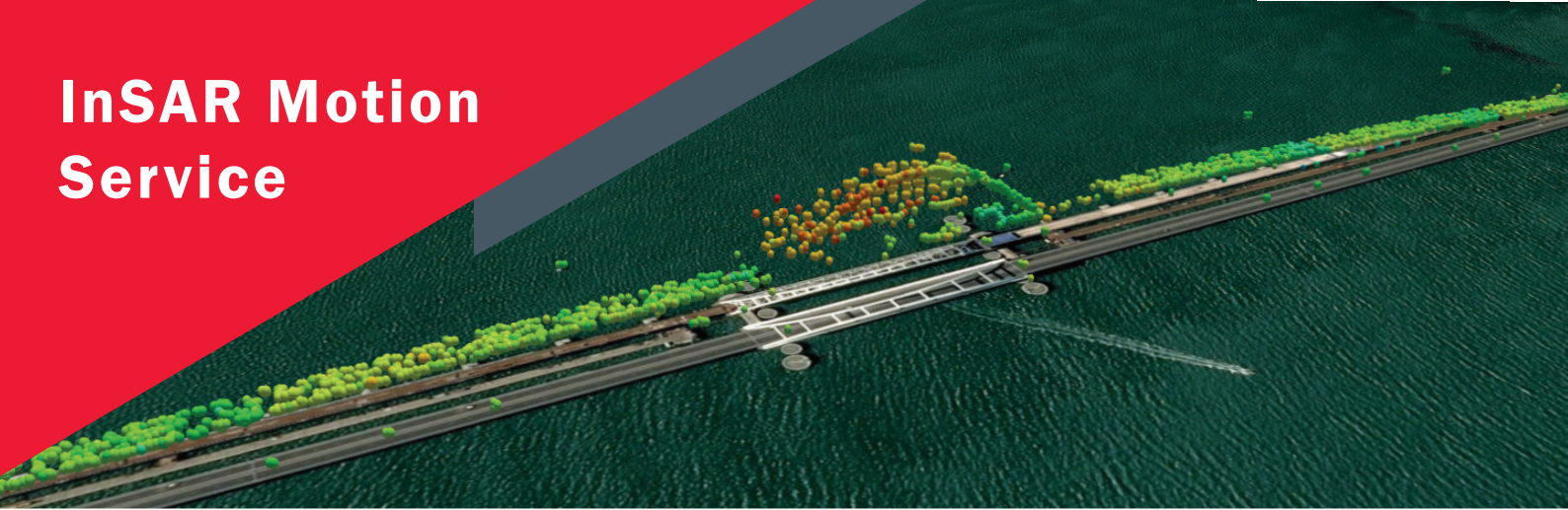# InSAR Motion Service

Interferometric Synthetic Aperture Radar (InSAR) is a recognised technology for using SAR signals that are processed through sophisticated computer algorithms to: detect quality assured terrain movements with high accuracy in mm range, create digital terrain models, as well as provide data analysis for a wide range of applications and user requirements.

KEY FEATURES

- Persistent and Distributed Scatterer Interferometry methodology (PSI/DSI)
- Adaptable point densities
- Historical and new acquisitions
- Vertical and horizontal component of terrain movement
- Potential hot spot analysis
- Target specific tasking using commercial SAR-systems
- Customised production, evaluation and analysis capabilities
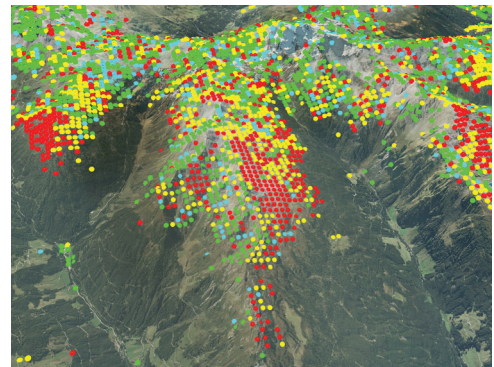
Active landslide deformations in alpine regions (3D visualisation in GAFmap®)

