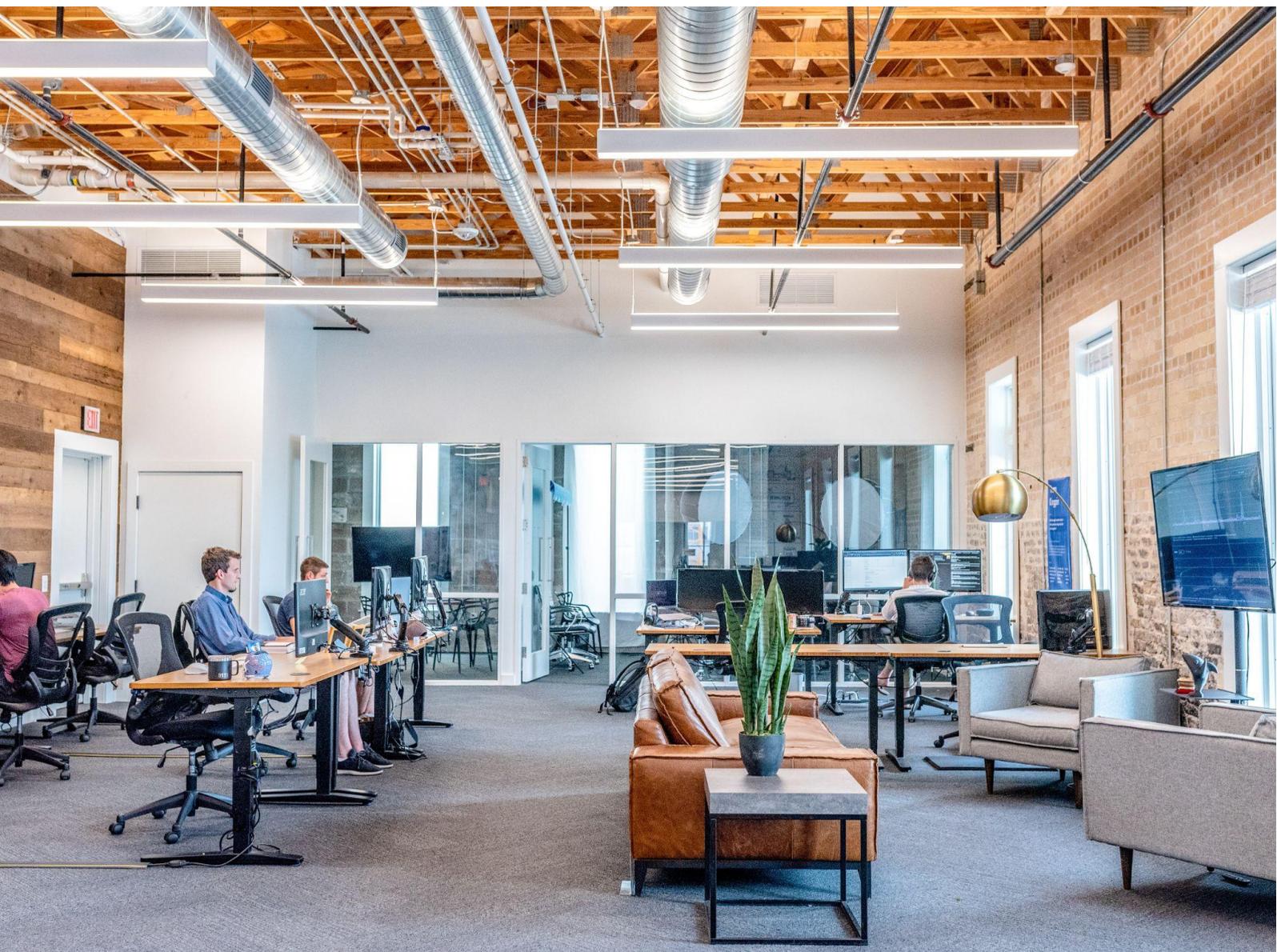




Towards the future of work

Managing the return to the workplace with objective data on occupancy.





Back to the future of work

What is the future of work and the workplace? This is a question that comes up time and time again across industries and geographies. However, in 2021, the answer to that question is no longer in doubt: people are returning to work following long absences or disruptions due to the global pandemic, and what they return to is the ***future of work***.

