



AIT GNSS Training
Septentrio Introduction
Bangkok, Thailand
Sales Manager for Japan&Korea
Jan De Turck
24th January 2018

Welcome to Septentrio

Your reliable GNSS partner

100+ staff

50+ R&D



Welcome to Leuven research

22 500 active in R&D

8000 researchers

€ 750 mio R&D budget

VIB
IMEC
KU Leuven
UZ Leuven



IMEC

3500 researchers

#1 independent semiconductor
research institute world-wide.

A total of
5 business incubators



Septentrio's roots



embracing a better life



Founder (2000) and major partner.
Premier semiconductor research institute.
Unique infrastructure and talent.

Provided **in-depth understanding of semiconductor design.**



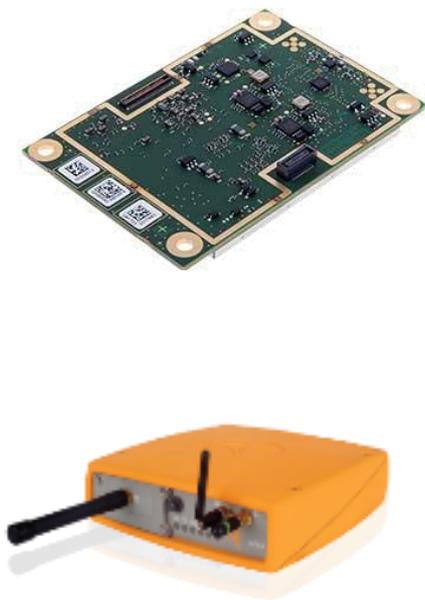
Long term strategic partner since 2002.
All Galileo test receivers designed and built by Septentrio exclusively (IOV & FOC).

