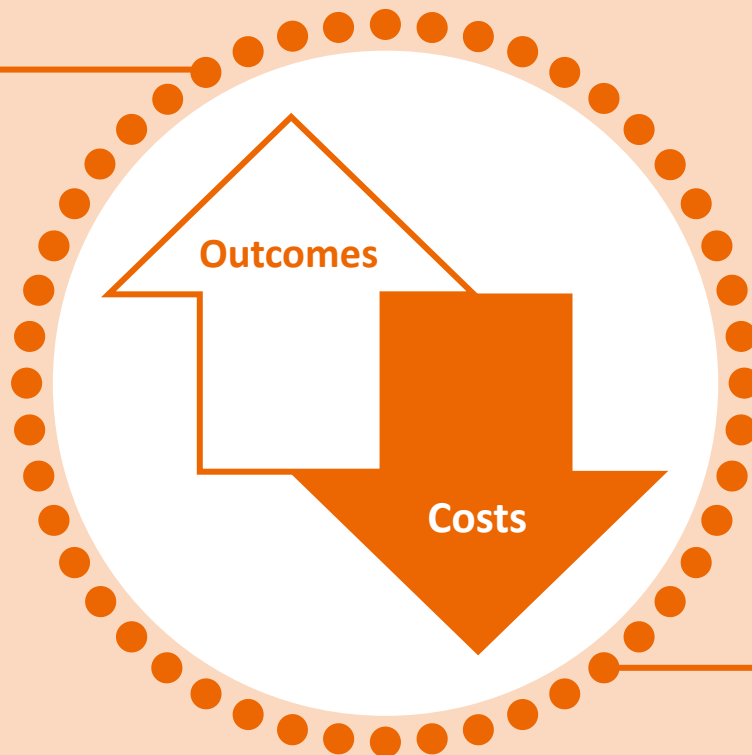
Reduce Risk &
Act Compliant



Balance Fix
vs. Variables

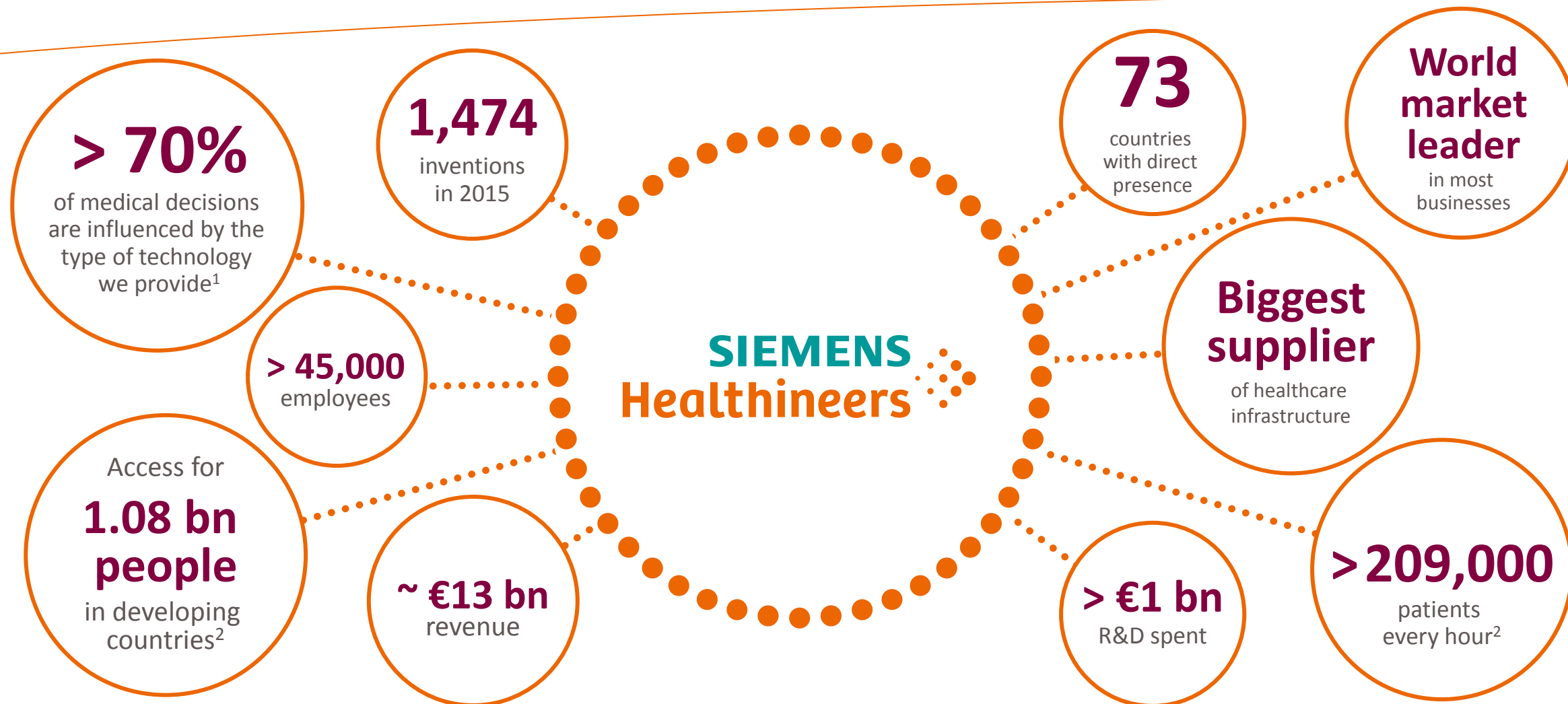
Our focus is to enable our customers to achieve better outcomes at lower costs

Enabling
better outcomes



at
lower costs

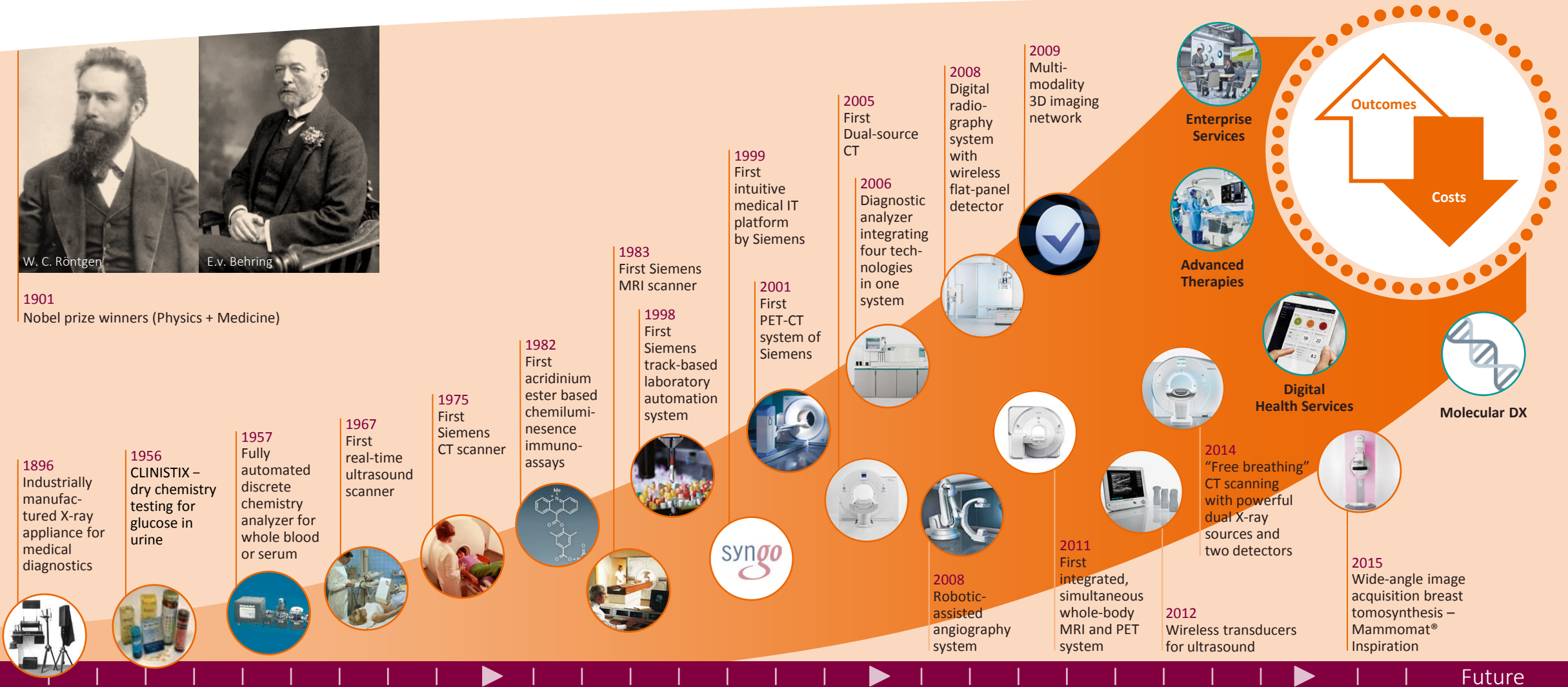
As their partner, we offer expertise and resources for their specific needs



