

Make the Case for a Room-as-a-Platform Initiative

An industry strategic foresight trends report

EXECUTIVE BRIEF

Analyst perspective

The role of the hotel CIO has been reshaped. You're being asked to deliver much more as your role transitions into a more front-end one. As a business partner and technology advisor, you are expected to be an expert on technology and how it will affect the business.

Driven by demand, many technology trends have accelerated, and so have the CIO's pain points. Faced with the challenges of the pandemic, meeting expectations of guests while keeping up with the change in consumer demands, and an increased workload in the IT department, IT needs to help their hotel adopt technologies while considering their long-term technical and business impacts.

An in-room technology initiative is not a hotel's top priority – but it should be. The hospitality industry must realize that in-room technology is key in the success of a guest experience and can accomplish initiatives that hoteliers are already seeking, such as guest loyalty, trust, and analytics. IT's barrier to implementation is two-fold: prioritization and persuasion. What technology does the CIO prioritize, especially with limited funds and resources? And how does the CIO pitch this initiative to their stakeholders, who often disagree or are reluctant to invest in projects?

Info-Tech's approach focuses on an analyst's investigation of strategic foresight, a methodology that helps IT and the business process what is happening in the external environment in a way that guides ideation and opportunity identification. As a methodology, strategic foresight flows from identifying signals to clustering the signals together to form trends and uncover what is driving them to determine which strategic initiatives are most likely to lead to success on an industry level.



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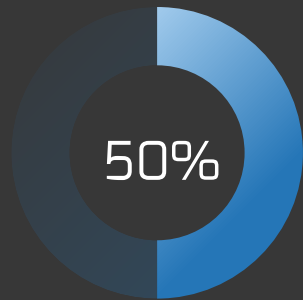
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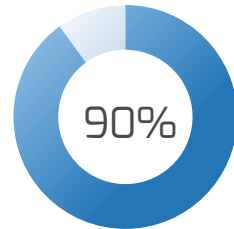
What are the current initiatives of a hotel CIO?

There is a lack of understanding of the advantages that in-room technology can bring. In fact, the right guestroom technology can enable all these initiatives.

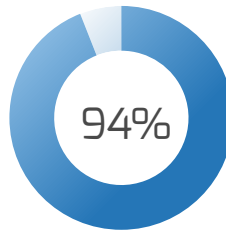
In-room technology is not a top priority for the hotel CIO



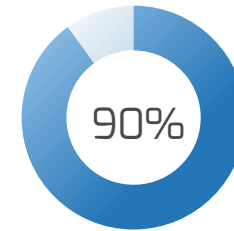
Percentage of hotel CIOs that consider enhancing guestroom technology to be a current initiative



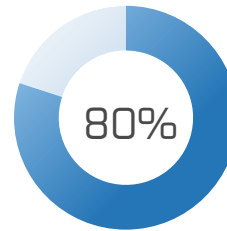
Reducing physical touchpoints at the property



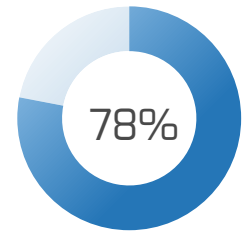
Driving guest loyalty



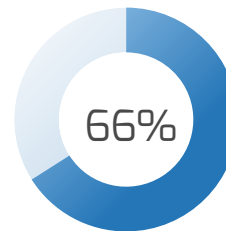
Improving physical safety of guests and staff



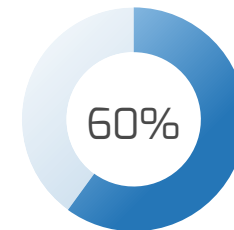
Enhancing privacy of guest and staff data



Improving analytics



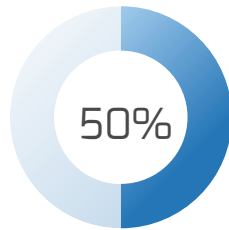
Reducing cost of managing technology



Increasing employee productivity

The CIO must consider guest and room expectations

Guestroom technology is not a top priority, but it should be.

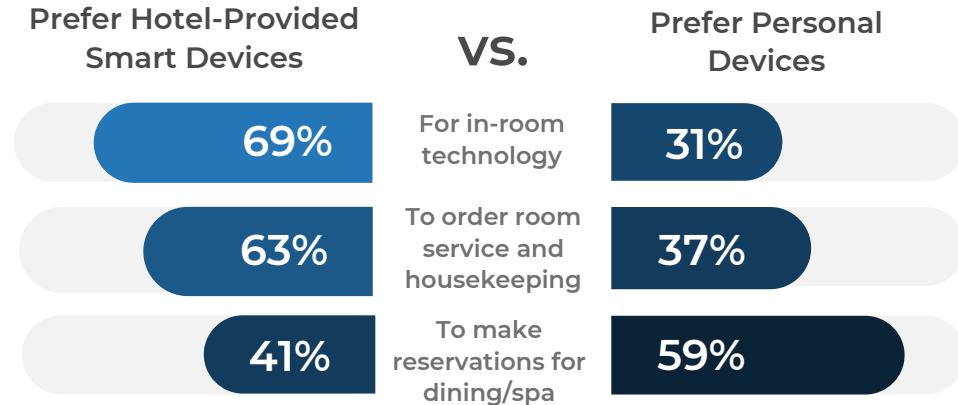


Percentage of hotel CIOs that consider enhancing guestroom technology to be a current initiative

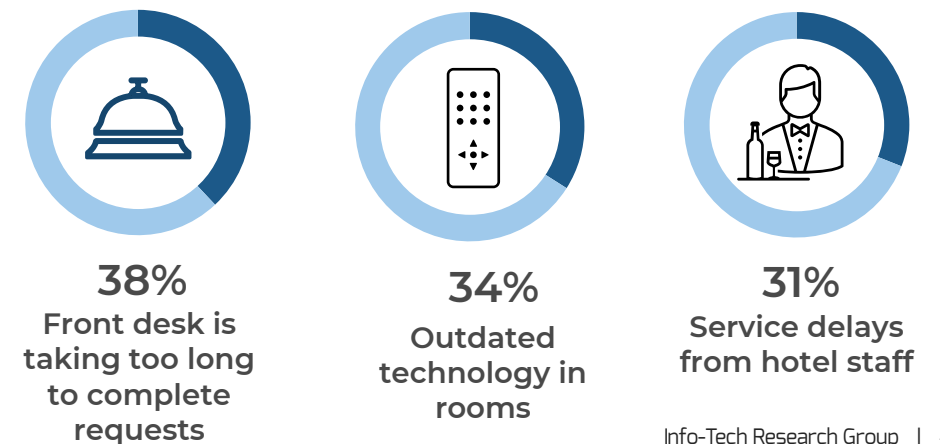
In-room technology can provide what guests seek:

- **Flexibility:** Give guests the flexibility to do what they want when they want in the room.
- **Control:** When guests have control of the technology, they can create and personalize their own experience from their room. This technology would work seamlessly across devices and channels and provide communication between the guestroom and the rest of the hotel.
- **Simplicity:** Guests want technology that's stress-free and easy to use.
- **Service:** In-room technology can affect the outer hotel experience, bringing more convenience and speed to service times.

Guest want control of their experience in the guestroom:



Guests' biggest frustrations about hotel stays:



The labor shortage in the hospitality industry will be long-term

The right in-room technology can help

According to the Singapore Hotel Association, Swissôtel The Stamford Singapore saw productivity savings between 30% and 35% after installing electronic do not disturb signs and applicable software.

Currently, many hotel operations are labor intensive, time consuming, and ineffective. The adoption of in-room technology presents an opportunity to solve the labor shortage challenge by:

- Eliminating valueless processes and tasks.
- Driving operational efficiency.
- Operating more with fewer staff.

“38% of former hospitality workers report that they are not considering a hospitality job for their next position after COVID-19.”

– Joblist’s US Job Market Q2 2021¹

“Labor has been an issue in this industry long before the pandemic. In 2019, our industry had 10 million jobs available and only 9 million were filled.”

– Geoff Ballotti, President & CEO of Wyndham²

1. “Joblist Survey Finds...” Hospitality Technology, 2021
2. “Wyndham CEO Talks Labor...” Hospitality Technology, 2021



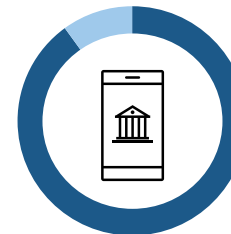
Consider how your guestrooms stack up against competitors

The guestroom technology competitive landscape

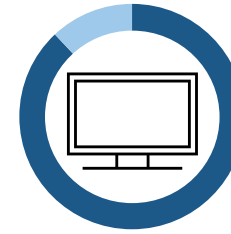
Examine the following statistics that demonstrate what other hotel operators currently offer or plan to offer in the coming year so you don't fall behind. Ask yourself, are your competitors making changes and investments you're not making?