Those responsible for overseeing the return to work in a company or organisation are in fact shaping the future of work and the workplace. Sounds like a serious responsibility? It is. However, it is also a once-in-a-generation opportunity to achieve breakthrough improvements in wellness, productivity and efficiency.

This paper illustrates how to seize this opportunity by combining novel occupancy data with tried-and-true continuous improvement methods to create safe, social and healthy workplaces at the service of their occupants, while equally fostering sustainable advantages for the organisation over the long term.



A continuous balancing act

Managing occupancy levels in the workplace is the **main challenge** in a progressive return to work.

Safe or Social?

An empty office may have been the safest option during the pandemic, but this at the expense of its social function. Employees are now suffering from “Zoom fatigue” and are starved for social interaction with their colleagues, so what level of occupancy will strike the right balance between collaboration and a safe environment? Adapting the level of occupancy is akin to adjusting a **slider** to strike a balance between *safety* and *social*.

Productivity or Purpose?

What is the function of the workplace? Should it facilitate completing repetitive tasks efficiently or empower employees to execute their mission autonomously? The work-from-home experience has taught us that autonomy can be achieved regardless of location. Adapting the function of the workplace is akin to adjusting a **slider** to strike a balance between *productivity* and *purpose* which will influence occupancy especially with a workforce now able to choose from where they work each day.



**How many individuals? Where? When?
It's the balancing act of occupancy.**

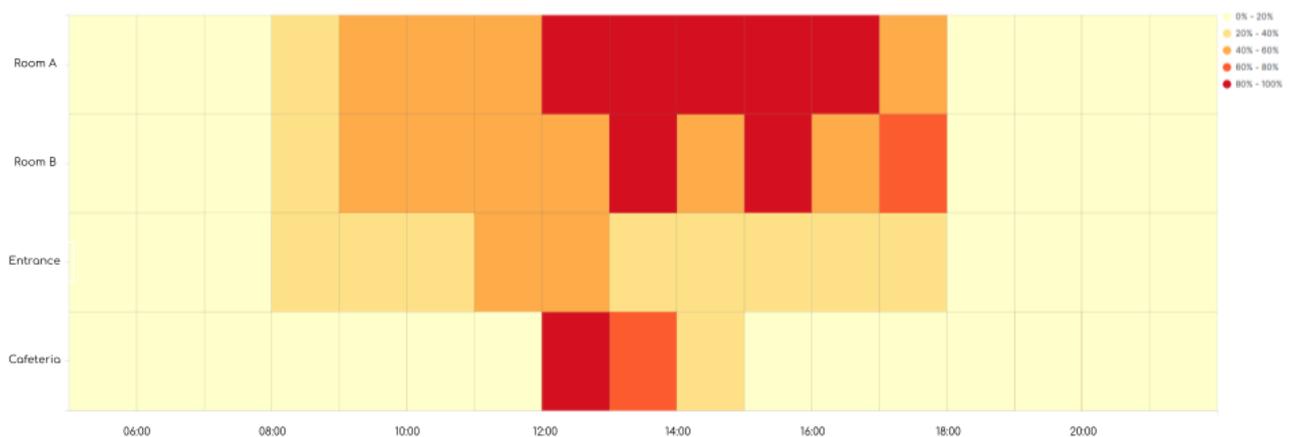


Occupancy tells the story

Workplaces are at the service of the people who use them, and how they are occupied tells their story. In the past one may have turned to manual methods to measure this, but we are no longer in the past, rather we are shaping the future. Today, occupancy data can be automatically collected from signals that are already present in a physical space (more on that later), and visualised intuitively as through graphs such as heat maps or time series. These visualisations tell the story of how workplaces support their occupants, and, key to the context of a return-to-work strategy, how these patterns evolve over time.

Heat map of occupancy of workplace zones over the course of a day:

This visualisation is built with **reelyActive's** technology platform



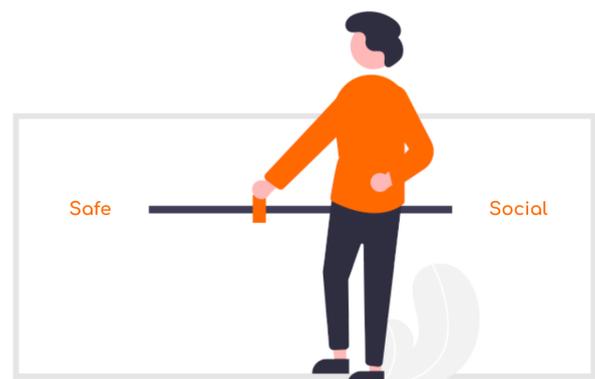
Safe or social?

