







20 years of experience in the defense and security business at Terma A/S and Gatehouse A/S.

Engineering and commercial education at Aalborg University, Imperial college, UK and Sloan Fellow at London Business School.

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## GOMSPACE AT A GLANCE

#### **History and Status**

- Founded in 2007. Commercial from the start
- Based on research at Aalborg University
- HQ in Aalborg and operations in Sweden, USA and Singapore
- Approximately 115 employees
- Listed on Nasdaq First North Premier in Stockholm since 16 June 2016 ("GOMX").

#### **Market Traction**

- Customers in 55 countries
- Participated in more than 40 satellite missions
- Won the biggest nanosatellite contract in history in 2017









#### **Achievements**

- Pioneered aircraft tracking from space
- Delivered the first nanosatellite to the European Space Agency
- Developed the strongest product portfolio in the industry

## **Competitive Advantage**

- Proven nanosat capability, flawless "flight heritage"
- World class radio technology capability





## COMPANY STATEMENTS |

## **MISSION**

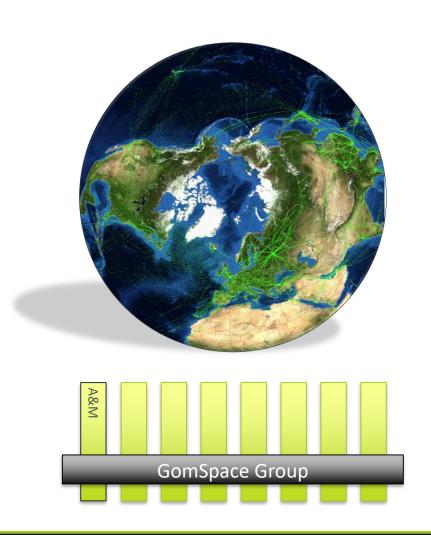
"We help teams across the globe achieve their goals in space"

## **VISION**

"To make nanosatellites the preferred choice for customers who have demands for professional mission critical radio based surveillance and communications solutions"

## **CORE STRATEGY**

"Independent horizontal supplier of technology for commercial service providers and government, education and research institutions – and spin-out activities in new untouched domains"





## NANOSATELLITES - FUNDAMENTALS |

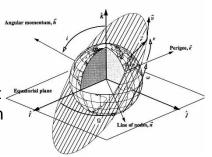
#### **Nanosatellites**

- Miniaturized satellites
- Based on cell phone technology
- 1-30 kg mass, beer casket size
- >1000 times cheaper than traditional satellites
- Satellite price of SEK 1 million per kg with a volume of 10x10x10 cm "1U"



#### **Low-Earth Orbit**

- Altitude of 500-800km
- 7.5 km/s, 90 min for one orbit
- Min. 5 orbit planes in different angles to cover the globe with a constellation



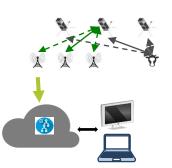
#### Launch to space

- Back seat passengers on big rockets
- Or using small dedicated rockets
- Launch from: USA, Russia, China and India
- Launch price: SEK 0.9 million / 1U
- Increase in supply and thereby low prices



## **Application Areas**

- Internet of Things
- Tracking aircrafts and ships
- Communication solutions
- Remote sensing
- Defense/security solutions





## DISRUPTING THE CONVENTIONAL SATELLITE MARKET |







Mainframe computers were disrupted by personal computers







Telephones were first disrupted by mobile phones which then again were disrupted by PDAs





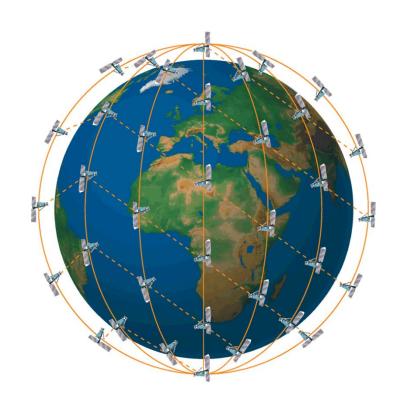


We will disrupt the conventional multi-million satellites with low cost, highly flexible nano-satellites



## SATELLITE CONSTELLATIONS |

- To cover the Earth for a global service, the satellites must be launched into a minimum of 5 orbits, each requiring a dedicated launch vehicle
- For simple applications, 80 satellites can provide global coverage
- For demanding applications, such as providing high bandwidth communication, up to 3,000 satellites may be required for global coverage
- The equatorial region and the polar areas are special cases where coverage can be provided with a few satellites
- Satellite constellations must be replaced every 5
  years in orbit I.e. 20% of all launched satellites
  must be renewed every year