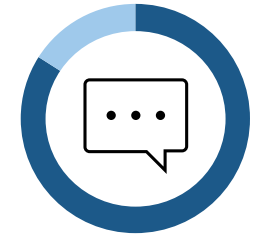
98%
Free Wi-Fi



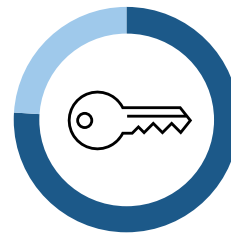
90%
Contactless
Payment



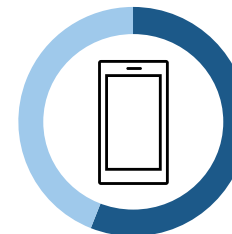
88%
Smart TV/
Streaming



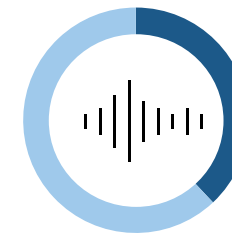
84%
Two-Way
Messaging



76%
Mobile Room
Keys



56%
Personal
Devices



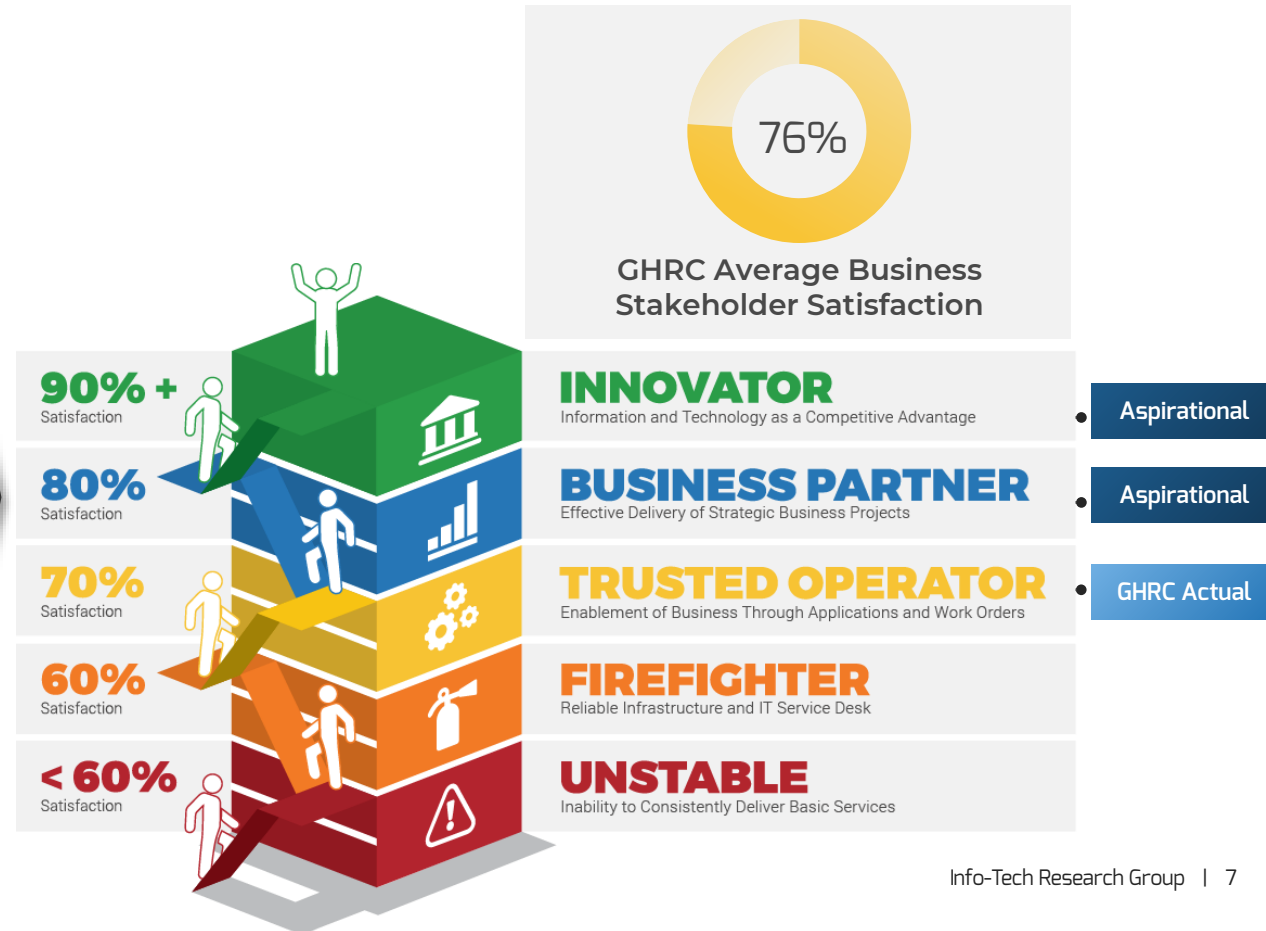
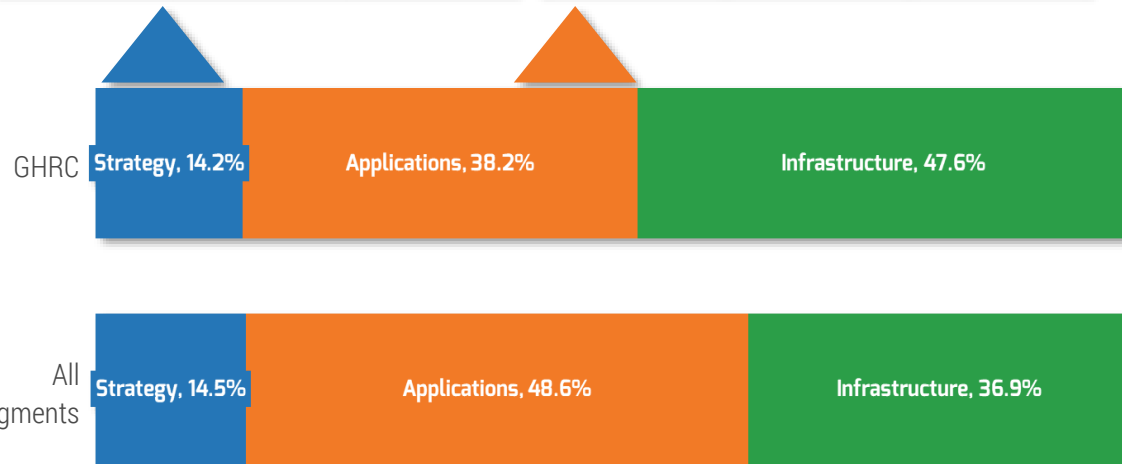
38%
Voice-Controlled
Devices

Maturing IT can shift your organization from incremental improvement to business transformation

According to GHRC's 2021 Benchmarking Report, IT innovation leadership, business applications, and client-facing technology are considered underrated services, with low importance and satisfaction metrics. Furthermore, from an IT staffing perspective, the heavy focus on infrastructure demonstrates that the industry has stalled on the IT Maturity Ladder as a trusted operator. By leveraging guestroom technology and placing more attention on applications and strategy, your hotel can demonstrate the value of IT and the satisfaction that can be provided. In the end, your IT department can establish credibility with business stakeholders and expand as a transformational or evolutionary innovator.

Service	Importance	Satisfaction
IT Innovation Leadership	11	72%

Service	Importance	Satisfaction
Business Applications	4	76%
Client-Facing Technology	7	69%



The obstacles of an in-room technology initiative: **Prioritization**

“We also may not achieve the benefits that we anticipate from any technology or system, and a failure to do so could result in higher than anticipated costs or could impair our operating results.”

– Marriott 2020 Annual Report

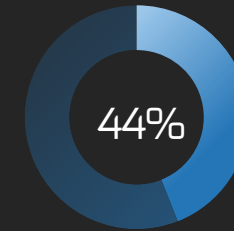
In-room technology brings guest satisfaction and operational efficiency, but there are still barriers to implementation:

- The hotel must be selective in what projects to undertake, as COVID-19 has affected IT budgets.
- There is the concern that the technology won't gain the expected return on investment (ROI).

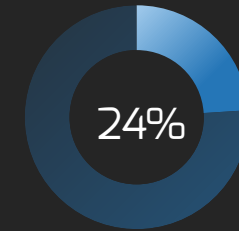
In the end, investment in research and development is a key factor that influences an organization's innovative potential. Moreover, the organization must invest in the right innovation that will create increasing value overtime.

IT Budget Barriers

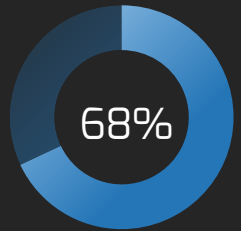
Stakeholder Respondents



of hotel IT professionals anticipate decrease in spending

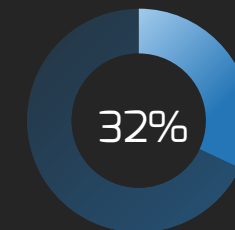


of IT budget goes to rolling out and implementing new solutions

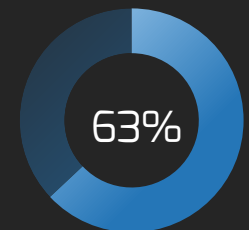


of IT budget goes to maintaining existing solutions

Hotel IT Technology Concerns



Inability to derive ROI for technology rollouts



Unsure of the direction of technology investment and where to best allocate resources

“The reluctance to invest in digital technology comes from the lack of understanding that we are serving technology obsessed travel consumers who demand a hotel technological experience to be equal or better to what they have at home.”

– Max Starkov, Founder of HEBS Digital¹

“When you are managing other people’s hotels, you then have to convince others to invest behind that technology in order to create a brand standard across all hotels.”

– Michael Hobson, Chief Marketing Officer of Mandarin Oriental Hotel Group²

1. Hotel Technology News, 2019.

2. Delporte Hospitality, 2018.

3. Marriott International, 2020.

The obstacles of an in-room technology initiative: **Persuasion**

“The nature of our responsibilities ... will from time to time give rise to disagreements, which may include disagreements over the need for or payment for new product, service or systems initiatives, the timing and amount of capital investments ...”

– Marriott 2020 Annual Report³

In-room technology brings guest satisfaction and operational efficiency, but there are still barriers to implementation:

- Executives are reluctant to invest in digital technology.
- Depending on the type of hotel, there may be disagreements with owners of hotels that are managed or franchised.

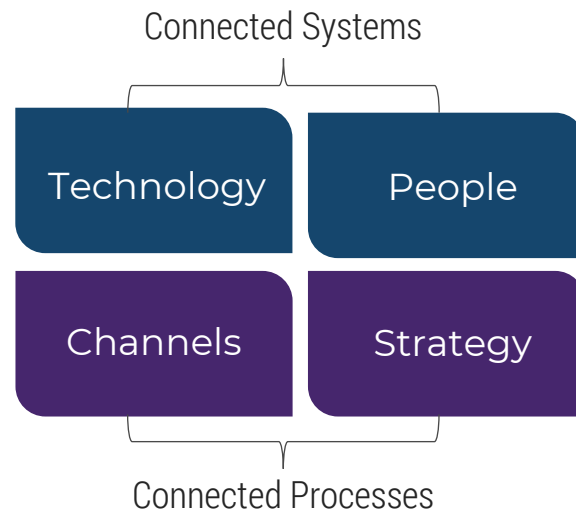
The difficulty is justifying the initiative to gain support. As a CIO, operate IT as a business enabler by building business acumen and using terminology your stakeholders will understand, which in turn will help you gain trust for future innovations.

Transform your in-room technology initiative into a room-as-a-platform strategy

Room-as-a-platform brings together two overarching trends (systems):

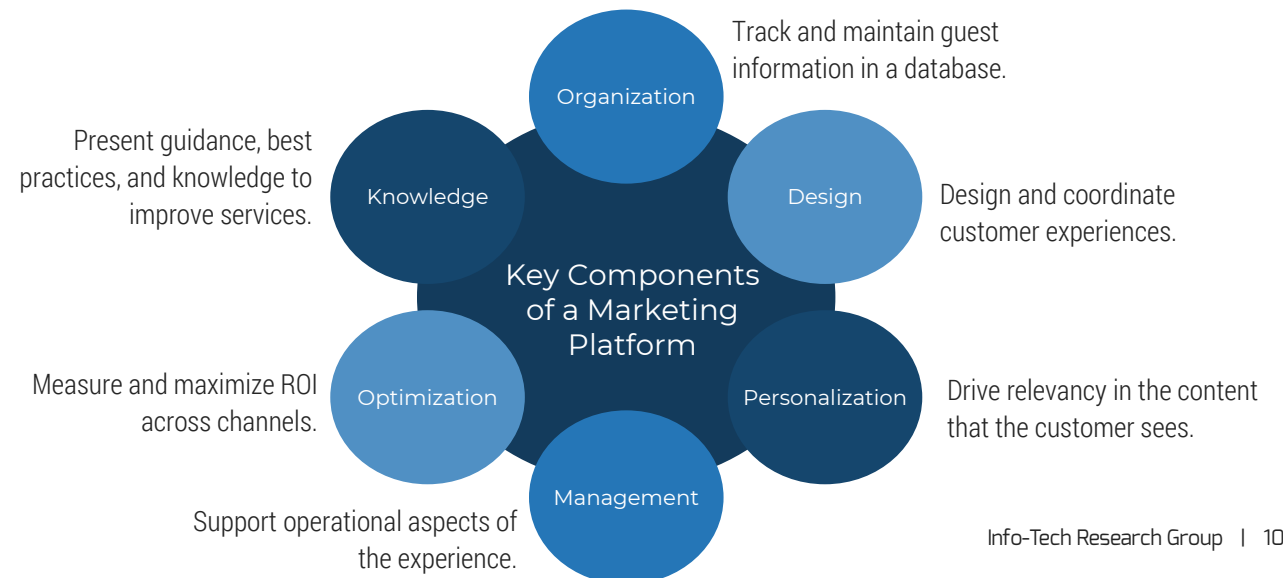
Digital Ecosystem

- Refers to the environment that businesses must compete within.
- A key component of this trend involves laying the foundation for upcoming high-value implementations.
- To accomplish this, your environment must allow for the connectivity of systems and processes so that your organization is in a better position to take advantage of projects in the coming years.



