



# Welcome to Saab Sensor seminar

Using sensors to locate threats – an advantage on the battlefield



**SAAB**



# Anders Carp

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Head of Business Area Surveillance

# Agenda

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Welcome by Anders Carp - SVP and Head of Saab business area Surveillance

Encountering threats with surface radars - Hanna Svantesson, Head of Product Management Surface radars

Using electronic warfare and information fusion for situational awareness - Robert Humeur, Business Development & Strategy business area Surveillance

Market outlook and closing remarks - Anders Carp

Question and answer session – Ann Wolgers, Press officer

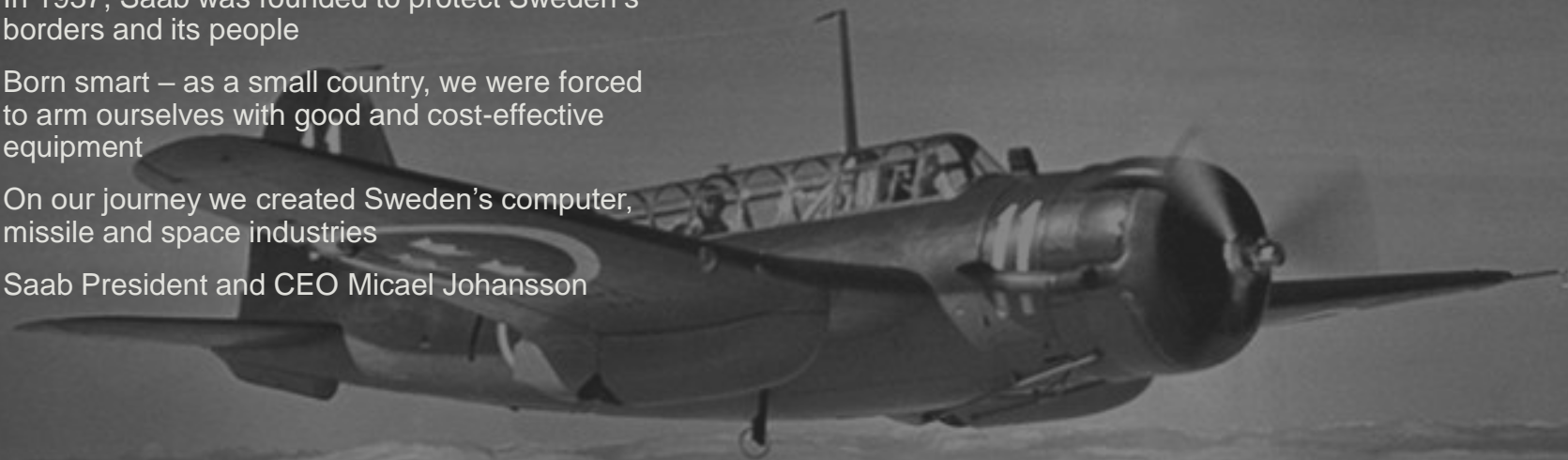
## **Important information**

This presentation may contain forward-looking statements which reflect Saab AB's current view on future events and financial and operational development. Words such as "intend", "expect", "anticipate", "may", "believe", "plan", "estimate" and other expressions which imply indications or predictions of future development or trends, and which are not based on historical facts, are intended to identify forward-looking statements. Forward-looking statements inherently involve both known and unknown risks and uncertainties as they depend on future events and circumstances. Forward-looking statements do not guarantee future results or development and the actual outcome could differ materially from the forward-looking statements.

# In 1937 we took off

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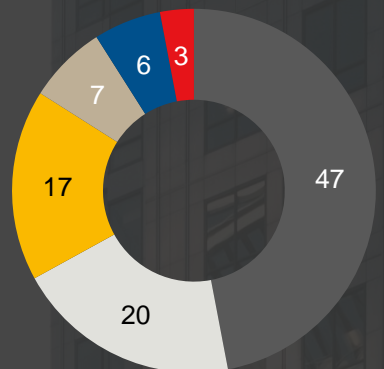
- In 1937, Saab was founded to protect Sweden's borders and its people
- Born smart – as a small country, we were forced to arm ourselves with good and cost-effective equipment
- On our journey we created Sweden's computer, missile and space industries
- Saab President and CEO Micael Johansson



# Company overview – 2018

Sales  
**33,156**  
MSEK

**17,096**  
Employees



■ Air  
■ Naval  
■ Commercial aeronautics  
■ Land  
■ Security  
■ Other



**100**

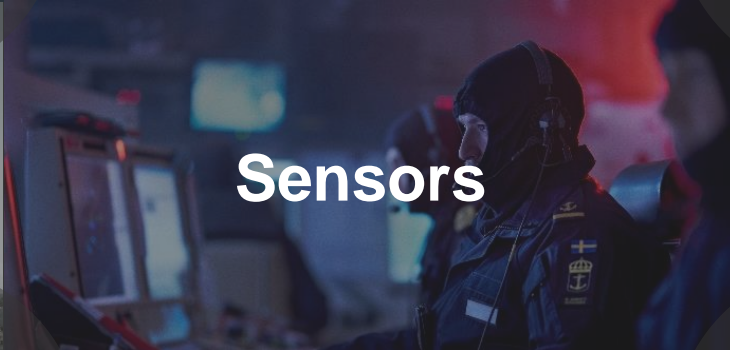
Customer countries



**Air**



**Naval**



**Sensors**



**Land**



**Security**



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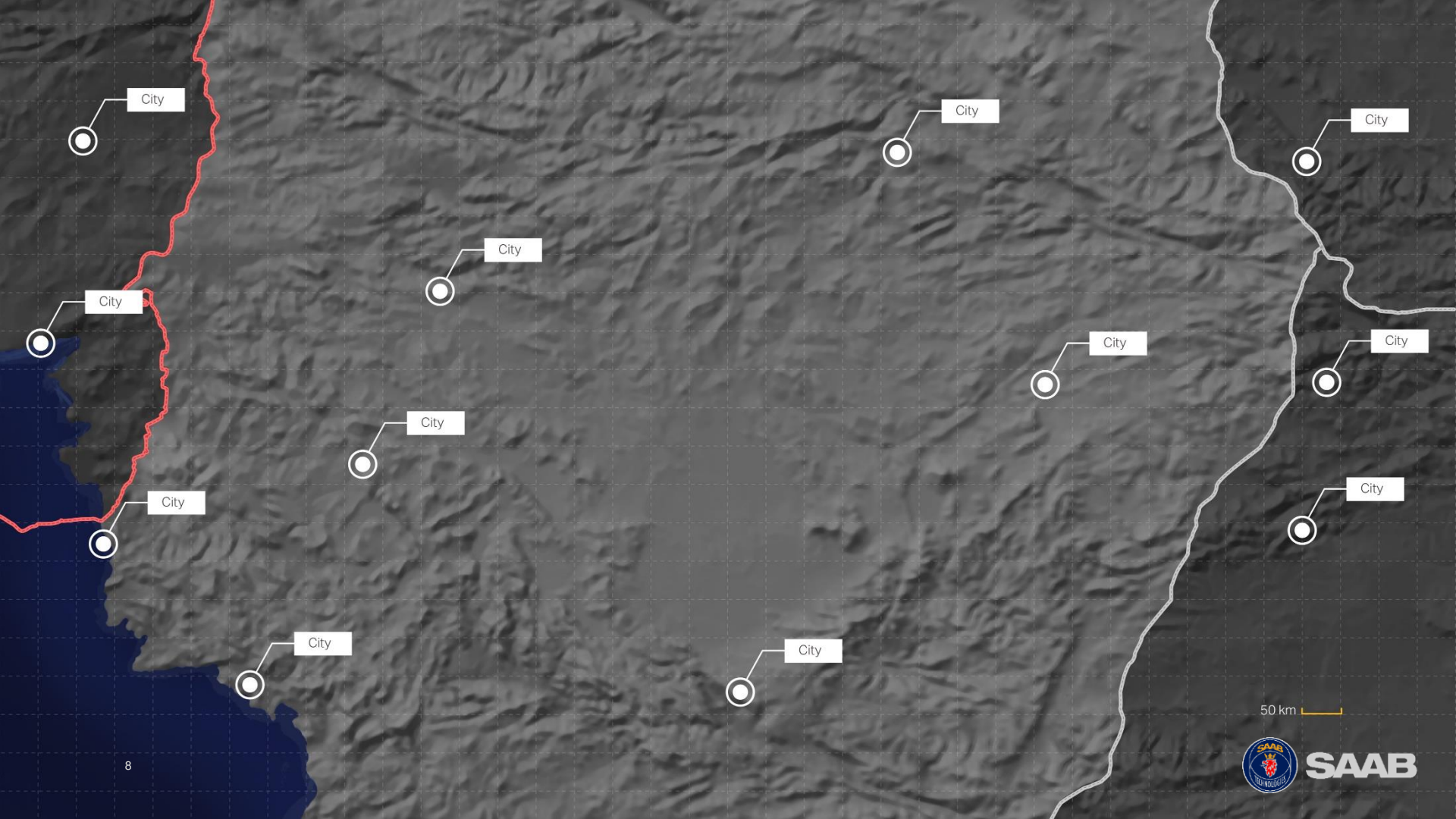
# Situations benefitting from surveillance capability

Drones	Natural disasters	Conflicts	Stealth fighter
Piracy	Search & rescue	Evacuation/ mass exodus	Long range air defence missile
Drug enforcement	VIP & event protection	Terror	Concealed cruise missile
Cyber attack	Refugees	Sabotage	Long range cruise missile
Hijackings	Targeting from satellites	Guerrillas	Tactical ballistic missile