Are the densely occupied areas risk-prone?

Why such occupancy at these locations?

Why at this time of day?

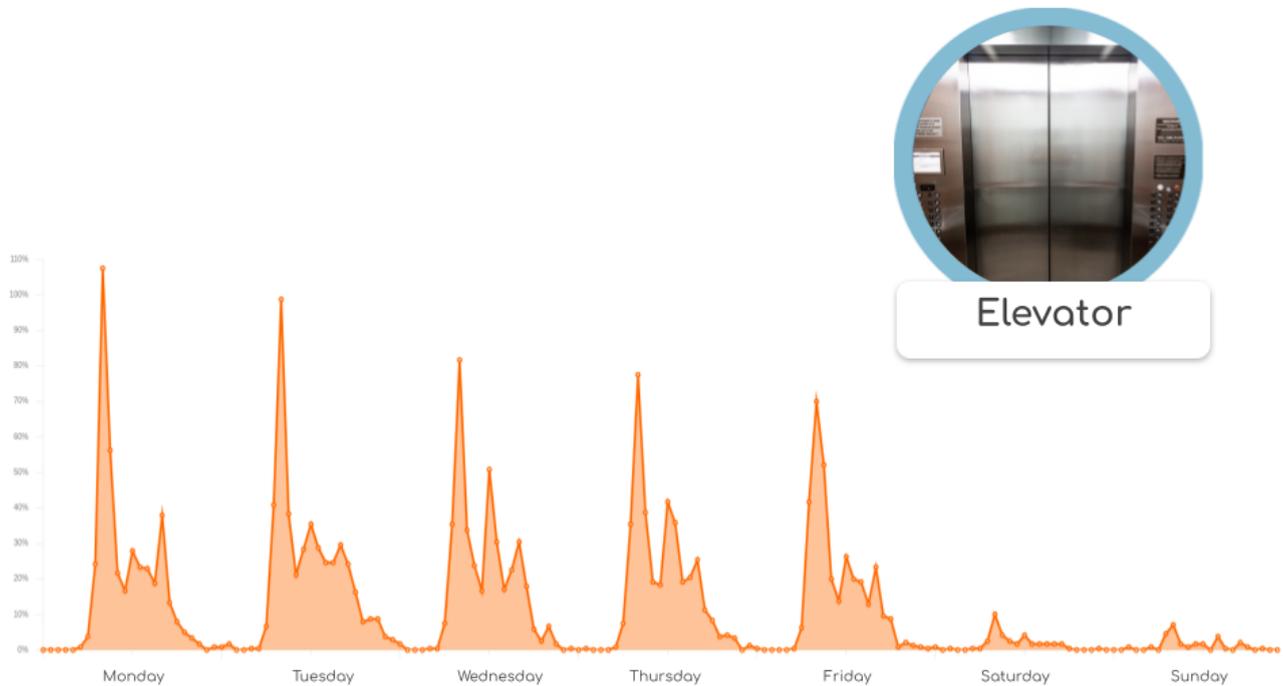
Would it be possible to promote vacant areas to augment both the safety and well-being of employees?





Time series illustrating elevator occupancy patterns over the course of a week

This visualisation is built with **reelyActive's** technology platform.

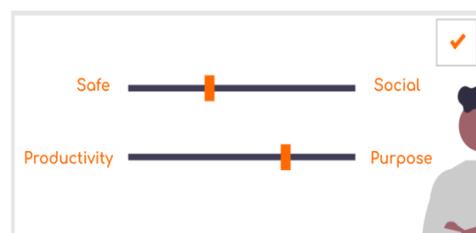


Productivity or Purpose?

What are the peak hours of elevator use?

Are elevator queues disruptive to the occupants' well-being?

Can productivity be increased by flattening the occupancy peaks?