Provided **in-depth understanding of GNSS.**

Septentrio Product Lines

AsteRx

Rover Receivers and OEM boards
for automation and machine control



Altus

Smart antennas for GIS and survey



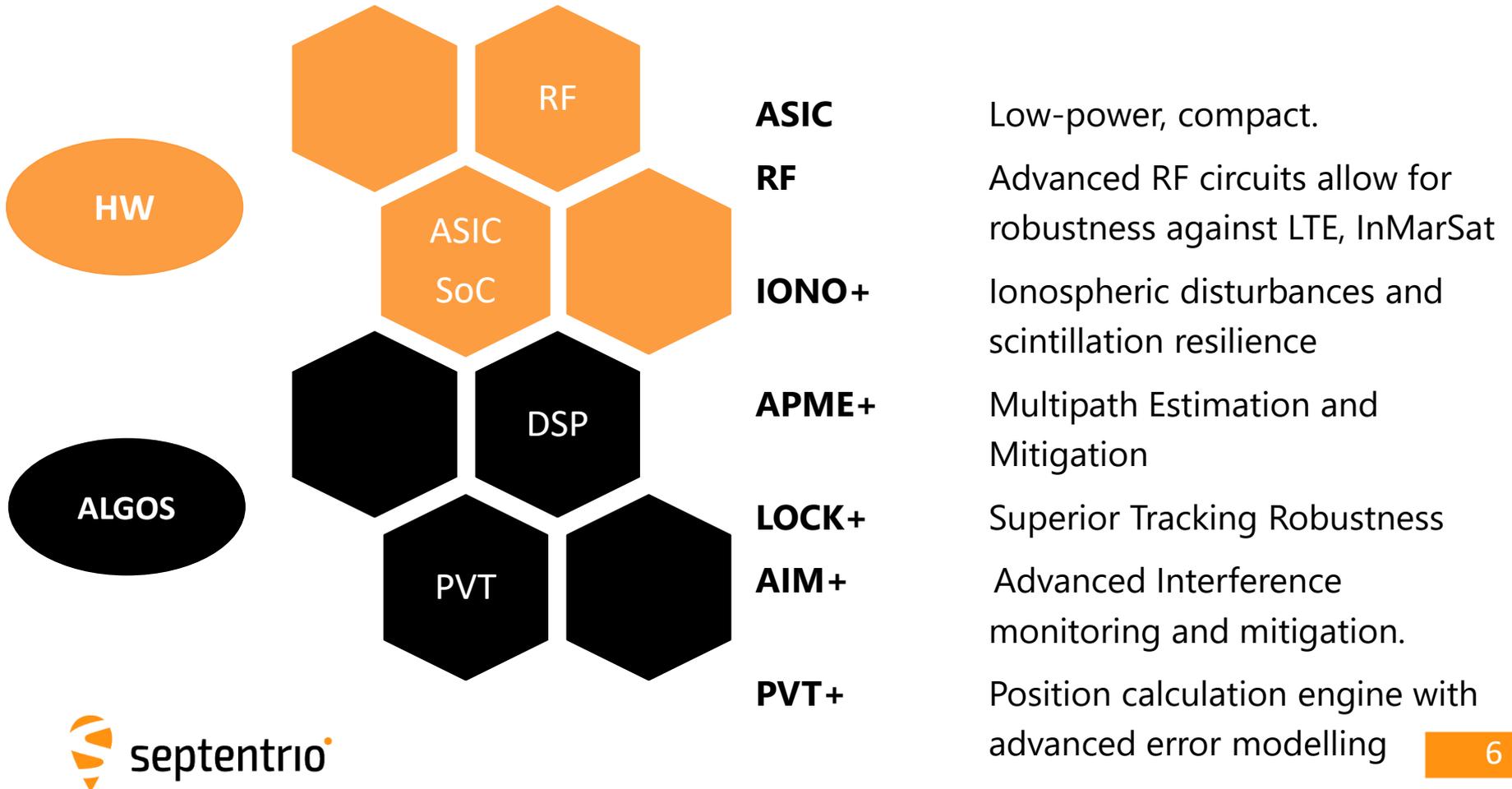
PolaRx

Reference receivers for science and
networks



Septentrio Key Technologies

Accuracy and reliability need special technology





AIM+



Multi
Const



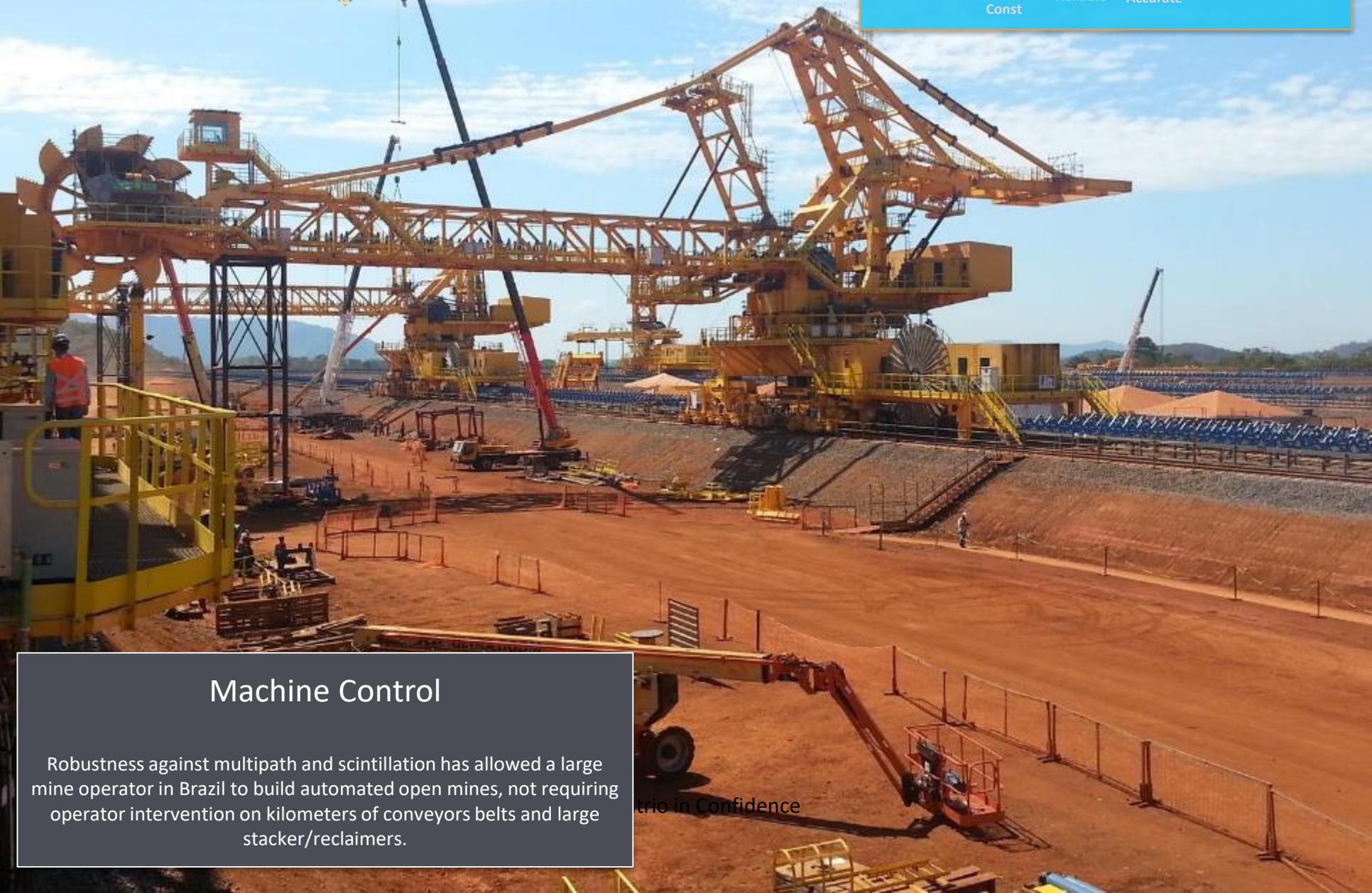
Reliable



Accurate



Heading



Machine Control

Robustness against multipath and scintillation has allowed a large mine operator in Brazil to build automated open mines, not requiring operator intervention on kilometers of conveyors belts and large stacker/reclaimers.

