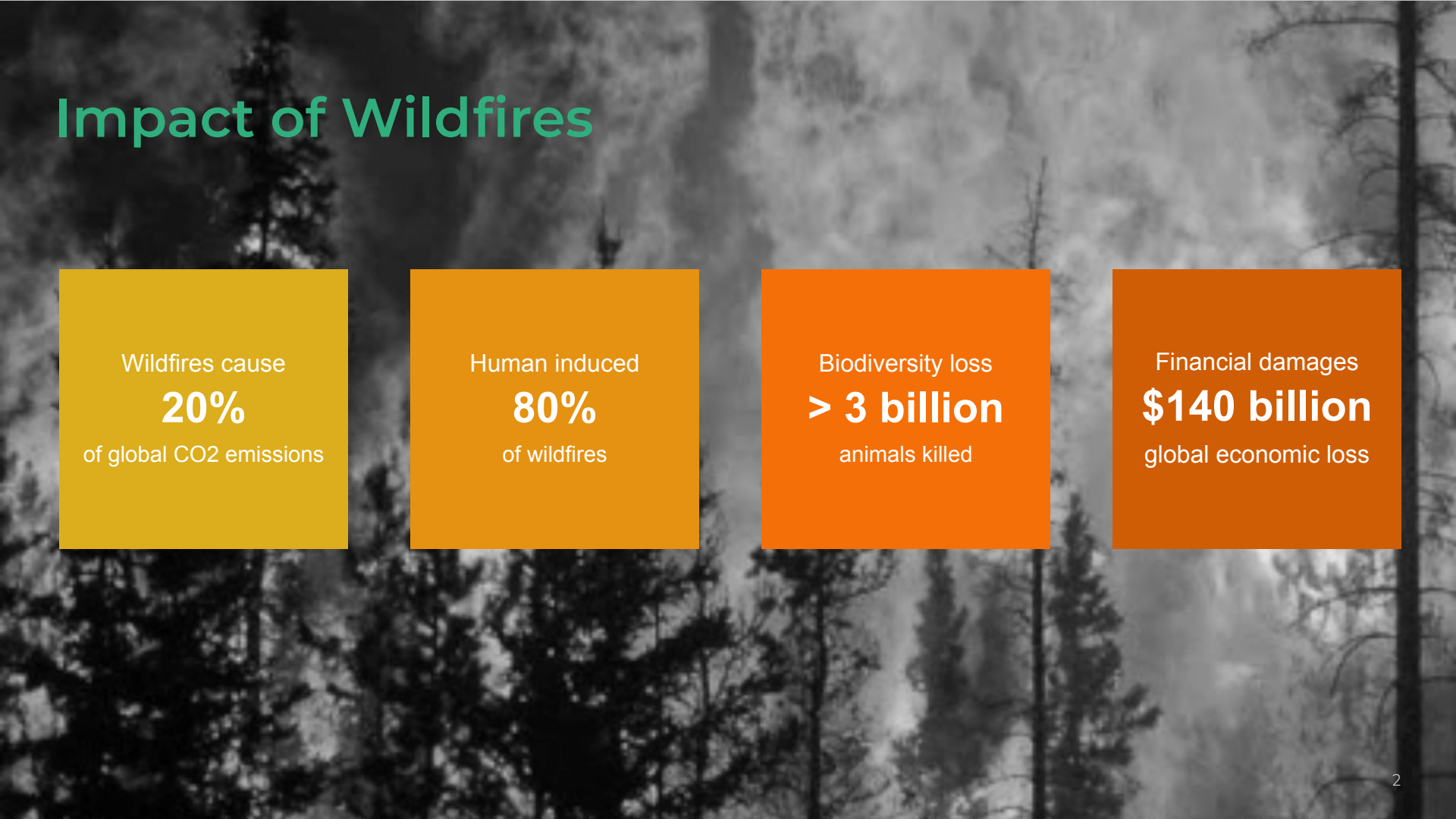

DRYAD
CONNECTING THE NATURAL WORLD
Ultra-Early Detection of Wildfires
March 2023

Impact of Wildfires



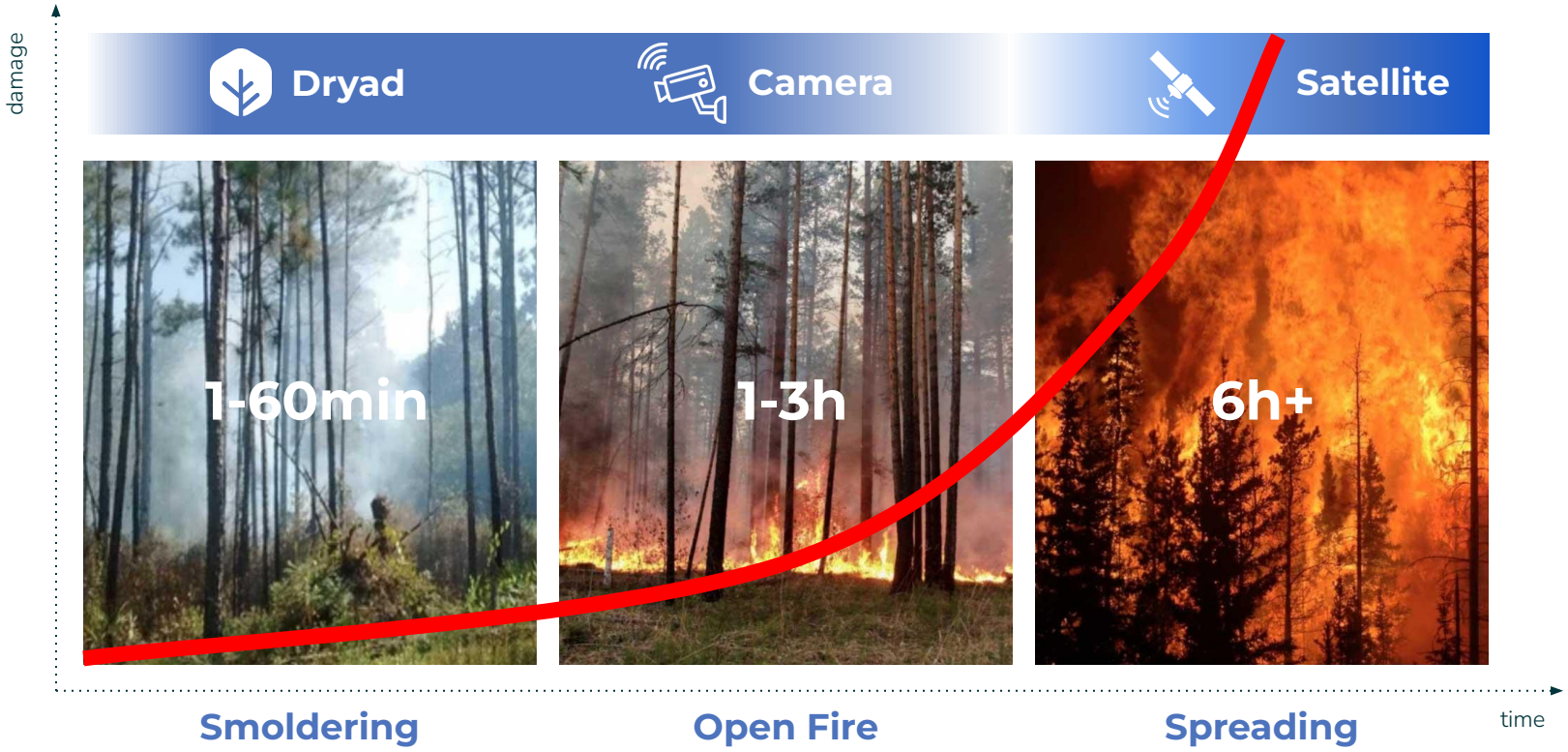
Wildfires cause
20%
of global CO_2 emissions

Human induced
80%
of wildfires

Biodiversity loss
> 3 billion
animals killed

Financial damages
$140 billion
global economic loss

Time is of the Essence



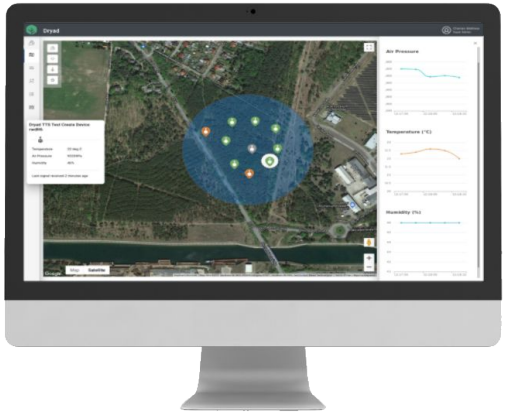
Dryad Silvanet™

Sensor

Solar-powered gas sensors detect wildfires within first 60 minutes.

Gateways

Distributed LoRa Gateways provide a large-scale mesh network infrastructure.