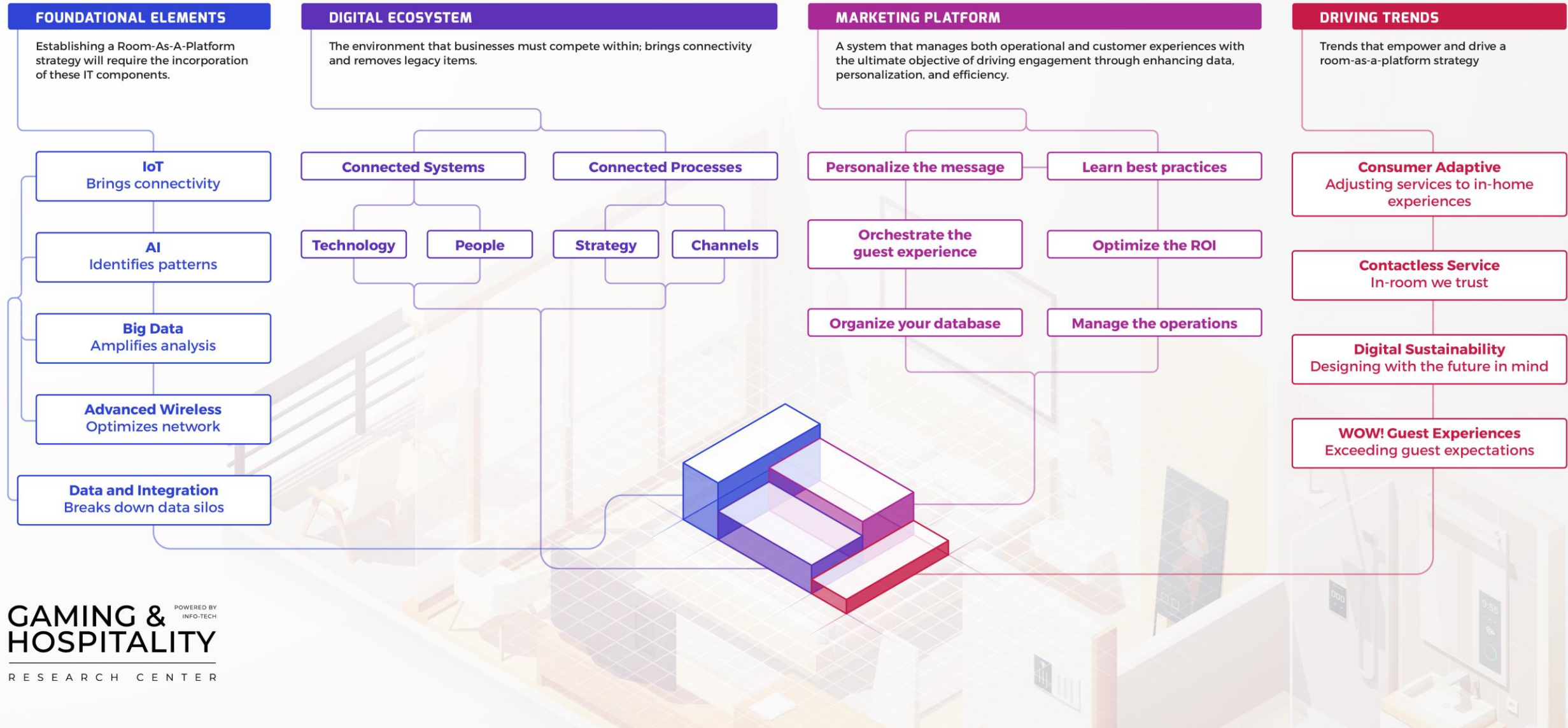
Marketing Platform

- Refers to a system that manages both operational and customer experiences with the ultimate objective of driving engagement.
- It's after your guests have arrived that the bulk of the marketing begins. Prospects are already halfway down the sales funnel by the time they pass through your doors. By enticing your guests with specific technology, you're enhancing the guest experience while driving present and future sales.



Room-as-a-Platform: Framework

An in-room technology strategy should embrace the elements of a digital ecosystem and a marketing platform, which in turn will create and enhance a seamless guest-centric experience.



Business perspective

As hoteliers incorporate new technological innovations, they must remember that hospitality has always been and will always be about the people. A room-as-a-platform strategy begins with management's needs but ends with the creation and enhancement of a customer-centric experience.

Potential Management Takeaways

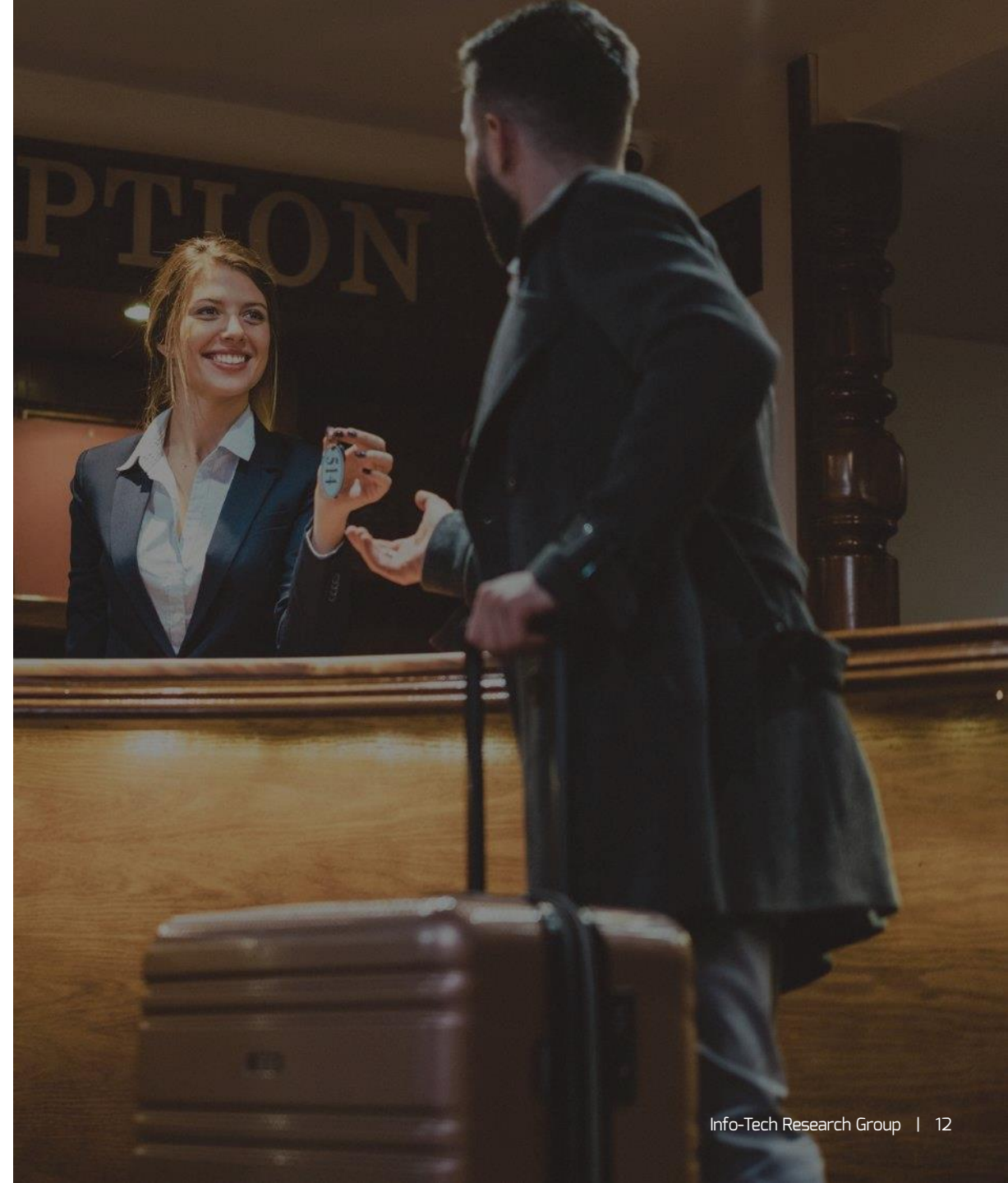
- Brand differentiation
- Improved reputation
- Increased revenue

Potential Staff Takeaways

- Effective internal communication through streamlined operations
- Operational efficiency and productivity savings
- Employee confidence, satisfaction, and engagement

Potential Guest Takeaways

- Increased convenience and accessibility of information and services
- Expanded value
- Met or exceeded expectations for various consumer segments





Build IT integration for connectivity and value

- Integration breaks down data silos and connects data, applications, APIs, and devices across the hotel.
- Integration also adds value through the new functionalities provided by connecting different system elements: AI, Internet of Things (IoT), big data, and advanced wireless. These elements set the hotel up for future innovative projects.
- The [Gaming and Hospitality industry's benchmarking data](#) illustrates the extreme structuring around infrastructure. Typically, integration ties into applications, and based on GHRC data, less time is spent here in comparison with other industries. Ensure that your hotel is spending more time in this area.
- The enablement of data and integration is the first step necessary to make the guestroom a “platform” because it provides a better understanding of guest preferences and the ability to act on them.

Leverage Info-Tech Integration Resources

[*Build an Application Integration Strategy*](#)

[*Build a Data Integration Strategy*](#)

[*Build Effective Enterprise Integration on the Back of Business Process*](#)

Foundational elements

Unlocking the potential of a room-as-a-platform strategy, which is enabled by data and integration, will require implementing the following elements:



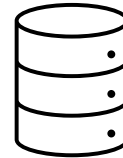
ARTIFICIAL INTELLIGENCE

AI is the ability for machines to simulate intelligent human behavior. Dependent on both algorithms and data, AI can interpret information to identify patterns. Some of the ways in which hotels will use this technology include making recommendations for activities, restaurants, and the best time to book hotels. The goal is to behave in a similar way to a human.



