DIGITAL ASSET HEALTH MONITORING

François Marti – Executive Vice President - INDUSTRIAL

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WHEN YOU NEED TO BE SURE

GLOBAL STRUCTURAL HEALTH MONITORING (SHM) MARKET

- Global **Structural Health Monitoring (SHM)** market is expected to grow from **USD 701 mio. in 2015** to USD **3,408 mio. by 2022**, at a CAGR of 25%
- Increasing initiatives of governments worldwide towards the **maintenance of aging structures** such as bridges, dams and roads are likely to drive the growth of the structural health monitoring market.
- The **efficient performance** of structures in civil infrastructure, aerospace and energy industry also depends on the hardware and software components used for monitoring purposes.
- **Civil infrastructure** held the **largest share** of the structural health monitoring market in 2015. The structural health monitoring market for the aerospace industry is expected to grow at the highest rate between 2016 and 2022.
- **North America** is expected to hold the **largest share** of the structural health monitoring market between 2016 and 2022. The rapidly aging infrastructure such as bridges in North America, growing usage of composites, are some of the factors driving the growth of the structural health monitoring market.

Source: Structural Health Monitoring Market by Solutions, Technology, End Users and Geography - Global Forecast to 2022, MarketsandMarkets, January 2017

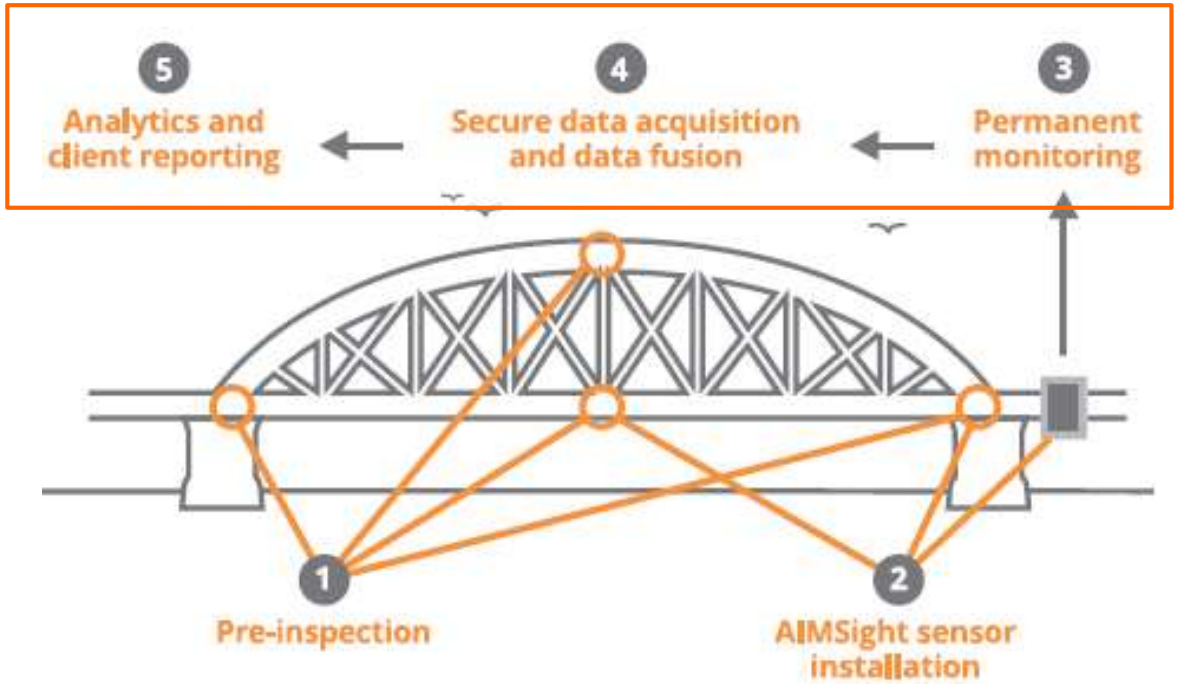
NORTH AMERICAN SHM MARKET

Region	Market over 5 years
Northeast	USD 40 mio.
Mid-Atlantic	USD 10 mio.
Southeast	USD 20 mio.
Gulf	USD 20 mio.
Southwest	USD 20 mio.
West Coast	USD 30 mio.
Total	**USD 140 mio.**

- New York City leading the growth, large projects like the George Washington, with other NY suspension cabled bridges in the next five years
  - SHM projects USD 2 mio. each for suspension bridges

SOLUTION DEVELOPMENT

DATA PLATFORM



Sensor

Connecting box

Data flow

Equivalent to hiring a team of certified NDT inspectors watching the asset 24/7 and providing data and root-cause analysis at a frequency rate of the Client's choosing.