Confidence



- AIM+
- Multi Const
- Reliable
- Accurate
- Heading



Excavator Guidance

Reliable position and heading close to obstacles and metal structures allow operators to reliably schedule their jobs and schedules, working with 3D models of the construction site.



AIM+



Multi
Const



Reliable



Accurate

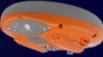


Heading
L-band



Marine Construction

Robust positioning solutions allow dredgers and other contractors to trust they can get their work done in time. No outages due to scintillation, INMARSAT interference and no measurement errors due to multipath on large metallic structures ensures projects are delivered on time and within budget.



Line inspections fast

Keeping your heading while inspecting elements at high speed can help in productivity of your inspection flight (reduced time and extra battery life time)

- Accurate heading
- GeoTagZ
- AIM+
- Low pwr
- Multi Const
- Reliable
- Accurate
- Open interface



Photogrammetry faster

With improved angle information photogrammetry software packages such as Pix4D or Agisoft can process data much faster and reliably.



- GeoTagZ
- Accurate heading
- AIM+
- Multi Const
- Reliable
- Accurate
- Open interface



Film industry

Keeping your heading is important while taking the most interesting film video from an Oscar winning movie.

The AsteRx-m2a will provide you with accurate heading solution while an Altus NR3 will provide real time corrections for accurate positioning.

- 
Accurate heading
- 
AIM+
- 
Low pwr
- 
Multi Const
- 
Reliable
- 
Accurate
- 
Open interface



Lidar scanning

Lidar scanning applications often require accurate positioning and angles. These angles often need to be provided at high data rate in the 3 axes.

INS integrations using a heading board will be a more reliable solution for these type of applications.



- 
Accurate heading
- 
AIM+
- 
Multi Const
- 
Reliable
- 
Accurate
- 
Open interface



UAS

With wireless communication and open interfacing UAS integrators can use the NR3 as reliable base station.



- AIM+
- Multi Const
- Reliable
- Accurate
- GeoTagZ
- Open interface



Agriculture Robots

With improved reliability, embedded web interface and open interface Agriculture robots can use an smart antenna for the more demanding jobs.

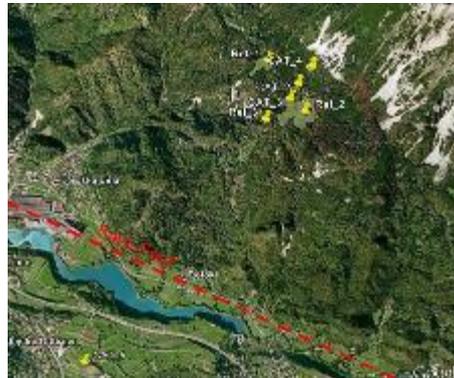
- AIM+
- Low pwr
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Reference networks for...

...Volcano
Monitoring



...Landslide
Monitoring



Scientific reference networks

UNAVCO is the largest single operator of GNSS reference stations

- Plate Boundary Observatory (PBO) funded by National Science Foundation (NSF)
- Other networks supported by UNAVCO: COCONet, TLALOCNet, A-Net, G-Net, LARISSA, Africa Array

Official selection of Septentrio on July 12, 2015

- Preferred Vendor for GNSS Reference Stations, 3 year period (2016-2018)



PBO and Cascadia: 1632 Continuous GNSS Stations in operation (Fall 2014)

Septentrio UNAVCO's "preferred vendor"

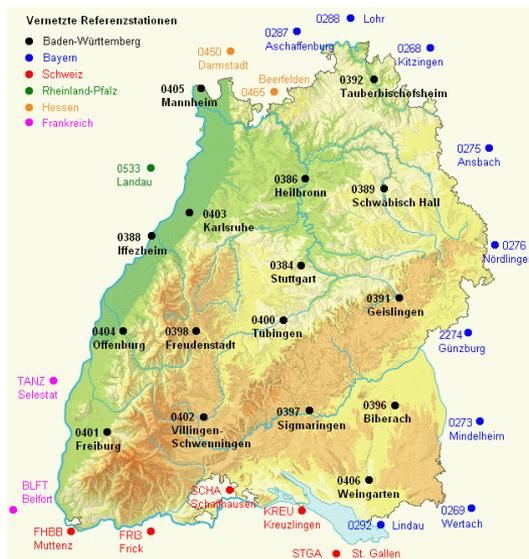
Posted on 16-09-2015

UNAVCO Names Septentrio as Preferred Vendor for GNSS Reference Stations



Reference networks for...

...RTK & PPP Networks



veripos 
ON TARGET



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