Spacemetric
RAAISR
Real-time Access to Airborne ISR
Smart data management supporting
time-sensitive applications

About Spacemetric

Established 1999

- HQ: Stockholm, Sweden
- Subsidiaries: UK, Netherlands

Offering

- Systems for geospatial image cataloguing, product processing & distribution for civilian and military satellites and airborne sensors based on proven COTS platform (Keystone)

Proven track record in optimising image handling

- Mapping, reconnaissance, surveillance
- Still imagery and video

RNLAF (RAA)ISR requirements

- Tactical access to new and heritage airborne sensor systems
- Family concept

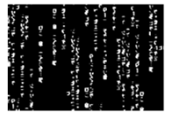
Boundary conditions

- No platform-specific solutions
- Retrofit, add-on to pre-existing avionics
- Usage of COTS/MOTS (avionics) hardware

Airborne ISR problem

Defence + Security

- Airborne sensors produce mass volumes of raw data
- <5% of all collected data will ever be used
- And even less data requires immediate access
- Despite, all data is being transmitted and compressed to fit the limited radio datalink bandwidth
- Resulting in poor quality data, high cost and low mission effectiveness

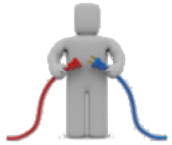


RAAISR,
a different approach

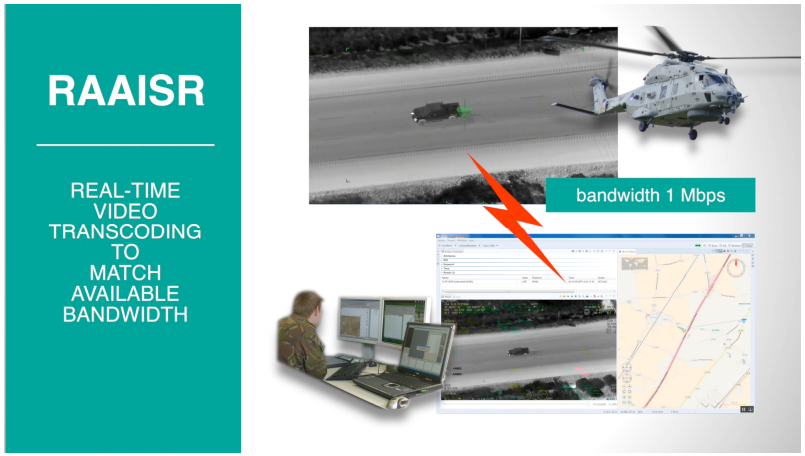
- Managing data close to the airborne sensor
- Processing only relevant data into high quality image products
- Product creation and transmission upon user request
- Making best use of available radio datalink bandwidth

RAAISR solution

- Airborne and ground Keystone nodes are connected via radio datalink
- Data brokers handle adverse connectivity
- Airborne and ground nodes synchronise catalogues and highly compressed data
- Enabling operators to
  - Identify relevant data fragments
  - Request for processing and transmission of only the relevant high quality image products



RAAISR animations

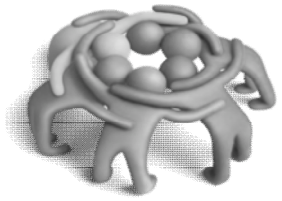


handling variable bandwidth

ordering products

Collaboration in time-sensitive operations

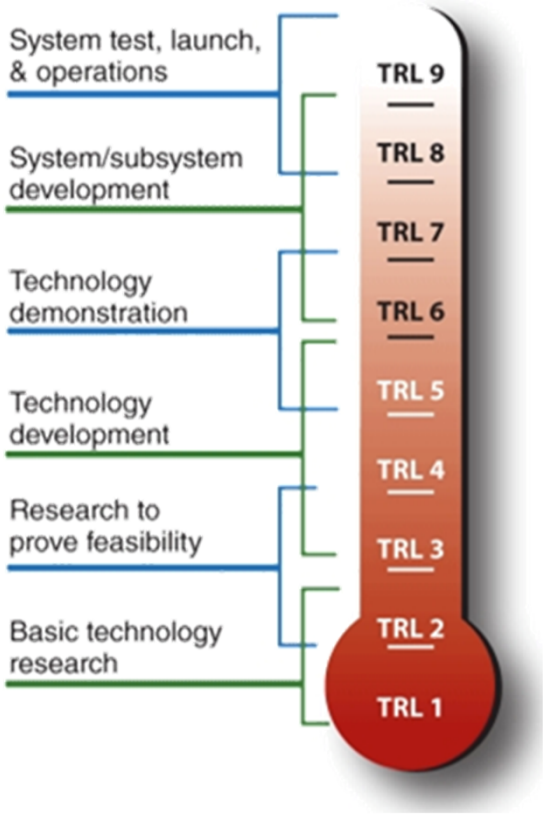
- Multiple operators are connected in a RAAISR system
- Operators exchange image products as well as messages
- CSD data exchange interface (NATO Joint ISR)