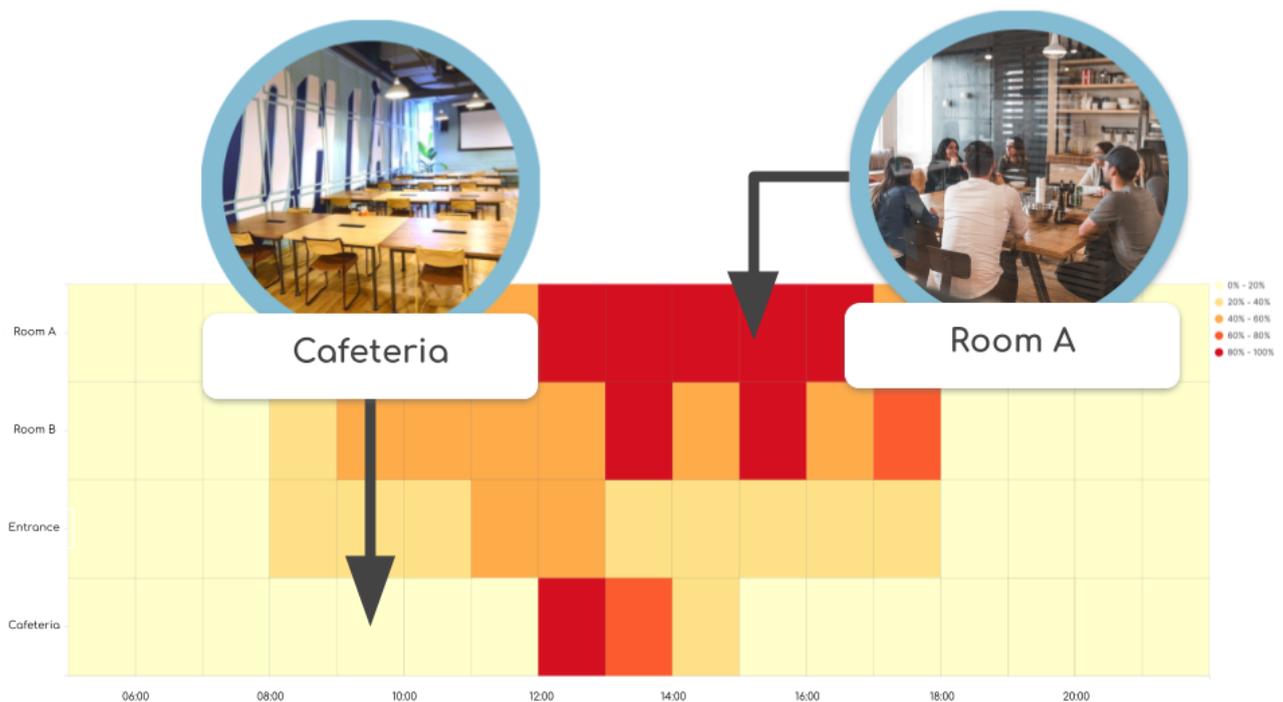
Continuous balance improvement

With occupancy telling the story of balance (or rather imbalance) in the workplace through intuitive visualisations, the process of continuously improving wellness, productivity and efficiency becomes straightforward. On a daily basis, or any other suitable interval, one may repeat the following:

- **Identify where and when occupancy is either far too high or far too low**
- **Investigate to understand the root cause**
- **Intervene, if required, with company best practices**

Observing and improving occupancy patterns on a regular basis is a simple yet powerful form of organisational continuous improvement. Think of it as continuous fine tuning of the sliders to meet the evolving needs of the workplace and its occupants.

Identifying occupancy hot spots by zone and time of day:



