



**WISE**

**Detect**   **React**   **Protect**

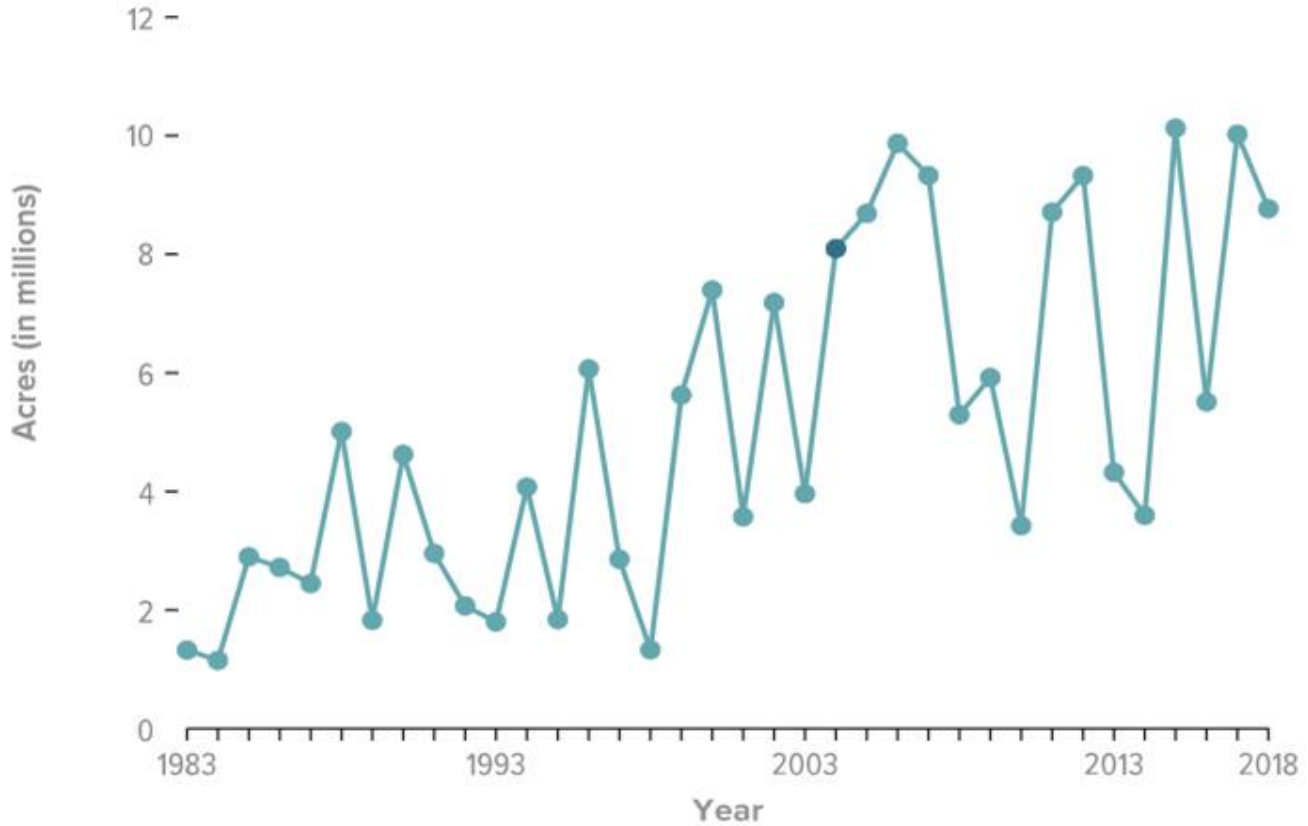
8400



1626



# AREA BURNED BY WILDFIRE in USA



# WILDFIRE PROCESS



**Fire  
Detection**



**Extinguish  
Fire**



**Post Fire  
Surveillance**

# WILDFIRE PROCESS



**Fire  
Detection**



**Extinguish  
Fire**



**Post Fire  
Surveillance**

# POST-FIRE SURVEILLANCE

## Challenges



Large area  
to monitor



24/7  
surveillance



Manual visual  
inspections in  
forest



Slow information  
sharing and  
coordination

# WISE POST-FIRE SURVEILLANCE SYSTEM

- 24/7 remote monitoring of burned areas
- Early wildfire reactivation detection
- Risk Assessment



