Together, we make Finland the most attractive and competitive innovation environment, where world class success stories are created.

We are the most wanted partner for our customers to innovate and grow globally.
FOR FINLAND

We Catalyze New, Sustainable Growth through Innovation, and International Collaboration

STRATEGIC INTENT

1. Global Growth for Companies

2. World Class Ecosystems and Competitive Business Environment
OUR MISSION IS GROWTH, RENEWAL AND SUCCESS

Promotion of innovations
Promotion of exports
Attracting tourists and investments

Tools include
• research and innovation funding
• advice and sparring
• networking and contacts
• domestic and international expertise and view of networks
• theme selections and programmes
THEMES AND GOALS
Towards joint innovation, invest-in and export-promoting service packages *

Cross-cutting
- Digital transformation
- Developing markets
- New value creation
- Arctic dimension

Bio and circular economy
Sustainable solutions with high added value that meet global demand

Cleantech
Clean-tech comprehensive solutions and a globally pioneering approach

Digitalisation
Use of technological lead in the global market

Consumer businesses
Getting Finland a share of the growing consumer business

Tourism
A digital leap towards new business and growth in exports

Health and well-being
Growing individualised health business and attractive ecosystems

*Situation 02/2018
BUSINESS FINLAND’S
GLOBAL NETWORK

40 offices around
the world, and 16
in Finland
### Breaking Down the Strategic Intent – How Will We Achieve It?

#### 1. Global Growth for Companies

<table>
<thead>
<tr>
<th>ELEMENTS</th>
<th>DESCRIPTION: WHAT</th>
<th>HOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive high value products and services</td>
<td>A large number of Finnish companies renew their business(es) and seek growth especially with high value products and services. Insight to global customer needs drives their actions.</td>
<td>BF <strong>enables</strong> it through innovation funding, encouraging advice, and <strong>creating valuable networks</strong> both in Finland and internationally</td>
</tr>
<tr>
<td>Successful market access</td>
<td>An increasing number of companies grow their capabilities, enter international markets and scale up their business</td>
<td>BF <strong>awakens</strong> awareness on global business possibilities, <strong>supports</strong> building competences and <strong>speeds up</strong> the entry to new markets by <strong>creating direct contacts</strong> to customers and partners</td>
</tr>
<tr>
<td>Funding for growth</td>
<td>SMEs get funding solutions for their growth through the Business Finland funding platform</td>
<td>BF directly <strong>finances</strong> innovation and renewal, but also <strong>matches</strong> potential companies to foreign investments, VCs, EU funding, and TF funding (e.g. Finnvera) as well as European Space Agency funding</td>
</tr>
</tbody>
</table>
## 2. World-class Ecosystems and Competitive Business Environment

<table>
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<tbody>
<tr>
<td>Change makers in global business ecosystems</td>
<td>Finnish companies form strong and attractive ecosystem nodes to gain critical positions in global business ecosystems, driven by global challenges</td>
<td>BF supports the creation and renewal of business ecosystems by <strong>producing insights</strong> on global challenges, <strong>tackling regulatory barriers, networking</strong> key players, and by <strong>funding</strong> renewal and coordination</td>
</tr>
<tr>
<td>Best knowledge to drive renewal</td>
<td>Renewing ecosystems have access to knowledge, competences and talent, which drive the change</td>
<td>BF strives for having best competences and talent available for ecosystems in focus, through <strong>funding research, attracting international investments</strong> and <strong>forming networks</strong> (domestic and international)</td>
</tr>
<tr>
<td>World class trial environment</td>
<td>Finland establishes significant large scale real life experimental platforms and environments, attracting leading global companies</td>
<td>BF <strong>drives co-operation</strong> between public and private players and <strong>facilitates</strong> joint industry actions for selected potential world class ecosystems</td>
</tr>
</tbody>
</table>
NATIONAL SPACE POLICY PERSPECTIVES

Futures reviews for the branches of government 2018
https://vnk.fi/en/foresight/futures-reviews

