Rocket systems tend to age during storage and operational use. Temperature, moisture, vibrations and other environmental conditions negatively affect the quality of the various parts of a missile.

**Key Points:**

- **Safety:**
  Prevention of unintended damage to personnel or equipment, for instance when firing the missile;

- **Reliability:**
  The user must be able to rely on adequate operation of the missile;

- **Management:**
  Knowledge of missile service life may lead to cost savings in case of life extension and enables adequate planning for acquisition.

**Stinger**
On assignment from NAMSA TNO performs a service life monitoring programme for 5 countries (NL, GE, TU, GR, DK).

**PATRIOT**
TNO advice to the RNLAF has led to substantial cost savings in the US Field Surveillance Programme.
Fatal damage in a rocket motor
Debonding and cracks may lead to the explosion of a rocket motor.

Out of area operations HYDRA/Hellfire
Active condition monitoring during the Djibouti mission to prevent storage hazards and to assess the remaining service life.

AMRAAM
Independent research to gain insight into the life time critical components. Active support of RNLAF ISAF mission through condition monitoring.

Standard Missile
TNO has monitored the missile storage conditions to gain insight in the operational environmental conditions aboard a frigate.