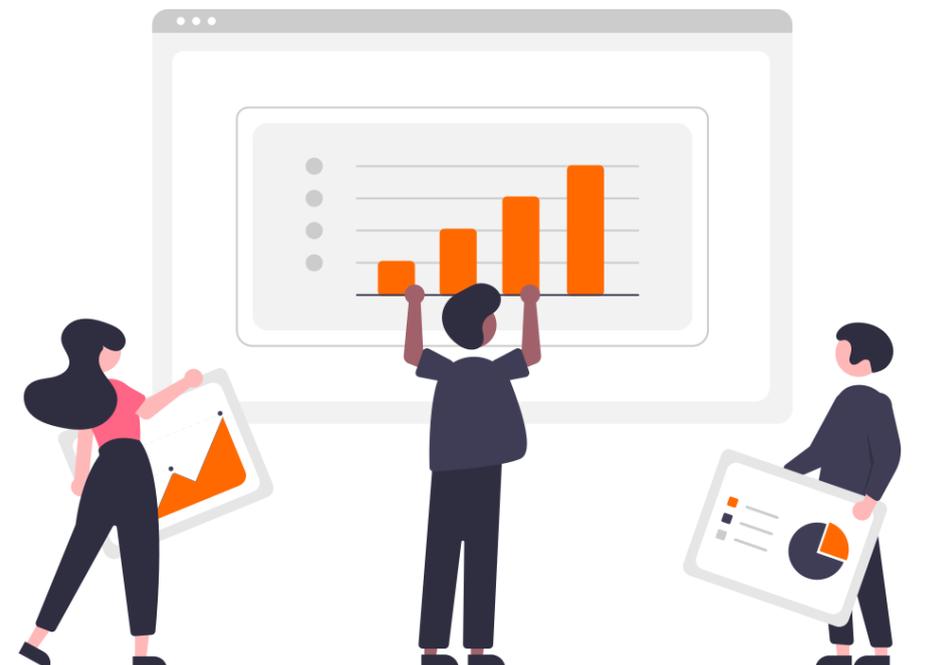


Just right for everyone

The continuous fine tuning of occupancy benefits the occupants of the workspace, and they should be the first to know how this process is managed and why. In fact, it is their perception of safety and social interaction at work which will guide the daily adjustments, and, by giving them a voice, **they will champion the initiative.**

Experience has repeatedly demonstrated that when organisations involve employees to new initiatives from the start, they succeed and take root for the long term. As employees return to the workplace of the future, this is an opportunity to include them in shaping exactly that: the future of their workplace! It can be as simple as proactively collecting and sharing ideas and feedback with each of them.

It is the ambient data generated by the occupants of these workplaces which makes all of this possible. By understanding how they contribute to the ambient data of a space, employees are likely to propose and support new initiatives made possible by the multiple use cases of ambient data (more on this later).





Ambient data

So what exactly is ambient data? In short, it is the signals all around us which are generated by the connected devices we carry and with which we interact. For instance, the Bluetooth radio on a smartphone or wearable will periodically discover and interact with its nearby peers. These ambient data signals are all that is required to generate the occupancy heat maps and time series visualisations shown in the previous sections.

Simply by bringing their smartphone to work, employees anonymously contribute ambient data. Since personal smart devices regularly cycle their Bluetooth identifiers, the data contributed by each and any occupant remains anonymous.

The collected data can reside on-prem for companies more concerned about privacy or in the cloud for companies more concerned about convenience. Ambient data has been leveraged for years. The time series graphic on the following page tells the story of a client space which illustrates how the quantity of collected ambient data tells the story of occupation and the global pandemic.