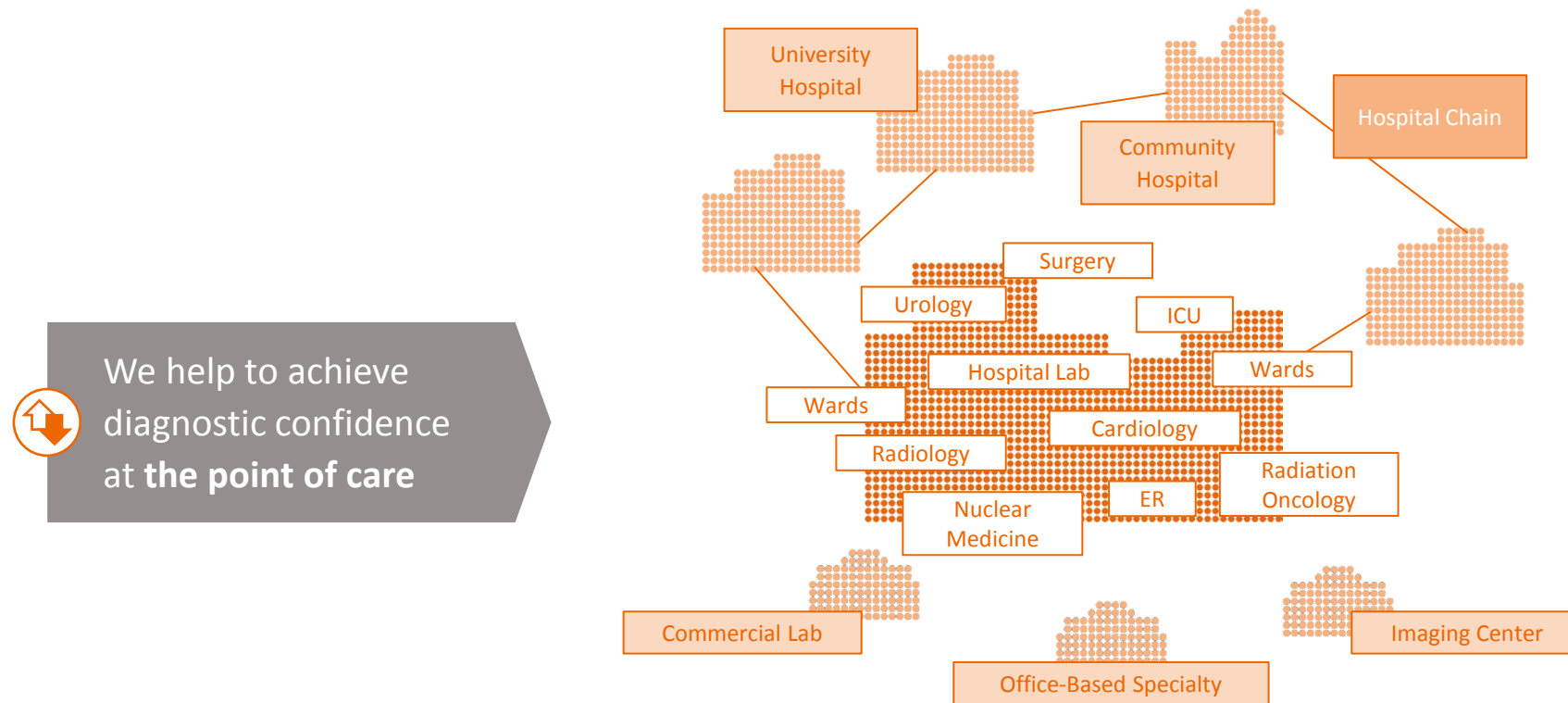
Built on over 120 years of dedication to innovation, we have a long history in enabling healthcare providers ...





1901
Nobel prize winners (Physics + Medicine)



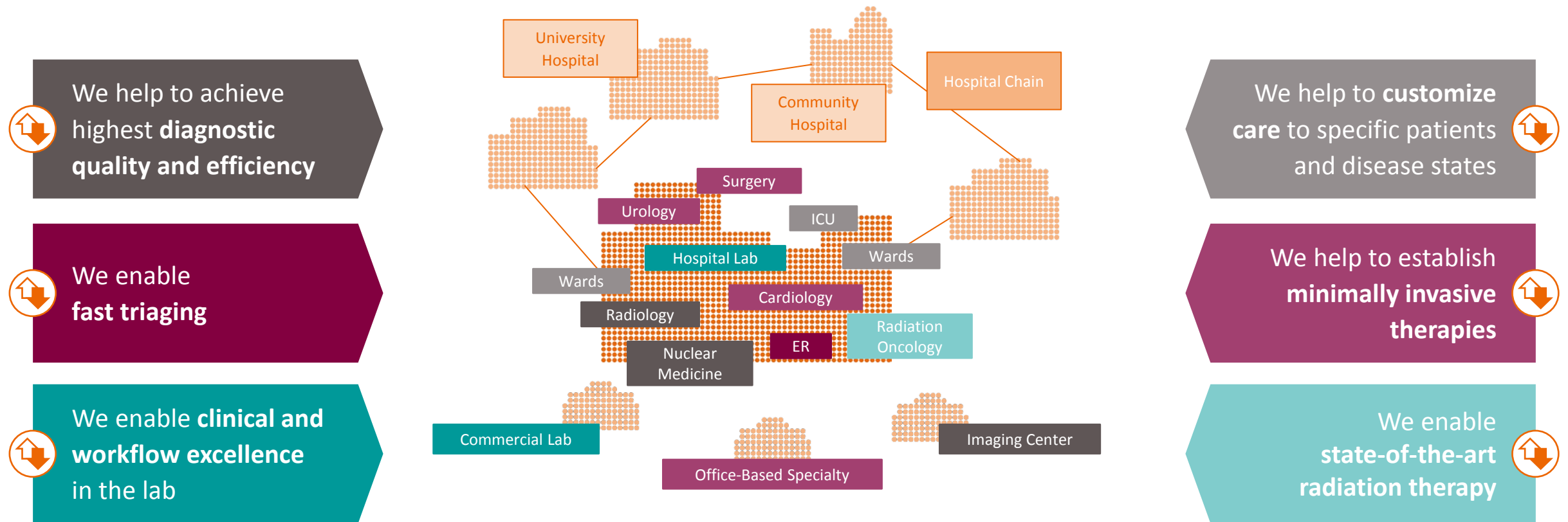
We provide valuable solutions – Starting at the bed side and the point of care