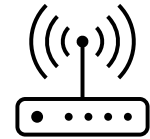
INTERNET OF THINGS

IoT is a constellation of connected devices with embedded sensors providing real-time information to an application layer. IoT describes the enhanced connectivity we now experience with everyday devices and appliances that would not typically boast such capabilities. From personalized guest experiences to a reduced ecological footprint, there are many reasons why hotels would consider using IoT technology.



BIG DATA

Big data is rapidly increasing amounts of data generated by multiple sources in many formats. To gain actionable insights, the data must be analyzed. Hotels can capitalize on the information about guests to drive business decisions, make the guest experience memorable, and improve the working conditions for associates. Both IoT and AI depend on big data to function at optimal levels.



ADVANCED WIRELESS

Two connectivity methods gaining visibility are 5G and Wi-Fi 6. Room-as-a-platform technology requires a strong technology infrastructure. This will require hotels to provide free Wi-Fi to guests to further the hospitality experience. With guests continuously ranking free Wi-Fi as their top priority, it becomes even more important because of the implementation of advanced technologies.

Four driving trends

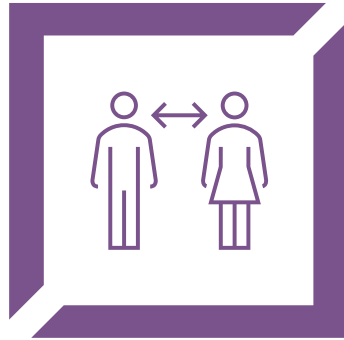
Info-Tech's strategic foresight for guestroom technology flows from identifying technology signals to categorically clustering the signals together to form the following impactful trends:



Consumer Adaptive

Adjusting Services to In-Home Experiences

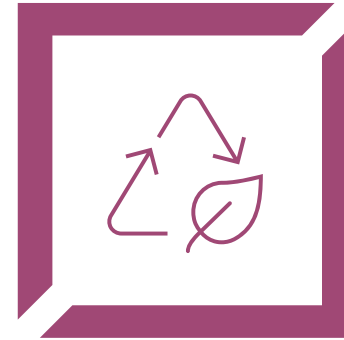
The typical consumer lifestyle has become digital, and guests are starting to expect that what they can get at home, they can and should get in a hotel.



Contactless Service

In-Room We Trust

Investing in guest trust initiatives has become more of a priority. The implementation of technologies under this trend will add to the concept of a "new normal."



Digital Sustainability

Designing With the Future in Mind

Increased stakeholder concern, shift in consumer preferences, and extreme variability in weather patterns has led to the implementation of technologies in this trend.



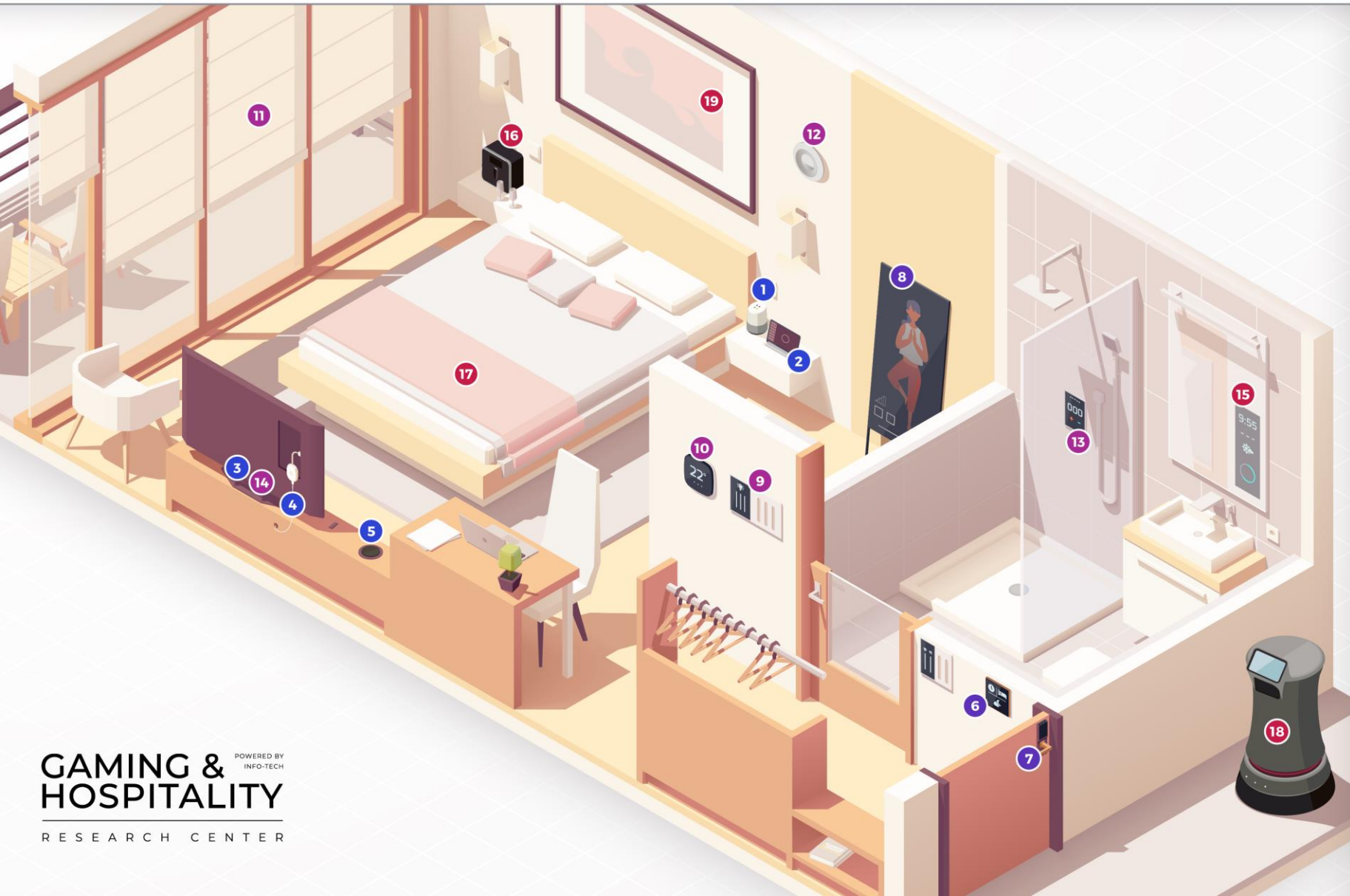
Wow! Guest Experiences

Exceeding Guest Expectations

As guests become increasingly tech-savvy, hotels must consider the unexpected – emerging technology that replaces or remanufactures existing furniture.

Room-as-a-Platform: Four Driving Trends

These tech trends and their corresponding technologies can empower a Room-as-a-Platform strategy by embracing elements of a digital ecosystem and a marketing platform. Our Info-Tech Pulse scores can help hoteliers evaluate the trends against their priorities.



The **INFO-TECH PULSE SCORE** represents the weighted impact across two sets of criteria:

- 1 Trends Radar
- 2 Business Capability Map

The higher the pulse out of 100, the more available, applicable, and impactful the trend is to the industry.

CONSUMER ADAPTIVE

PULSE SCORE: **69/100**

ADJUSTING SERVICES TO IN-HOME EXPERIENCES

- 1 Voice Assistants
- 2 In-Room Tablet
- 3 IPTV Display
- 4 Streaming Device
- 5 Wireless Charging Station

CONTACTLESS SERVICE

PULSE SCORE: **71/100**

IN-ROOM WE TRUST

- 6 Electronic Do Not Disturb
- 7 Keyless Door Locks
- 8 Fitness Mirrors

DIGITAL SUSTAINABILITY

PULSE SCORE: **63/100**

DESIGNING WITH THE FUTURE IN MIND

- 9 Lighting Control
- 10 Thermostat
- 11 Smart Curtains
- 12 Occupancy Sensors
- 13 Digital Showers
- 14 Low-Voltage PoE

WOW! GUEST EXPERIENCES

PULSE SCORE: **46/100**

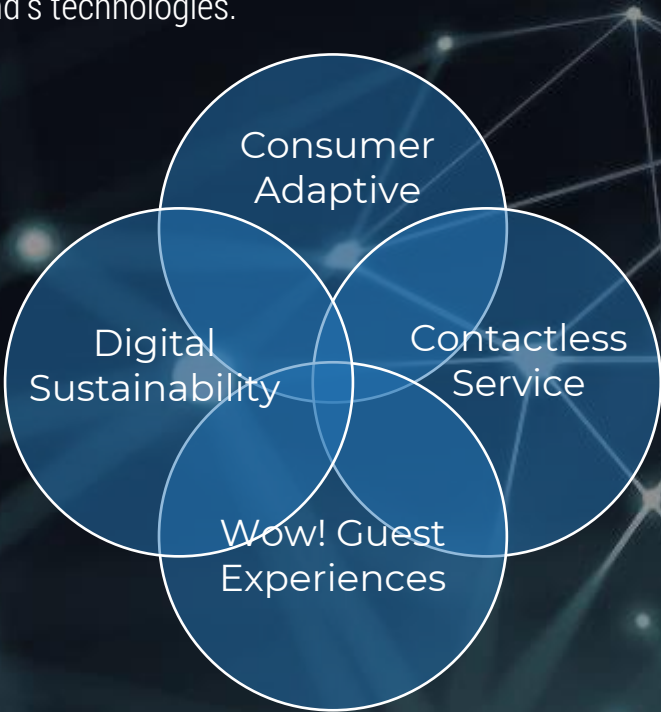
EXCEEDING GUEST EXPECTATIONS

- 15 Smart Mirror
- 16 Wine by the Glass
- 17 Smart Beds
- 18 Room Service Robots
- 19 Digital Art

The room-as-a-platform's trends and technologies are not mutually exclusive

Technologies can fall in multiple buckets, which means that they can be more available, applicable, and impactful for the hotel than originally intended.

Note: Info-Tech Pulse scores do not reflect the mutual exclusivity of their trend's technologies.



	Consumer Adaptive	Contactless Service	Digital Sustainability	Wow! Guest Experiences
Voice Assistant	●	●	●	
In-Room Tablet	●		●	
IPTV Streaming	●		●	
Streaming Device	●			
Wireless Charging	●			
Smart Mirror			●	●
Wine by the Glass		●		●
Smart Bed				●
Room Service Robot		●		●
Digital Art				●
Electronic Do Not Disturb		●	●	
Keyless Door Lock		●	●	
Fitness Mirror		●	●	
Lighting Control	●	●	●	
Thermostat Control	●	●	●	
Smart Curtains	●	●	●	
Occupancy Sensors	●		●	
Digital Shower			●	●
PoE Low Voltage			●	

Understand the priorities of each stakeholder to gain support

Encompass the **business**, **operational**, and **technical** feasibility and impact into your rationale.