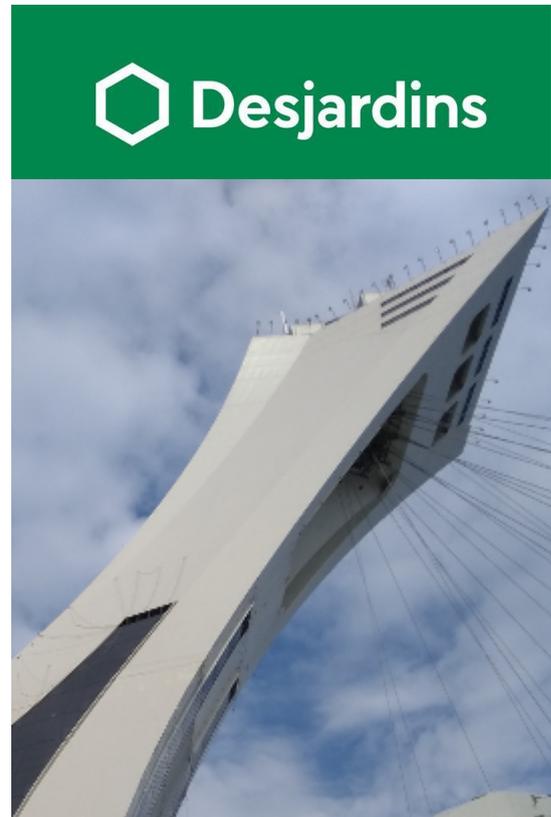




Adopted By Trusted Organizations

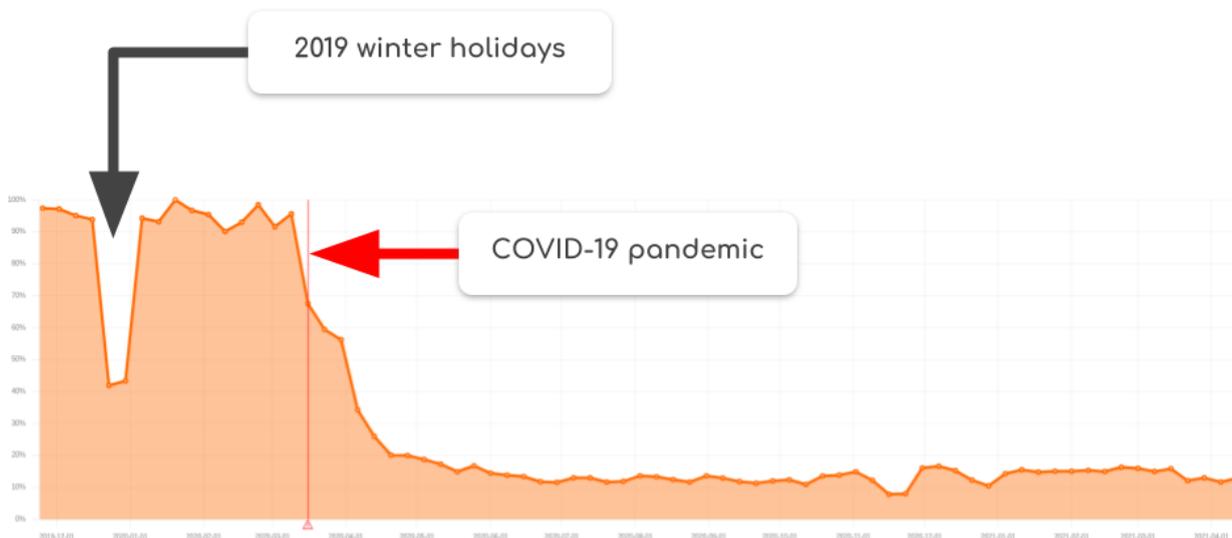
Desjardins, North America's largest federation of credit unions, proactively applied this data-driven approach to occupancy in one of their office towers and reduced their office space requirements by **15%**.

[The details of that story are found here.](#)



The evolution of occupancy patterns from December 2019 to April 2021 in an office space:

This visualisation is built with **reelyActive's** technology platform using ambient data





Beyond occupancy

Occupancy analytics is but one of several complementary use cases made possible by ambient data. Moreover, **the applications extend across industries such as healthcare, manufacturing, finance, culture and more.** Discover each of these complementary use cases below, as well as how organisations put ambient data to work for what matters for their business.

Asset Tracking	Personnel Tracking
<p>What assets are being used the most/least and how does this impact safety/productivity? See how the Montreal Jewish General Hospital tackled this project by clicking here.</p> <div data-bbox="347 1066 496 1200" data-label="Image"> </div> <div data-bbox="244 1200 604 1292" data-label="Text"> <p>Hôpital général juif Jewish General Hospital</p> </div>	<p>Where and how do soldiers spend their time maintaining heavy equipment? See how the US Army tackled this project by clicking here.</p> <div data-bbox="1034 1030 1246 1308" data-label="Image"> </div>
Environmental sensing	Interaction detection
<p>How do environmental factors in the workplace affect employee wellness? See how the University of Southern California comprehensively studied this in a healthcare setting by clicking here.</p> <div data-bbox="181 1787 663 1890" data-label="Image"> </div>	<p>How much time do visitors spend in the museum and with which exhibits and artifacts do they interact the most? See how the Museum of Civilisation of Québec rapidly prototyped this by clicking here.</p> <div data-bbox="967 1756 1297 1998" data-label="Image"> </div>