Peacetime

Crisis

Conflict



50 km



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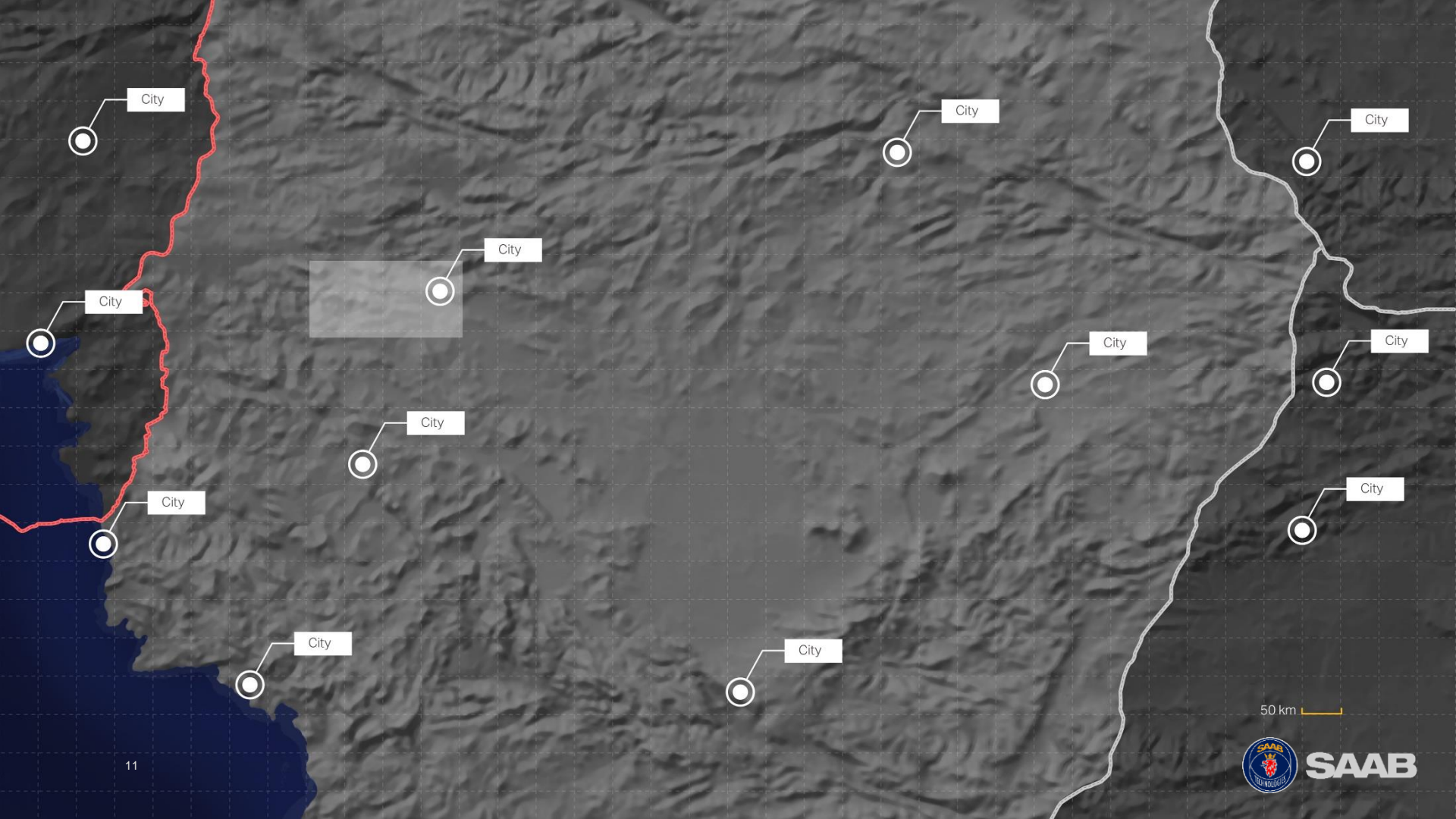


# Hanna Svantesson

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Head of Product Management Surface radars





City

City

City

City

City

City

City

City

City

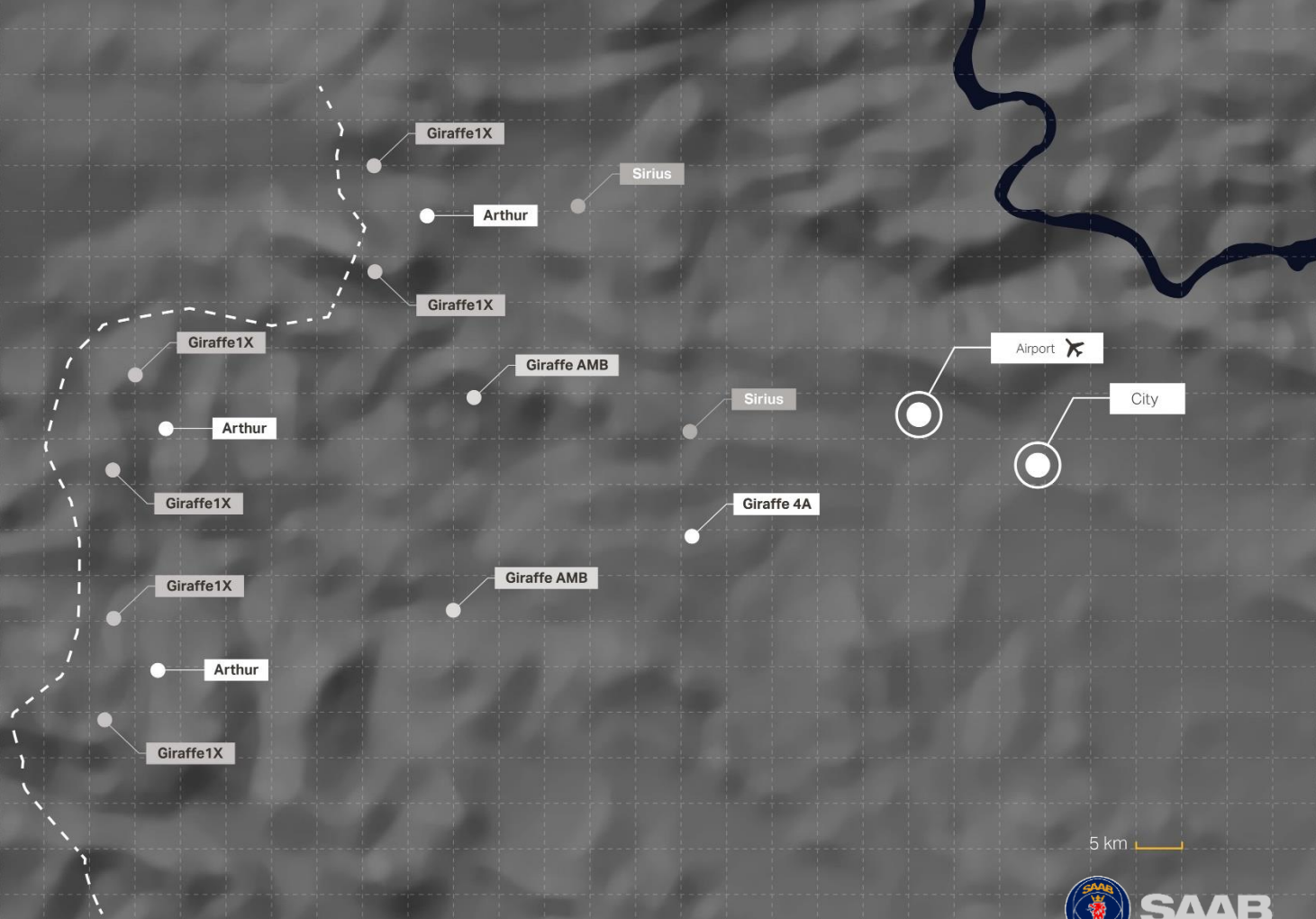
City

City

City

50 km

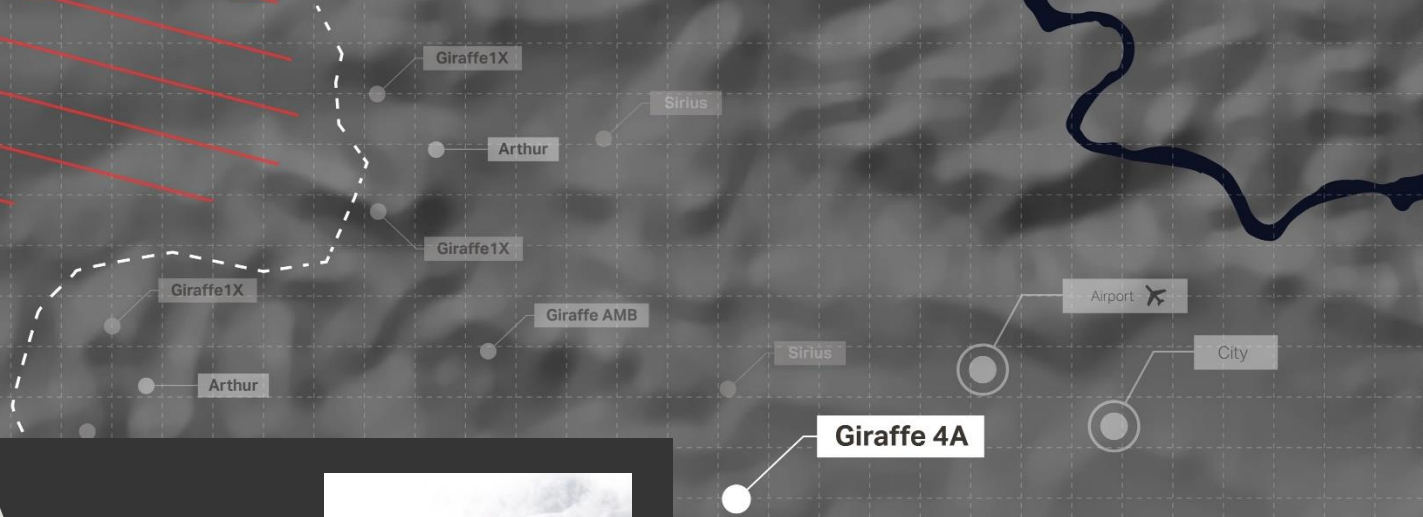






## Giraffe 4A

- Multifunctional within a single solution
- Fast track initiation and high target update rates
- Full awareness and performance



5 km

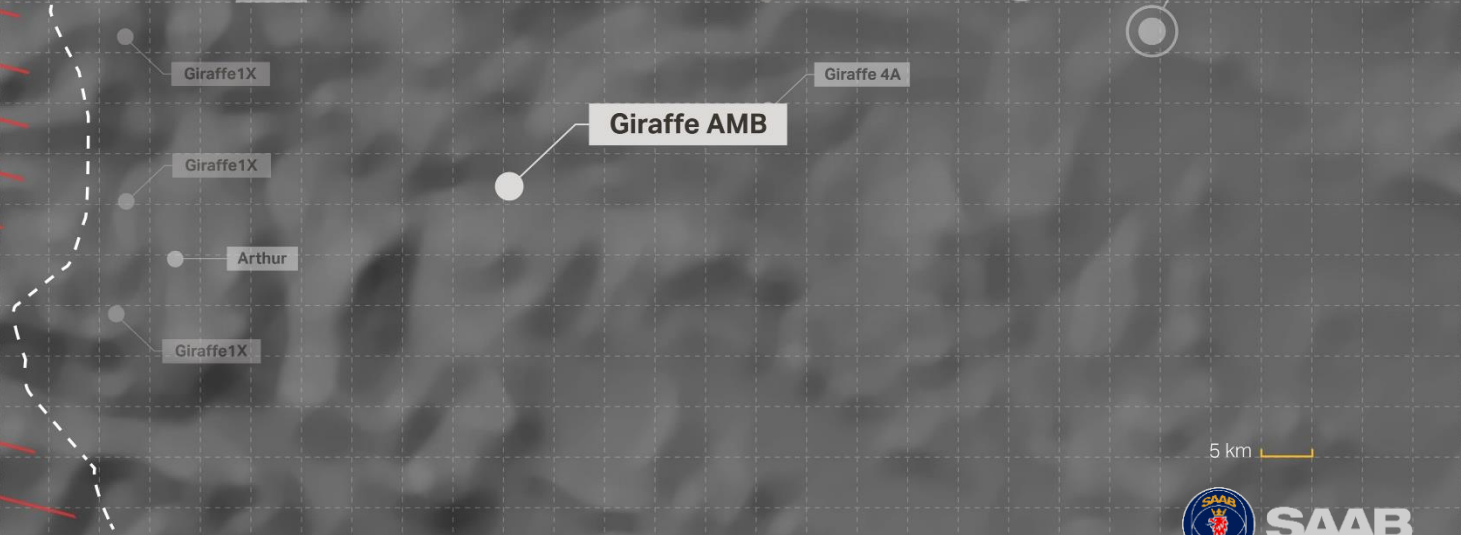


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# Giraffe AMB

- Air surveillance, decision support and interoperability in the same platform
- Multifunctional with engagement quality data
- Capable to act autonomously or networked