AHM OPERATIONS – PILOT PROJECT NY, USA

BRIDGE IN LITTLE FALLS, NY

BRIDGE IN FORESPORT, NY

AHM OPERATIONS – PILOT PROJECT NY, USA

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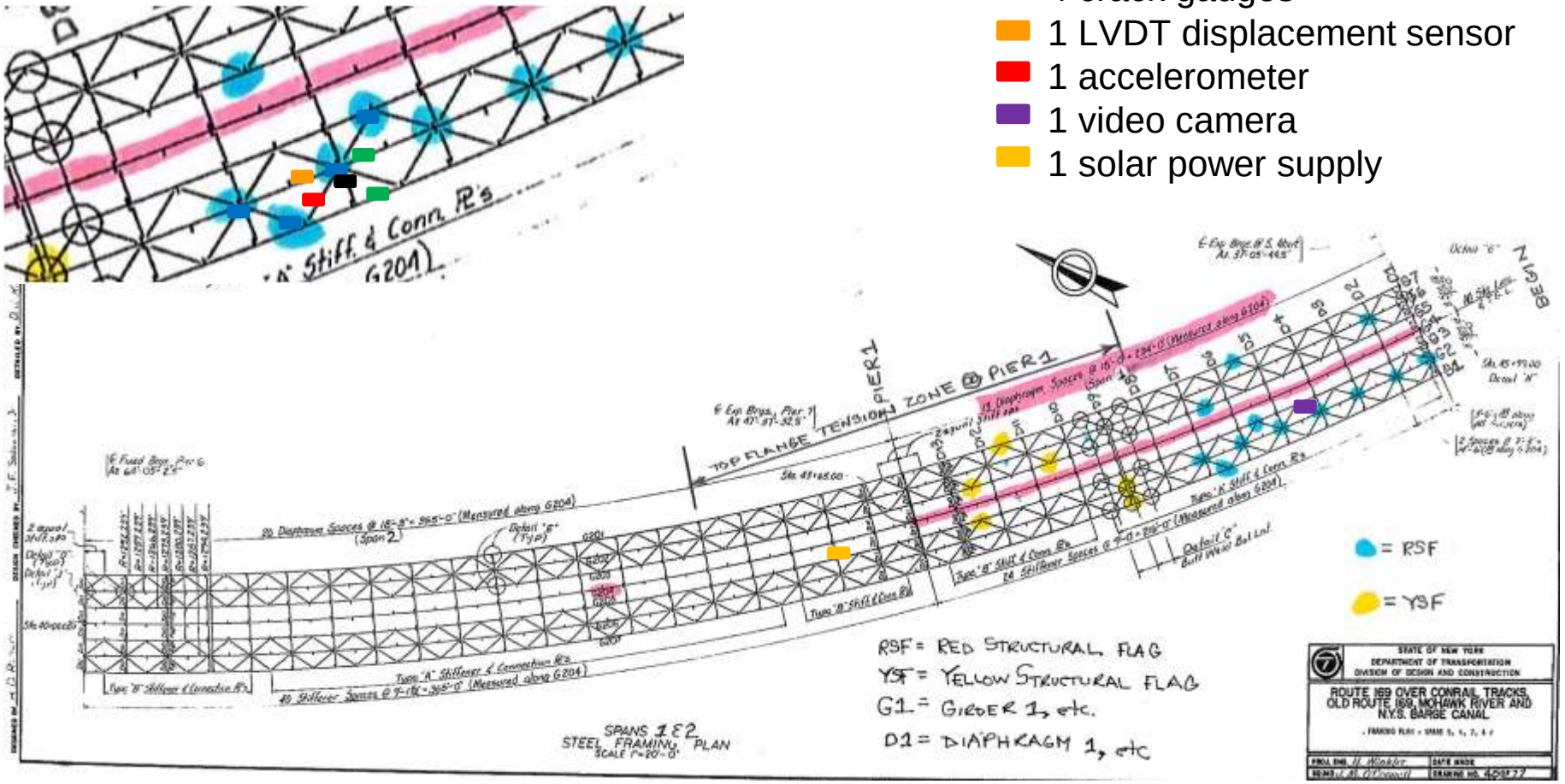
BRIDGE IN LITTLE FALLS, NY

