

# RWE partners with Geocomp to develop better health checks on its turbine foundations after repowers

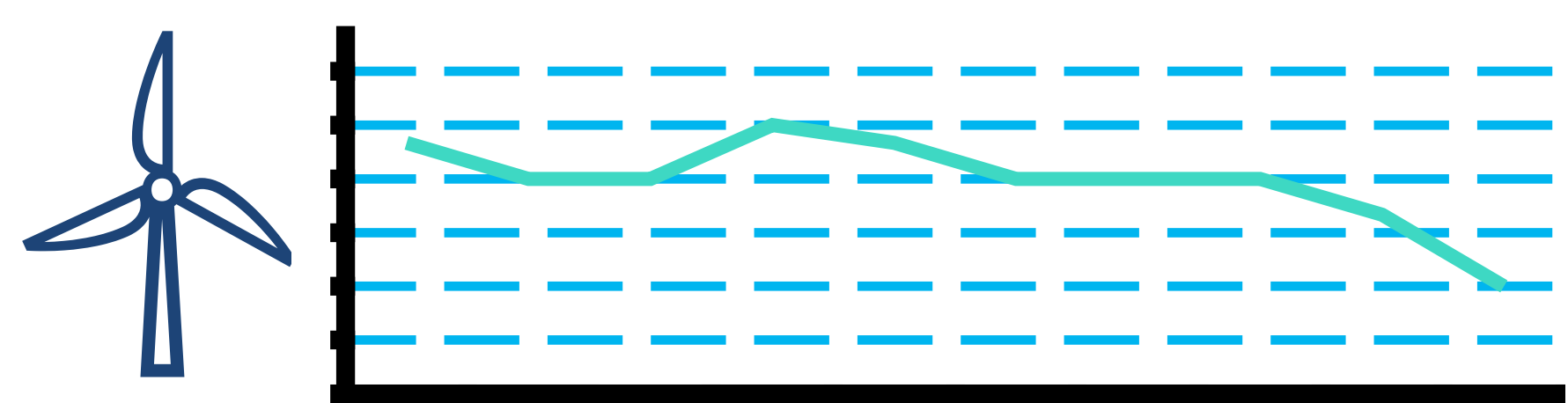
## What are the advantages?

- Replaces intensive excavations and destructive concrete coring
- Avoids unnecessary and costly foundation retrofits

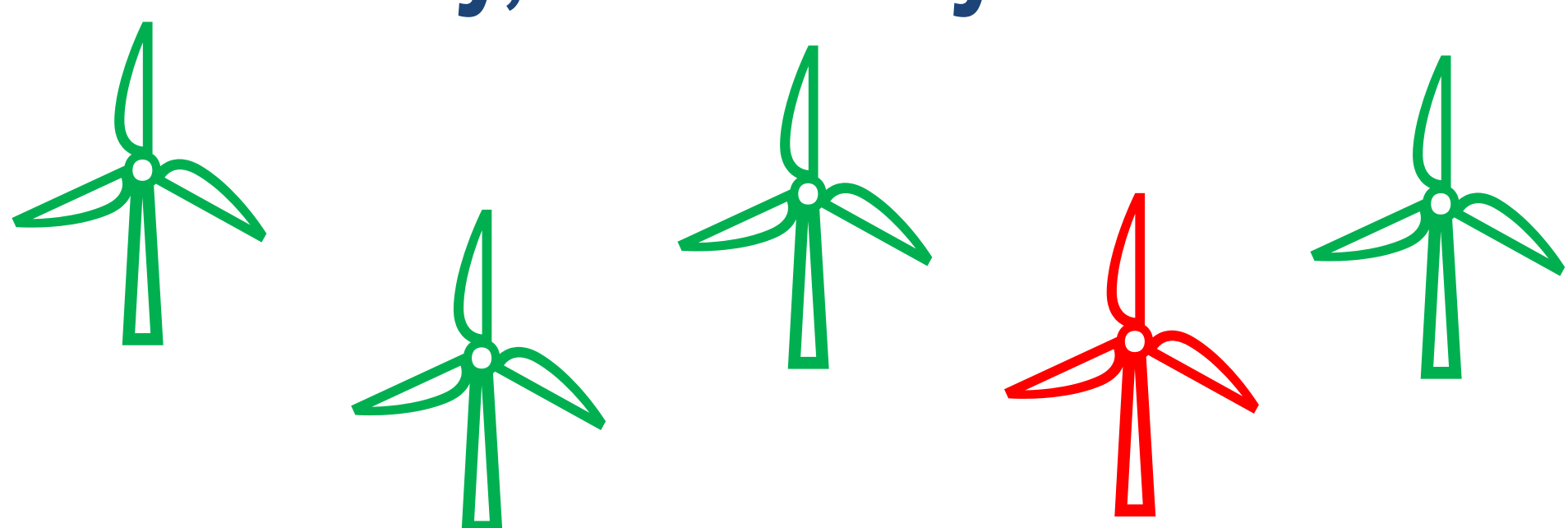
## How does it work?

