

DIGITAL SILO

Invest in **real-time monitoring** today,
avoid **millions** in losses tomorrow!



ADVENTUM TECH
MEASURING THE INVISIBLE

DIGITAL SILO

- /// Average loss per incident:
\$2–10 million
- /// Damage to people, production, and reputation
- /// Insurance claims are rising — inspections are often reactive, not predictive



EACH COLLAPSE COSTS MILLIONS AND CAN BE FATAL

GRAIN AND CEMENT SILO = CONSTANT DYNAMIC LOADS



- /// **Thousands** of off-farm silos and **millions** of on-farm silos currently in operation
- /// Around **47% of all stored grain** volume is held in off-farm facilities with average storage capacity **1.2 million bu per silo**

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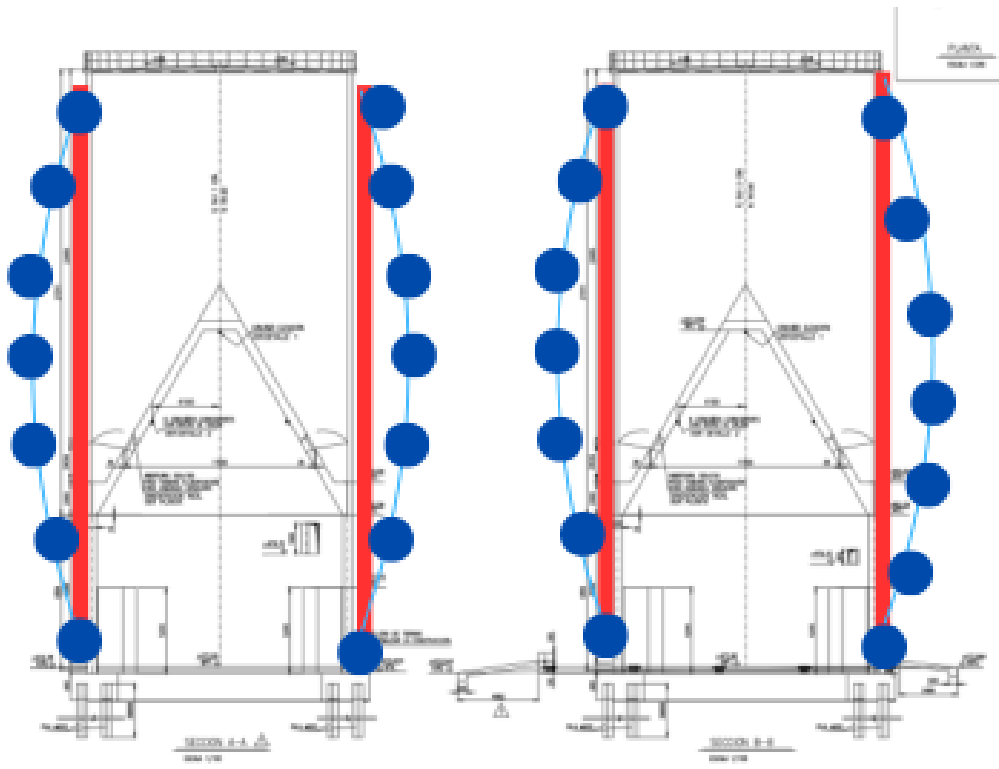
Traditional inspection and monitoring methods can't keep up with the real-world behavior of silos

- Design models **rarely** reflect actual load patterns experienced during operation
- Foundation settlement and concrete curing **can shift** alignment and **compromise stability**
- Inspections are often **reactive, not predictive**



- Manual visual checks cannot **detect internal stress** or **micro-deformations**
- Annual measurements provide information **too late** to enable timely intervention
- Valuable structural data remains **offline and unused**

TURNING EACH SILO INTO A SELF-REPORTING DIGITAL ASSET



- Installed network of wireless sensors
- Vibration | Tilt | Temperature | Load | Settlement
- 24/7 monitoring of structural response under real loads
- AI analytics detect patterns invisible to human eye

THE SOLUTION

- Sensors capture real-time structural data
- Data is sent securely to the cloud
- AI models analyze and highlight potential risk zones
- Users receive early alerts and visual stress maps on their dashboard



DATA-DRIVEN PROTECTION THAT PAYS OFF



- /// Prevent failures **before** they occur
- /// Reduce **insurance risk** and downtime
- /// **Optimize** maintenance schedules
- /// Extend structure lifespan by **100%**
- /// Guarantee full compliance with **safety and ESG standards**

Contact Us

Have a project that requires real-time structural monitoring? Whether you're in the design phase, construction, or long-term operation, our experts are ready to provide tailored structural health monitoring solutions to meet your needs.



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