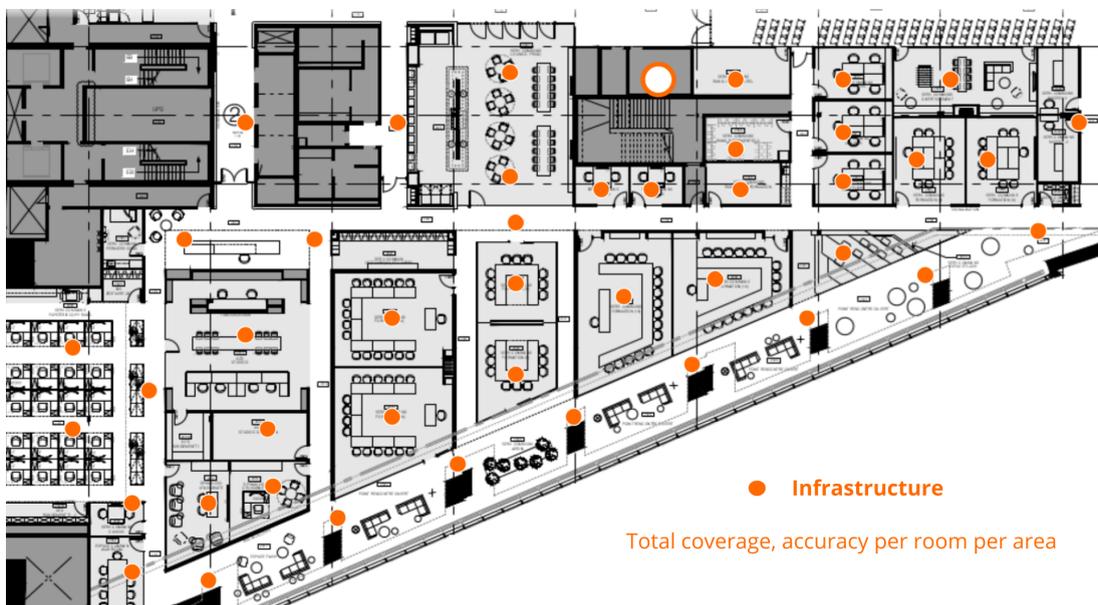


Getting equipped for ambient data

Ambient data can be collected from a space using existing networking infrastructure, or by installing gateway devices specifically for this purpose. An organisation's IT department is typically best positioned to plan and execute this step, and should be involved from the start of any project. Given that the Bluetooth devices already carried and worn by occupants generate ambient data, in the case where existing infrastructure can be leveraged, cost and complexity is at a minimum. And, even in the case where gateway devices are to be installed, this can be achieved on either a temporary or

permanent basis both quickly and on a budget (read the case studies in the previous section to learn more).

WiFi access points from HP Aruba, Bluetooth sensor gateways from reelyActive and other vendors, as well as many other compatible devices can be strategically deployed throughout the workspace, as in the following floorplan, to collect and forward ambient data for processing and interpretation:





To conclude

The question of the future of work and the workplace is no longer speculative. As the world returns to the workplace after prolonged absences or disruptions due to the global pandemic there is both an expectation and a need for something different. This can—and should—be seen as an opportunity for organisations to seize.

Occupancy tells the story of the workplace and this information can be used to make continuous adjustments to deliver the right balance of safety, social interaction, wellness and productivity based on the evolving needs of the occupants themselves. A data-driven approach to occupancy is the foundation for effective strategic planning and workplace management. And occupancy analytics is just the first of several complementary use cases of ambient data which foster a culture of continuous improvement leading to a sustainable advantage for the organisation.

We've collectively been through a difficult period, and for many, work provides a renewed sense of purpose and belonging. We are all looking forward to seeing each other in the meeting rooms and in the break rooms, let us then bring everyone back together safely. Humans are social animals after all, and the workplace will be more important than ever to its inhabitants moving forward.

Contact us to discuss your return-to-work

Considering a data-driven approach for your organisation's return-to-work? Contact us to schedule a discussion about how to seize the opportunity of shaping the future of work in your workplace.

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About reelyActive

reelyActive was founded in Montréal in 2012 with a goal to create the first simple and accessible cloud-based active RFID systems. Today we enable organisations to transform the abundance of wireless data in their physical spaces into an inexhaustible source of value for their business. The exponential growth of wireless devices of all kinds represents a wealth of ambient data, and reelyActive is the only company to allow any participant to take purposeful action from the full extent of the data in their space, because only we are focused on building communities of ambient data expertise.

Note: Each image and illustration used in this white paper was obtained from the [Unsplash](#) and [unDraw](#) platforms, respectively. Aligned with reelyActive's vision, these two open and permissively licensed platforms allow their users to download and use free content. **reelyActive supports and encourages open source initiatives that foster collaborative innovation.**

