

# BELS+

## European - South East Asian links in the field of GNSS

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European  
Global Navigation  
Satellite Systems  
Agency

HORIZON 2020

bavAIRia

ISMB  
Istituto Superiore Mario Boella

NSDA

NSL

IFEN

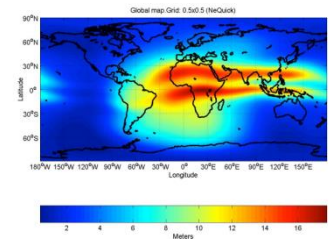


ANavs  
Advanced Navigation Solutions

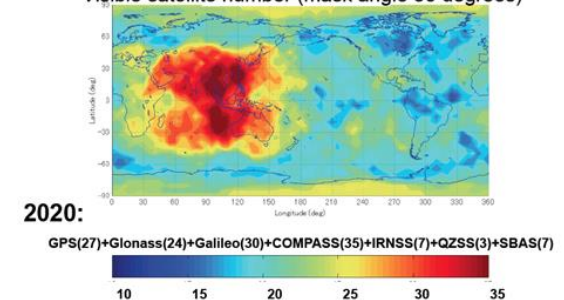
SPACEARTS  
TECHNOLOGY

# Why South East Asia is interesting for European GNSS companies

- South East Asia (SEA) has the highest Multi-GNSS coverage in the world:
  - Global: GPS, Galileo, GLONASS, Beidou
  - Regional systems: QZSS and IRNSS
- Challenging environment:
  - not available in Europe
  - characterized by multi-GNSS and scintillations
- Showing and running European solutions facilitates market entry and adaptation of existing EGNSS solutions in SEA



ASIA OCEANIA IS SHOWCASE OF NEW GNSS ERA  
Visible satellite number (mask angle 30 degrees)



# Background



- SEA is one of the most dynamic areas of the world
- SEA is not a GNSS provider
- GNSS applications are considered key for SEA countries' sustainable growth
- Positive experiences made in the predecessor projects
  - European companies visited the Navis and established first links to SEA stakeholders
  - Companies tested their solutions at the Navis



# What is already there



**navis** International Collaboration Centre  
for R&D on Satellite Navigation Technology in South East Asia

“The mission of Navis is to boost the R&D of satellite navigation technology, especially the European Galileo System, in South-East Asia.”

<http://navis.hust.edu.vn>

Logos: BACH KHOA, UPC, Politecnico di Torino, I.S.M.B. Istituto Superiore Mario Boella

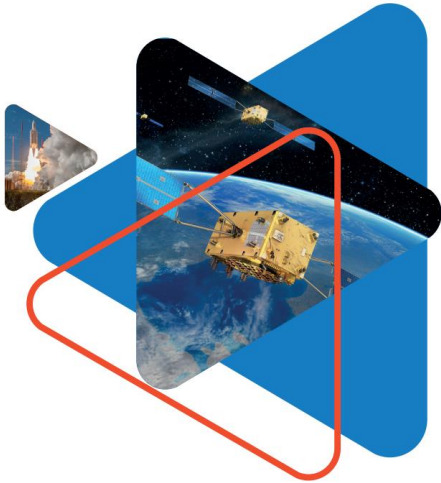


# What BELS+ does



- Due to positive outcomes of the predecessor BELS project in terms of interest shown by European GNSS companies in South East Asia, BELS+ aims at further progressing in **linking the two regions** by carrying out a set of coordinated activities in both, Europe and South East Asia

# What BELS+ does



- Facilitates the breakthrough of EGNSS technology in South East Asia through the support to EU Companies to establish links and bring their EGNSS solutions to SEA
- Conduct a set of coordinated activities for awareness raising and capacity building to extend and strengthen the links between SEA and EU
- Exploit the potentialities of the NAVIS Centre in Hanoi consolidating the results achieved in past years and maximizing the outcomes