Owner/Franchise/Management Leaders

- Focused on understanding business imperatives of technology and seeking areas of opportunity that are deemed necessary or provide crucial impacts to the business holistically.

Head of Hotel Departments

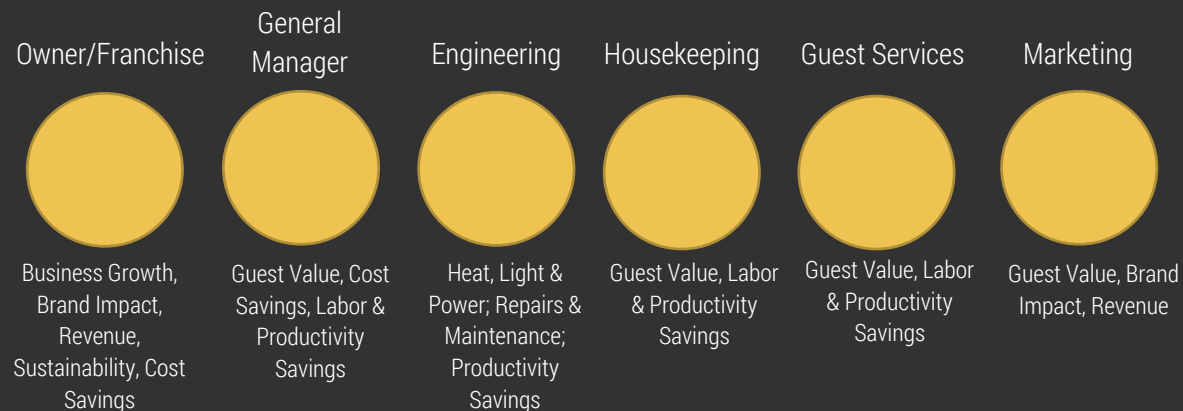
- Desire to understand the importance of the technology specifically for their own departmental function and how it could potentially eliminate pain points and boost productivity.

IT Leadership and Department

- Focused on identifying technical requirements and considerations when adopting technology solutions with the business's context at the top of mind.

Who will be impacted?

Where you should gain support for a solution and how it impacts the stakeholder



This legend appears throughout the trends report to demonstrate where your hotel should gain support for each respective trend.



Impacts



Does not impact



Use Info-Tech's methodology to identify, prioritize, and gain support for a room-as-a-platform initiative

01

Identify: Trends Report Analysis

As a methodology, strategic foresight flows from identifying signals to clustering the signals together to form trends and uncover what is driving the trends to determine which strategic initiatives are most likely to lead to success on an industry level.

02

Prioritize: Technology Shortlisting

Further customize the scores to your hotel by tailoring the generalized weightings on an organization-specific level and determining the relevancy and timing to your hotel. By doing so, your hotel can determine which trend and technology to prioritize for your room-as-a-platform initiative.

03

Persuade: Minimum Viable Business Case

After establishing what trend and technology to prioritize, develop a minimum viable business case with the help of the trends report elements to make the case for stakeholders.

Guiding principles

#1 Don't forget the basics of design

Functionality: Consider the infamous electrical outlet, always in the wrong part of the room away from where it's needed most – a desk, mirror, or bed. In many cases, hotel room designs and technologies are poorly thought out. When leveraging room-as-a-platform technology, there needs to be a standard of functionality: Technology needs to be in the right place for the right time and easy for the guest to operate. For example, implement room controls by the bed rather than on a distant wall.

Branding: Your hotel should connect the guest experience with the brand by using your logo or through loyalty programs. But you need to ensure you're not overrepresenting the brand, which can overcomplicate the encounter and lead to a messy, negative guest experience. When implementing technology, ensure you balance your brand logo with user experience (UX).

#2 Automation means personalization

The key to leveraging technology is not the implementation but how you strategize its use. We want to create convenience and flexibility for customers, but any industry can do that. What makes the hotel industry different is hospitality, and hospitality requires hyper-personalization. Ensure that your hotel is leveraging the meaningful data provided by the technology to offer a personal experience for a guest during all aspects of their stay. For example, it's one thing to implement IPTV, lighting controls, and a voice assistant, but it's another thing to use these technologies to develop a room arrival experience: favorite music playing, television turned on with the guest's name appearing on the screen, and lighting to set the mood.

#3 IT/OT hand-off

For the hotel industry, the role of IT is to select and implement the solution. Once it's implemented, the responsibility of the solution is mostly transferred to departments of the hotel such as Front Desk, Engineering, and Housekeeping. The concept of the IT/OT hand-off is that knowledge transfer needs to happen for the support staff. They need education so they understand how to fix technical issues and awareness that these solutions will be handed off as operational technology and will no longer be the IT department's responsibility.

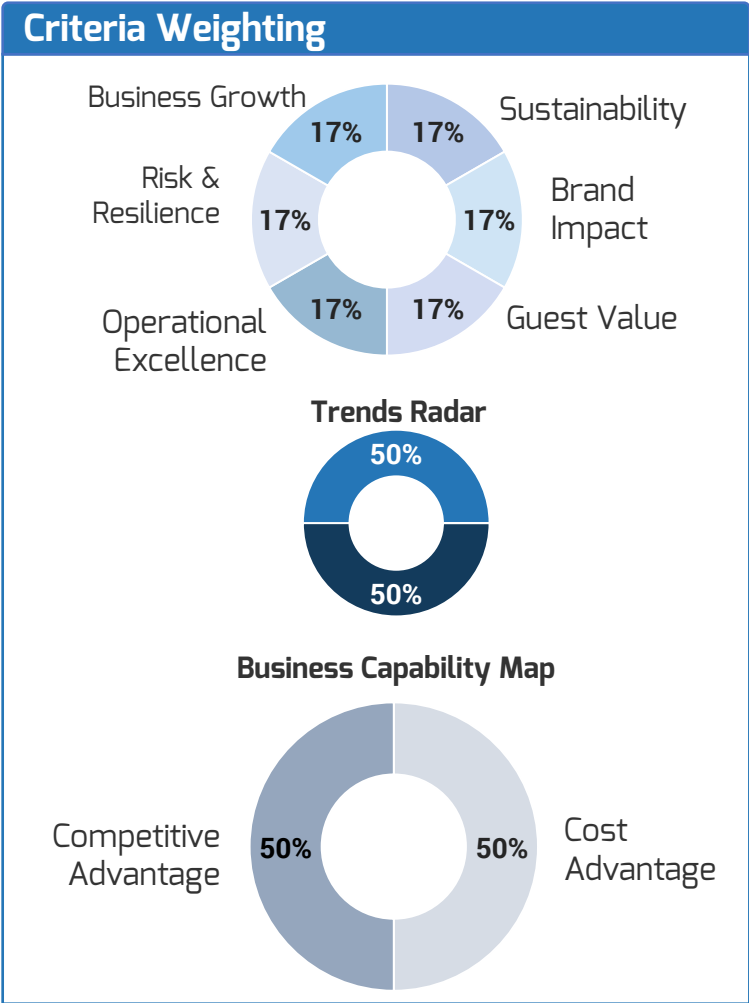


Criteria and weighting factors

Our Info-Tech Pulse scores can help hoteliers evaluate the trends against their priorities. The higher the pulse out of 100, the more available, applicable, and impactful the trend is to the industry. Info-Tech Pulse scores represent each trend's weighted impact across two sets of criteria:

1. Trends Radar Criteria	
Business Growth	Drives sustainable growth, diversifies methods of generating revenue, and increases the business market reach.
Risk & Resilience	Mitigates and withstands rapid changes across the IT landscape, secures guest information while protecting brand assets, and easily integrates with current technologies, projects, and strategies.
Operational Excellence	Provides transparency in the flow of value to the guest, empowers associates and promotes teamwork, and improves responsiveness in problem solving.
Guest Value	Surprises and delights associates and guests, connects associates with guests on a personal level, and focuses on enhancing efficiency and convenience.
Brand Impact	Enables first-to-market or unique market positioning and assists in accomplishing strategic priorities.
Sustainability	Strengthens corporate social responsibility and improves energy management.

2. Business Capability Map Criteria	
Competitive Advantage	Focusing on these capabilities will deliver differentiated end-customer experiences.
Cost Advantage	Focusing on these capabilities will help the organization derive operational efficiencies.



Developing the trends radar

Develop a holistic cross-industry view of trends

Moving from horizon scanning to action requires an evaluation process to determine which trends can lead to growth opportunities. Before implementing trend technologies, you need a holistic understanding of how they will impact hotels on an industry level.

Info-Tech evaluated the trend opportunities through a set of hospital drivers:



Once an organization has identified a trend that warrants exploration, it is valuable to understand the underlying forces that are driving the trend in order to effectively assess its potential impact. Drivers are fundamental to building plausible scenarios that could arise from adopting a given trend. These value drivers are used to understand what is or is not driving a particular trend. This is achieved by identifying the value drivers for each trend as weak, medium, strong, or superior:



Weak



Medium



Strong



Superior

The hospitality value drivers

Business Growth

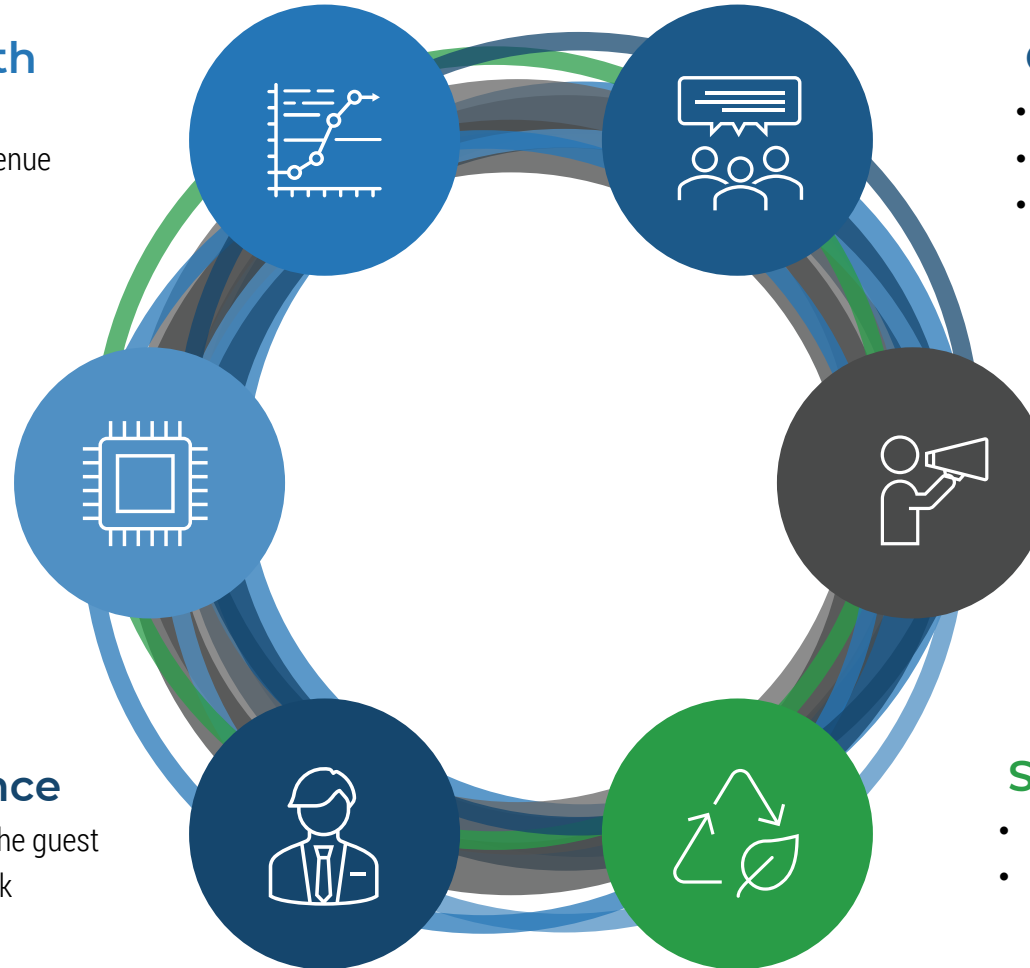
- Drives sustainable growth
- Diversifies methods of generating revenue
- Increases the business market reach