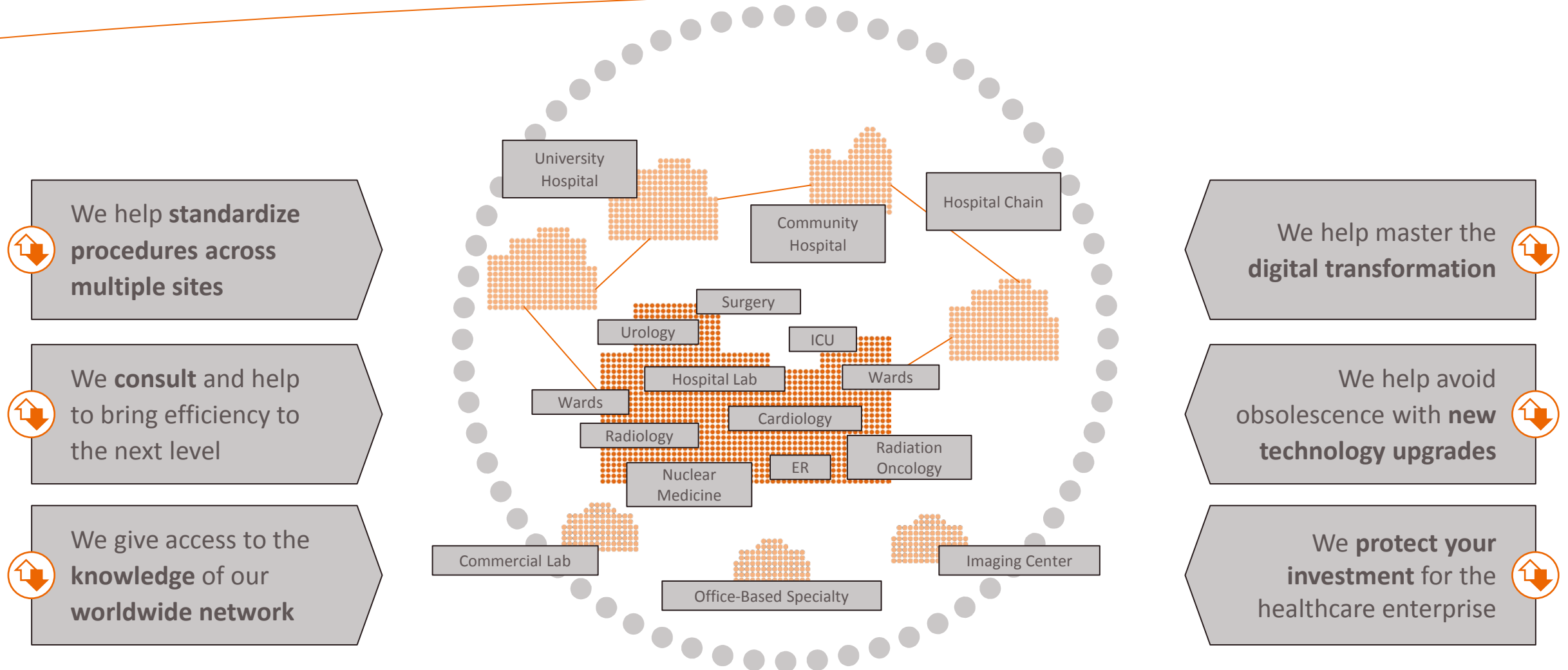
 We help to achieve
diagnostic confidence
at the **point of care**

We help to
evaluate and monitor
chronic diseases 

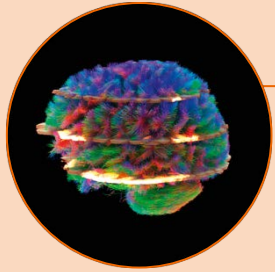
We provide valuable solutions – From single departments to complete service lines



We provide valuable solutions – From single healthcare institution to entire health systems



...and we will continue to offer the broadest and deepest portfolio



Diagnostic Imaging

We help achieve highest diagnostic quality and efficiency

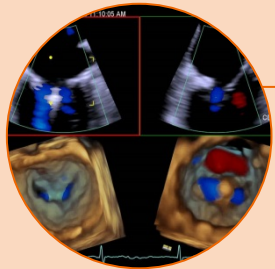
- Computed Tomography
- Magnetic Resonance
- Molecular Imaging
- Radiography & Fluoroscopy
- Imaging IT



Advanced Therapies

We enable advanced therapeutic procedures

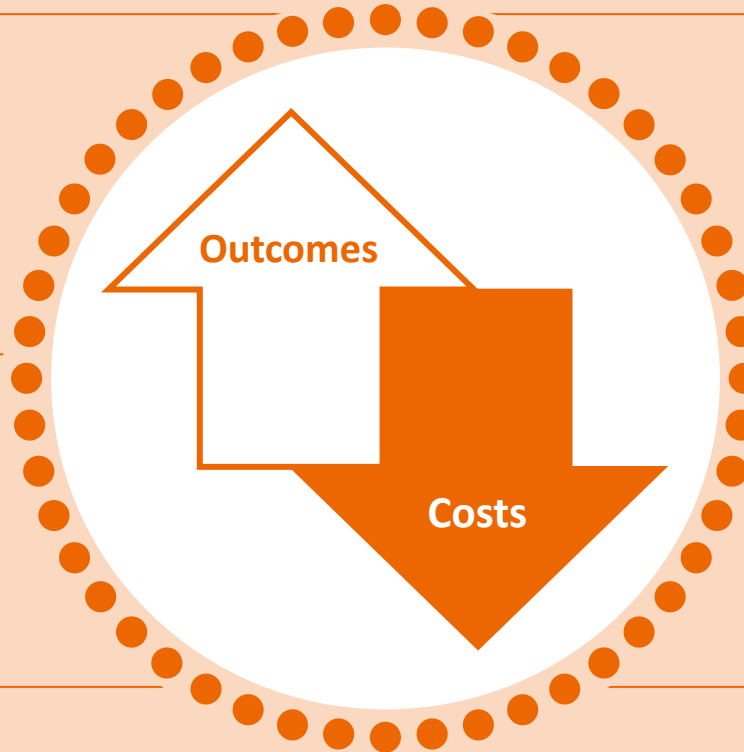
- Cardiology
- Interventional Radiology
- Radiation Oncology
- Surgery



Ultrasound

We enable real-time access to decision-critical information

- Cardiology
- Radiology
- Obstetrics & Gynecology



Laboratory Diagnostics

We enable clinical and workflow excellence in the lab

- Chemistry, Automation & Immunoassay
- Hemostasis, Hematology & Specialty Business
- Molecular Diagnostics



Point of Care

We provide critical patient information in-office and at the bedside

- Blood Gas
- Diabetes
- Urinalysis



Services

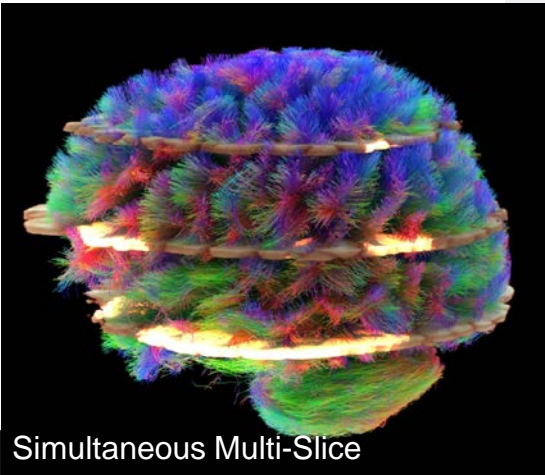
We help achieve best institutional performance

- Customer Services
- Digital Health Services
- Enterprise Services & Solutions



Our latest innovation highlights at ECR 2016

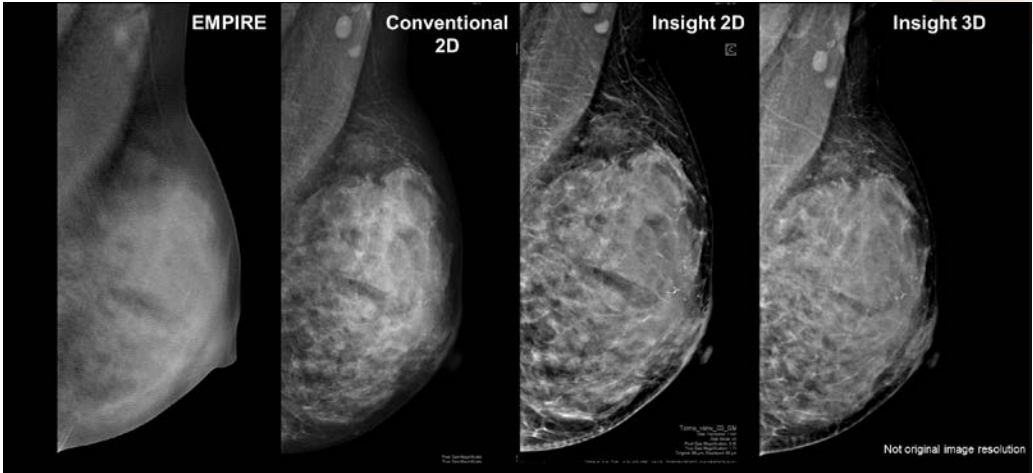
Ahead in every field



HELX Evolution™ with Touch Control



Multitom Rax



High Definition Breast Tomosynthesis



The 10 top „Hot Topics“ for hospitals all over the world

Clinical Capabilities



Patient Outcome



Standardization



Workforce



Process Efficiency



Liability



Overhead Burden



Financial Performance



Competitiveness



Reputation



Questions

Clinical capabilities: Aiming for innovative clinical results?