## | CUSTOMER CASE - SSG |

- In February 2017, GomSpace was contracted to deliver the full equatorial constellation. Order is valued at EUR 35-55 million
- Sky and Space Global Ltd. is a UK-based company with a parent company listed in Australia
- They pursue a business plan to operate an equatorial constellation of **hundreds** of satellites before 2020.
- Will provide IoT, data connectivity (low bandwidth) and voice services as subscriptions through local resellers focusing on developing countries
- GomSpace delivered the first three test satellites which will be launched later on in 2017
- GomSpace has close negotiations with several other potential customers with the same level of ambition





# **G** MSPACE

## SOLUTIONS



- COMMUNICATIONS SOLUTIONS
- IOT / M2M
- TRACKING & GEOLOCATION,
- REMOTE SENSING
- INTELLIGENCE APPLICATIONS
- SCIENCE

## **ORBITAL**



LAUNCH SERVICES

# **GOM**SPACE

#### **PLATFORMS**



- SIZE:1-27U
- ADVANCED CAPABILITIES
- FLEXIBLE CONFIGURATIONS
- PERFORMANCE IN SPACE SECOND TO NONE



- SOFTWARE DEFINED RADIO
- ADS-B
- AIS
- CAMERA





SUBSYSTEMS



- SOFTWARE
- SOLAR PANELS
- EPS
- BATTERY
- COMMUNICATION
- COMPUTERS
- ADCS
- GROUND STATION
- STRUCTURES

- PROPULSION SYSTEMS
- MICRO ELECTRO-MECHANICAL SYSTEMS



## BUSINESS MODEL |











Examples

Platforms



Payloads









Examples

Business segments









Guidance provided from the IPO



# MARKET POTENTIAL IN THE CONVENTIONAL SATELLITE MARKET |

Market segments where GomSpace has radio communications offerings:

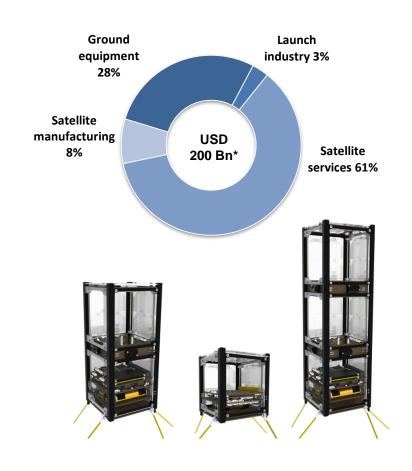
Manufacturing p.a. US	SD 14.1 Bn
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Military and surveillance USD 4.7 Bn
Communications USD 7.5 Bn
Navigation USD 0.6 Bn
Scientific USD 1.3 Bn

Ground equipment p.a. USD 54.6 Bn

## Total potential mkt in 2021: USD 3.1 Bn

- 15 % of manufacturing
- 0.5 % of ground stations
- New potentials, USD 0.8 Bn



\*Satellite Industry association, State of the satellite industry report 2016

 $\underline{\text{http://www.sia.org/wp-content/uploads/2016/06/SSIR16-Pdf-Copy-for-Website-Compressed.pdf}}$ 



## LONG TERM NANOSATELLITE VISION |

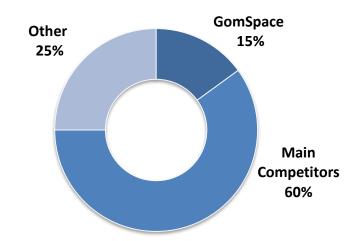
- Nanosatellites are the "Ford-T" model in the space economy; opening up for low cost through mass production
- We see it as likely that nanosatellites will become the "radio towers" of the future, allowing radio services to be offered globally from space at lower cost than setting up terrestrial infrastructures
- Replacing the satellites every 5 years allow the infrastructure to stay competitive, taking advantage of advances in technology driven by Moore's law
- International regulation, as in airspaces, will ensure that hundreds of thousands of satellites can co-exist in space providing services to users





## POSITION AND COMPETITORS |

- Leading in radio for tracking and communication applications
- A global nanosatellite market share of 15%
- Main Competitors
  - ISIS BV, NL
  - Clyde Space, UK
  - Tyvak, US
  - Blue Canyon, US













## | SPIN-OUT STRATEGY FOR APPLICATIONS |

## GomSpace will develop new applications

#### Why:

- Application development requires deep space knowledge
- We have a track-record of demonstrating new applications
- We will enable our customers to benefit from this, incl. organizations that are not space experts

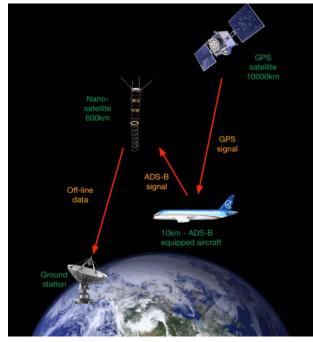
#### How:

- Internal innovation to design applications and secure IPR
- Develop and offer payload products incorporating this
- Spin out service-oriented entities where no natural customers exist in our horizontal business model