Risk & Resilience

- Mitigates and withstands rapid changes across the IT landscape
- Secures guest information while protecting brand assets
- Easily integrates with current technologies, projects, and strategies

Operational Excellence

- Provides transparency in the flow of value to the guest
- Empowers associates and promotes teamwork
- Improves responsiveness in problem solving



Guest Value

- Surprises and delights associates and guests
- Connects associates with guests on a personal level
- Focuses on enhancing efficiency and convenience

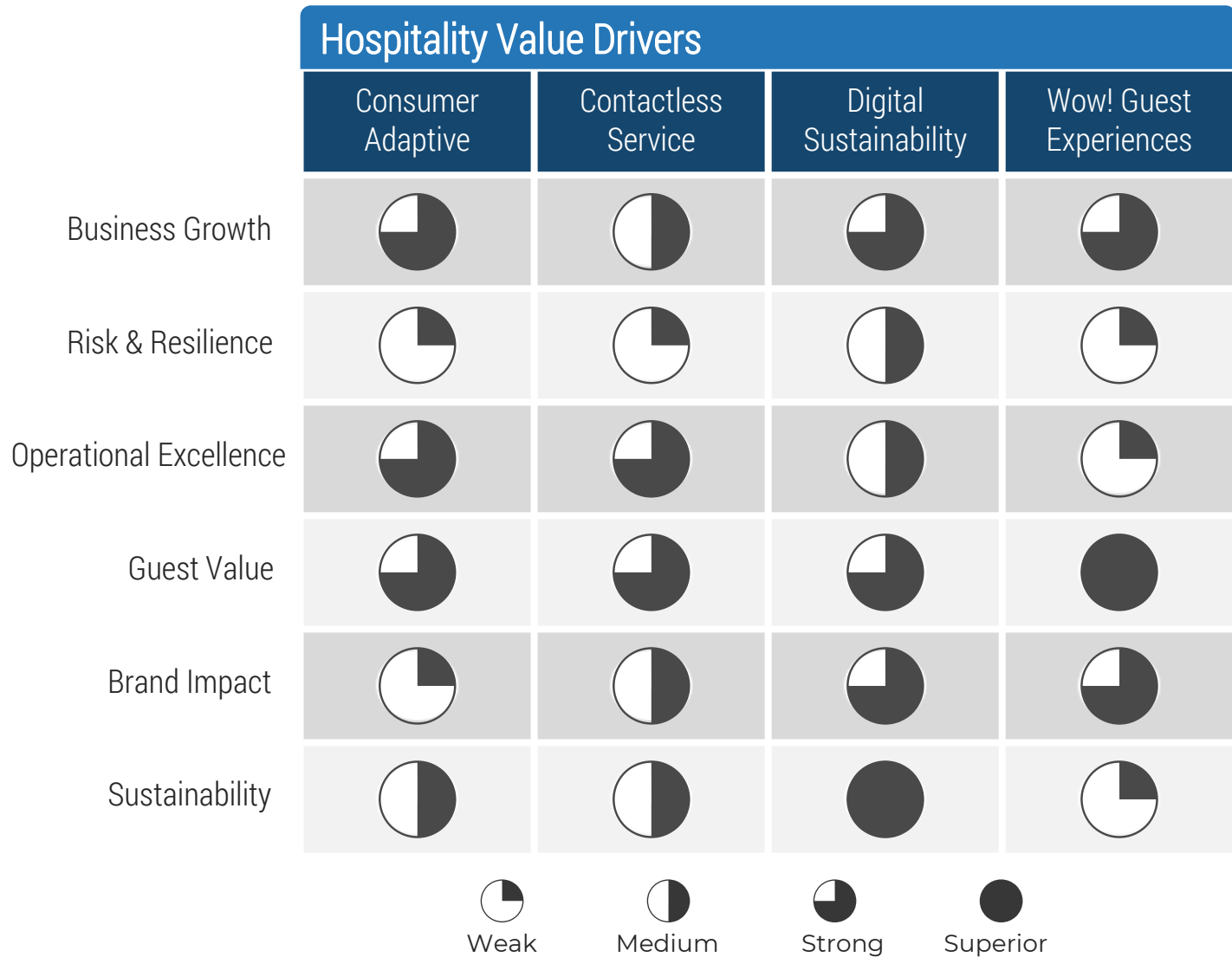
Brand Impact

- Enables first-to-market or unique market positioning
- Assists in accomplishing strategic priorities

Sustainability

- Strengthens corporate social responsibility
- Improves energy management for the organization

How does each room-as-a-platform trend measure against the hospitality value drivers?



Analyzing the impact of business capabilities

Develop a holistic cross-industry view of trends

Moving from horizon scanning to action requires an evaluation process to determine which trends can lead to growth opportunities. Before implementing trend technologies, you need a holistic understanding of how they will impact hotels on an industry level.

Info-Tech evaluated the trend opportunities through an additional set of advantage-creating criteria:

Competitive Advantage Creators

Focusing on these capabilities will deliver differentiated end-customer experiences.

Cost Advantage Creators

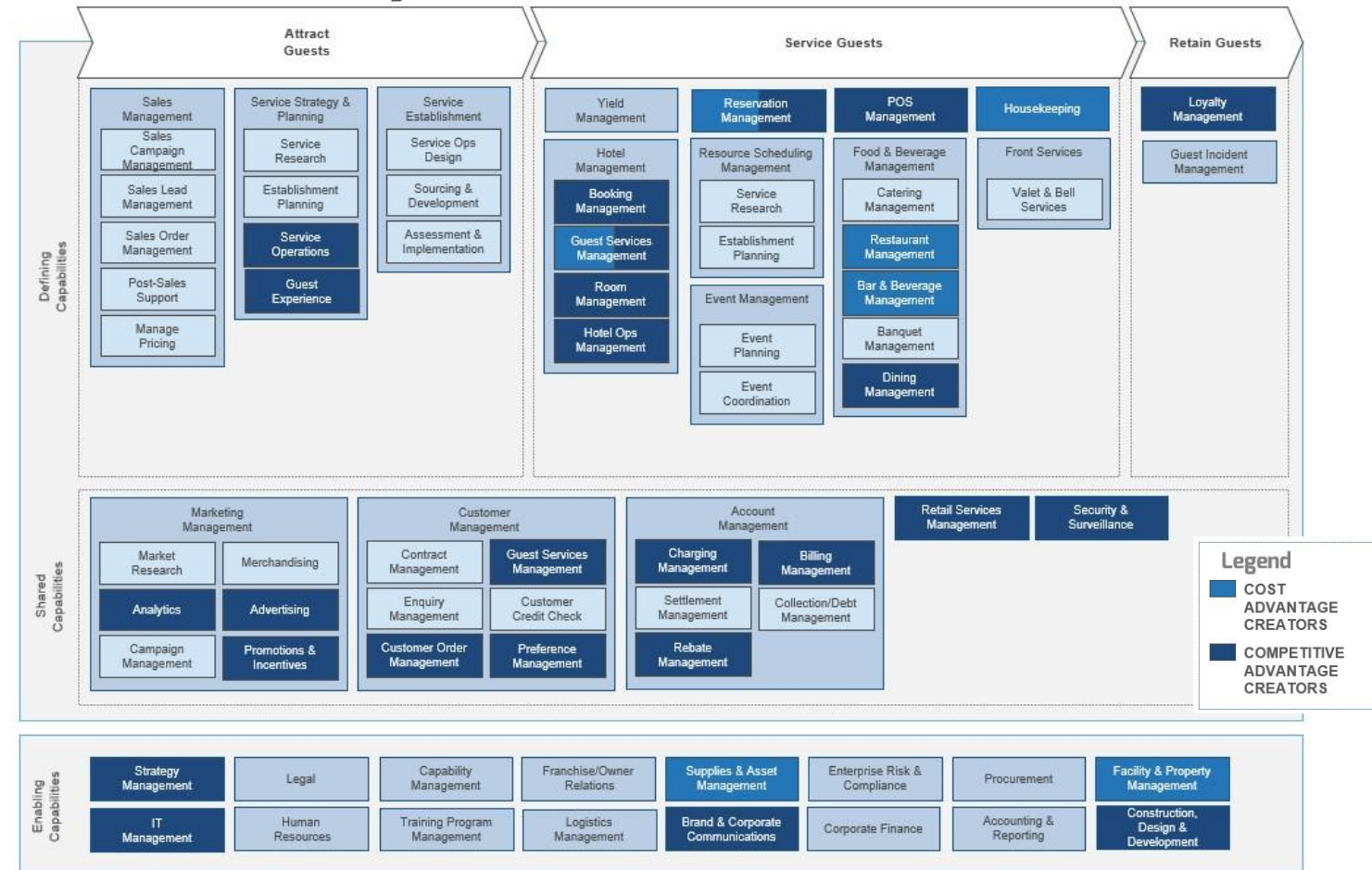
Focusing on these capabilities will help the organization derive operational efficiencies.

These advantage creators are used to understand how impactful a trend is for business alignment and whether IT should be making investments to help the business enhance its capabilities through the implementation of this technology. This is achieved by identifying the number of competitive and cost advantage creators for each trend in the hotel business capability map.



The business capability map

- A **business capability** defines what a business does to enable value creation.
- A **business capability map** demonstrates a primary view of all these capabilities and provides details to identify specific areas of the business for further assessment.
- The hotel industry reference architecture on the right demonstrates the business capabilities that are impacted by all four trends on a competitive and cost advantage scale, which has a role in how each trend is scored.



Leverage Info-Tech Resources

Demonstrate the value of IT's role in supporting your hotel's capabilities and assess your initiatives and priorities.