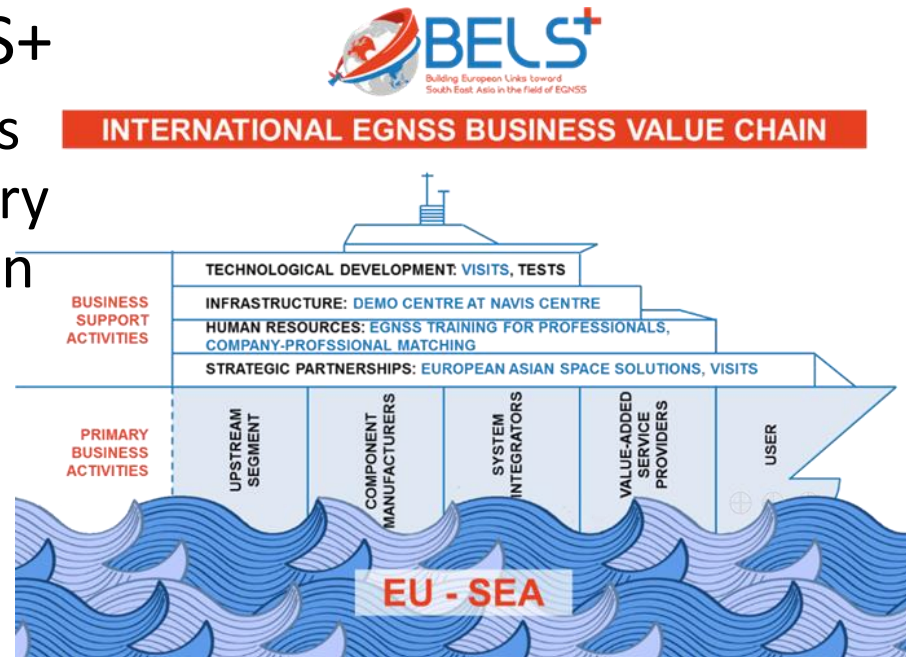
# What BELS+ does



- Main target groups of these activities are
  - European companies, professionals and institutions which are expected to benefit from BELS+ actions.
  - SEA professionals and stakeholders ensuring a proper sharing of benefits between the regions.

# BELS+ Methodology

- BELS and the BELS+ predecessor project contributed to parts of the secondary value chain: the technological development and the infrastructure.
- Methodology used in BELS+
  - aims at enlarging activities being part of the secondary activities in the value chain
  - bears a high potential
    - to contribute to the collaboration between EU and SEA
    - to respond to the changing market conditions.





# Expected Impacts & BELS+ Actions

- BELS+ will set up an array of coordinated actions which will impact on the three priorities
  - Support of developing market opportunities and competitiveness of EU industry
  - Identification of strategic partnerships
  - Extension of international co-operations and building of industrial relationships.
- The BELS+ actions:
  - Support the travel of European companies installing their solutions at the Demo Centre in Hanoi.
  - Present installed EGNSS solutions at the Demo Centre to GNSS stakeholders in the SEA states

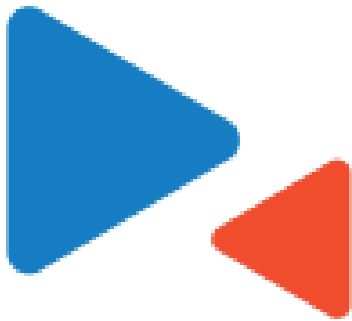
# BELS+ Actions



- Organize two promotion workshops in SEA
- Carry out surveys and interview among key stakeholders and institutions about the human resource situation in GNSS and elaborate an action plan with recommendations
- Support two Matching Events in Europe, reaching out to graduate students, professionals and companies



# BELS+ Actions



- Establish training for professionals and graduate students
- Organize and establish an Asian branch of the successful “European Space Solutions” conference
- Establish an Asian session at the next “European Space Solutions 2018”
- Promote the NAVIS Centre and its Demo facility



# What BELS+ offers to SEA stakeholders



# What BELS+ offers to European Companies



# Collaboration with Other Projects

- Open to collaboration with other projects and initiatives.
- Preliminary list:
  - Multi GNSS Asia (MGA)
  - Other H2020 projects such as GNSS.Asia
  - Collaboration with UN-OOSA and ICG WG-C