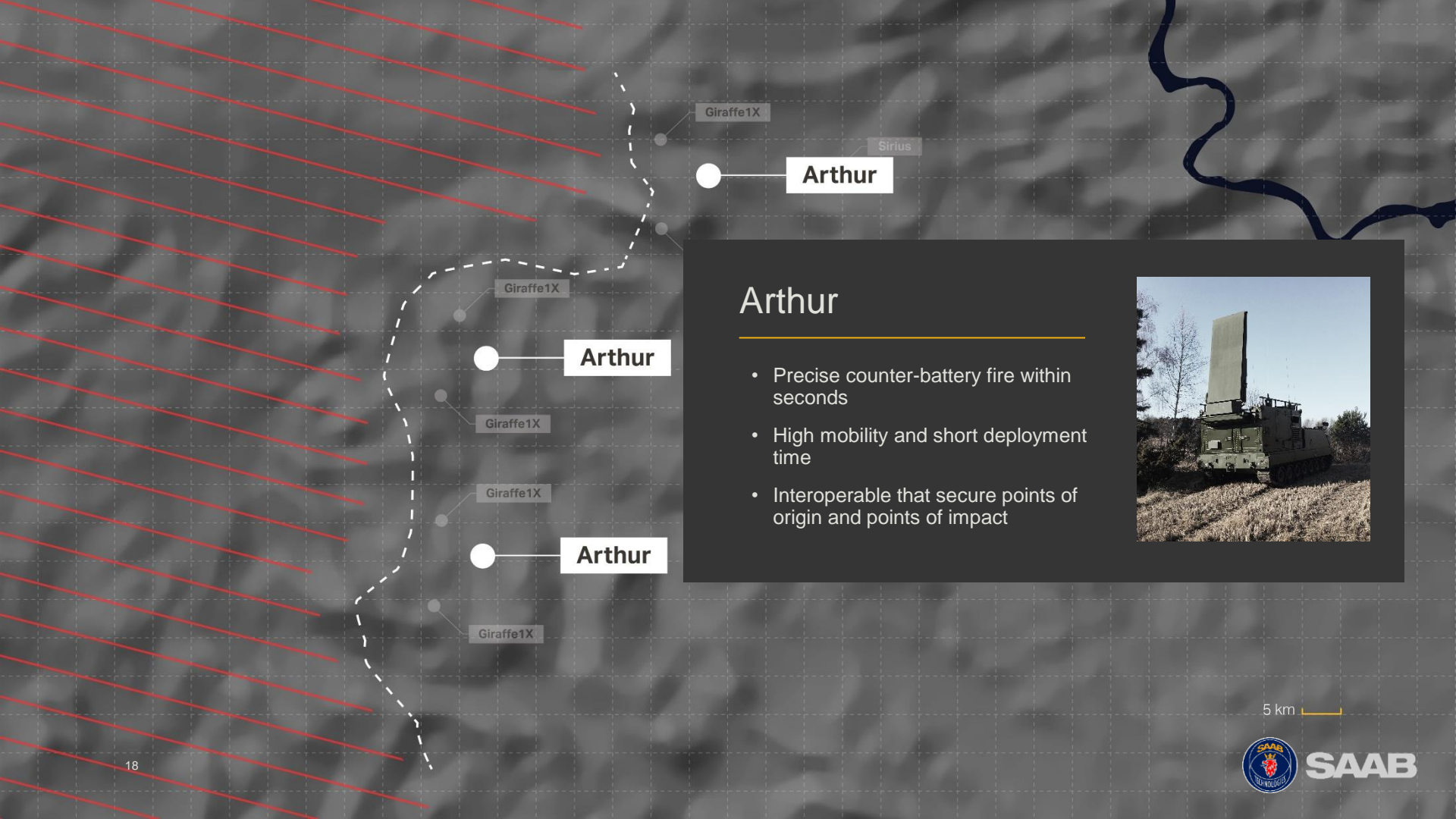






5 km





**Arthur**

Giraffe1X

Sirius

Giraffe1X

**Arthur**

Giraffe1X

Giraffe1X

**Arthur**

Giraffe1X

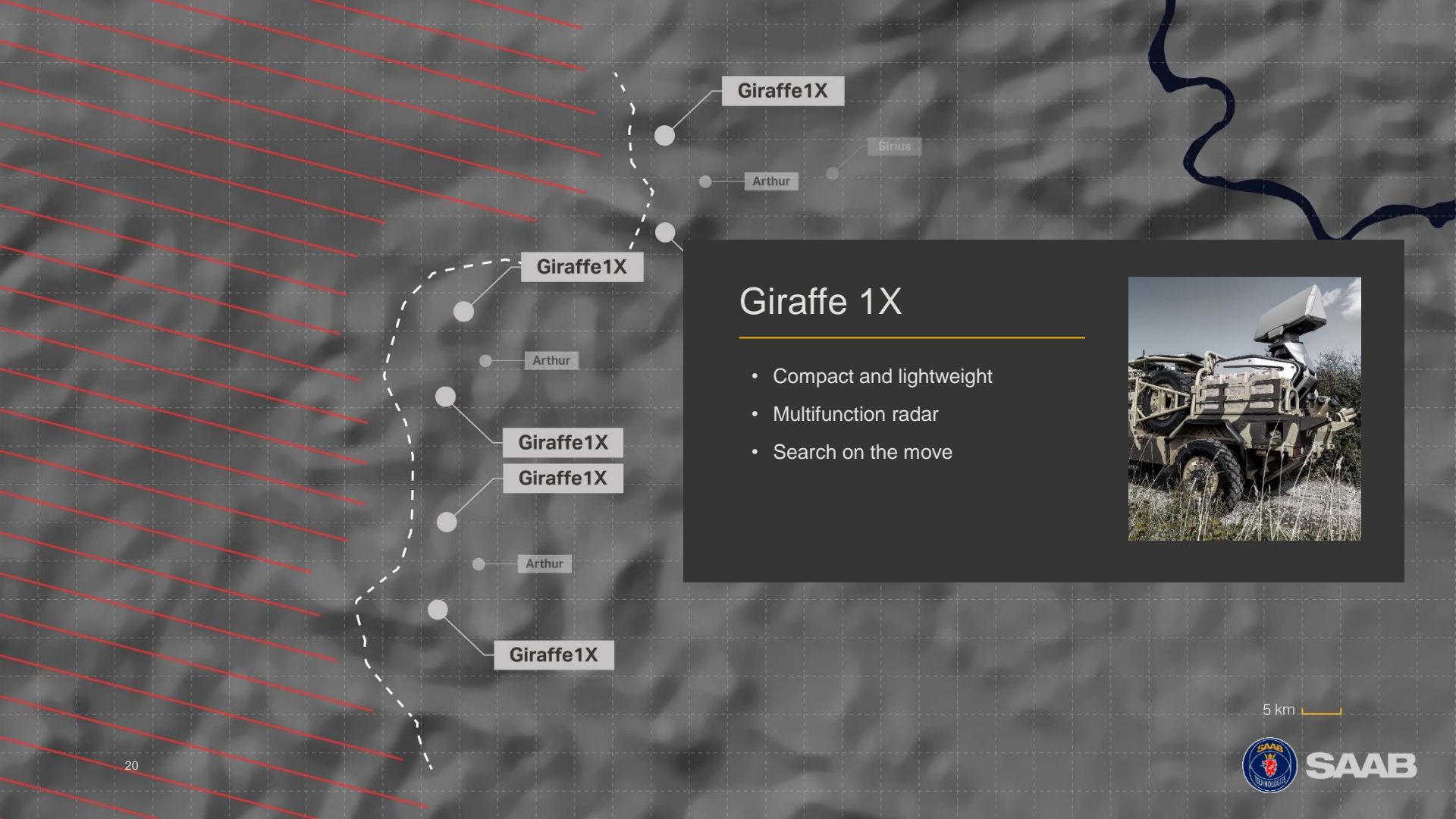
## Arthur

- Precise counter-battery fire within seconds
- High mobility and short deployment time
- Interoperable that secure points of origin and points of impact