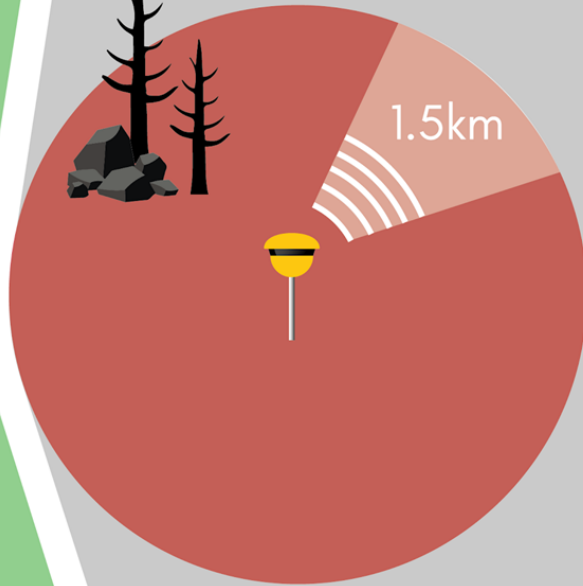


# HOW DOES IT WORK?

- > CERN Technology
- > Sensitivity - Detection of 1 photon
- > Detection up to 1,5 km/detector



Current flame detector by CERN



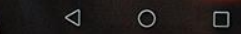
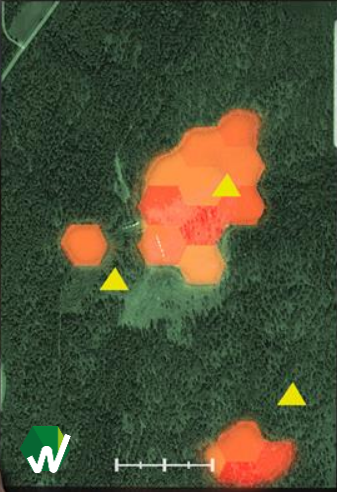