# Where you can find us in coming months?

## In Europe

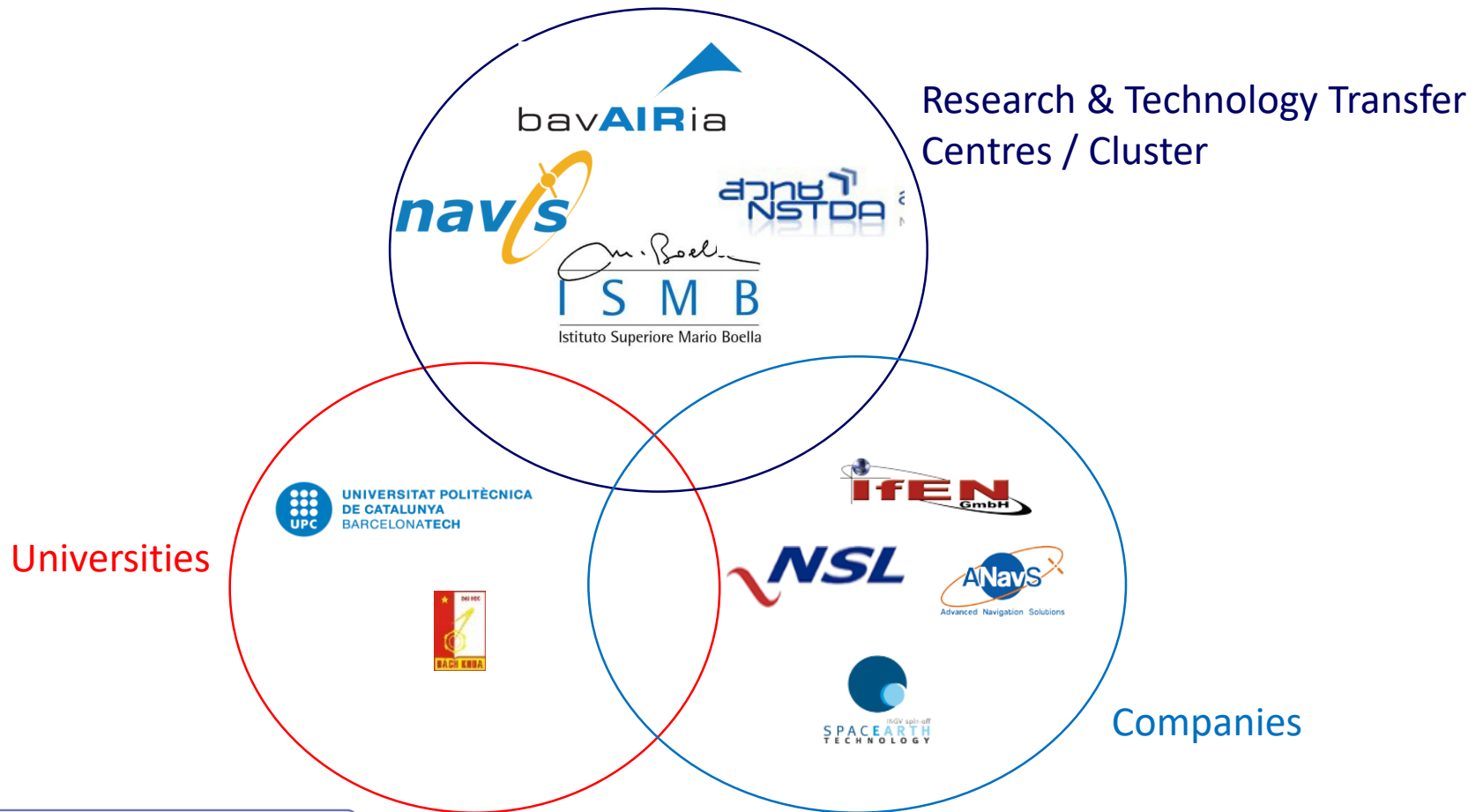
- ITS World Conference 2018,  
Sept 17-19, Copenhagen, Denmark
- ION GNSS 2018,  
Sept 25-28, Miami, USA
- H2020 Space Info Day & Brokerage Event,  
Oct 11-12, Prague, Czech Republic
- Intergeo 2018,  
Oct 16-18, Frankfurt, Germany
- BELS+ event in Bavaria,  
Oct 25, Gilching, Germany
- INC 2018,  
Nov 12-15, Bristol, UK
- European Space Week,  
Dec 3-6, Marseille, France
- Navitec 2018, Dec 5-7, ESA-ESTEC

## In Asia

- ICG 2018,  
Nov 5-9, X'ian, China
- EGNSS Day 2018,  
Nov 8, Hanoi, Vietnam
- FIG 2019,  
Apr 22-26, 2019, Hanoi, Vietnam



# Partnership



# Questions?



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 [www.belsproject.eu](http://www.belsproject.eu)

 @BELSproject



# Thank you for your attention!

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