- 1 sensor box
- 2 temperature sensors
- 4 crack gauges
- 1 LVDT displacement sensor
- 1 accelerometer
- 1 video camera
- 1 solar power supply



AHM OPERATIONS – PILOT PROJECT NY, USA

POWER SUPPLY

CRACK SENSOR

LVDT SENSOR &
CONNNECTING BOX

AHM OPERATIONS – PILOT PROJECT NY, USA

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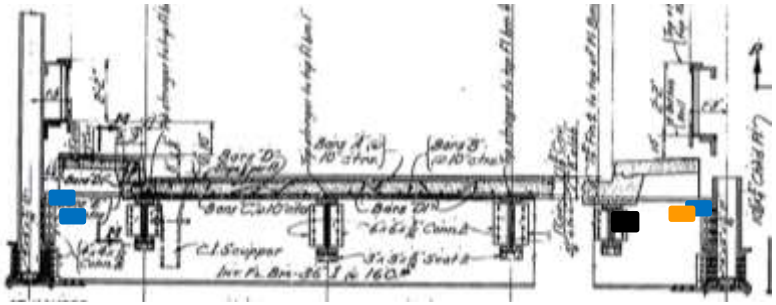
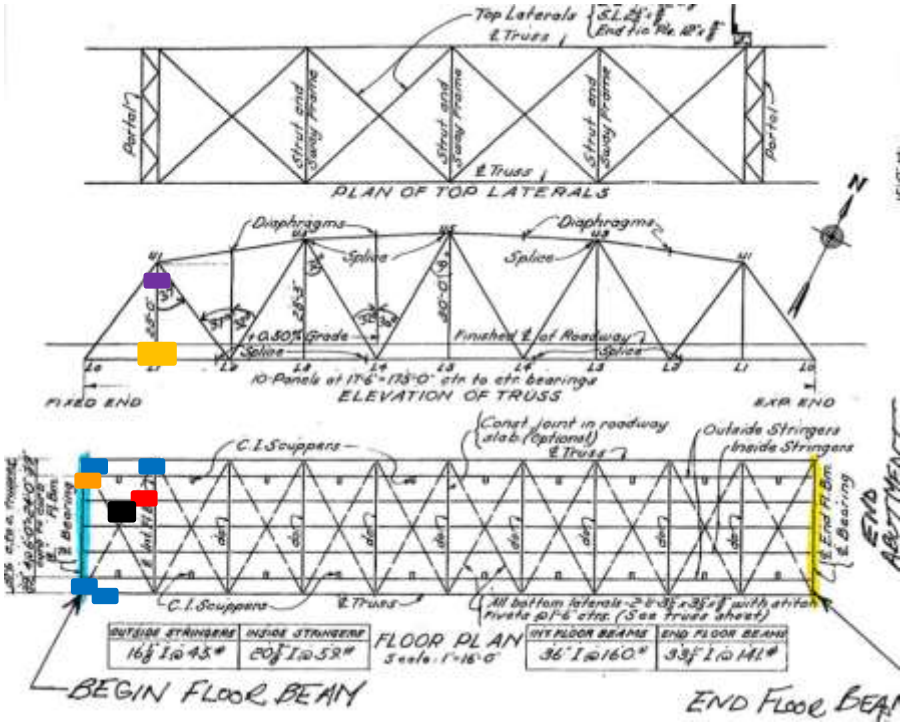
BRIDGE IN FORESTPORT, NY

- 1 bridge server
- 4 crack gauges
- 1 LVDT displacement sensor
- 1 accelerometer
- 1 video camera
- 1 solar power supply