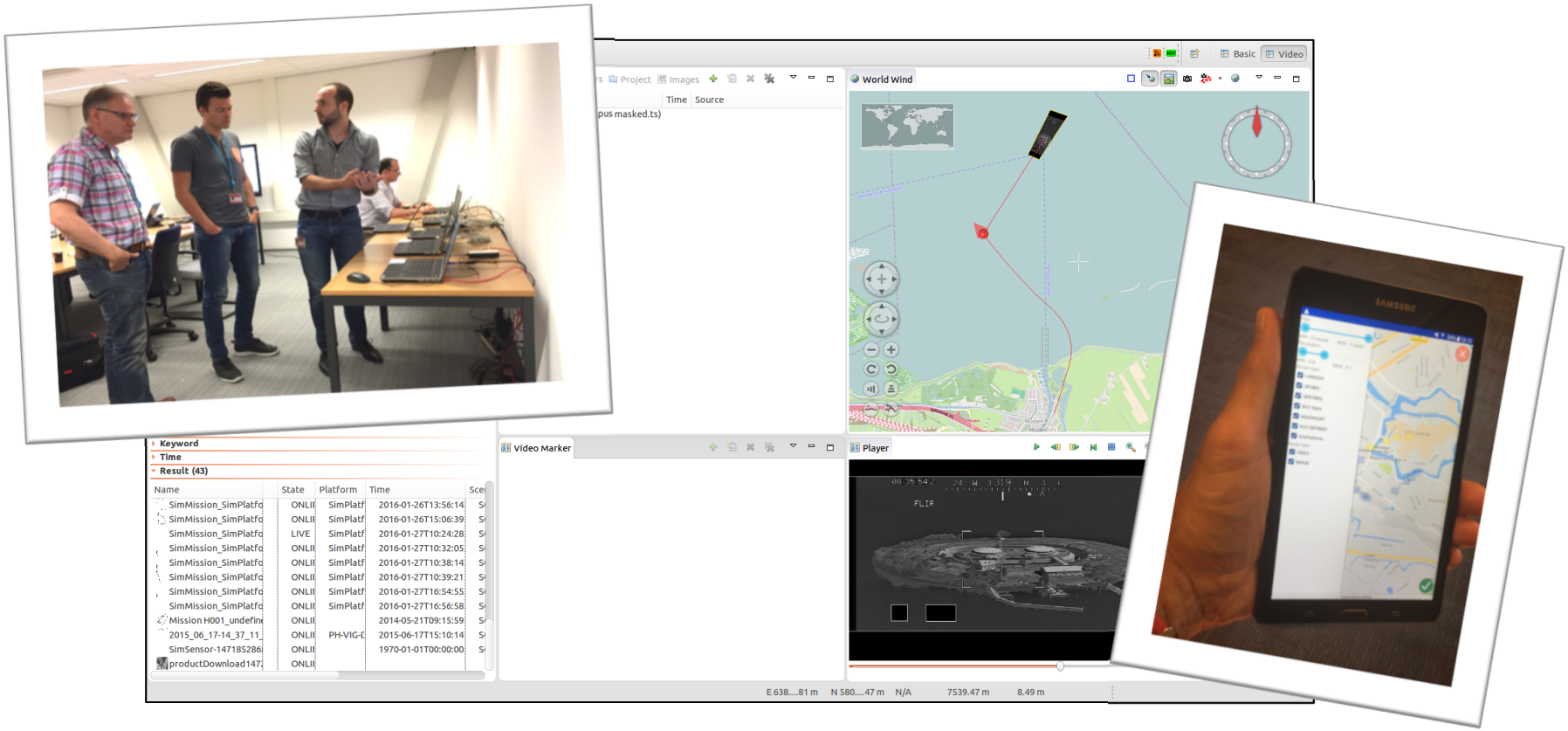
Turning airborne surveillance into a team effort, connecting intelligence with operations