Priorities for capabilities and space utilization varies
NATIONAL SPACE POLICY IMPLEMENTATION

National Space Legislation 2018
http://tem.fi/en/spacelaw

National Space Committee and Secretariat 2016-2019
http://tem.fi/en/space

National Space Strategy 2013-2020

Operational program to develop satellite navigation 2017
https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/160397/14-2017_LVM_Satelliittinavigointi.pdf?sequence=4&isAllowed=y

Digital Finland Framework Report 2018

Finnish Centre of Excellence in Research of Sustainable Space 2018-2025

Space Economy Program 2018-2022
**Strategy & Implementation Plan Task Force**

- Focus on Growth & Employment actions
- Established by two ministers; Lintilä (MEE) and Berner (MTC)
- Views on the next government program and to EU/ESA activities

**Finnish Space Strategy 2013-2020**

- Prepared by the Finnish Space Committee
- Covers all public sector activities from satellites and space systems to applications.

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**The impact model behind the Finnish strategy**

- Capabilities in science and technology
- Products of space and application industry
- Impact on public and private services for the benefits to society

**The Finnish space strategy: two applications together with scientific and industrial foundations**

- Raising the level of scientific research
- Increasing the competitiveness of space industry
- Space applications for the Arctic region
- Services based on Open Data
EU Space Regulation, Commission Proposal June/2018, 16 Mrd€ 2021-2027

http://ec.europa.eu/growth/sectors/space_en

Focusing at a strong market uptake of space data and services by the public and private sectors while ensuring autonomy in space technology and access to space. There is still a need for public investment in space as an enabler for numerous key Union priorities. Space supports European industrial competitiveness by boosting innovation. EU is becoming a global leader in big data provision as a result of Copernicus. The combination of space data with digital technologies and other sources of data opens up many new business opportunities.

Galileo/EGNOS (9,7Mrd€): secure positioning, navigation and timing services;

Copernicus (5,8Mrd€): to deliver accurate and reliable information to support the implementation and monitoring of policies for environment, climate change, agriculture and rural development, civil protection, safety and security, as well as the digital economy;

Space Situational Awareness: SST capabilities to monitor, track and identify space objects, to monitor space weather and to map and network Union NEO capacities;

GOVSATCOM: to ensure the long-term availability of reliable, secure and cost-effective satellite communications services with an appropriate guarantee of access and robustness to withstand ill-intentioned acts

Launchers: to contribute to an autonomous, secure and cost-efficient capability to access space

Growth and Employment: support and reinforce the competitiveness, entrepreneurship, skills and capacity to innovate active or wishing to become active in that sector, with particular regard to the position and needs of small and medium-sized enterprises and start-ups.
Arctic Council & Arctic Economic Council Chairmanships 2018-2019


Connectivity, Meteorology, Climate Change, Black Carbon, Investments, Infrastructure…

Finnish EU chairmanship 2019

https://vnk.fi/eu/finlands-eu-presidency


European Space Agency Ministerial Meeting 12/2019

Four pillars: Science & Exploration, Safety & Security, Space Applications, Enabling & Support

Including: Space 4.0, ESA Business Incubation Centres, Arctic, CyberSecurity, AI, Sat5G, Big Data
NEW SPACE ECONOMY

The new paradigm

New Space Economy = Faster Cheaper Better

New Space Economy = Growth & Employment

New Space Economy = Platform Economy
The paradigm change. A new global phase is underway, with transformation of space industry actors, roles and methods.

Already 200 companies engaged in the manufacturing and application of space technology have been identified.

International investors are also interested in the manufacturing and business application of drones and small satellites, which have evolved rapidly.

**Future of Space—Key Developments**

By 2030, over 13,000 satellites will be launched, more than 60 new players will enter the upstream market and over 130 players will be in the downstream market. Space, will be busy like it never was.