[Hotel Industry Reference Architecture](#)

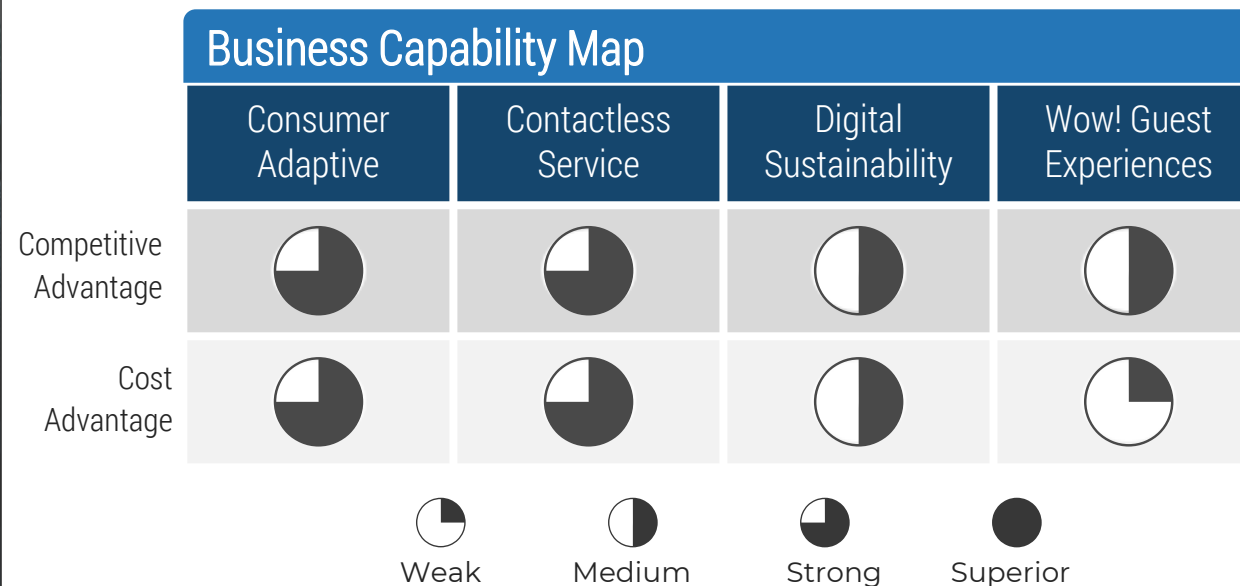
[Integrated Casino Industry Reference Architecture](#)

Findings: Business capabilities that are impacted by *all* trends

How does each room-as-a-platform trend measure against the business capability map?

Trends	Competitive Advantage	Cost Advantage
Total Business Capabilities Affected	25	7
Consumer Adaptive	20	6
Contactless Service	22	6
Digital Sustainability	13	4
Wow! Guest Experiences	15	1

This table illustrates the count of the capabilities that are impacted by the competitive and cost advantage criteria.

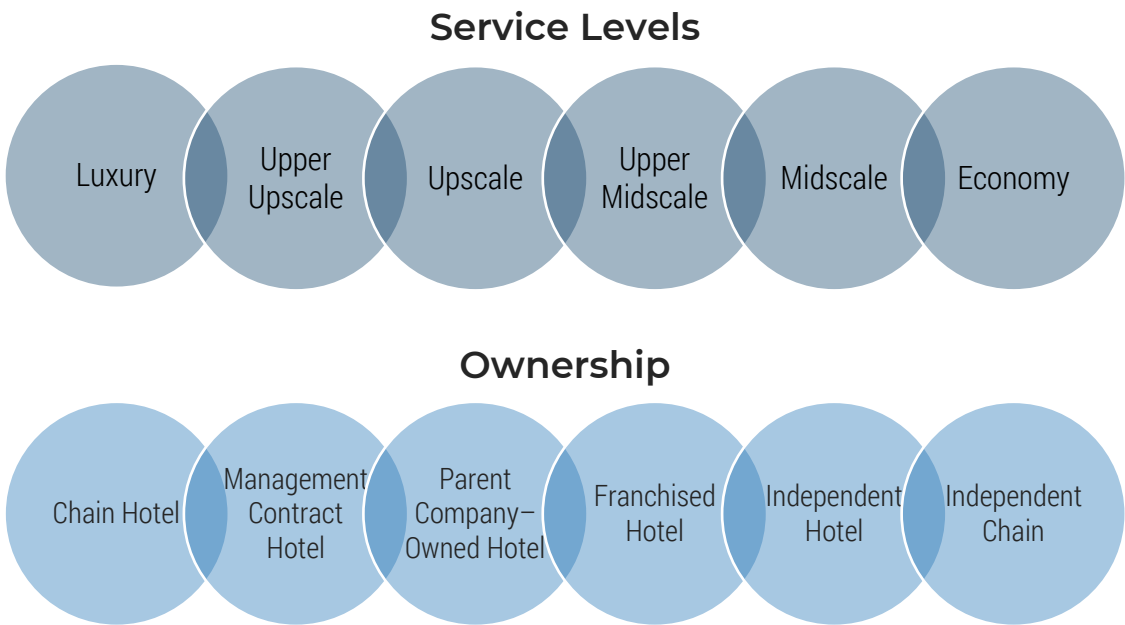


This table presents methodically calculated Harvey Balls computed from the results of the above table by dividing each trend's advantage score by the total capabilities impacted.

What’s a trend for other hotels may not be a trend for yours

The trends chosen and the results of the scores are generalized to all hotels. Remember that every organization is different, with varying initiatives, priorities, and funding challenges.

Bear in mind the various hotel classifications your hotel falls under:



Amenity	Proportion of Expected Use	Proportion of Actual Use	Percentage Difference
Concierge	.31	.42	+35%
Upscale	.07	.07	0%
Upper Upscale	.28	.41	+46%
Luxury	.41	.53	+29%
Minibar	.11	.08	-27%
Upscale	.05	.00	-100%
Upper Upscale	.08	.06	-25%
Luxury	.21	.14	-33%
TV	.91	.85	-7%
Upscale	.93	.84	-10%
Upper Upscale	.68	.37	-46%
Luxury	.64	.41	-36%

Illustrative Example: Amenity usage can differ depending on hotel classification

Expedia 5-Star Rating Guidelines

Illustrative Example: Guestroom initiatives can differ depending on the hotel's priorities, such as gaining a five-star rating.



"Amenities typically include gourmet dining, luxury spas, and full-service health clubs with lavish locker rooms. Staff members are generally polished, anticipate guest needs, and consistently address guests by name. Features may include upgraded check-in, a welcome amenity, and butler service on all or select floors. Guestroom decor is often elegant and may include coordinated fabrics on drapes, chairs, headboards, and duvets. **Electronic features sometimes include bedside controls for drapes, lighting, and surround-sound.** Oversized bathrooms are often clad in marble, with premium, custom-built features, dual-sink vanities, enclosed toilets, premium spa-brand toiletries, and fresh flowers or live plants. Five-star resorts typically offer signature golf courses, tennis centers with choice of playing surfaces, health clubs with personal trainers, luxurious spas, cultural activities, and children's day camps. In Asia, both hotels and resorts often feature some of these amenities."

AAA Diamond Rating Guidelines

Illustrative Example: Guestroom initiatives can differ depending on the hotel's priorities, such as gaining a diamond rating.



Diamond Approved

Three Diamond

Four Diamond

Five Diamond

Television Type & Placement

- 32-inch flat screen
- Two additional features i.e. all-in-one multimedia hub, HD channels, free/pay movie channels, digital art/property information, streaming capability, etc.

- 40-inch flat screen
- Three additional features i.e. all-in-one multimedia hub, HD channels, free/pay movie channels, digital art/property information, streaming capability, etc.

- 43-inch flat screen
- Four additional features i.e. all-in-one multimedia hub, HD channels, free/pay movie channels, digital art/property information, streaming capability, etc.

- >43-inch flat screen
- Five additional features i.e. all-in-one multimedia hub, HD channels, free/pay movie channels, digital art/property information, streaming capability, etc.

Ventilation

- Heat and air conditioning available on demand
- Easily accessible controls

- Modern and quiet
- Digital thermostat on wall

- Central system
- Digital thermostat on wall

- Quiet and inconspicuous form and function
- Digital thermostat on wall

Illumination

- Good level of overall illumination

- Good level of overall illumination

- Superior functionality provides for ambience options i.e. dimmers, point lighting, multiple switches, remote control

- Superior functionality provides for ambience options i.e. dimmers, point lighting, multiple switches, remote control

Additional Guest Impressions & Features Considered

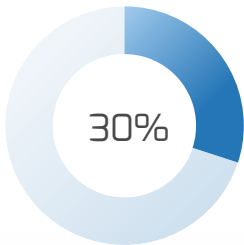
- Technology
- Internet

Overarching risks: Security and infrastructure

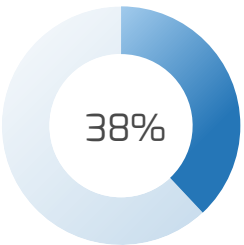
Industry trends are changing how hotels must develop or renovate their current IT infrastructures to make way for technological improvement. Ensure diligence during the integration process.

The implementation of room-as-a-platform technologies will increase the importance of network and security services to the business and, depending on IT’s maturity, could positively or negatively affect business stakeholder and guest satisfaction.

Measure and assess your IT risks first before implementing a new system. Consider analyzing your security and infrastructure maturity and any other functions that will affect the success of your technology.



Percentage of hotel CIOs that believe security and privacy are concerns when adopting new technologies



Percentage of hotel CIOs that have difficulty integrating technology with legacy systems

Source: “Lodging Technology Study 2021,” Hospitality Technology, 2021.

Leverage Info-Tech Resources
Determine your business stakeholder satisfaction.

[CIO Business Vision Diagnostic](#)
[IT Management & Governance Diagnostic](#)

Service	Importance	Satisfaction	Range
IT Security	5	83%	75% - 90%
Service Desk	2	80%	72% - 90%
IT Policies	12	78%	68% - 89%
Work Orders	8	78%	68% - 89%
Network Infrastructure	1	78%	70% - 87%
Data Quality	3	76%	65% - 86%
Devices	6	76%	66% - 86%
Business Applications	4	76%	65% - 85%
Projects	10	74%	62% - 85%
Requirements Gathering	13	73%	63% - 83%
Analytical Capability	9	73%	63% - 83%
IT Innovation Leadership	11	72%	57% - 84%
Client-Facing Technology	7	69%	59% - 79%

Data Extract: Info-Tech’s Gaming & Hospitality IT Staffing Benchmarking Report illustrates the current importance and satisfaction metrics for security and infrastructure functions according to business stakeholders.

