WHITEPAPER

# Inserting Smart and Resilient into Facilities

The pandemic has driven an estimated global GDP impact of trillions of dollars of lost economic output. As companies adjust and adapt to a new business environment, business leaders are looking towards the future and what it will take to get back to "business as usual". No matter how long it takes for the economy to recover, things are not going to look like they did nine months ago. The competitive landscape will look different, as some businesses adapt, enter new markets or pursue different business models along with an adjustment on demand and customer expectations as well.

As businesses cautiously reopen, facility leaders are beginning to reconcile with their new reality - an increased focus on safety, a purpose built flexible plan for their workforce, including how and when to move people back into the office and what safety measures they may need to adjust and feel safe.

In this article, we attempt to put a structure around addressing this challenge, in the context of the pandemic and beyond. Sustainable, efficient, resilient facility operations can seem like a distant ideal, but can be achieved with vision, a strategy, and disciplined implementation. A strategic, holistic approach to high-performing facility management operations is necessary for comprehensive facility stewardship.

Today, at the top of business leaders' minds is "risk." For a facility manager, the connotation of risk is at an unprecedented level of relevance. The very sustenance of a business can depend on how it identifies and tackles risk. Understanding a business's space and risk profile is key to developing an effective response plan. For example, in an office, the key focus is to enable a finite, repeating group of employees to maintain a safe distance to prevent the spread of the virus and,
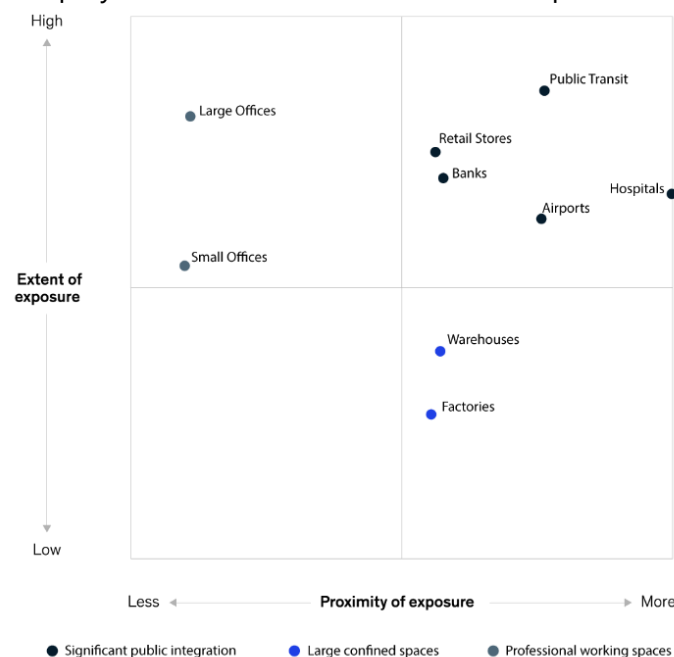
McKinsey & Company profile different types of spaces defined by two dimensions in the current context of the pandemic – the extent of exposure and the proximity of exposure.

in the event of an incident, have an effective response time to trace contact and prevent further damage. On the other hand, large public spaces like airports are most effectively managed by managing common spaces and having an effective sanitization routine. In a more confined space

like a factory, monitoring ventilation and air quality become paramount. Regardless of risk profile, an effective response needs to be developed.

Businesses need to build a new muscle

Until recently, workspaces for businesses were a capital concept. Planning was for the long term without a whole lot of unknown variables. That constant has been disrupted.

Businesses need to build a muscle that makes them resilient and dynamic with the ability to operate in a hybrid setup in the foreseeable future. We don't know how things will shape up over the next few months. What we do know is that the concept of space is changing. Facility management has been typically driven by cost-centric rather than value-driven priorities. Old assumptions about brick and motor buildings were already transforming but in pockets. Tech-driven differentiation was on the rise. The pandemic, however, has pushed facility transformation into an accelerated trajectory. The facility manager's role is becoming more and more prominent and even shifting from an operational to a strategic level.

We recommend addressing facility transformation in three phases:

Short Term

In the **short term**, protecting occupants, be it the workforce, patients, customers, or public, is paramount. It is the only path towards the recovery of society and the economy. The challenge is to do so in a way that balances safety and productivity. This means we need to focus on preventing the spread of the pandemic and, in case of an outbreak, manage to contain the damage effectively and quickly. A PWC survey states that contact tracing is seen as a critical tool to manage CODIC-19 transmission with at least 30% of leaders actively investing in this space.

It also means effective cleaning practices with the limited resources available. Surveys have shown that businesses are cleaning at five to six times the usual frequency. But with cleaning staff and budgets cut, organizations are being challenged to do more with less.