5 km





Giraffe1X

Sirius

Arthur

Giraffe1X

Arthur

Giraffe1X

Giraffe1X

Arthur

Giraffe1X

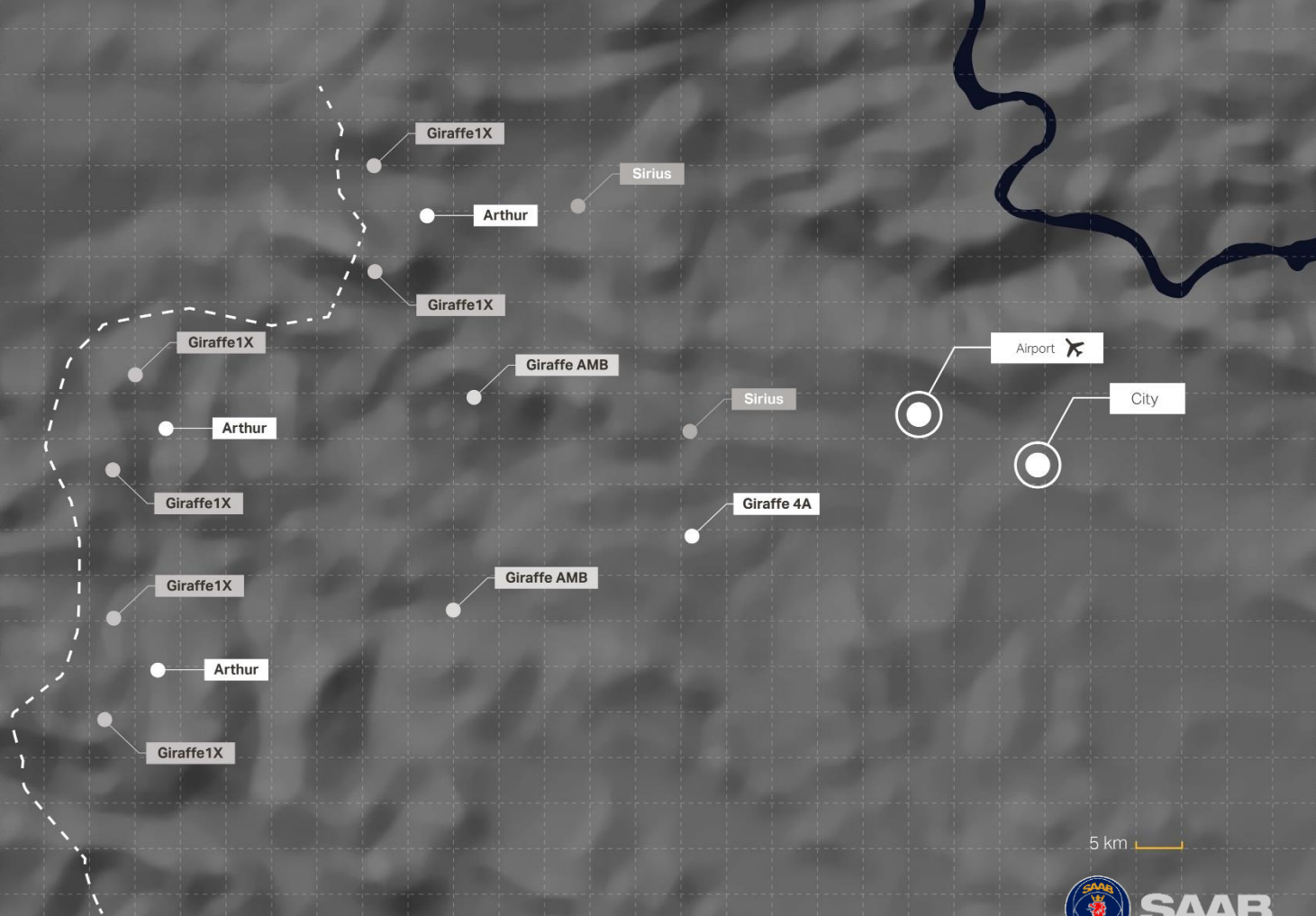
## Giraffe 1X

- Compact and lightweight
- Multifunction radar
- Search on the move



5 km





## Common capabilities

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- Simultaneous multi-functionality
- High accuracy 3D air target information
- Large continuous volume coverage and high update rate
- Software based radar systems
- Drone detection with ELSS (Enhanced, Low, Small and Slow) functionality
- Sense & warn and weapon locating functionality



City

5 km



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## Combat proven

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- 200+ systems in more than 20 countries
- All systems on contract and in production
- Giraffe AMB and Arthur combat proven in Iraq and Afghanistan as 24/7 camp and force protection



City

5 km



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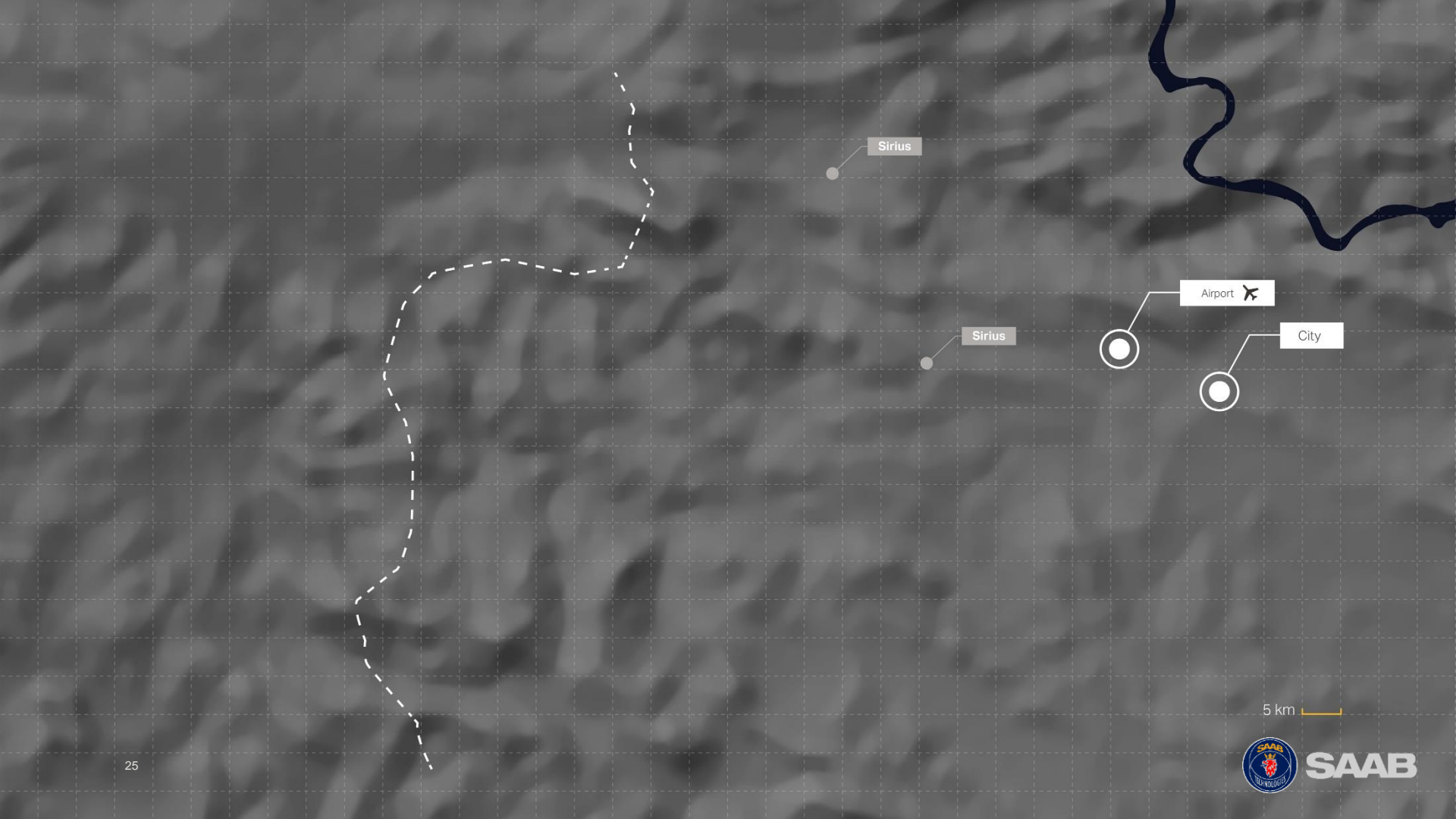


# Robert Humeur

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Business development & strategy, Business  
area Surveillance






Sirius

Sirius

Airport 

City

5 km 

# Sirius

- Powerful passive sensors
- Detects, locates and identifies every signal
- Machine learning for signal classification
- Advanced multi sensor network solution
- Highly automated operation
- Cyber secure platform




