WISRD

WE HELP CAMPUSES INCREASE

INFRASTRUCTURE RESILIENCE

WISRD supports the efforts of campus leaders to prioritize infrastructure investments in the most intelligent and economically efficient manner possible.

WISRD's Work

WISRD for Campuses™ is a powerful decision support and communication tool. Its unique systems-approach examines three potential modes of asset failure across six sectors, not just one.

By integrating key business data with spatial analytics, WISRD for Campuses™ provides a clear picture of the current baseline condition of existing infrastructure. This is then examined against current hazard data.

The result is a vulnerability-based method for prioritizing capital improvement projects that increases infrastructure resilience, saves money, and improves safety.

WHY WISRD?

- To get the big picture, cross-sector view of campus infrastructure conditions and vulnerabilities.
- To identify systems dependencies, and prioritize upgrades and repairs accordingly.
- To encourage data sharing and cross-disciplinary collaboration.
- To develop smarter current and long-range plans that take both above and below ground infrastructure into consideration.
- To make wiser CAPEX investment decisions, backed by current, objective information.

Aging Infrastructure

Deciding where to invest limited infrastructure funding can be tough, especially when, for example: roads, stormwater, water, wastewater, and energy facilities all need upgrading NOW.

External Threats

Add to that changing weather patterns and security concerns. As leaders, you need to ensure that campus infrastructure is more resilient and better able to withstand and bounce back from any shock.

Where To Start?

When infrastructure resilience is critical, let WISRD help you make informed decisions *before*:

DISASTER STRIKES
EXPENSIVE CAPITAL OUTLAYS
INFRASTRUCTURE PROJECTS BEGIN

esri Emerging Business Partner

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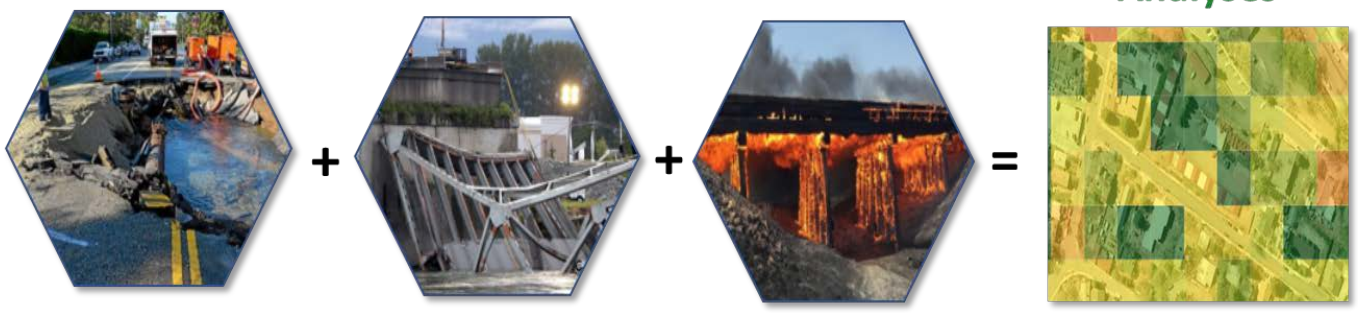
Infrastructure *fails* for 3 main reasons:

1. From deterioration of assets due to age and lack of maintenance.
2. When external events such as natural hazards (*e.g.*, floods, fires, earthquakes, hurricanes, landslides, etc.) or acts of terrorism deliver severe shocks.
3. When weak-links between different collocated infrastructure components create an even greater risk of cascading failure. **Collocation analysis is not typically considered in today's resiliency planning.**

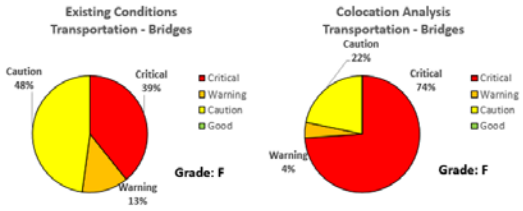
When the bridge goes, so does the water main and communication lines attached to it.

Existing Conditions + **Collocation** + **External Threats** = **Vulnerability Analyses**



How does *your* campus score on infrastructure resilience?

Results are also reported as infrastructure resilience scores, **both per sector and as one overall campus score.**



Campus leaders can view the status of infrastructure inventory at any time and can **see changes that newly completed projects make to infrastructure resilience scores.**

WISRD for Campuses™ provides heat maps showing you where *your* campus is most vulnerable.

Built on the Esri ArcGIS platform, *WISRD for Campuses*™ provides an overview of the existing condition of infrastructure within campus boundaries, which **serves as a baseline for future improvement projects.**

Existing infrastructure locations and vulnerability levels displayed on GIS maps make it easier to understand the interconnections between infrastructure sectors and how that impacts campus resilience.

WISRD WHOLE INFRASTRUCTURE SYSTEMS FOR RESILIENT DEVELOPMENT