AHM OPERATIONS – PILOT PROJECT NY, USA

POWER SUPPLY
CRACK AND LVDT SENSORS

POWER SUPPLY

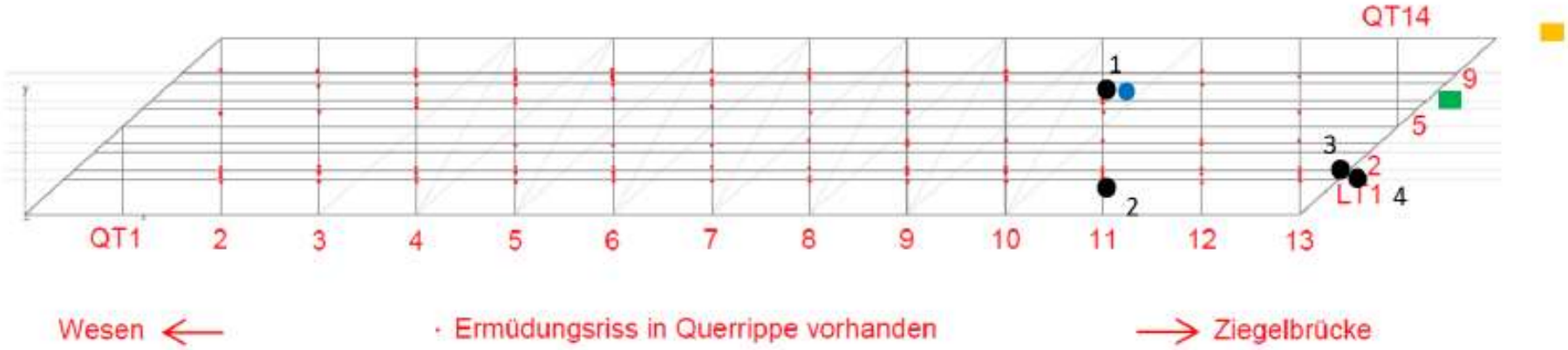
CONNNECTING BOX

AHM OPERATIONS – PILOT PROJECT, SWITZERLAND

RAILWAY BRIDGE OVER LINTHKANAL, SG

LEGEND

- Crack sensors
- Camera
- Central acquisition unit
- Solar panel



AHM OPERATIONS – PILOT PROJECT, SWITZERLAND

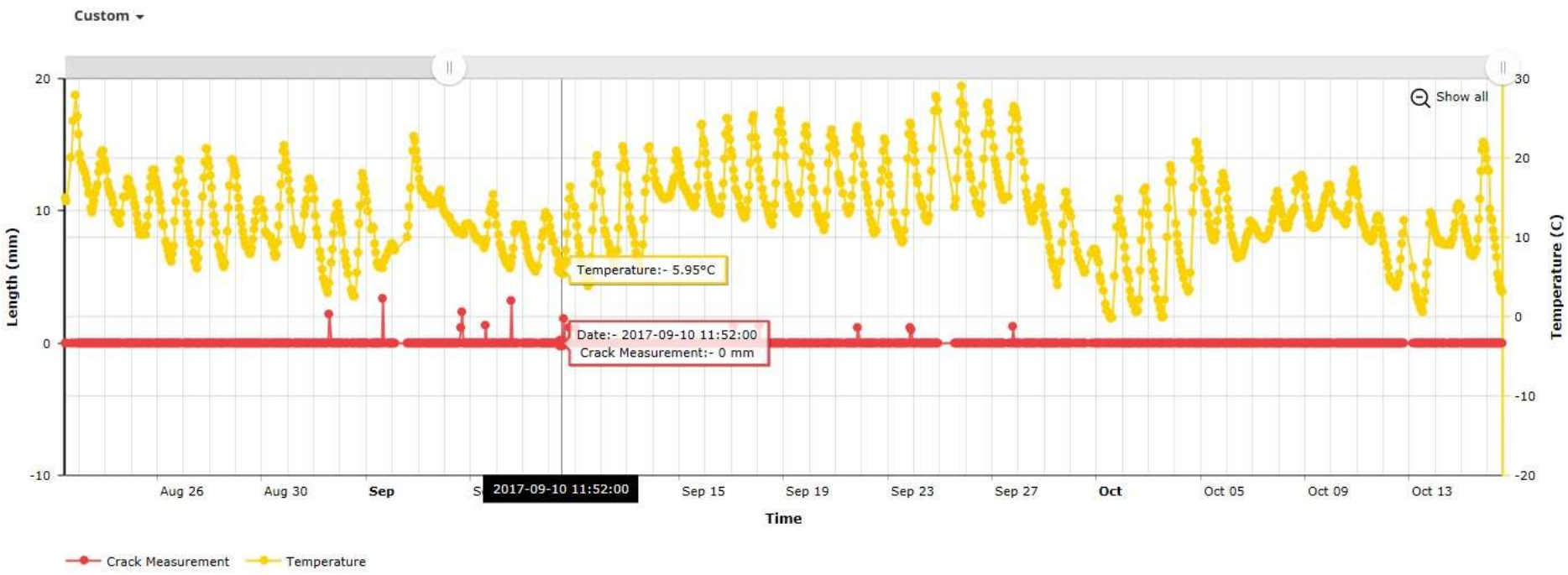
CRACKED STIFFENER

CRACK SENSOR INSTALLED

CAMERA (TO MEASURE RELATIVE DISPLACEMENTS OF THE BEAMS)

AHM OPERATIONS – DATA

- Dashboard for clients on SAVI Technology platform



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