



ASSET MANAGEMENT PREPARES ORGANIZATIONS FOR UNEXPECTED EVENTS

Establishing plans and processes is critical to response and recovery.

The pandemic is testing organizations, exposing fault lines in systems. It is also demonstrating the need for robust asset management plans and processes that reduce risk and deliver critical services. We spoke with Dr. Christian Roberts, Senior Vice President, Asset Management and Business Advisory, WSP, to explore how asset management can strengthen organizational resilience—enabling effective response and recovery amid future events.



How can asset management improve organizations' preparedness and response to unexpected events?

Dr. Christian Roberts: I think it's important to be clear on the difference between asset management and managing assets, and how both can apply to preparedness and response to unexpected events. Asset management is the process of identifying the required performance from which the organization extracts value, such as service delivery or achieving strategic priorities; managing assets is the process of performing maintenance and capital replacement to return an asset or system of assets to required performance level.

In both instances, to enable preparedness for unexpected events, it is critical to establish

controls—by which I mean plans and processes that manage, monitor and reduce risk and deliver performance consistently. In the context of asset management, understanding fully the pre-, during- and post-event performance requirements and expectations and having plans in place to deliver them means understanding need as well as asset capabilities, risks and vulnerabilities, and being able to determine quickly what is required to return to service. In the context of managing assets, preparedness is focused on the organization's ability to perform necessary work, which can be improved through better information, inventory and supply chain spares management, as well as improving understanding of resource needs and having plans in place should critical teams be affected by the event.

What have been the major asset management challenges that organizations have faced due to the pandemic?

Dr. Christian Roberts: I think we have all faced challenges that have led to changes in how we react, behave and progress through this pandemic. Within WSP, while we do not manage major physical assets, we do deliver services, and as such have had to make changes in how we manage projects, including introducing continuity of operations plans for each. We have also addressed how we ensure the health and well-being of our staff, the need to stay connected to our colleagues and clients and stay informed and, importantly, being in a position to

modify our delegation of authority should the need arise.

These are the same issues and challenges the infrastructure sectors have had to cope with, in addition to ensuring that critical services are maintained. The big challenges could generally have been resolved through a continuity of operations planning exercise. A number of organizations have had to create plans on the go, resulting in confused and uncertain responses. Lack of information on the state of assets, inventory levels and resource availability has resulted in delays in responding and addressing issues, all of which has been made so much more difficult with many staff moved to remote working.

The just-in-time or optimized use of supply chains has left many organizations short of urgent supplies, which has impacted the ability to respond to the pandemic. This is even more so the case with disposable supplies, such as cleaning equipment and fluids and PPE gear, which are generally less tracked, or at least less well-managed against min/max levels.

What actions should be taken today to benefit from experience gained during the pandemic?

Dr. Christian Roberts: In my article published on the Institute of Asset Management website¹, I identify steps that can be taken now to build off the lessons learned through the pandemic and prepare for events—whether they are pandemics, natural disasters or other impacting events. These steps include reviewing current organizational resilience, developing continuity of operations plans or COOPs, and strengthening organizational resilience, essential functions training and supply chain resilience.

First, reviewing organizational capabilities for both asset management and managing assets will identify gaps in current planned responses and support development of COOPs. WSP's Asset Management Capability Assessment Model—am2c—has been designed with this requirement in mind. The tool draws on over 20 years of experience in managing critical infrastructure and is mapped to global standards, industry best practices and relevant legislation. It was recently updated to consider *FEMA guidance on Continuity of Operations Planning for Pandemic Influenzas*. Undertaking an organizational review enables a better understanding of risk and rapid preparation for responding to a second wave or other natural disaster event.

With respect to developing continuity of operations plans, at the bare minimum, I would recommend developing COOPs to address epidemic and pandemic diseases. However, acknowledging that 2020 is forecast to be an active hurricane season, it is worth using the time to develop response capabilities for the “perfect storm”—a natural disaster striking during a pandemic.

Regarding strengthening organizational resilience, from an asset management viewpoint, a COOP is only part of the picture. It's important to also develop alert levels, establish and enforce a management system that ensures controls are implemented and applied consistently, and be clear on the information needed to inform decisions.

The pandemic has highlighted shortfalls in response capabilities. With new capabilities implemented, it's important to deliver essential functions training, or organization-wide training, so that it is clear how the organization will respond.

¹ *The Institute of Asset Management*
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I am a big believer that we “are in this together.” In this context, it is important that critical infrastructure owners and managers consider not just their own organization’s resilience but that of their supply chains. Understanding the ability of supply chains to continue to provide inventory, and understanding the requirements, min/max levels, is key. Remember also that national-level events typically impact the economy too, and with that comes changes to services as well as opportunities for stimulus funding. An important lesson from the 2008 global financial crisis is the role infrastructure investment can play in boosting economic development. It is therefore important to have not just “shovel ready” projects but also planning-stage projects ready to utilize stimulus funding on a more sustained basis, in the short- to medium-term, and make full use of asset downtime.

These steps are appropriate amid a natural disaster, pandemic and other events which impact an organization’s ability to deliver critical infrastructure services. In each instance, the effect may be different, but the process of establishing controls—plans and processes—is the same. The goal is to improve organizational resilience.

How do you define resilience as it applies to today’s challenges?

Dr. Christian Roberts: There are two ways of looking at resilience. Asset resilience considers the asset’s ability to cope with the event—for example, flooding and its impact on the asset; and asset management resilience considers the organization’s ability to absorb, respond to and recover from the event. In both instances, understanding vulnerabilities, either through review of asset capability or through asset management capability review, as I described earlier, will help build resilience.

To further strengthen resilience, organizations should improve asset and asset management information. This supports an agency’s response and results in a safer work environment. Ensuring that access to information remains during the event is key. Consider a mix of offsite-hosted solutions with local access, which includes local copies to enable untethered access to data—for example, when telecommunication systems are down.

Another way to strengthen resilience is to establish last-resort capabilities, enabling the transfer of operational control of one or more essential functions to a last-resort service provider. For pandemic situations, based on organizational risk, this step should be considered for both recovery and restoration.

While the pandemic is at the forefront of everyone’s minds right now, this won’t always be the case. As organizations, people and management systems change, it’s important to stay on top of how response, recovery and restoration will be activated, managed and monitored. Training is essential to make sure the organization and its supply chain understand how processes will be managed; and training enables continual review and improvement.

There is much discussion, debate and turmoil concerning social and economic issues – how can asset management help bring about progress?

Dr. Christian Roberts: I think I have covered how asset management can establish controls—plans and processes—for managing response and recovery amid events. That is especially true of natural disasters, which impact asset capabilities, as well as pandemics, which impact the organization’s asset management capabilities—its people. But we have also seen social unrest in response to national social

justice issues, such as distribution of wealth, opportunities and privileges within society.

In an organization with well-developed asset management capabilities, it is possible to ensure that the technical level of service supports an organization's goals and prioritizes the basic principles of social justice. This approach advances fairer distribution of capital investment in assets—to support equality of access to services or to provide services which enable equal access to opportunities, such as transit routes to support job creation.

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