Patient Outcome: What adds value to healthcare?



Standardization of Quality of Care: A way to manage complexity?



Workforce: More work for fewer people?



Process Efficiency: Doing more with less?



Liability: Legally in force?



Overhead Burden: A burden or an opportunity?



Financial Performance: Up for a challenge?



Competitiveness: Competing for the leading edge?



Reputation: Is your institution top of mind?



Questions

Clinical capabilities: Aiming for innovative clinical results?



Patient Outcome: What adds value to healthcare?



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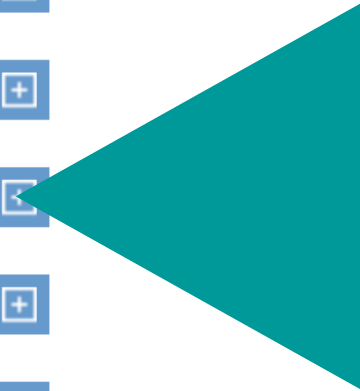
Financial Performance: Up for a challenge?



Competitiveness: Competing for the leading edge?



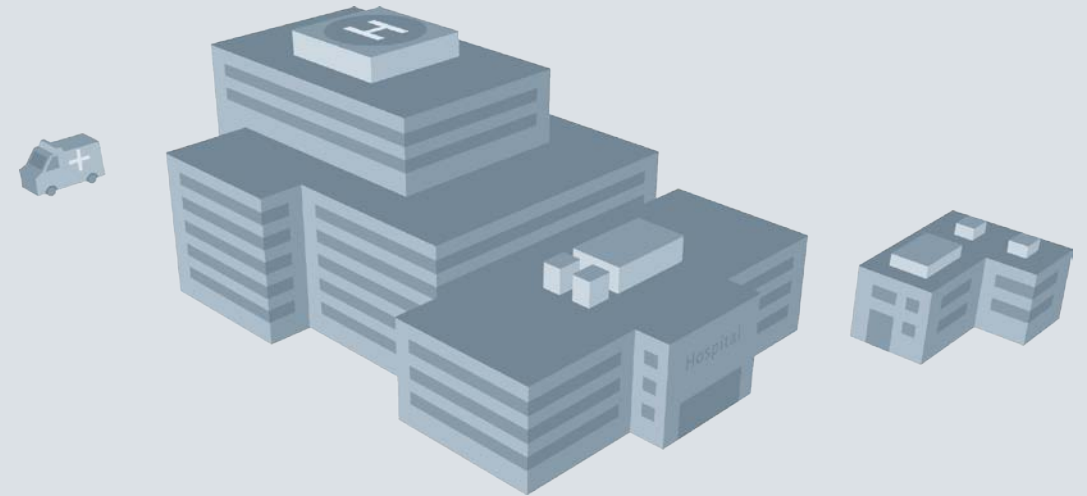
Reputation: Is your institution top of mind?



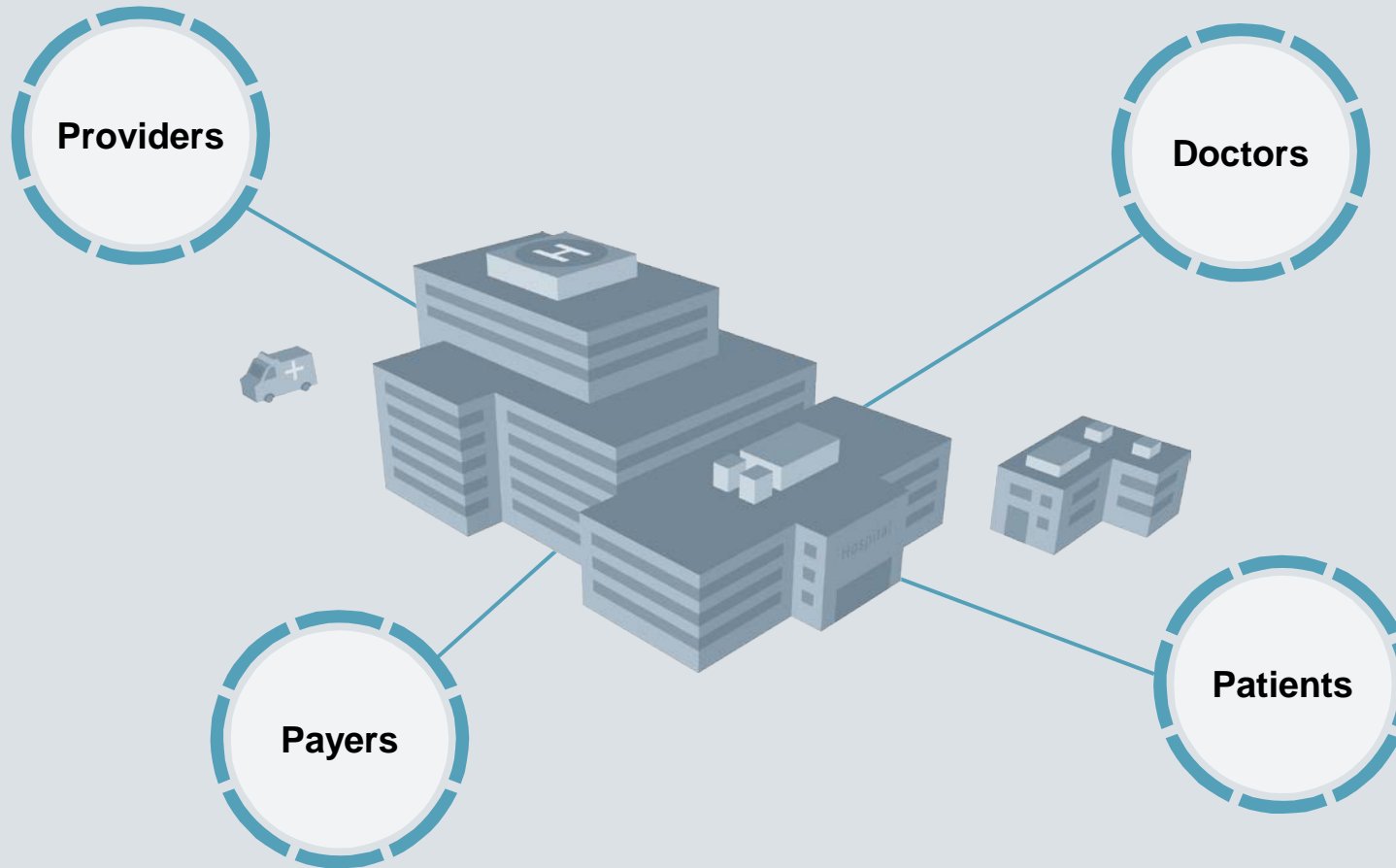
Deep Dive: Standardization of Quality of Care

How can you
**standardize the
quality of care**
provided in your
institution?

How can industry
support you?