RAAISR results and plans

- Proven technical capability (TRL 3-4)
  - Simulations
  - Hardware in the loop testing and demonstrations
- Confirmed operational and economic benefits
- Plan for continued development (TRL 6-7)
  - Prototyping
  - Flight testing (RNLAF NH-90)



RAAISR software



RAAISR hardware

Defence
+ Security

RAAISR key benefits

- Enabler for time-sensitive applications
- Airborne platform-independent
- Add-on to new and heritage platforms
- Datalink efficient
- Cost efficient

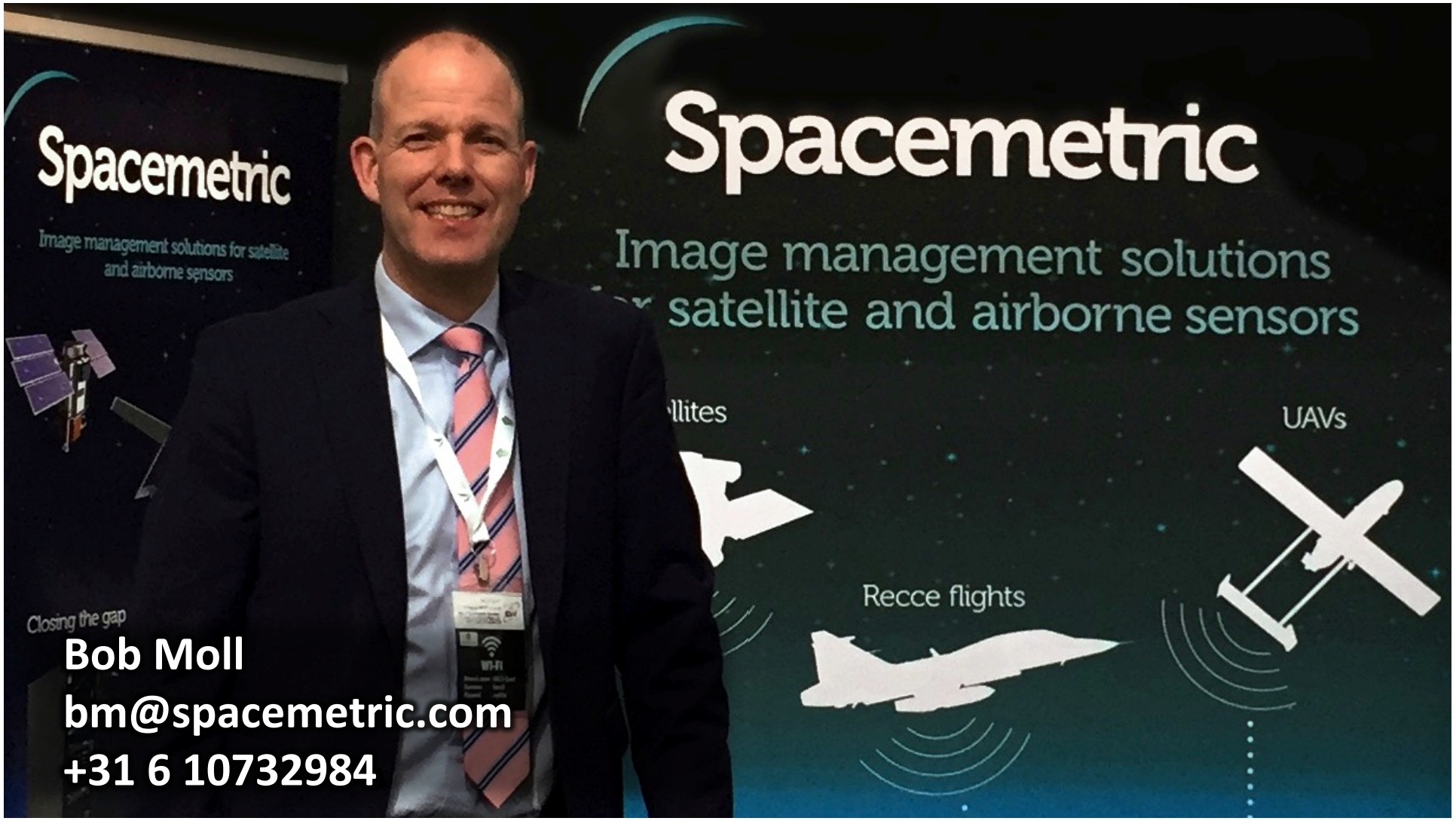

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Image management solutions for satellite and airborne sensors
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