Sirius

Sirius

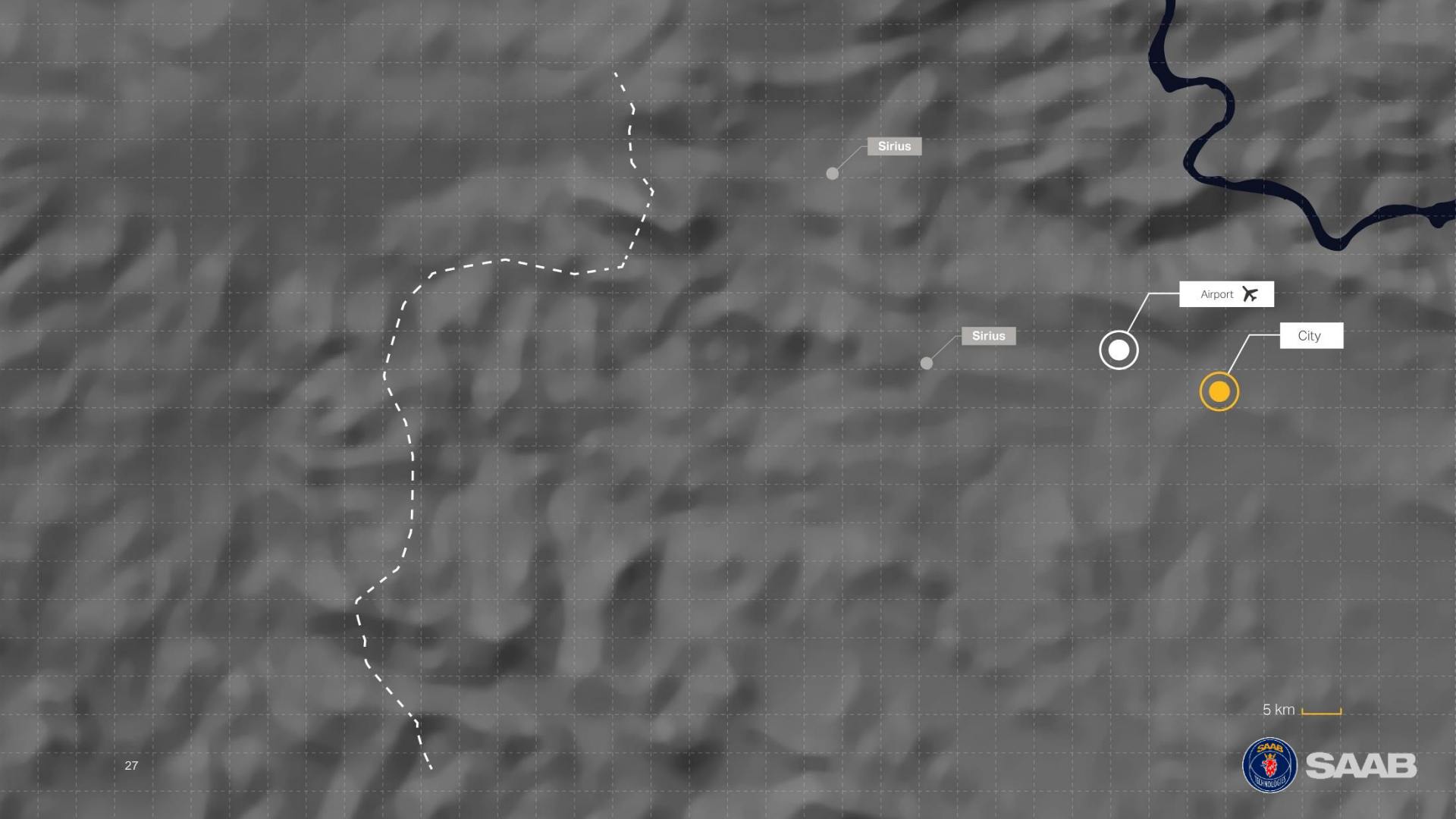
Airport 

City

5 km 



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Sirius

Sirius

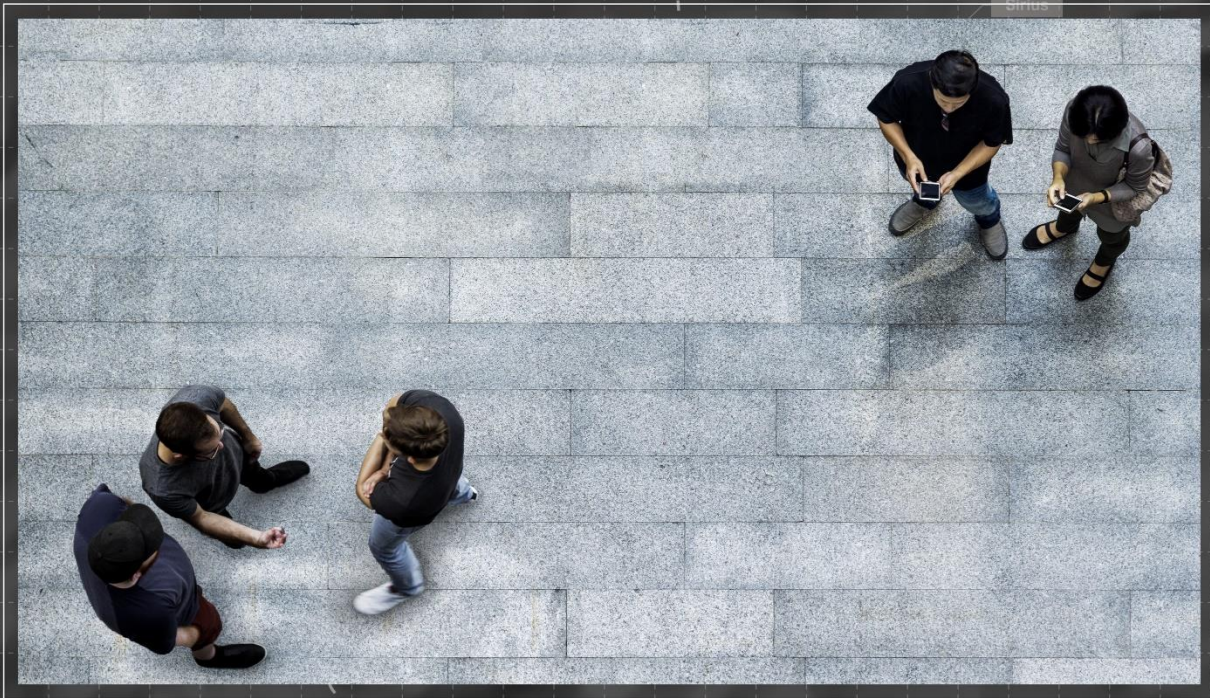
Airport ✈️

City

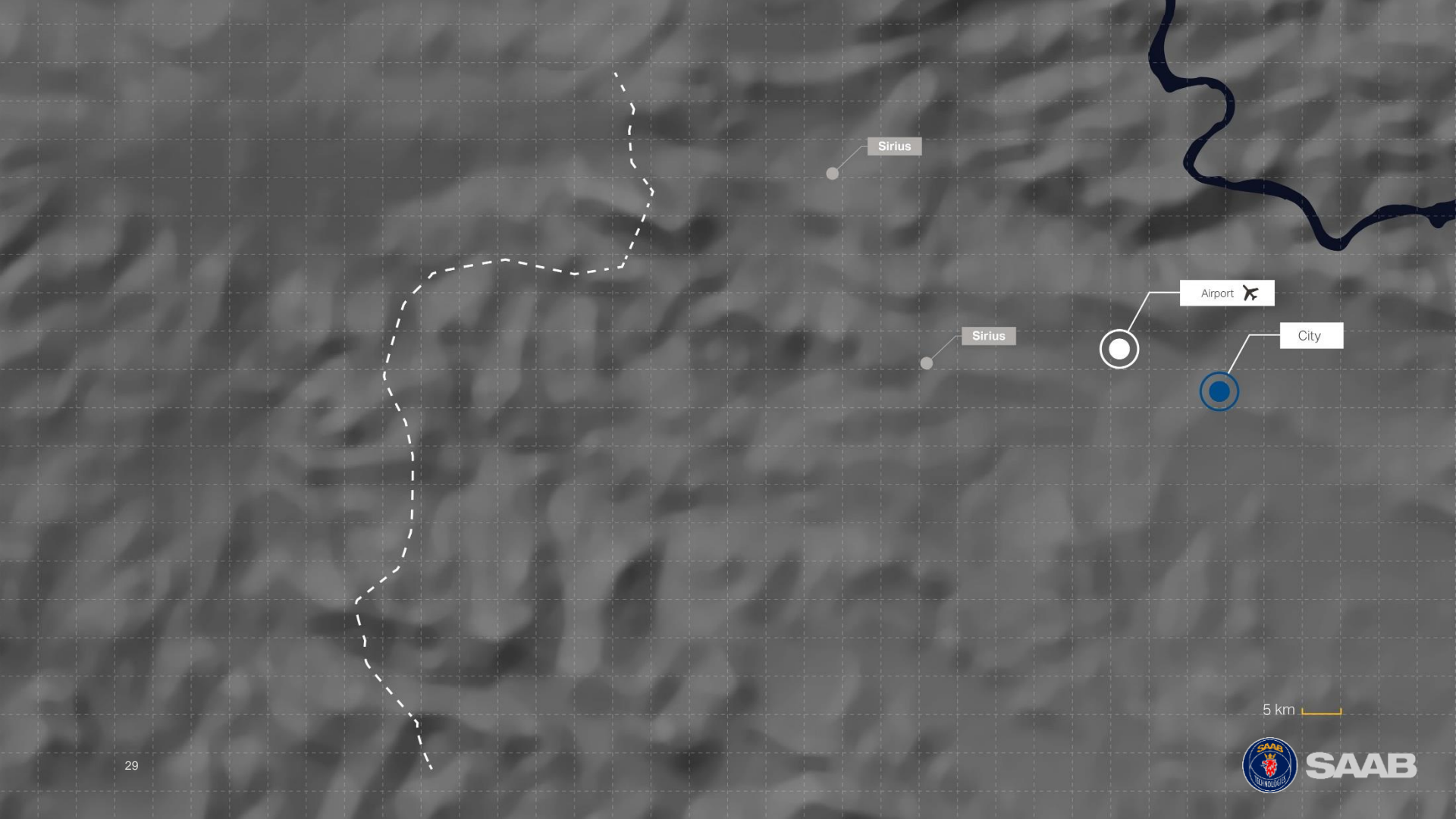
5 km



**SAAB**



5 km



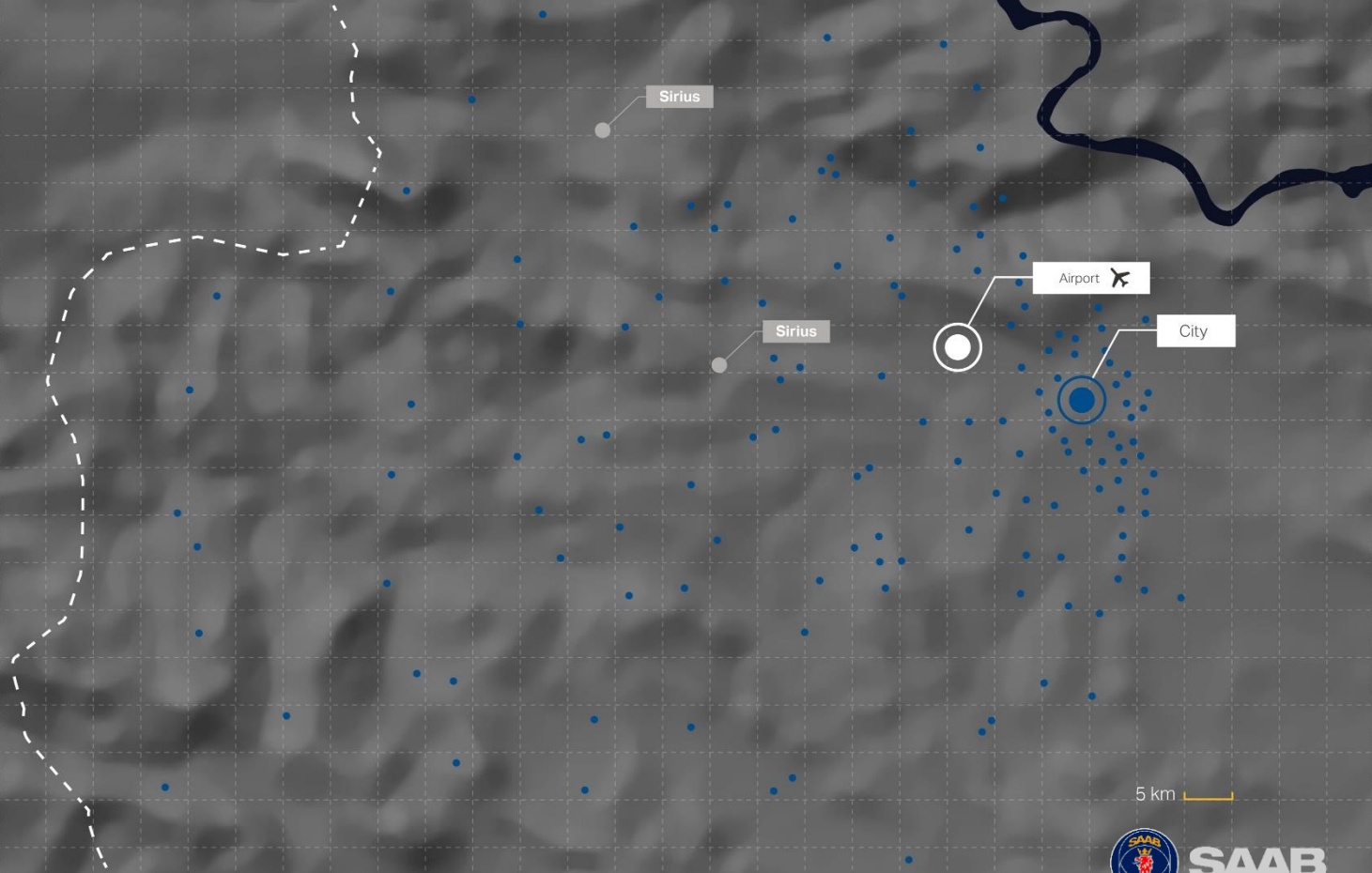
Sirius

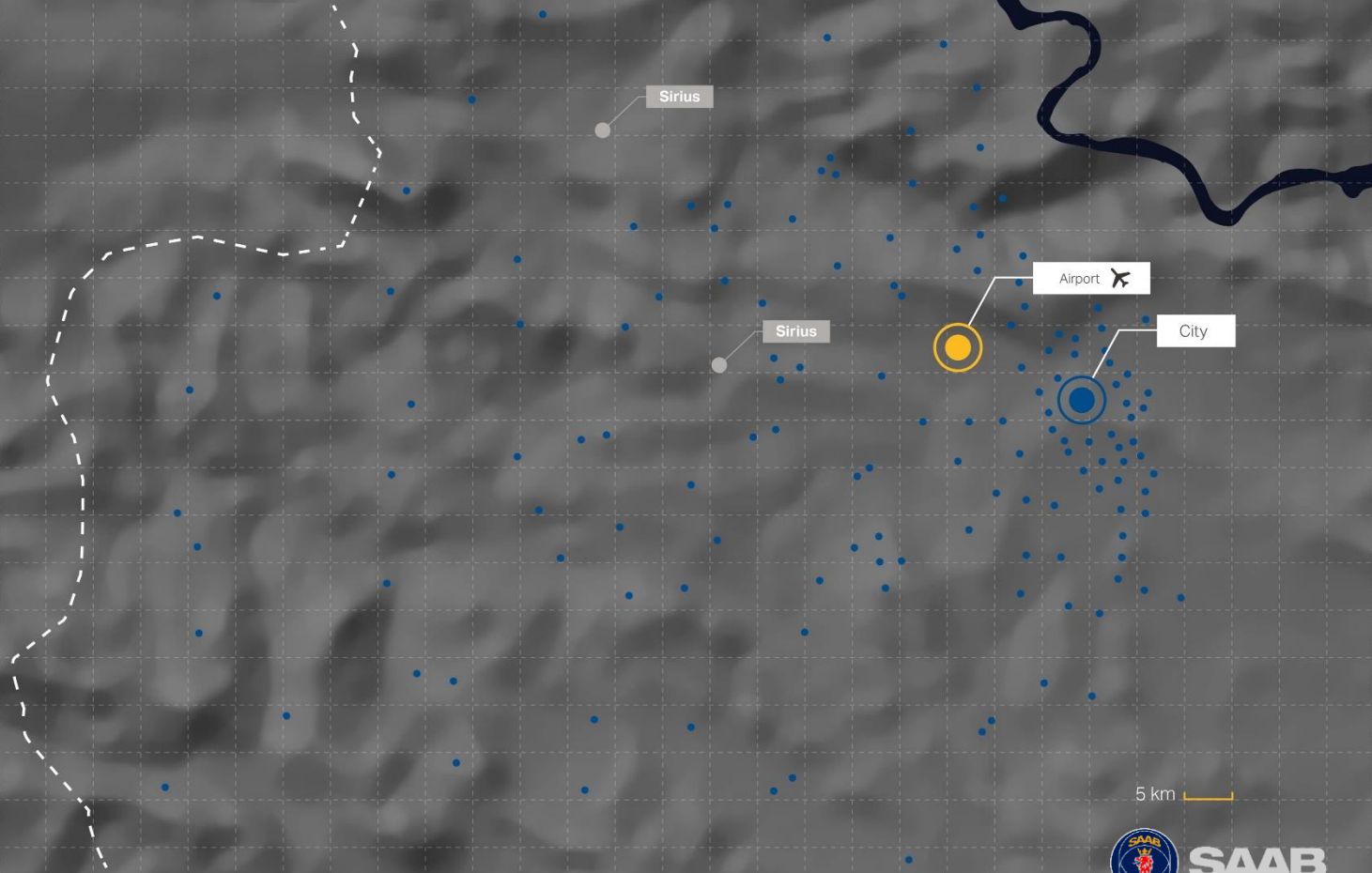
Sirius

Airport ✈️

City

5 km

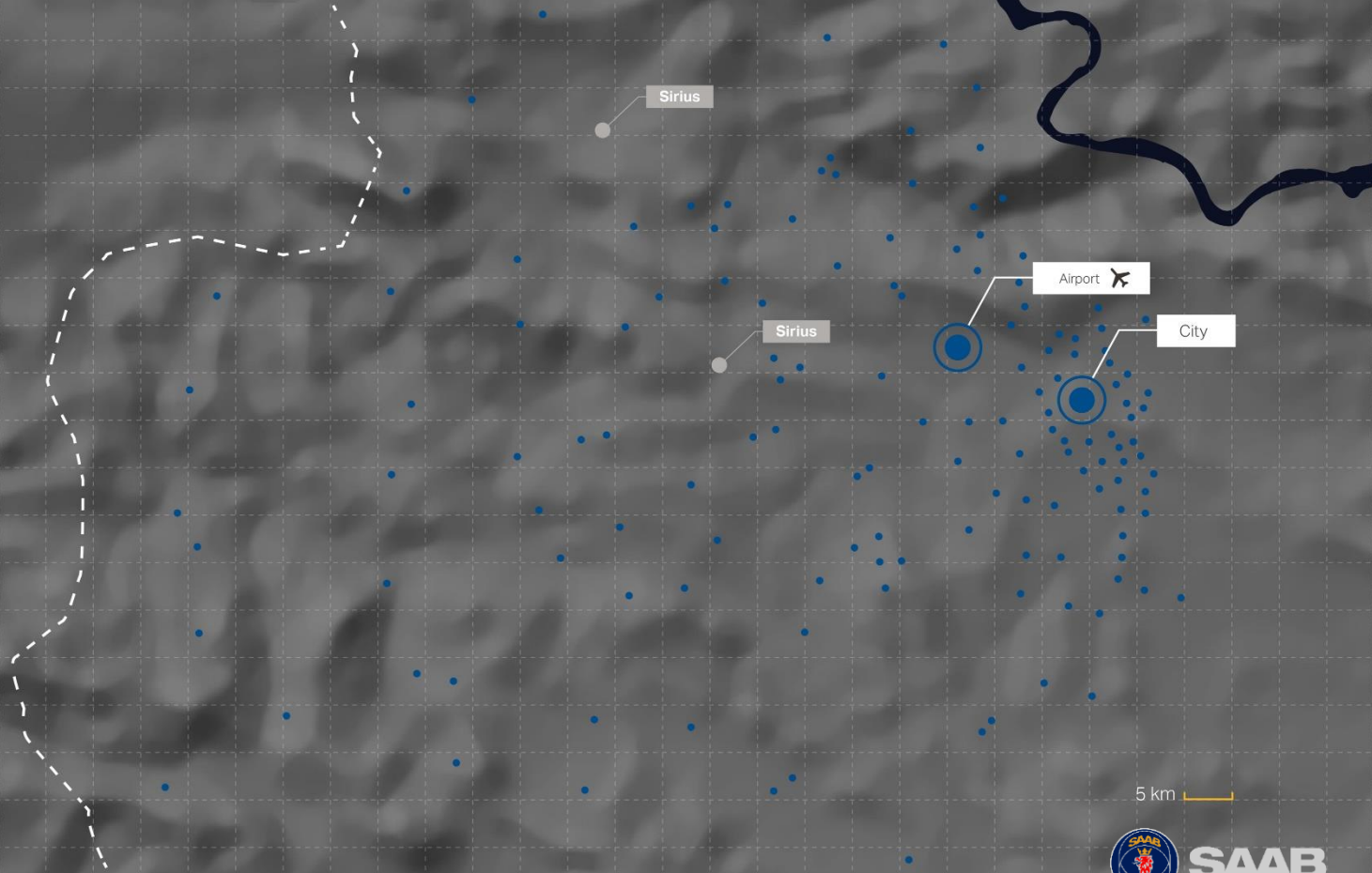


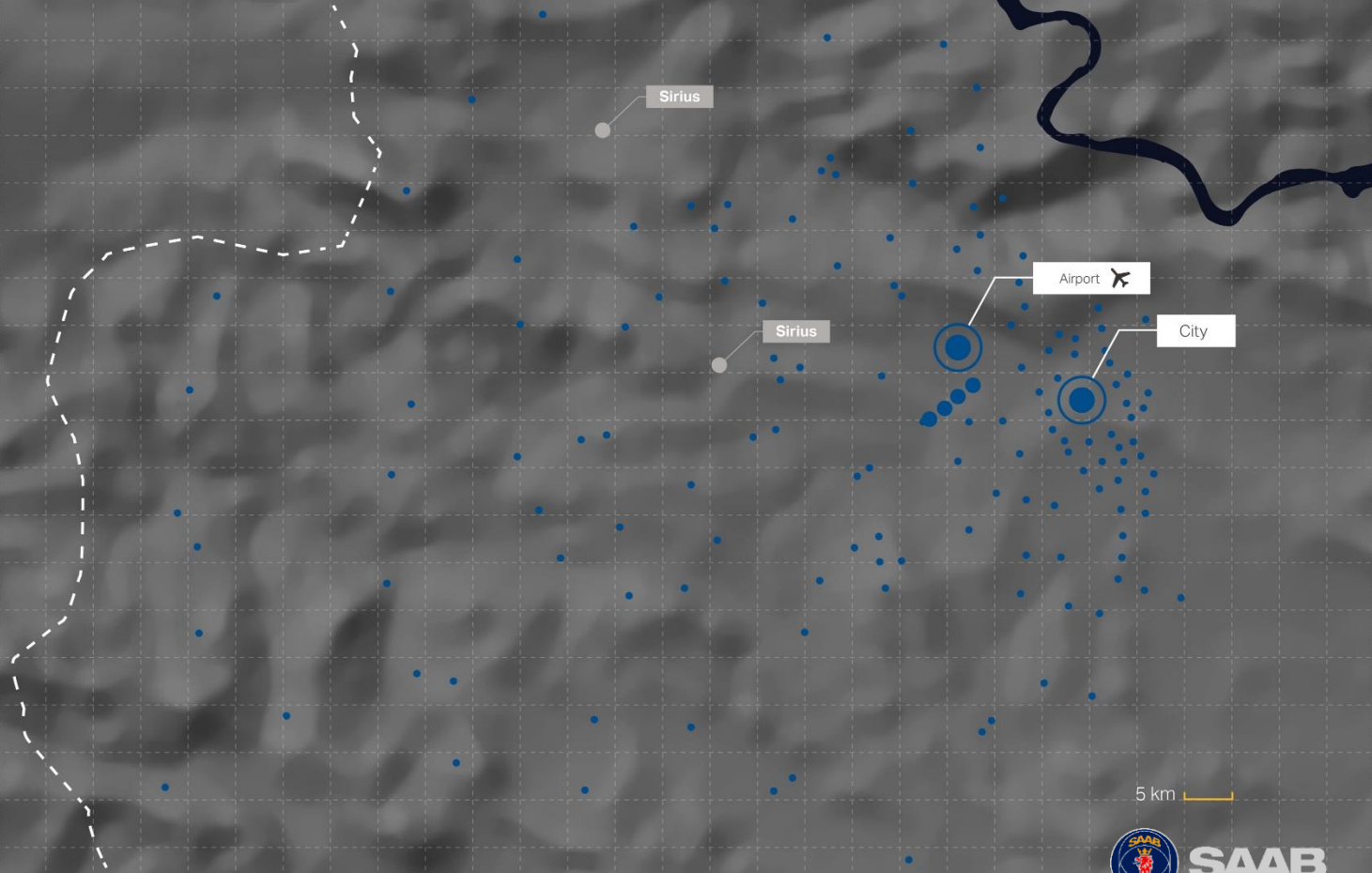


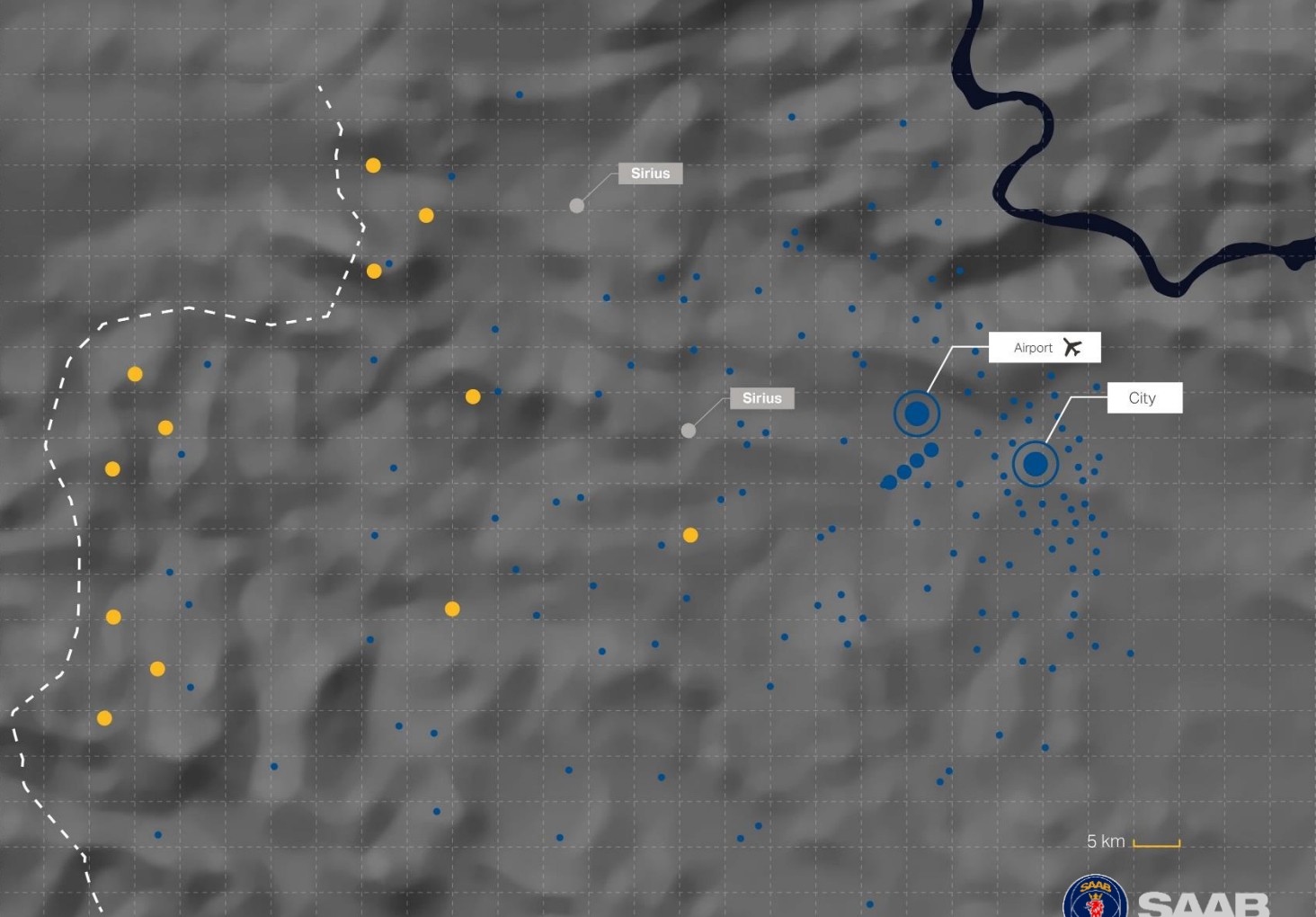


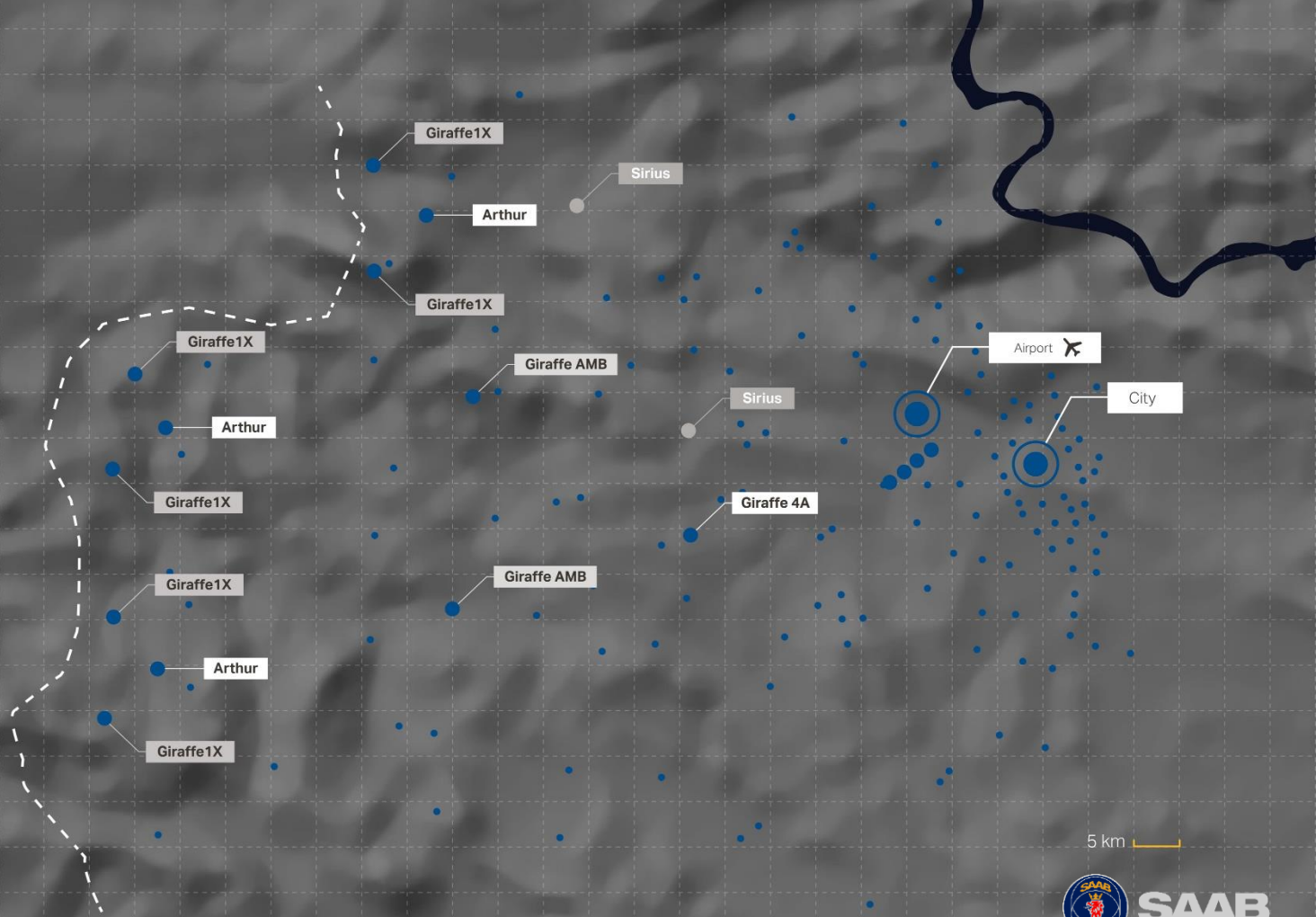
5 km

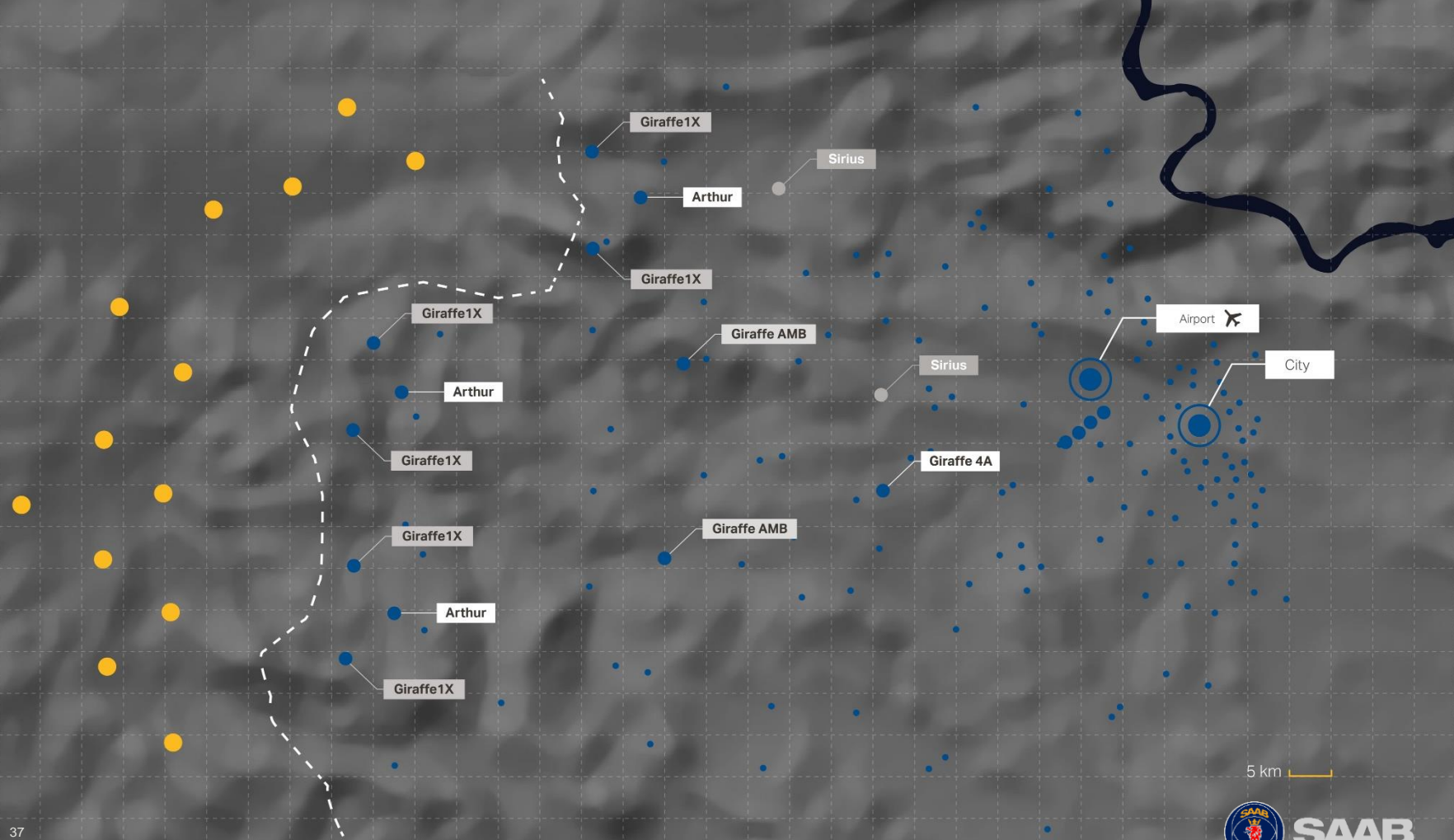