- 13462 satellites to be launched
- Air launched and other range-independent launch capabilities
- Scheduled small satellites launch services (30 potential players)
- Additive manufactured space hardware for satellites and launch vehicles
- Spaceport-based business models (US and UK leading the game)
- Serial production of satellite and launch hardware to meet launch schedules
- 8504 small satellites to be launched
- Broadband and narrowband services to remote locations via satellite
- 6 SBAS and 4 GNSS (and regional) systems delivering NAV services
- Space tourism business models and high speed air travel

Source: Frost & Sullivan
The goal for the New Space Economy program is to take advantage of growth opportunities and highlight Finnish expertise internationally.

Our objective is supported by the establishment of the European Space Agency business incubation centre in Otaniemi, offering a good platform for 50 growth-seeking companies for a liftoff to the international markets in the coming years.
The aim is to achieve significant results which have an impact on economic growth and employment via networks, and through new business models.

Funding volume in total $100Me/5years (ESA included)
The program will **renew** the space sector and help high-tech manufacturing companies to seek **growth**, as well as businesses that utilize space & drone based data.

The program also aims to **double the exports** of participating companies by 2020, while achieving an annual turnover of at least **EUR 600 million** in services within the sector.
Public sector role remains active as regulation continues to develop and renewed investments for the infrastructure.

Innovative public procurements needed for supporting lead market development and references.
Services, ranging from market analyses to product and service development all the way to large, European joint projects and export services, are available for innovative growth companies.

**FUNDING**
We offer funding for research, product development, and many kinds of business development needs.

**BUILD YOUR NETWORK**
Our services boost innovation-based export growth, accelerate internationalization, and provide help in networking.

**DISCOVER OPPORTUNITIES**
Discover and test the possibilities of your business on the international markets with the help of our services.

**INNOVATE**
Develop a competitive advantage and innovation-based exports with the help of our services.

**GO TO MARKET**
We help your company find new partners, experts, and networks all around the world.

**SCALE YOUR BUSINESS**
Growing pains? We help to bring down the boundaries of growth for your business and broaden the scope of your operations.
ASIAKASARVON LUOMINEN / KYSYNTÄ

Asiakkaat / palvelunkäyttäjät
- Ympäristötietoisuus- ja arvokomunikointi
- Paikannus
- Monitorointi
- Globaali skaalaautuvuus

Toimialat
- Tilannetietoisuus
- Analyytit
- Ennakointi
- Valvonta
- Paikantaminen
- Viestintä
- Ympäristövaikutukset
- Toimitusvarmuus

Teknologiayhtiöt
- Suunnittelu- ja materiaalitehtyö
- Laite- ja ratkasukehty
- Uudet pääeläinten

Palveluhyötyöt
- Avoimen datan hallinta
- Palvelumuotoilu
- Big data ja analytiikka
- Ratkaisunteknologia

Julkisen sektorin toimijat
- Ympäristönsuojelu
- Sääntely- ja määräykset
- Kansainvaliset verkostot
- Turvallisuus

TUOTANNONTEKIJÄT

Avainteknologiat ja tekniset mahdollistajat
- Datakeskukset ja palvelinfarmit
- Pilvet
- Blockchain
- Tekoäly
- Analytiikka
- AR/VR
- Miniaturiteknologia

Data-aineistot, -virrat ja -varannot
- Paikkatieto
- Satellititieto
- Paikannusdata
- Palvelutietot
- Säätiedot
- Sensoridata
- Ympäristötieto
- Big Data varannot

Reaali maailman ja digivarantojen yhdistelmät
- Nanosatelliitit
- Tietokoneet
- Laukaisulautak
- Komponentit, osat
- Mittausensorit
- Robotit
- Vastaanottoasemat

Avaruusalan ALUSTAEKOSYSTEEMI

VALUE CREATION BY 2020

KESKEISET MUUTOSAJURIT

Geo-politiittiset muutokset
Ilmastomuutos
Digitalisaatio
Yksityiset avaruus-toimijat

DOWNSTREAM BUSINESS 300 M€ → 600+ M€

Technology
Systems
Integrators

UPSTREAM BUSINESS 20 M€ → 40 M€