TO WHOM

INFRASTRUCTURE PLANNING	**INTER-/NATIONAL AUTHORITIES**	**DEFENCE & INTELLIGENCE**	**MINING & GEOLOGY**	**DISASTER MANAGEMENT**
URBAN PLANNING	**INSURANCE & REAL ESTATE MARKET**	**CLIMATE SERVICE**	**CIVIL ENGINEERING**	**... AND MANY MORE**

CAPABILITIES

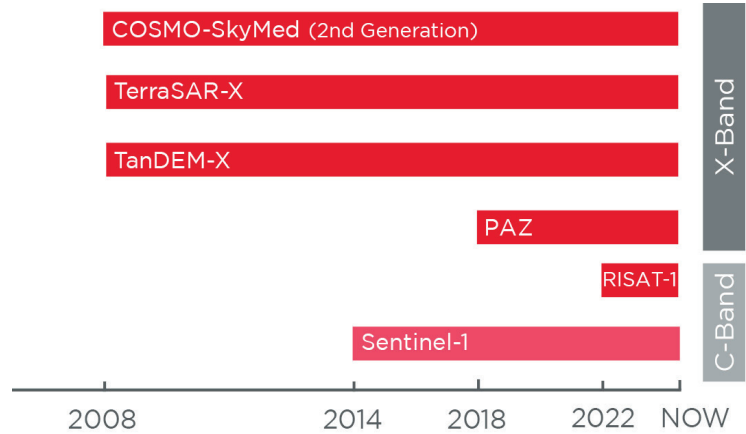|		
STATE-OF-THE-ART PROCESSING METHODOLOGY	**CUSTOMER-SPECIFIC PRODUCTS**	**FLEXIBLE**

AVAILABLE SAR-SYSTEMS

GAF uses and distributes operational systems as well as upcoming appropriate SAR-missions for interferometric data evaluation and especially InSAR ground motion analyses.

COSMO-SkyMed (2nd Generation)

TerraSAR-X

TanDEM-X

PAZ

RISAT-1

Sentinel-1

X-Band

C-Band

2008   2014   2018   2022   NOW

BASIC AND ZOOM SERVICE

The production of InSAR motion services utilises a high performance and automated processing environment, which supports a variety of different application fields on a global, national and regional scale. Freely available data are used for *basic services*, while commercial data can be used for *zoom services* with increased precision and completeness. Additionally, tasking of commercial data allows a specific tailoring of the *zoom service* to the customer needs in terms of spatial and temporal resolution.
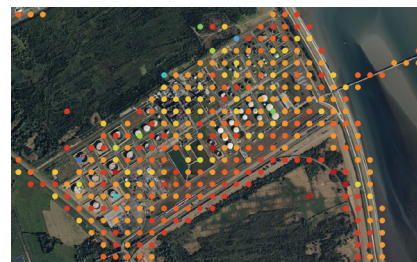
STANDARD APPLICATIONS

Displacement monitoring of gas storage facilities and fill estimation
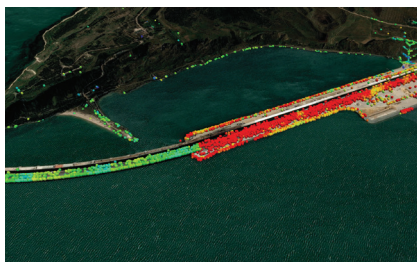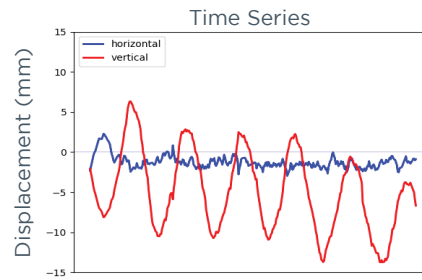
Stability assessment of structures and construction measures

Displacement monitoring of critical infrastructure

VALUE ADDED SERVICES

Visualisation and analysis

Expert based service implementations

Supporting products and services

All the products are available on request.
For further information or demo data please contact Team-SAR@gaf.de

TELESPAZIO
a LEONARDO and THALES company

e-geos
AN ASI / TELESPAZIO COMPANY

GAF AG
an e-GEOS (ASI / Telespazio) Company