- 3 strain gauges on the tower wall measure force
- 2 tiltmeters in the tower basement measure movement
- Force and movement combine to estimate foundation stiffness

Some foundations are monitored permanently, to monitor trends ...



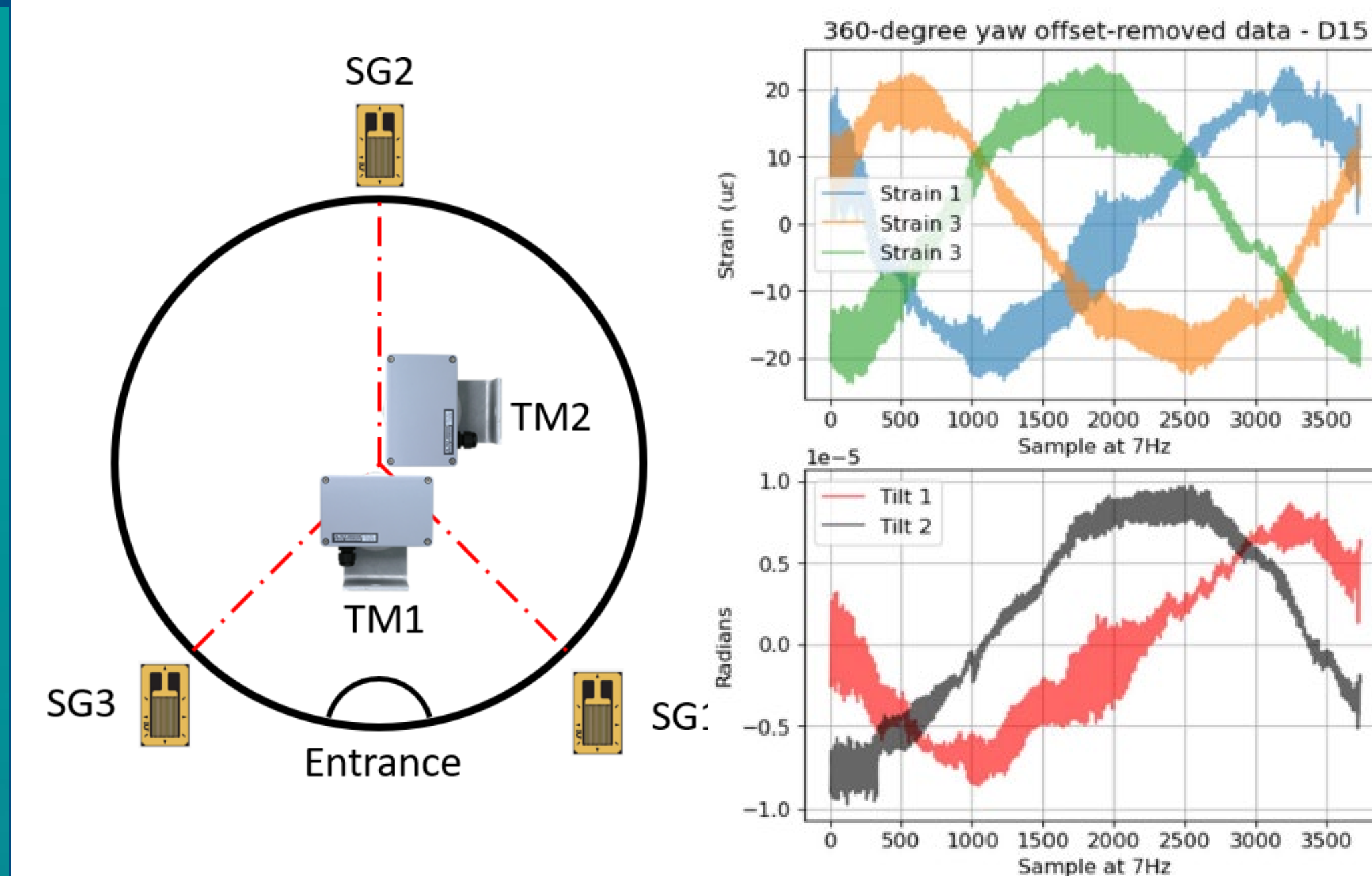
The remainder are checked periodically, to identify outliers