13:45

74%



RISK ASSESSMENT





**Fire Fighters**

**Forestry  
Companies**

**Governments**

**“With small fires it can be easier to place out equipment, especially with flat and open terrain.”**

Leif Sandahl  
Fire Engineer, MSB  
Swedish Civil Contingencies Agency



# EXISTING SOLUTIONS



24/7  
Surveillance



Cost



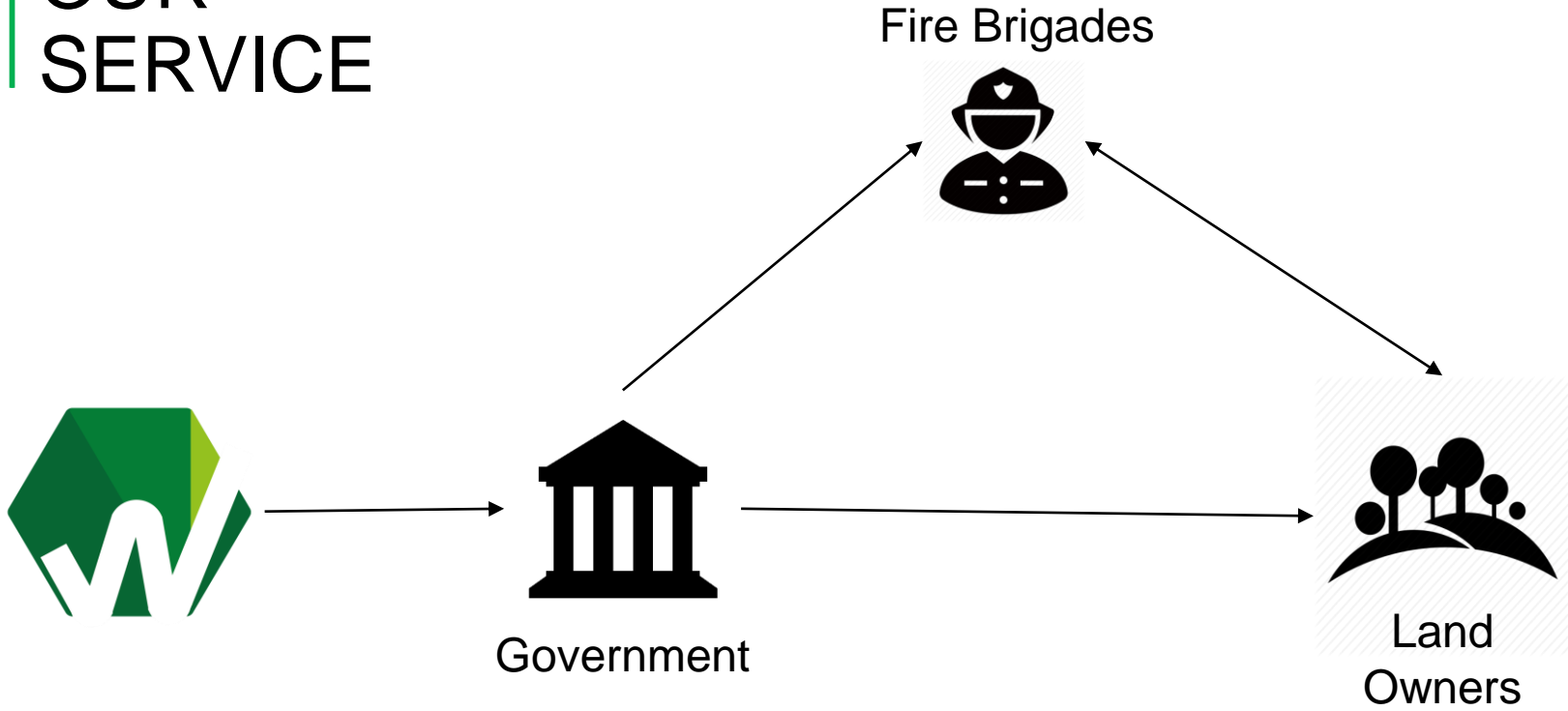
Location  
Accuracy



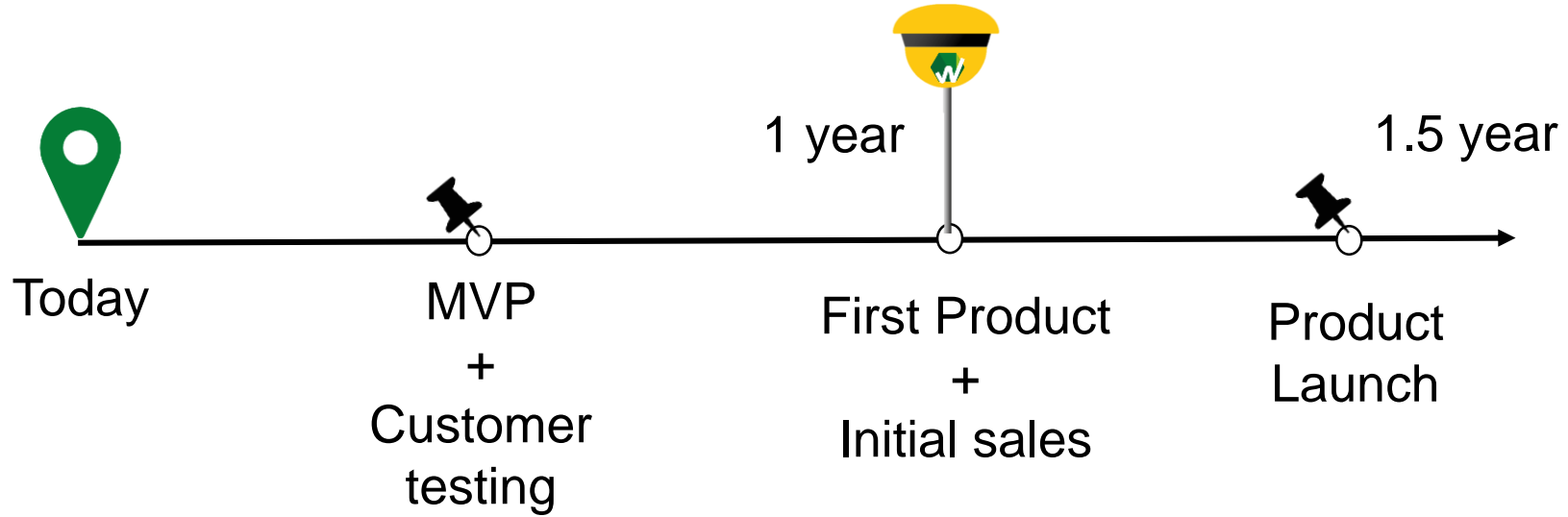
Large Area  
Monitoring



# OUR SERVICE



# WISE TIMELINE





# The Future





***“We are interested  
to be part of this  
and start testing!”***

Leif Sandahl  
Fire Engineer, MSB  
Swedish Civil Contingencies Agency





**WISE**

Detect React Protect

THANKS

# Q&A



**Magdalena Lindén**  
Ms Eng.  
Entrepreneurship and  
business design



**Renato Cacciuttolo**  
Ms Eng. Innovation  
and Entrepreneurship



**Kristine Lund**  
Ms Eng. Operations  
Management



# 1 YEAR BUDGET

PPL	Yearly expenses
Sensor technology (Engineer)	€ 84.000,00
Software development x 2	€ 168.000,00
Mechanical Engineer x 1/2	€ 42.000,00
Hardware (Engineer) x 1/2	€ 42.000,00
Magda	€ 40.000,00
Renato	€ 40.000,00
Kristine	€ 40.000,00
Year Total	€ 456.000,00
Office Space	€ 15.000,00
Material costs/R&D	€ 50.000,00
Total Yearly	€ 521.000,00
For 2,3 years	€ 1.172.250,00