## What (examples):

- Airline tracking; spin-out as Aerial & Maritime to provide service in 112 countries from 2018
- Currently applications related to aircraft global real-time communication and satellite performance monitoring are being prepared for spin-out







## OWNERS AND BOARD OF DIRECTORS

Share % **BOREAN/NOVI** 20 State-approved Innovation Incubator investing in technology-based projects for commercialization of new ideas and inventions **HL Invest A/S** 14 Spin-off of CRI A/S, which in 1995 was Denmark's largest IT Company Founders and management 19 CEO, management and founders Floated on NASDAQ First North 45 Nordnet, Avanza etc. **SSC – Swedish Space Corporation** 

#### **Jukka Pertola**

CEO Siemens A/S Denmark Chairman: GomSpace Group, GomSpace

#### Jesper Jespersen

Ret. CEO NOVI Vice Chairman: GomSpace

#### Carl-Erik Jørgensen

Investment manager BOREAN

#### Steen Hansen

Managing Director, CEO and majority shareholder of HL-Invest ApS

#### Anna Rathsman

Senior Vice President & CTO, Technology & Innovation of Swedish Space Corporation



## MANAGEMENT |



Niels Buus, CEO - born 1957
20 years of experience in the defence and security business at executive and non-executive level.

Experienced at leading fast growth companies. Chairman until 2014.
Engineering and commercial education at Aalborg University, Imperial College and London Business School.



Troels Nørmølle, CFO - born 1986 9 years of experience in accounting. Experience from EY, PwC and interim Financial Manager, 1 year, in a public listed company, Aalborg Boldklub. Financial management and accounting education at Aalborg University.



**Jacob Nissen, CTO** - born 1967 17 years of experience in the intelligence and security business.

Experienced at leading large international project-oriented technical organisations.

Masters Engineering degree and Diploma in Business Administration at Aalborg University.



Lars Krogh Alminde, CMO born 1979

8 years of experience with space technology and business. Nanosatellite pioneer.

Leading founder of GomSpace in 2007, CEO until 2014.

PhD from Aalborg University. Was a key person in the first nanosatellite mission from Aalborg University, which also was one of the first three in the world.



Børge Witthøft, CSO - born 1952 28 years of experience in the Defence, Security and Space business at executive level. Experience with international business development in projectoriented technical organisations. MSc Engineering at Danish Technical University and commercial education at IMD.



## FINANCIALS KPI GOALS |

- Compound annual growth rate of 70%
- Gross margin of min. 50% in 2021
- Recruitment of employees, 350 in 2021

## **HISTORY**

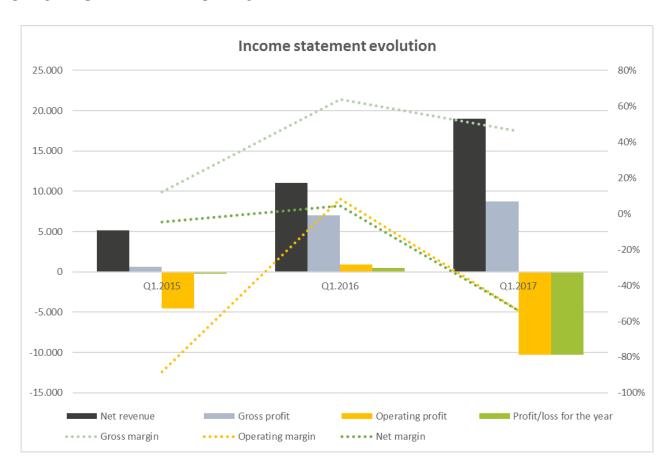
	2013	2014	2015	2016
Turnover MSEK	10.3	26.9	33.5	54.1
Number of employees	8	16	30	77
Profit b. tax MSEK	0.0	1.6	-3,1	5.5





## FINANCIAL PERFORMANCE |

#### FOR JANUARY - MARCH 2017





## | FINANCIAL PERFORMANCE |

#### FOR JANUARY - MARCH 2017





## CURRENT PLANS FOR THE FUTURE |

## Growth plan after IPO fully on track

## Expansion of Business

- Subsidiaries now established in Washington and Singapore for sales and project development
- Propulsion subsidiary in Sweden acquired and integrated

## Improving our offerings

- Development of new products with increased performance and life-time
- Innovating new applications and preparing for spin-out
- Engaging with launch providers to help our customers' access to relevant launches

## Facilitating growth

- Establishing ERP and other systems to manage and execute efficiently
- Hiring and on-boarding global talent
- Relocating to new HQ during the summer 2017.
   Investing in equipment and facilities to deliver constellations of satellites





## "WE HELP TEAMS ACROSS THE GLOBE ACHIEVE THEIR GOALS IN SPACE"

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