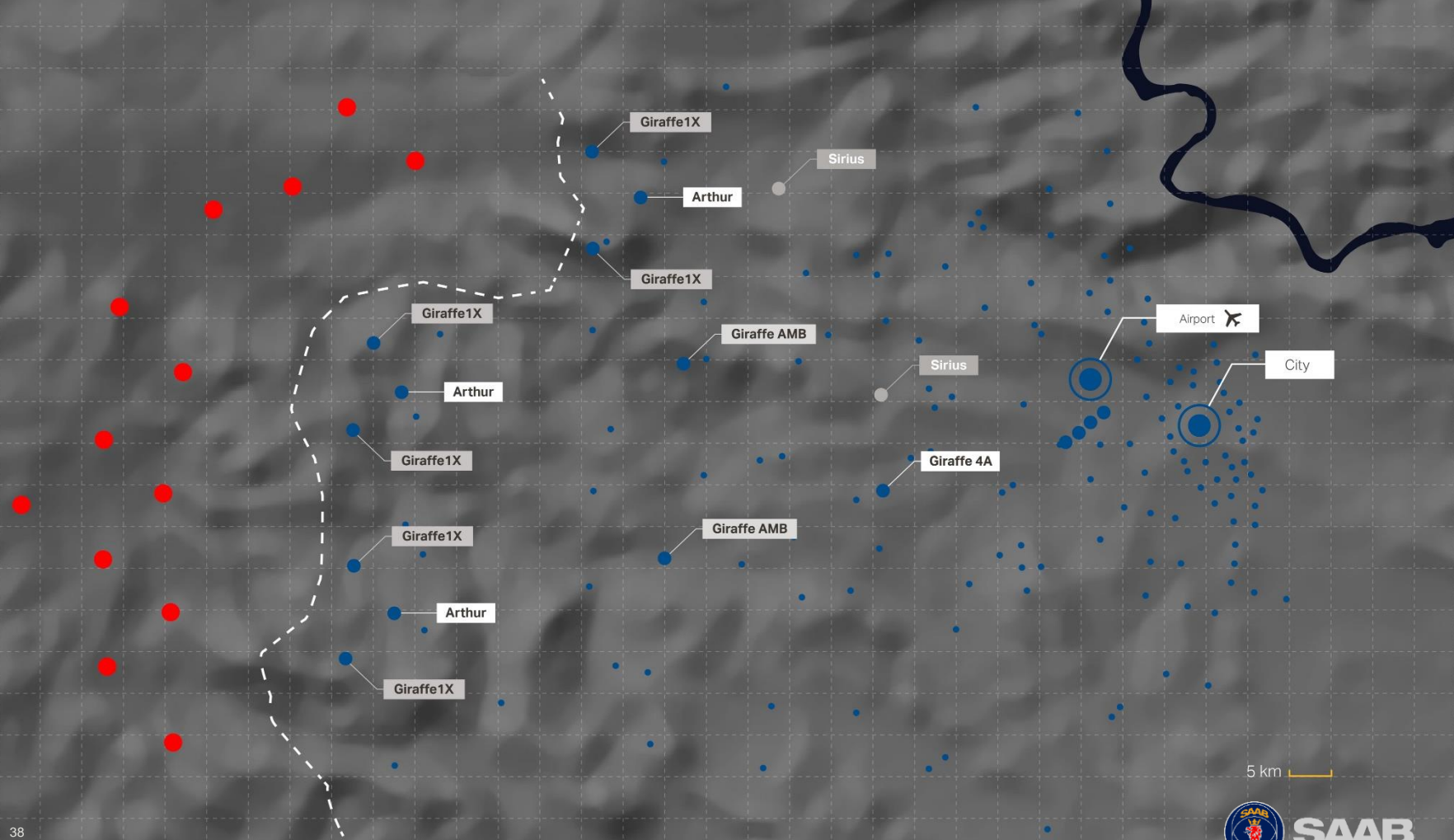












# Information fusion

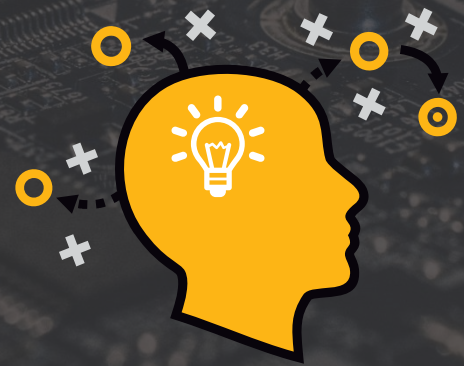
Converting complex data



from multiple sources



to understandable content



Supporting your decision making



# Anders Carp

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Head of Business Area Surveillance



# Trends driving market demand

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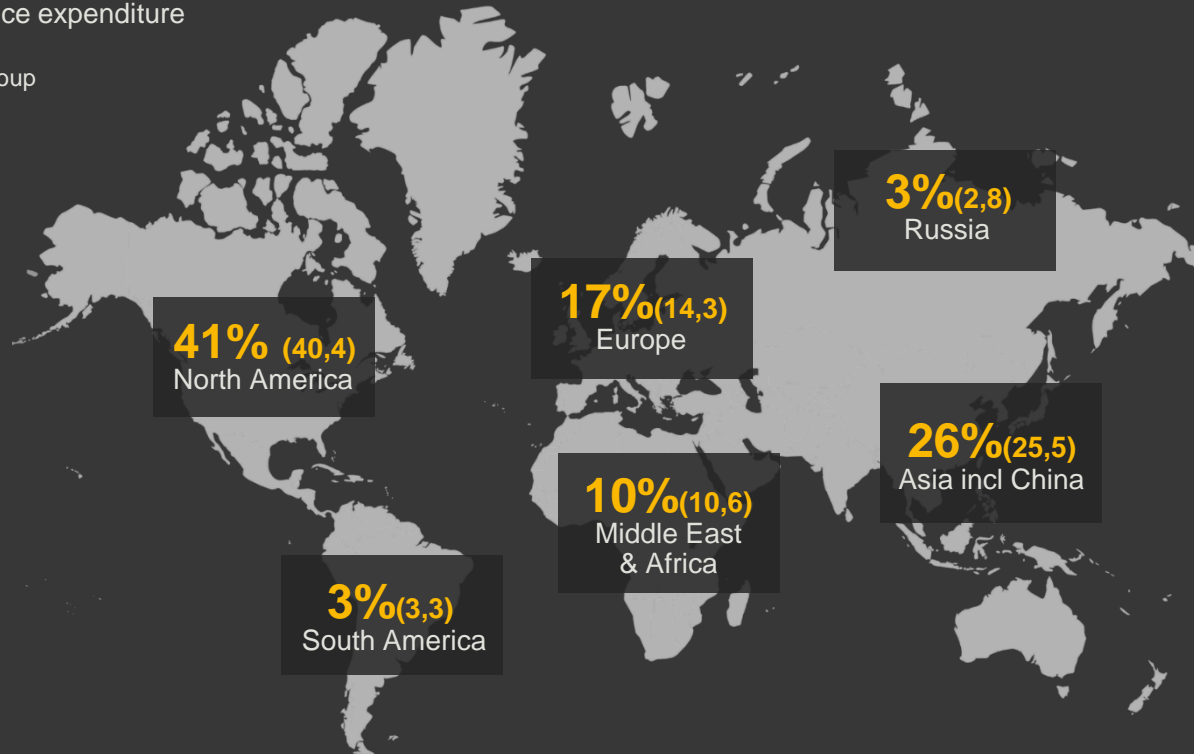
- Continued increase in defence budgets for NATO countries and other major countries
- Geopolitical uncertainty continues