# PRICE EXAMPLE

	Selling price
Price per detector	€ 200,00
Sensors per kvm2	4
Standard price per kvm2 covered	€ 800,00
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Access to software/yearly/licence	€ 3.000,00
<hr/>	
Yearly maintenance service/detector	€ 20,00

## Price example - Gran Canaria fire

Area of monitoring/kvm2	84
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Sensors	€ 67.200,00
Software / 2 licences	€ 6.000,00
Service	€ 6.720,00
Total/first year	€ 79.920,00



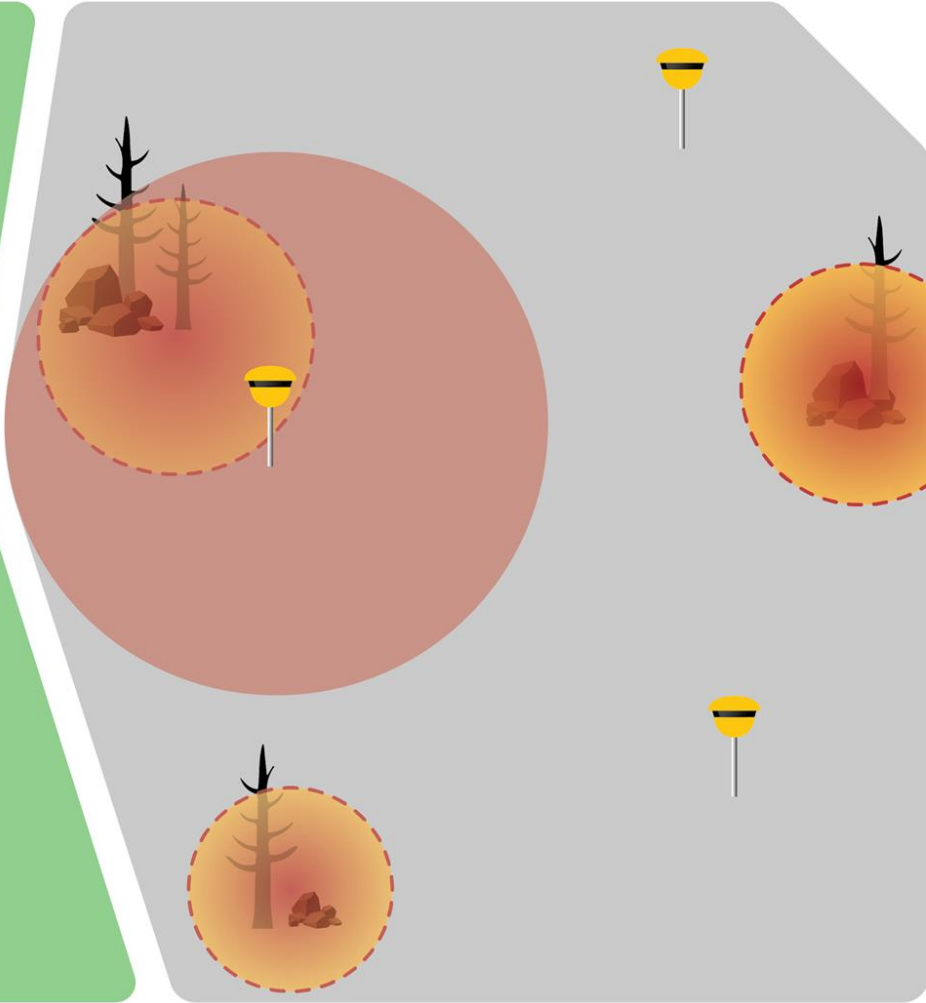
# SPECIFICATION OF FLAME DETECTOR

The sensor created by CERN is highly effective to detect photons on UV light produce by fire and sparks, therefore not sensible to sunlight or temperature.

Our post-fire flame surveillance system helps Government Safety Agencies and Forestry Companies who want to prevent wildfire reactivation, by providing 24/7 flame monitoring and alert you instantly if flames are detected. Unlike manual, drone and plane inspections of burned land.



Current flame detector by CERN





# GLOBAL MARKET FIRE SAFETY EQUIPMENT

- USD 57.31 billion in 2018
- Expected growth from 2019 - 2025 : CAGR 8.8%
- 105.92 USD billion by 2025