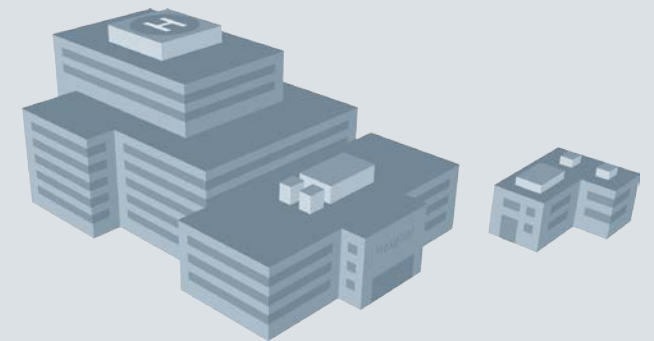
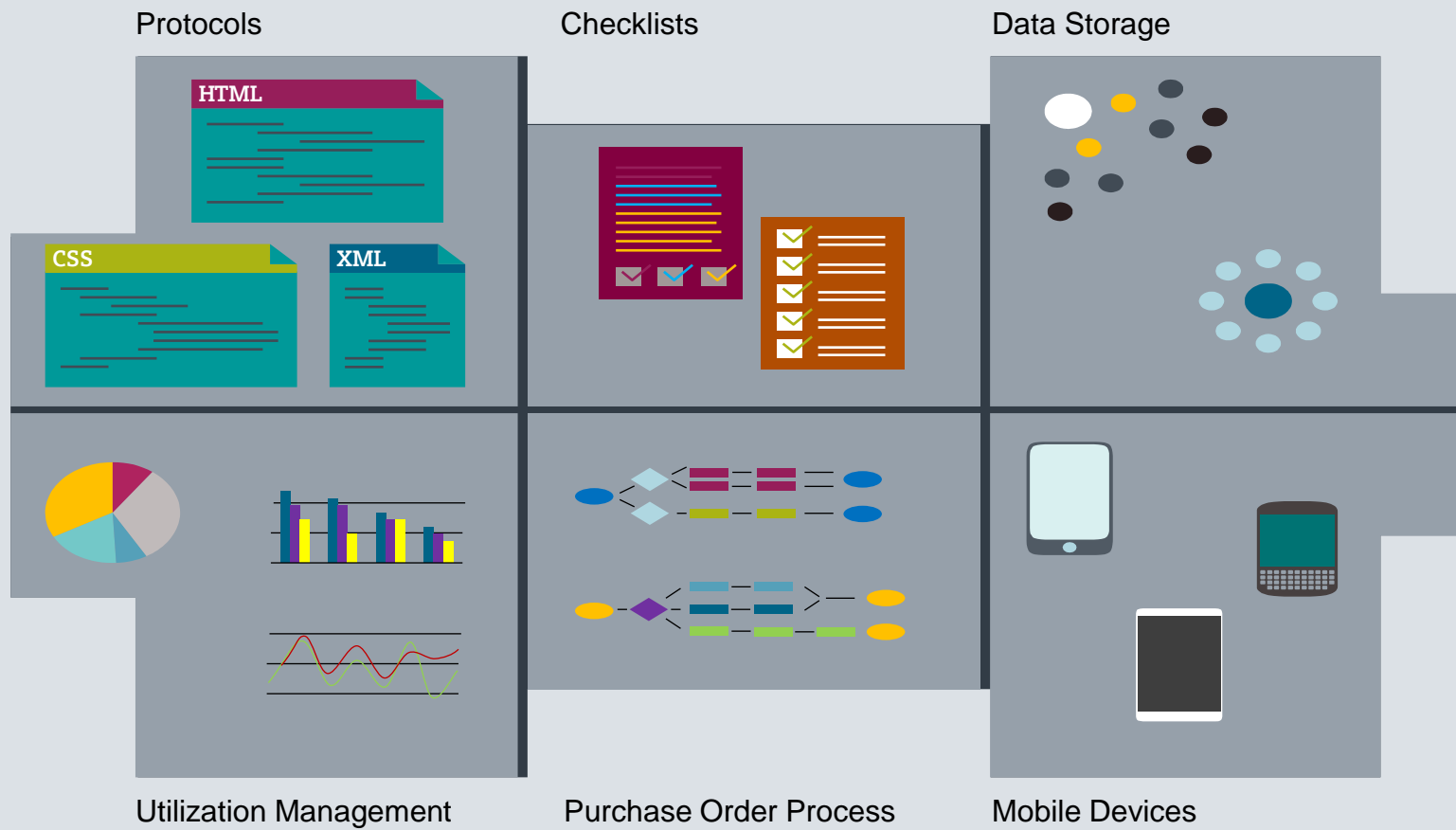
Standardization can help healthcare providers build structure, improve quality, and gain efficiency

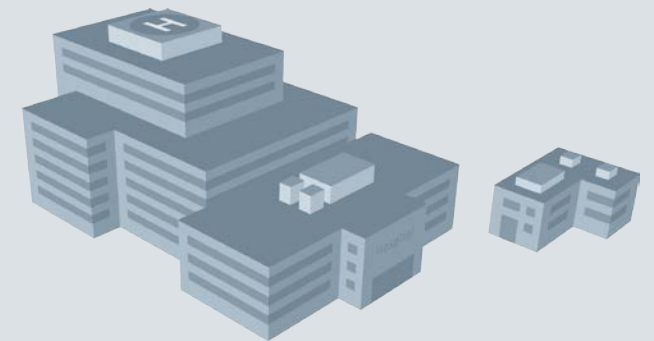
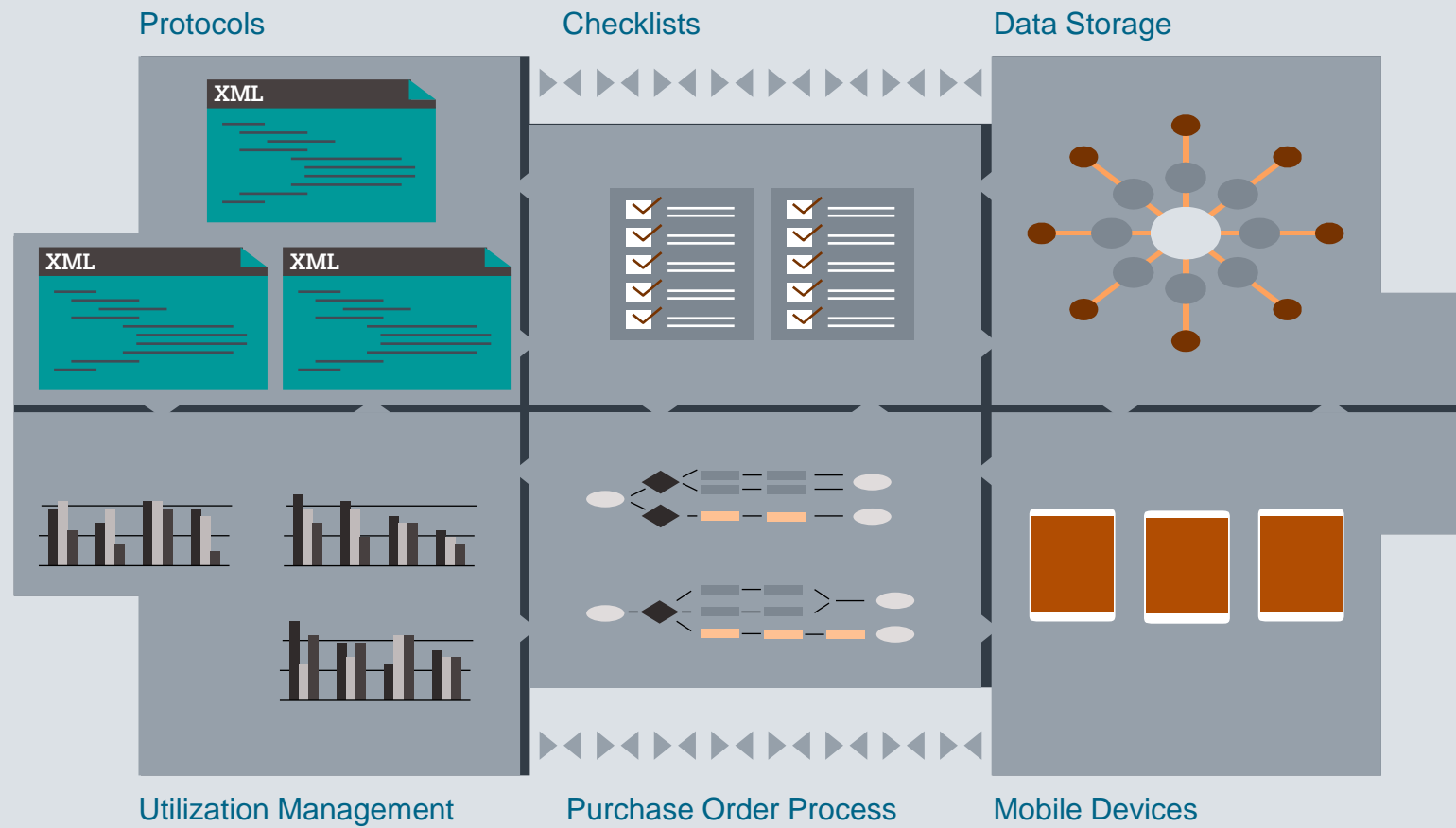