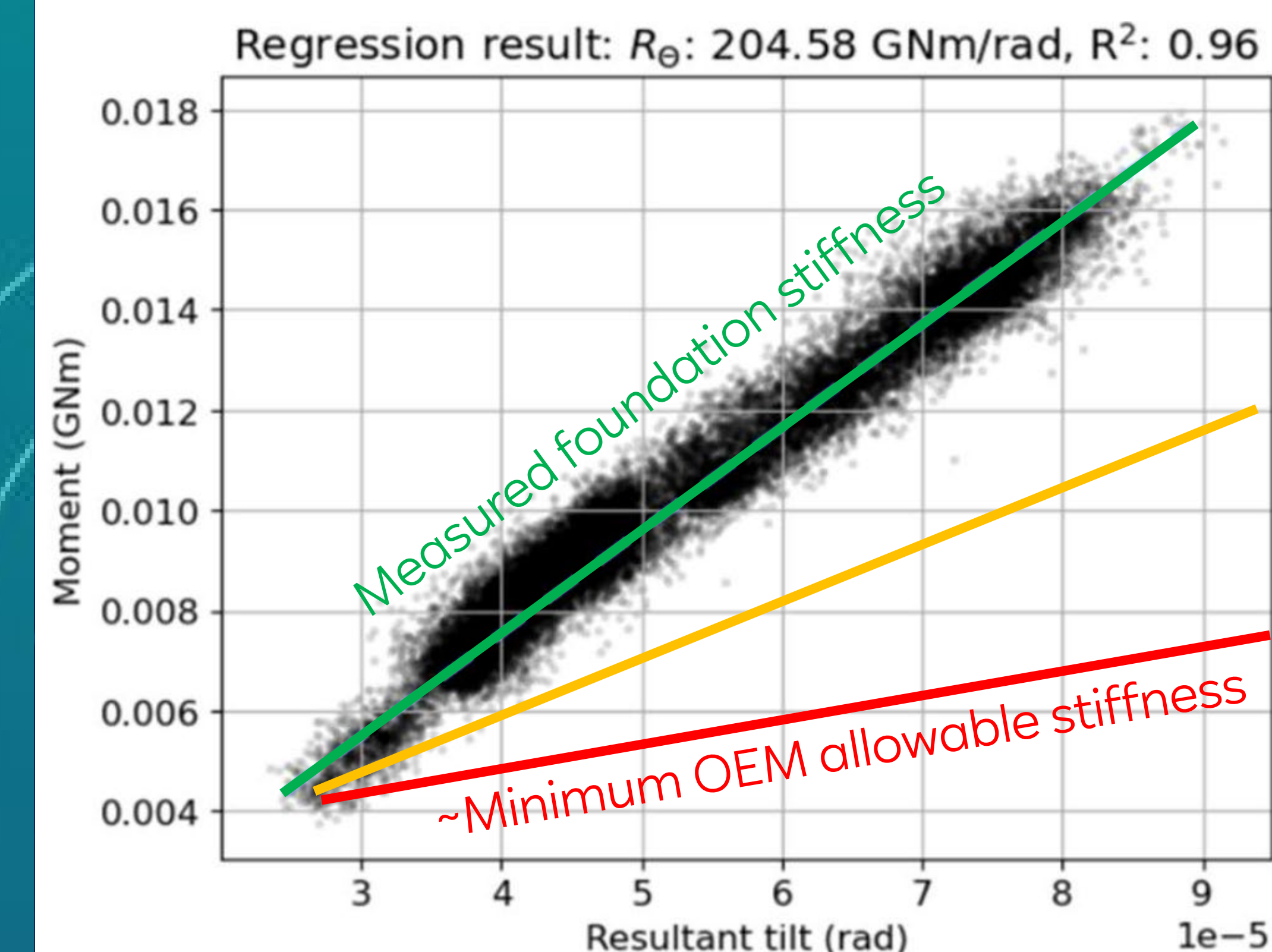
# Structural health monitoring: A cost-effective and non-destructive way to extend the life of wind turbine foundations



Generated with Microsoft CoPilot AI



Sensor arrangement in tower (left)  
360°-yaw calibration (right)



Rotational stiffness is compared against other turbines, historical trends, and OEM requirements

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