Focus areas in short-term:

- COVID-19 Response
- Implement safety measures like Social Distancing & UTC
- Adopt effective cleaning practices

Mid Term

How we use spaces has been disrupted, and it is not expected to be a point in time event. In the **mid-term**, facility managers need to understand and manage space utilization. Understanding a workspace is complicated because these spaces are bigger than what any individual can conceptualize at once. There is a need to decentralize and emphasize remote measurement, telematics, and analytics to bring a better understanding of the operating patterns of a facility and its critical assets. Such insights based on real-time data can enable data-driven decisions around redesigning spaces that might be contrary to obvious optics. For example, are you really short of wheelchairs in a hospital, or is a particular department hoarding empty wheelchairs? Are you really short of conference rooms, or are they being booked but not used? Are you measuring your supplier in a manner that drives the right behavior and outcomes?

Focus areas in mid-term:

- Manage in-space utilization
- Remote measurement, telematics and analytics
- Draw insights on help with redesigning of spaces

Long Term

Real estate is amongst the top few P&L line items and an easy target for cost-out. Facilities and general capital expenditures remain targeted — 78% of CFOs whose companies are considering deferring or canceling investments plans, cuts here. It is imperative, therefore, that we should think about optimized spaces and how to get there in a dependable manner.

The investments in the short and mid-term allow you to march towards your **long-term optimization and sustenance goals**. Facilities data that results from 'understanding what you have', leads to analysis of how you use your assets. This, in turn, drives planning approaches that, when properly implemented, result in resilient, safe, healthy, productive and efficient facilities.

Depending on the context of your space, building data can also open up exciting monetization opportunities. For example, an elevator OEM has identified a potential opportunity to monetize data collected for elevators' predictive maintenance. Occupancy patterns, while just another input for predictive maintenance, is of significant business value to the coffee shop around the block.

In addition, most corporates also have aggressive sustainability goals now, and the reporting towards sustainability is only expected to increase. In the US, buildings account for 40% of all emissions. Some buildings are seeing energy reductions as high as 18% through IoT technology. Surveys show that ESG investments which have increased in response to the pandemic will continue to be protected.

Focus areas in long-term:

- Safety Score benchmarking
- New service & maintenance models
  Integrated systems – connect to utilities and enhance sustainability quotient

Technology to the rescue

Incidentally, technology advances allow us to rise to meet these challenges. In the past, the key detractors to applying technology innovations have been around technology limitations, security and ROI.

Focused on use cases addressing both the short term and the long term, Microland offers *a **plug-&-play, non-intrusive, low-cost** insights-based suite of solutions with reduced risk of large infrastructure investments*. This comprehensive approach to connecting and inter-relating workspace, assets, people, and devices, refocuses away from technology and towards actionable data and insights on operational patterns. This is enabled by Sensing technology as a Service, powered by Microshare.

Sensing As A Service

Contact Tracing

Asset Zoning

Air Quality Index

Occupancy Monitoring

These enterprise-ready solutions come packaged with pluggable sensors and LoRaWAN connectivity that operates independently of any corporate network, offering the ability to put sensor data on the cloud within a matter of hours. This data can then be contextualized to your facility to derive meaningful insights.

Some of the most popular use cases are around Universal Contact Tracing (no PII captured, no reliance on a cellphone) for the immediate prevention and effective response in case of an outbreak, along with occupancy related solutions to understand space usage, predictive cleaning (as against scheduled based) for common spaces, and air quality monitoring and airflow management for high-risk spaces. These enablers allow businesses to optimize their facility operations and do more with less.
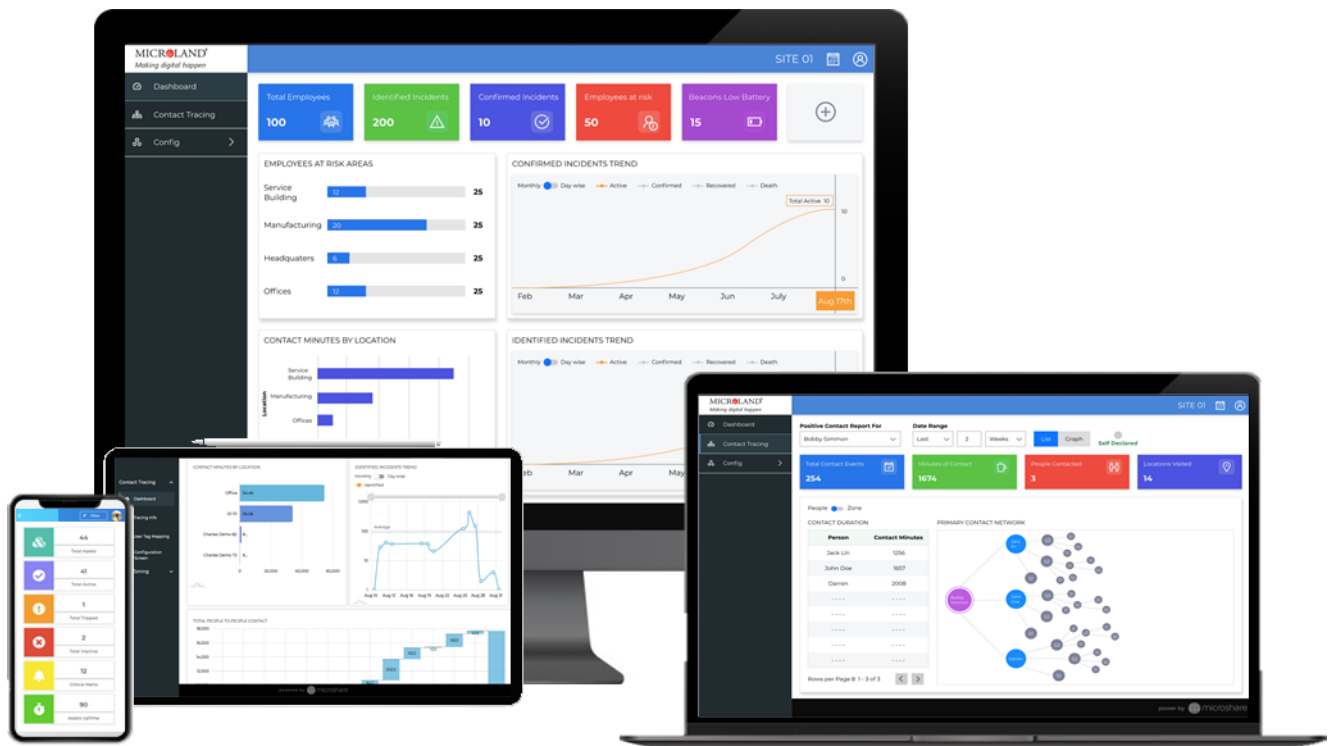
In addition, asset tracking technology can track high value and movable assets within a facility and are particularly useful in hospitals to track critical operational assets like beds, wheelchairs, and nurse carts to optimize hospital operations and asset utilization with the ability to drive huge cost optimization. Amid the COVID-19 crisis, the global market for Healthcare Facilities Management estimated at USD 224.1 billion in the year 2020 is projected to reach a revised size of USD 373.4 Billion by 2027, growing at a CAGR of 7.6% over the period 2020-2027.