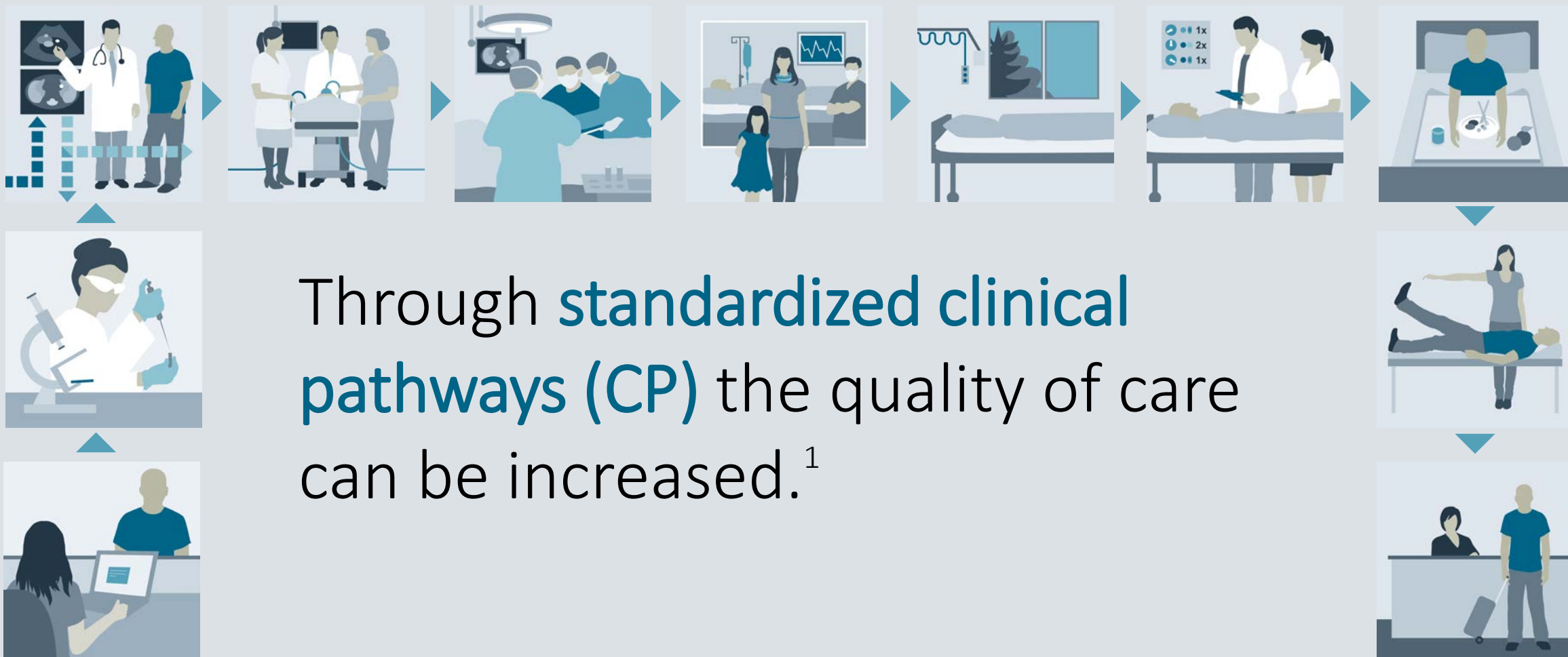
Standardized clinical pathways are increasingly influencing the debate about making healthcare affordable and efficient in a sustainable manner. The reasoning behind this: proven and consistent procedures help make quality of care more measurable and reproducible for doctors, patients and payers. The objective: Treatment and coverage decisions should follow from a sound and transparent evidence base.

»Top 2

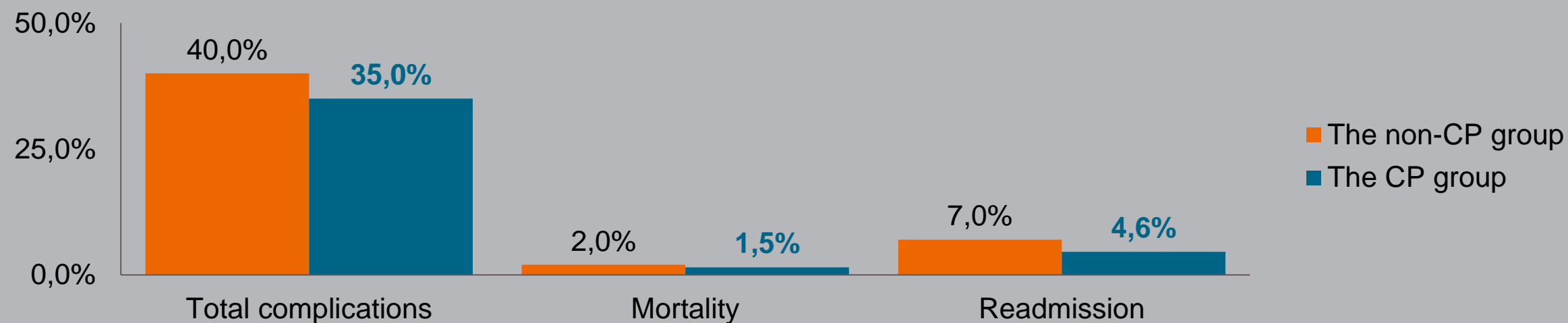
priorities for hospitals are increasing clinical quality and improving standards of care*







Comparison of postoperative outcomes, in %

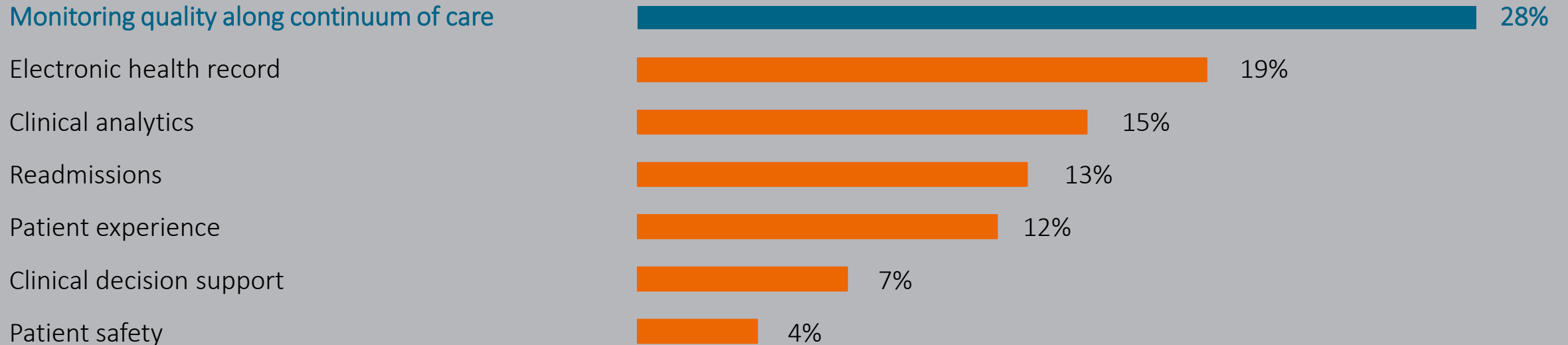


What are your organization's top 5 priorities?