Overarching risks: Viability and IT maturity

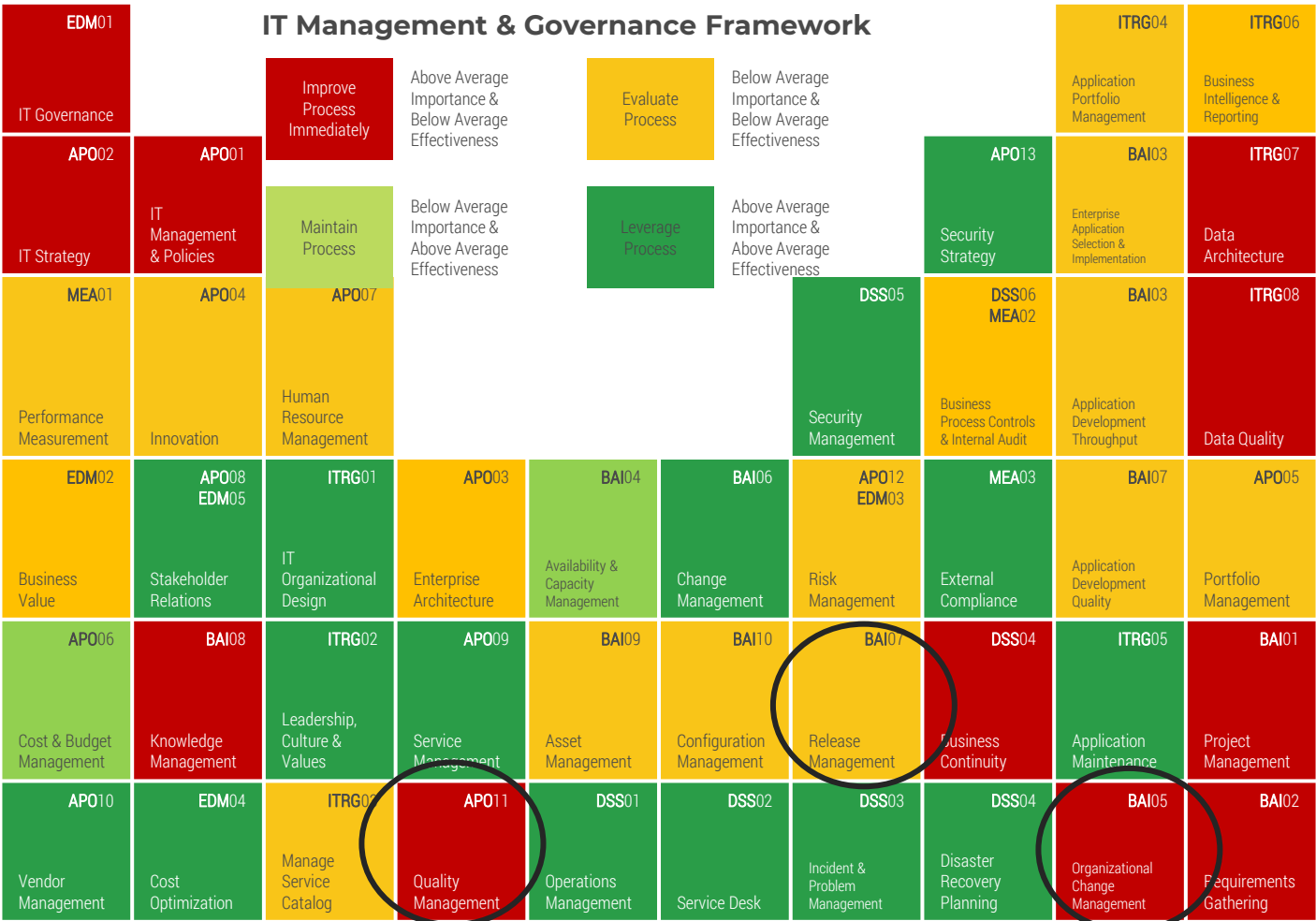
Viability for these room-as-a-platform trends and technologies is highly dependent on your hotel's business model and the architectural integrity of the building and its guestrooms.

- Hotel business model:** A hotel's business model may hinder ROI maximization if there are elements that dramatically limit what the hotel can do. For example, condo hotels will not be able to easily implement technology solutions in these residential areas/rooms, and therefore, the ROI that could have been realized for the entire building will only be applicable to the rooms where the solution was implemented.
- Architectural integrity:** Especially when dealing with an existing building that must be retrofitted, architectural integrity can be a risk. An organization that wants to avoid certain obstacles might run into other unexpected obstacles. For example, if your hotel wants to include keyless door locks without having to replace the doors, there is a chance of running into issues that may be just as costly as replacing the doors themselves.

Measure and assess your IT maturity because what may seem like a simple project could be more complex than expected. Your organization must understand the possible uncertainties and have substantial processes in place to remain resilient to potential risks.

Consider the **Gaming and Hospitality's IT Management & Governance Benchmarking Framework**, which demonstrates the struggles of the industry that may have a deep impact on the quality, outcome, and viability of a room-as-a-platform initiative, specifically highlighting:

- Quality Management:** Define and communicate quality requirements in all processes, procedures, and business outcomes.
- Organizational Change Management:** Implement or optimize the organization's capabilities for managing the impact of new business processes and new IT systems.
- Release Management:** Successfully implement new IT solutions and services in line with the agreed-on expectations and outcomes.



Data Extract: Info-Tech's Gaming & Hospitality IT Management & Governance Benchmarking Report illustrates the importance and effectiveness metrics for core IT processes.

How to read this trends report

Description	Each trend is introduced with a description and statistics, highlighting its growth and impact
Technology Signals	A signal of technological change (consumer, competitive, or otherwise) that indicates a divergence from the status quo
Hospitality Value Drivers	An analysis of the 360-degree view of value drivers that will be impacted – both positively and negatively – upon the implementation of this trend
Business Capability Map	An analysis of the 360-degree view of the business capabilities that will be positively impacted, based on cost advantage and competitive advantage weightings, upon the implementation of this trend
Benefits	A summary of benefits that could be achieved from a business and human perspective through the successful adoption of these technologies
Risks	A summary of risks and critical unknowns that could occur from a business and human perspective through the adoption of these technologies
ROI Metrics	Calculated methods to measure benefits realized for the costs incurred for each respective technology
Case Study	A real-life illustrative example demonstrating hoteliers' implementation and usage of each trend
Member Resources & Recommendations	Info-Tech's recommendation on how to move forward when embracing these trends and a list of materials that will assist your organization with understanding and adopting these technologies

ROI metric overview

The report provides ways to measure the return on interest for each trend, moving past occupancy rates and RevPAR and instead focusing on more detailed measurement methods.

A (Technology) + B (Impact) = C (P&L/Efficiency Line Items)

Profit & loss (P&L) line items to consider:

Top Line

- Room Revenue
- Food & Beverage
 - Breakfast, Bar, Restaurant, Room Service
- Other Departmental Revenue
 - Events, Activities, Spa, Gift Shop, Parking

Costs

- Operational Expenses
 - Rooms: Payroll, Cleaning, Laundry
 - Food & Beverage: F&B cost, Payroll, Cleaning, Laundry
 - Other Departments: Purchasing Costs, Payroll
- Undistributed Costs
 - General and Administrative
 - Heat, Light & Power (Utility)
 - Repairs & Maintenance

Efficiency line items:

- Productivity
- Guest Satisfaction

Objective	ROI Metric Definition	ROI Measurement/Method to Calculate
To reduce costs	Labor Cost %: Analyze labor management to maximize efficiency of labor force	Labor Cost % = (Total Labor Costs / Gross Sales) x 100
	Cost per Occupied Room (CPOR): Room profitability – considers both fixed and variable expenses	CPOR = Total Rooms Departments Cost / Total Rooms Sold
To increase revenue	Total Revenue per Available Room (TRevPAR): Includes revenue beyond booked rooms, e.g. spa	TRevPAR = Total Net Revenue / Number of Available Rooms
To increase productivity	Hours per Room Occupied: Analyze number of hours it takes to service guests and their rooms	Hours per Room Occupied = Hours Worked / Number of Rooms Sold
To increase guest satisfaction	Net Promoter Score: Guests rate likelihood to recommend the hotel	Net Promoter Score = Promoter Score – Detractor Score

Measurements illustrated throughout the trend report

Bibliography

ALICE. "New Research Finds a Majority of Hotel Guests Rank Unfriendly Staff as Most Frustrating Part of Their Stay." *Hospitality Net*, 8 Feb. 2019. Web.

ALICE. "New Research Shows 81 Percent of Consumers Want Experience Recommendations from Their Hotels." *Hospitality Net*, 23 Apr. 2019. Web.

Choudhary, Vijay. "The Hospitality Industry CIO Challenge and Opportunity: Making his Conventional Hotel to an 'Intelligent Tech-Responsive Hotel.'" *APAC CIO Outlook*, n.d. Web.

"Classification of Hotels." *E Travel Week*, 5 Sept. 2019. Web.

Dean, Grace. "A third of former hospitality workers won't return to the industry during the labor shortage because they want higher pay, better benefits, and a new work environment." *Business Insider*, 8 July 2021. Web.

Delporte, Laurent. "Digital Technology at the Mandarin Oriental." *Delporte Hospitality*, 3 Sept. 2018. Web.

Dev, Chekitan. "What Do Hotel Guests Really Want?" *Cornell Center for Hospitality Research*, Sept. 2018. Web.

Escobar, Michal. "Wyndham CEO Talks Labor, Loyalty and Gen X During Q2 2021 Earnings Call." *Hospitality Technology*, 8 May 2021. Web.

Heymann, Mark. "How Hospitality Can Leverage Tech To Alleviate Staffing Challenges." *Forbes*, 1 June 2021. Web.

"Hotel Requirements & Diamond Guidelines." *AAA, CAA Quebec*, 2002. Web.

Idrac, Laurent. "The CIO in 2021." *Hospitality Upgrade*, 2021. Web.

"Joblist Survey Finds 50% of Former Hospitality Workers Refuse to Return to the Industry." *Hospitality Technology*, 7 Aug. 2021. Web.

Kelly, Sally. "The Hospitality Upgrade Annual Investment Survey Results – 2021." *Hospitality Upgrade*, 20 April 2021. Web.

"Lodging Technology Study 2021." *Hospitality Technology*, 2021. Web.

"Marriot International 2020 Annual Report." *Marriott International*, 2021. Web.

Popken, Ben. "There are now more jobs available than before the pandemic. So why aren't people signing up?" *NBC News*, 9 April 2021. Web.

"Smart Hotel Technology Guide 2019." *Singapore Hotel Association*, 2019. Web.

Smith, Tovia. "Hotels And Restaurants That Survived Pandemic Face New Challenge: Staffing Shortages." *NPR*, 5 May 2021. Web.

Bibliography

"Star Ratings (Hotel Class)." *Expedia*, n.d. Web.

Starkov, Max. "Hospitality Digital Technology: Challenges, Priorities and Buzzwords." *Hotel Technology News*, 2019. Web.

Zhou, Zongqing. "4 Detailed Steps Hotels Can Take Now to Regain Guest Trust." *Hospitality Technology*, 29 April 2020. Web.



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