The solution offers a platform to centralize and contextualize rich data streams enabled by inserting "smart" into your facility. These insights can be valuable and key to facility resilience and optimization.

Fad or Reality

While the pandemic is expected to be a relatively short-lived event (we hope), it has unleashed a force of transformation that is only going to get bigger and faster. Facility managers are expected to be measured by aggressive goals around health & safety, environmental efficiency, and cost efficiency, reporting against published standards and goals. IoT unlocks health, performance, and sustenance quotient data for your space in a manner and at a cost that is only possible with the latest technological advances. Once inert assets and spaces can now be transformed by IoT data into living, breathing, data-producing entities.

Rol of your Building's Data

Efficiency, Building Performance & Cost Saving

- Inefficiency in the best of times risks wasted money on rent, energy, contractors, equipment and more. IoT based solutions identify these trends in real-time 24x7

ESG (Environment, Social, Governance) data

- Regulators in the global market are demanding ESG / Sustainability metrics from corporations, where ESG officers spend up to 80% of their time just collecting data

Health, Safety and Wellness

- Reassure staff, tenants, customers and investors about your facilities' takes safety and well-being quotient backed with quantitative insights

In summary, facility management is at a pivotal point of transformation. Technology is ripe to enable this transformation and drive enhanced occupant and social experience. It is anticipated that buyers and tenants will pay more for smart buildings with personalized occupant experiences: an 8.2% premium in rent and a 23.7% premium in transaction prices. The facility manager should see this crisis as an opportunity to step up and support the organization in its strategic direction.

References

- McKinsey & Company - https://www.mckinsey.com/business-functions/risk/our-insights/reopening-safely-sample-practices-from-essential-businesses
- Microshare – https://www.microshare.io/
- Businesswire – https://www.businesswire.com/news/home/20200903005660/en/373-Billion-Worldwide-Healthcare-Facilities-Management-Industry
- PWC – https://www.pwc.com/us/en/industries/capital-projects-infrastructure/library/smart-building-tech-deployment.html , https://www.pwc.com/us/en/library/covid-19/pwc-covid-19-cfo-pulse-survey.html
- Delloite – https://www2.deloitte.com/be/en/pages/risk/articles/impact-covid-19-on-facility-management.html
- ESSI – https://www.eesi.org/

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Lalita is a growth focused leader with broad experience in digital strategy, execution and delivery. She is passionate about leading strategy & value generation through transformation of global enterprises and has a successful track record in leading technology enabled large scale initiatives.

About Microland

Microland's delivery of digital and "Making Digital Happen" allows technology to do more and intrude less. We make it easier for enterprises to adopt nextGen Digital infrastructure. We enable this using our expertise in Cloud and Data Centers, Networks, Digital Workplace, Cybersecurity and Industrial IoT, ensuring the embrace of brilliance is predictable, reliable, and stable.

Incorporated in 1989 and headquartered in Bengaluru, India, Microland has more than 4,500 digital specialists across offices and delivery centers in Asia, Australia, Europe, Middle East and North America.