Bittium Company Presentation

Toni Kinkki 05.05.2023



## About Bittium

Bittium is a high-tech company specializing in Secure Connectivity, R&D Services, Tactical Communications and Medical Technologies.

## **Key Figures**

Founded in **1985** 

Approximately
620
employees

Net sales **82.5**M€ in 2022 Listed in Nasdaq Helsinki

Headquarters in

Oulu

**Finland** 

Offices in Finland, UK, Germany, US, Mexico and Singapore

**R&D** investments

22.3M€

in 2022

R&D investments
26.8%
of net sales



#### **FINLAND**

Germany

Munich

Sales support

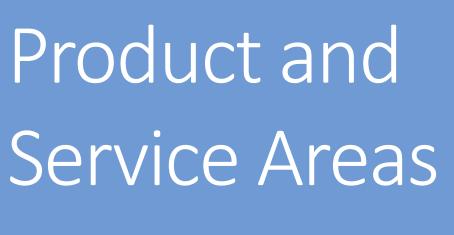
- 1 Oulu, Headquarters
  Tactical Communications, IoT & Telecom
  Services, Secure Communications, Medical
  Technologies
- 2 Kajaani
  Tactical Communications, Telecom Services,
  Medical Technologies
- 3 Kuopio
  Medical Technologies
- 4 Tampere

  IoT & Telecom Services, Secure

  Communications, Secure Connectivity Solutions
- 5 **Espoo**Secure Connectivity Solutions

Singapore Sales support

Bittium Connectivity Solutions Youtube presentation







# Nearly 40 Years of Experience















- Nearly 40 years of defense technology experience in domestic and international R&D projects
- Technology leadership in tactical communications with advanced SDR and IP based products & systems
- Founding Member of European military SDR project ESSOR
- Secure mobile communications and connectivity solutions certified by NCSC-FI up to CONFIDENTIAL security level
- **Developer of world's first satellite-terrestrial smartphones** without external antennas
- **100+** R&D projects for different handsets, several turnkey mobile phones in 3G, 4G, 5G and satellite

- 350+ R&D projects for radio elements throughout different mobile network generations
- A world leading service and technology provider for mobile technologies
- Mastering the Android ecosystem with Bittium's secure smartphones and R&D projects
- Forerunner in industrial IoT and wearable technologies
- ISO 13485 Certified R&D services for healthcare & medical sector
- Innovative, CE and FDA approved cardiac monitoring device with the best ECG signal in the market
- Over 35 years of experience in high-resolution EEG systems

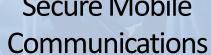
# Connectivity Enabled

- Bittium Tough Mobile **Product Family**
- Special Devices
- Secure Connectivity and Mobile Working

**Tactical** Communications

Military Radio and **Communications Solutions** 







- Medical Devices
- Platforms for Biosignals' Monitoring Services and Analysis

Medical **Technologies** 



- Network Infrastructure
- IoT Solutions

## Bittium Products and Services









































## Tactical Communications – Connectivity Across the Battlefield

#### Bittium Tactical Wireless IP Network™

Broadband wireless IP backbone network with high mobility for battle groups



## Bittium Tough SDR™ product family

Wideband tactical radios for soldiers and vehicles



#### Bittium Tactical LTE Access Point™

Deployable 4G LTE access to tactical networks





#### Bittium Tough Comnode™

Versatile device for tactical wired IP networking



#### Bittium Tough VoIP™ product family

Tactical IP calls and broadband data transfer in demanding conditions



# Bittium Tough Mobile™ Product Family

#### Bittium Tough Mobile™

- ✓ Security certified up to CONFIDENTIAL level
- ✓ 70 customers in 40 countries
- ✓ Available in three variants



For professionals with the highest security requirements

Trusted design and manufacturing in Finland

Military grade durability

End-to-end mobile security together with Bittium Secure Suite™



- Next generation tamper detection
- ✓ Unique hardwarebased privacy mode
- ✓ Designed to be certified for RESTRICTED and CONFIDENTIAL