- Technology advancements and digitalization
- Military strategies are embracing more digital tools and increasing the use of space technologies
- Global economic slowdown has minor impact on the industry due to different cyclical characteristics

# The global distribution of defence budgets 2020

Share of total defence expenditure

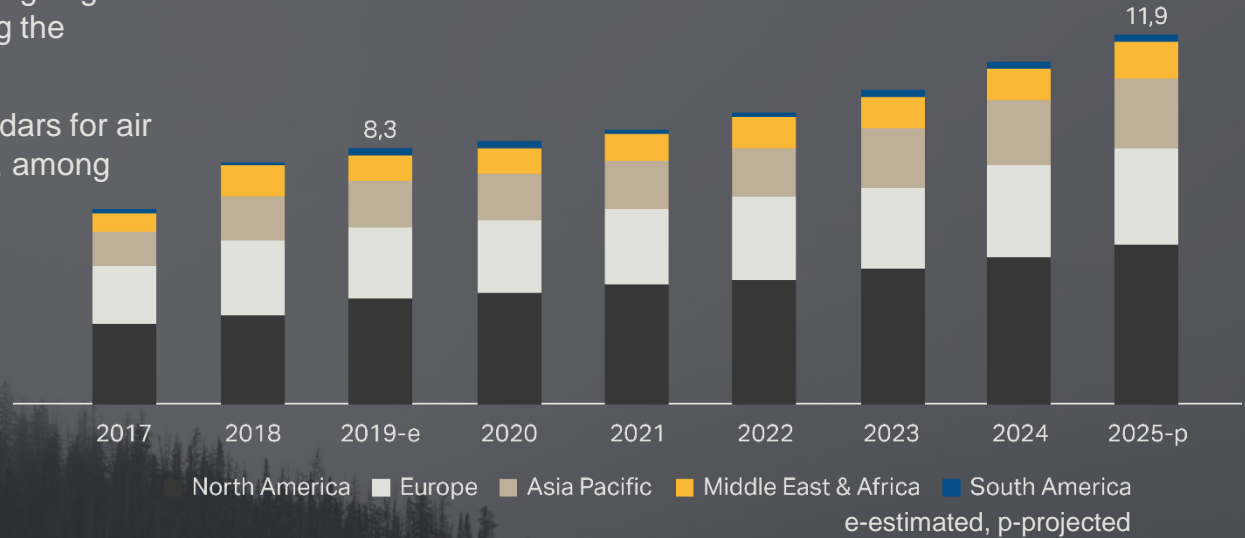
2020 (2019)

Source: IHS Jane's Group  
reports 2019



# Market outlook Surveillance Radar

- The surveillance radars market is projected to grow from US\$ 8,3 (2019) to US\$ 11,9 (2025) at CAGR 6,3 %
- Market growth is attributed to the ongoing global military modernisation during the forecast period
- The demand for 3D surveillance radars for air defense, drone detection, and ISR, among others, are driving the market



# GlobalEye



GlobalEye did its debut airshow visit as part of the static display at Dubai Airshow



During Dubai Airshow UAE announced the intention to buy two additional GlobalEye with the price of 1,018 MUSD

# Saab Sensor Seminar 2019

Q&A



**Thank you for your participation**



**SAAB**

**Thank you for your participation**



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