Participants given 12 topics to choose from; n=92

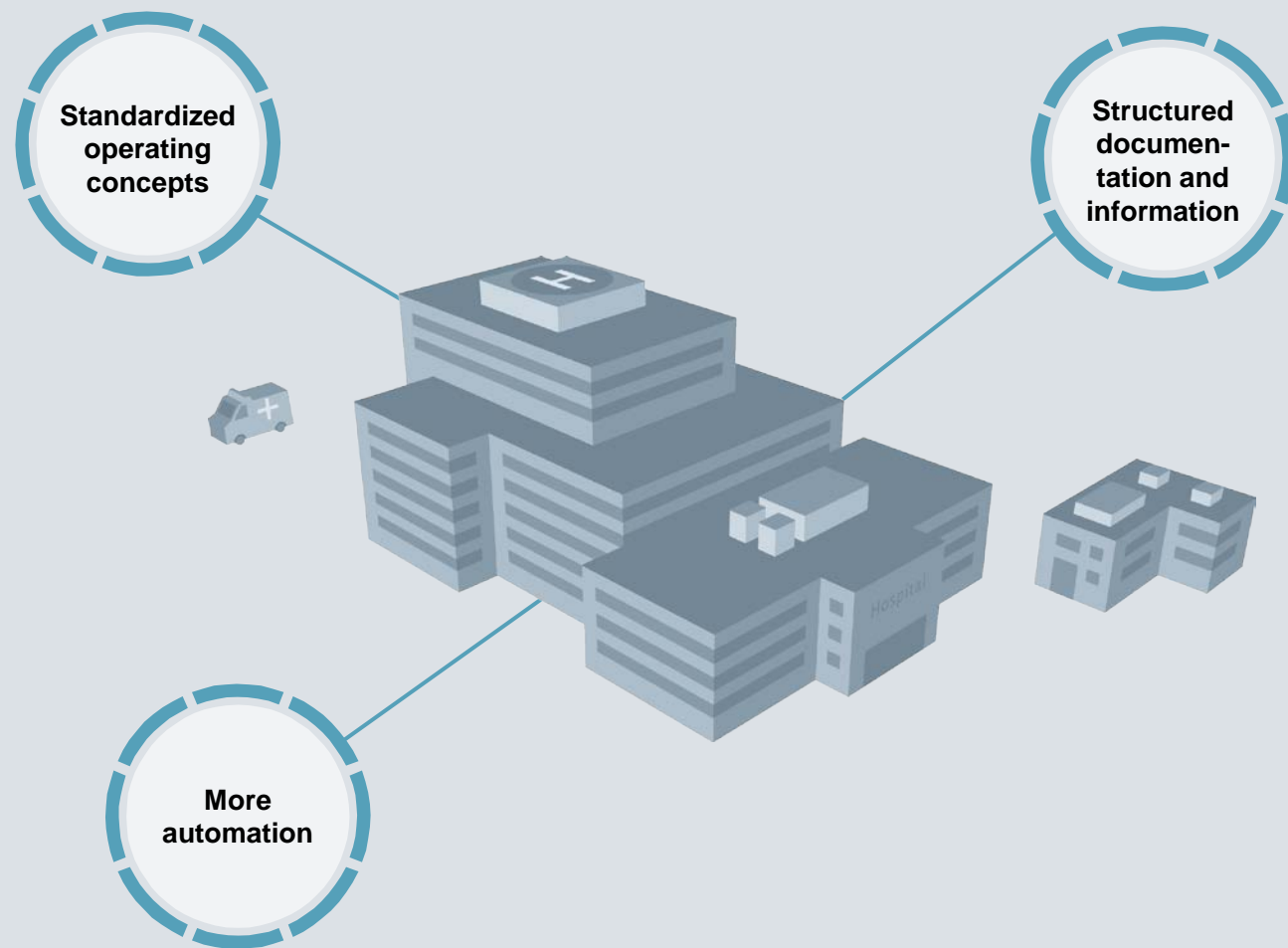
Regarding clinical quality improvement, which of the following areas represents the single greatest challenge for your organization?



n=112

Quality of care is enhanced by a safe and accurate imaging examination procedure, as well as medical image evaluation **leading to a reliable diagnostic and a proper documentation.**¹

How could
MedTech support
you to
**standardize the
quality of care** in
your institution?



Important Offerings (I)...



...to standardize the quality of care throughout your institution.

Fostering progress towards a value-based care environment with interoperability of technology

Interoperability of modalities



Commonly configured diagnostic procedures

Common carotid artery (Dyna 3D)*
for research study xyz

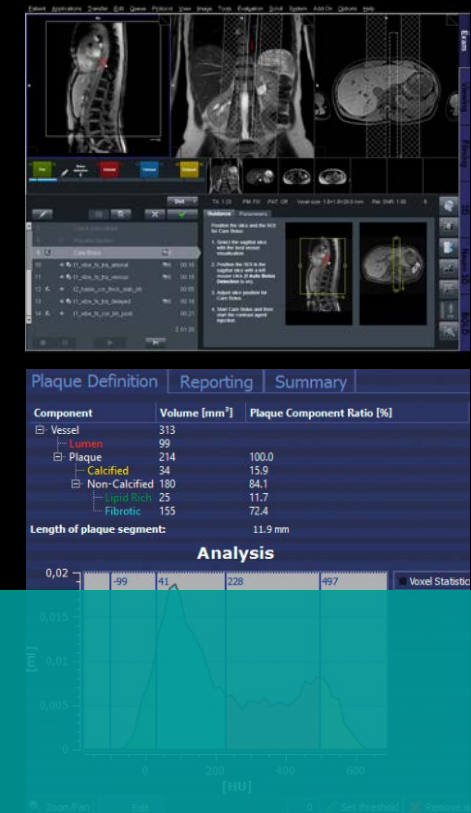
Information | Step Overview | Additional Information

5s DSA

Injection duration	Volume	Injection rate	X-ray delay	Dilution
7.0 s	18.0 cc	2.5 cc/s	2.0 s	100 % contrast

Contrast agent admission: **Intraarterial**

Access to best-of-breed protocols and research prototypes



Integrated usability across all technological assets

Siemens offers (II)...



Standardized
operating
concepts

More automation

Structured
documen-tation
and information

...to standardize the quality of care
institution.

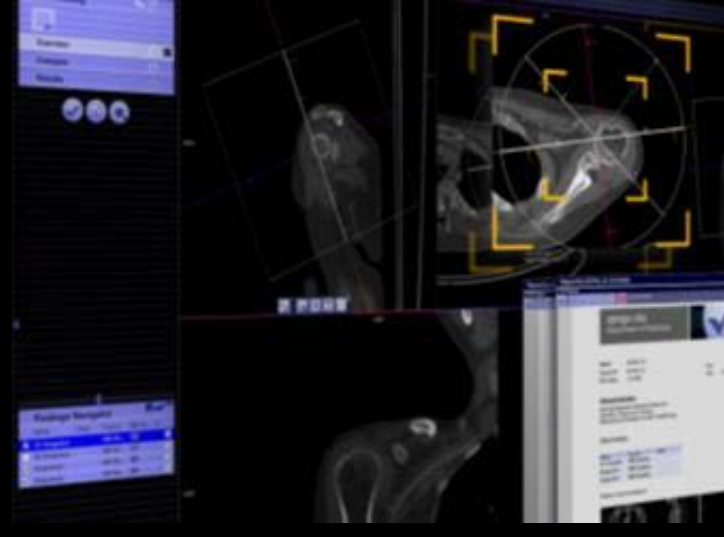
throughout your

Automation of manual tasks as part of a strategy for quality and performance improvement

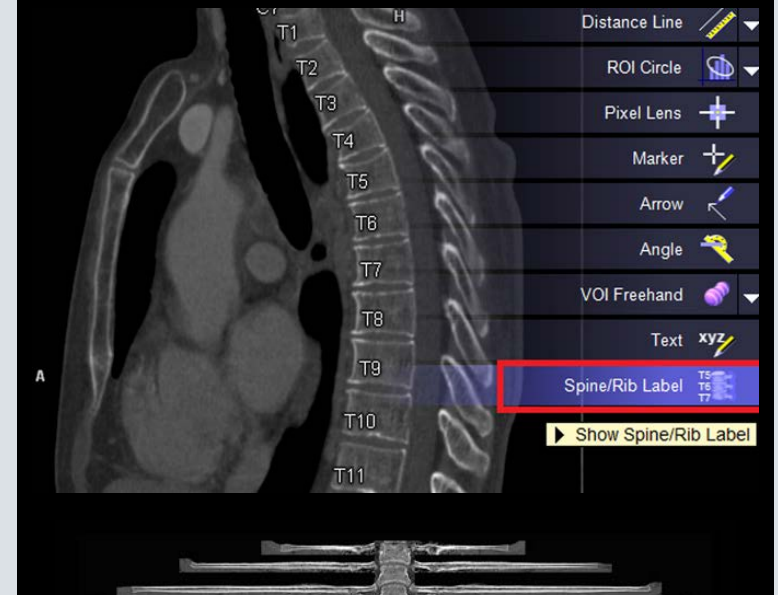
Automated diagnostic scan settings and pre-configuration



Automated updates and pre-fetching of previous exams



Applications for automated post-processing



Improved quality and consistency through automation


Siemens offers (III)...