# Bittium SafeMove® - Highly Secure Remote Access Solution for Mobile Workers

Solid security



Seamless connectivity



Centralized & Device management



Analytics



Ease of use



# R&D Engineering Services



System & Architecture Design



Electronics Design



Mechanics Design





Software Design



Testing, Laboratories, Verification



Digitalization Services



Transparent, Lean and Agile Way of Working

# Biosignals Measuring and Monitoring

Q

ECG
HOLTERING
EVENT MONITORIN
MOBILE TELEMETR



#### Cardio

Reliable precision and flexibility for cardiac monitoring and analyzing.

#### Neuro

Cutting edge neuro monitoring for the most demanding needs.

# Bittium Kajaani



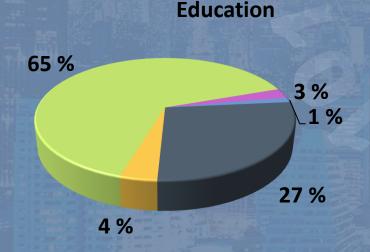
- Established in February 1998
- Location Renforsin ranta
  - Architect Eino Pitkänen designed building in 1938
- Employees: approx. 80 persons
- Main customers: Secure telecommunication, defenceand authoritative sectors and medical technology
- Our customer projects are linked all over globe due Bittium's versatile technology knowledge



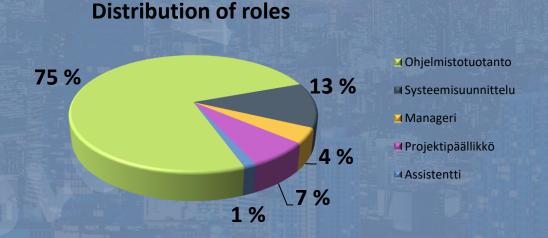
# Bittium Kajaani

#### Knowledge / learning

- In high technology areas, continuous competence development and renewal knowledge when necessary
- AI / Machine learning, data-analytics, communication technology (5G, 6G) => solutions for new platforms such as medicine
- Interdisciplinary view, such as medical, physical training and well-being, construction- machinery- and automation







# Entering into Bittium career

#### Learning

- In high technology areas, continuous competence development and renewal knowledge when necessary
- To prosper you need to be interested of seeking knowledge, decipher information and know, how to process and share information.
- Interdisciplinary view, such as medical, physical training and well-being, construction- machinery- and automation

#### Knowledge

- In system- and software design, for example Linux, Yocto, Android, open source, Cloud, C/C++, Python, Java/Java Script/NodeJS, etc
- In device- and platform design, for example Rasperry PI, Arduino, Odroid, server-, switch- and router solutions, different sensors, signals, waveforms, secure coding, RF, LTE/5G/6G etc
- Tools, for example Jenkins, Robot Framework, GIT, Gerrit, Jira, Selenium, RestAPI, Docker, etc.

# Training and/or working into Bittium

- Bittium find all work assignments inside our R&D projects or in customer projects
- This means that when you pass our recruitment process, you'll find yourself in real tasks inside projects and you can
  show us your skills and solve problems together with other Bittium experts.
- Training in customer projects or R&D projects is always paid work.
- Remote working is also possible in some customer projects and/or R&D projects either full or part-time.
- Trainees receive same personnel benefits as other Bittium employees (healthcare, lunch, hobbies etc etc)

# Opportunities for student

- Training time is easy to extend into summerjob and/or part-time work along with your studies
- During years 2019-2022, 75% of our trainees and graduated are still in employment relationship with Bittium.
- Training time is valueable time to show us your values and knowledge as an employee and valuable time to us as an employer show to you our meaning as an high-tech company and our community and values to you. #bittiumLife

# #BittiumLife





# Openings

#### **Open positions**

- jobs.bittium.com
  - <a href="https://jobs.bittium.com/index.php?id=5691#kajaani">https://jobs.bittium.com/index.php?id=5691#kajaani</a>

#### More information:

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