Standardized
operating
concepts



More automation



Structured
documen-tation
and information

...to standardize the quality of care
institution.

throughout your

Monitoring and maintaining individual health care with structured patient information and reports

Structured reporting of advanced diagnostic findings



Access to diagnostic information on the go



Centralized data and structured reporting for cardiovascular imaging information



Capturing the potential of big data through structure

How can immediate Support of MedTech can look like?

A few examples...



What if you could reduce door-to-needle time to 20 minutes?

Computed Tomography + Consulting



Helsinki University Hospital,
Helsinki, Finland

“Industry could and should have more role to help distribute optimal information about stroke care and helping international stroke organizations to do the same.”

Professor Markku Kaste, MD

Challenge



Patient Outcome

Improve outcome and quality of life for stroke patients



Process Efficiency

Speed up treatment



Financial Performance

Reduce long-term hospitalization and institutional care

Healthcare engineering:

- Joint analysis and change of processes to better connect the ambulance services with the emergency department and the latter with the neurological department
- Move of the CT system to the emergency department to shorten distances and save precious time
- Therapeutic lysis can be performed immediately while the patient is still in CT

Value contribution

25%

Reduction of stroke mortality from 30 to 25 percent in the period from 2004 to 2014

Ø 20 min

Door-to-needle time

14.4 mio €

Savings in chronic care costs in 2007

What if you could reduce complications in spinal surgery below 0.2% ?

Surgery



Shonan Fujisawa Tokushukai Hospital,
Fujisawa, Japan

“Our system was the world’s first system specialized for spine – great for public relations! We realized that even if the system is used solely for the spine surgeries, it can pay off.”

Dr. Sohei Ebara, Vice President and Director of the Spine and Scoliosis Center

Challenge



Process Efficiency

Speed up surgeries and recovery



Patient Outcome

Reduce side effects caused by
misplacement of screws



Reputation

Avoid patient dissatisfaction and
damaged reputation due to
secondary operations

Healthcare engineering

- High-end imaging in the OR with Artis zeego enables improved workflows and more complex procedures for minimally invasive and open spine surgery
- Less invasive procedures can lead to faster operations, faster recovery, and a reduced number of secondary surgeries and complications

Value contribution

- 50%

OR time

< 0.2%

Complication rate

+ 57%

Increased number of patients
in the period from 2012 to 2014

What if you could increase test volume by 20% with no additional staff?

Laboratory Diagnostics



National Health Service (NHS) Tayside,
Dundee, UK

“Siemens looked at our processes, looked at what we were trying to achieve, then – working with our staff – they helped us design the laboratory.”

Bill Bartlett, PhD,
Joint Clinical Director of Diagnostics for NHS Tayside

Challenge



Process Efficiency

Integrate three labs into one



Workforce

Free scarce laboratory staff
from menial tasks



Competitiveness

Funding climate is becoming
more restrictive

Healthcare engineering

- Consolidation of formerly separated testing onto a single automation track
- Use of data-driven decision making and Siemens consultative expertise to determine the optimal track layout, mix of instruments, and workflow.
- Intelligently automated workflows that can handle routine and emergency testing on one track

Value contribution

+ 20%

Workload per day

0

Staff increase

61%

Improved turnaround time
for add-on tests

What if you could drastically reduce system downtime?

System Services



Ruijin Hospital,
Shanghai, China

“Before, in the case of failure, we had to first identify what the problem was, then call a technician by phone. This has changed.”

Dr. Haipeng Dong, Deputy Director of the Radiology Department

Challenge



Increase Efficiency

Reduce downtime
of medical equipment



Reputation

Avoid loss of patient trust



Patient Outcome

Provide optimized time-to-treatment in emergency cases

Healthcare engineering

- The digital fleet management portal LifeNet offers real-time data on equipment status via a web interface and the possibility to transmit failures electronically to the Siemens support desk

Value contribution



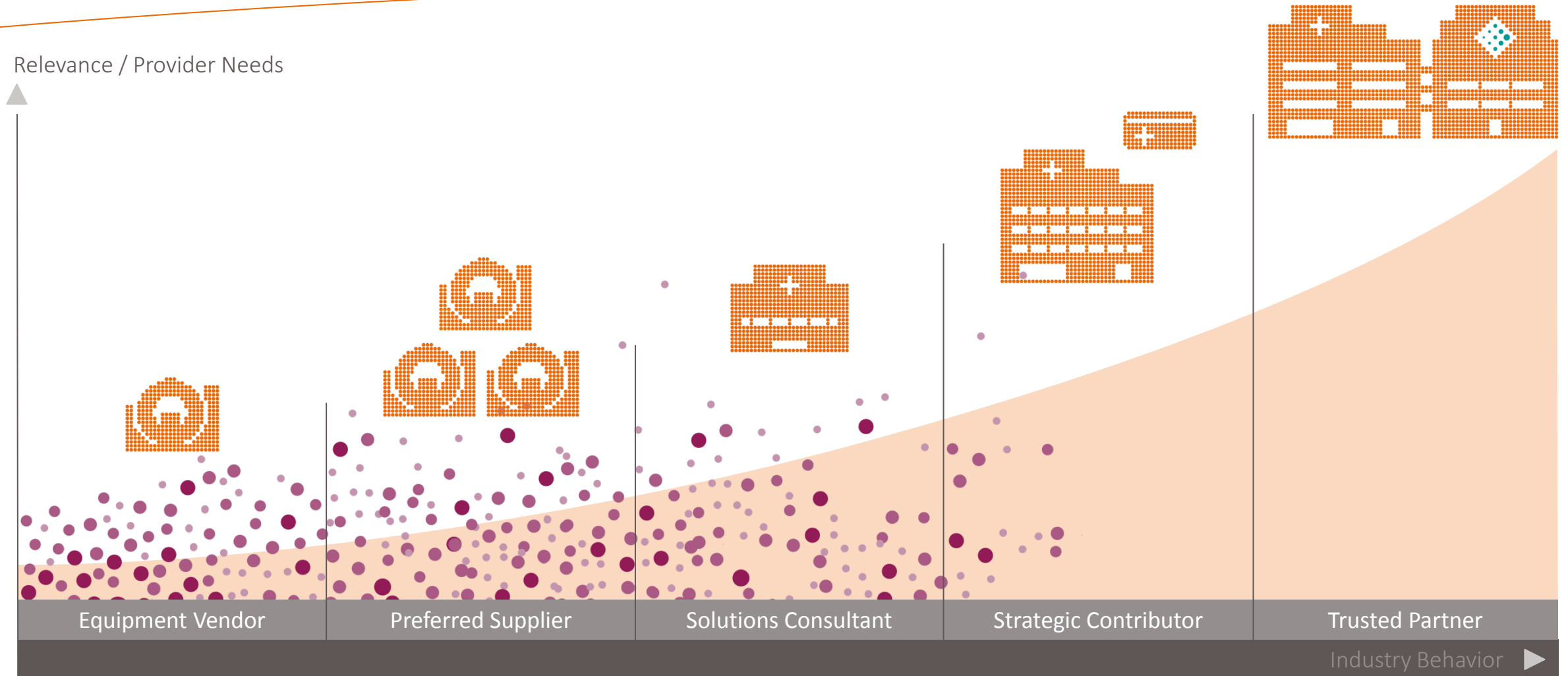
24/7

Reducing avoidable downtime
and system failures

Speeding up initiation
of repair process

Web interface

We understand that our customers expect us to evolve from a simple product vendor to a trusted partner



Now's our time to inspire the future of healthcare together

Engineering success.
Pioneering healthcare.