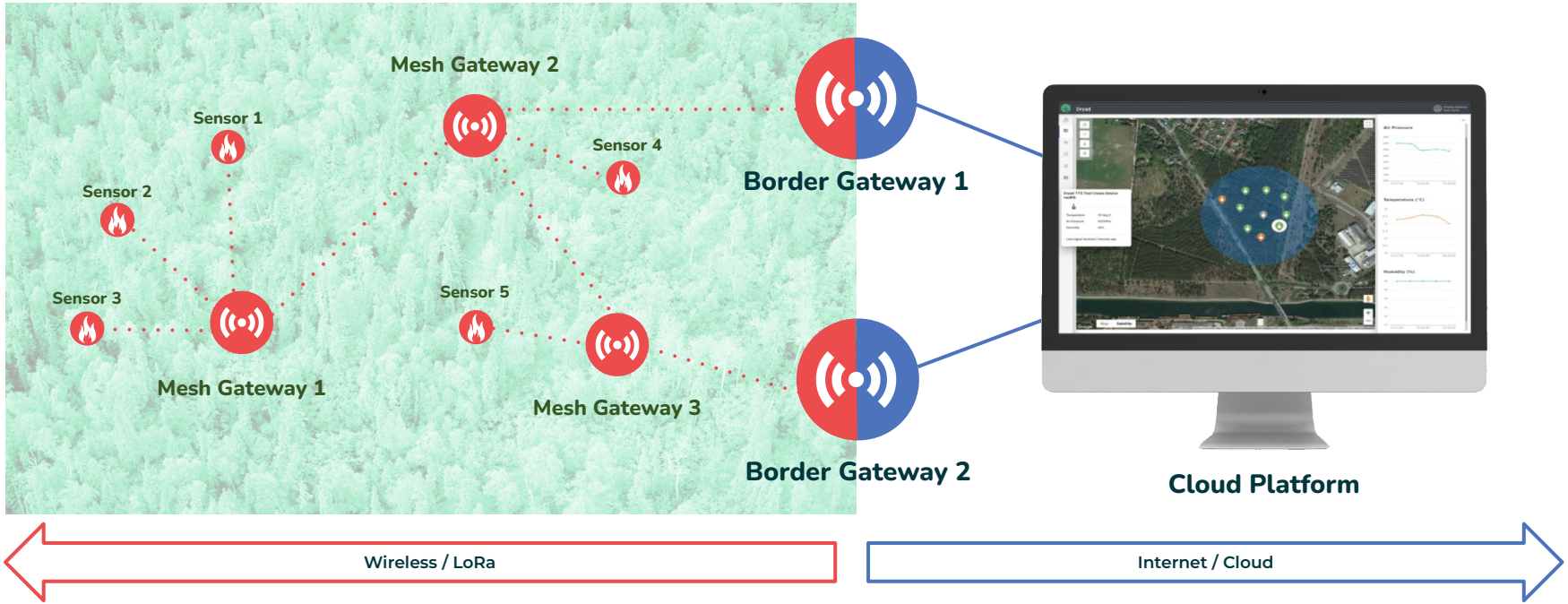


Monitoring

Device management, monitoring and alerting.

Four PCT patent applications pending

Large-Scale IoT Mesh Network for Forestry



Business Model

Sensor

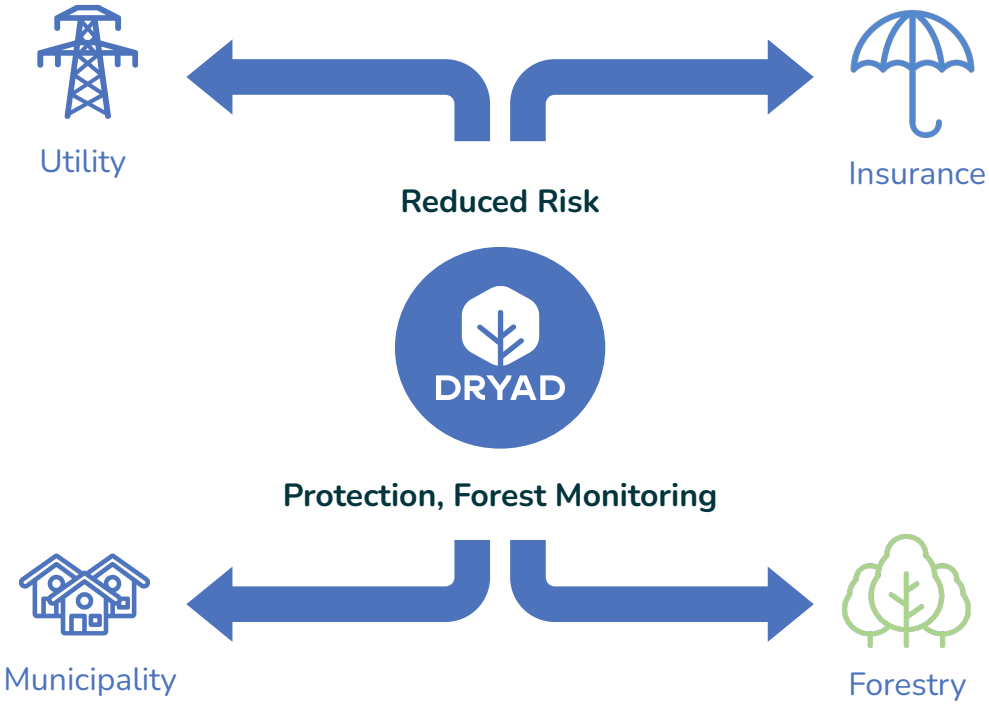
SRP: €48.00

Gateway

SRP: €371.00

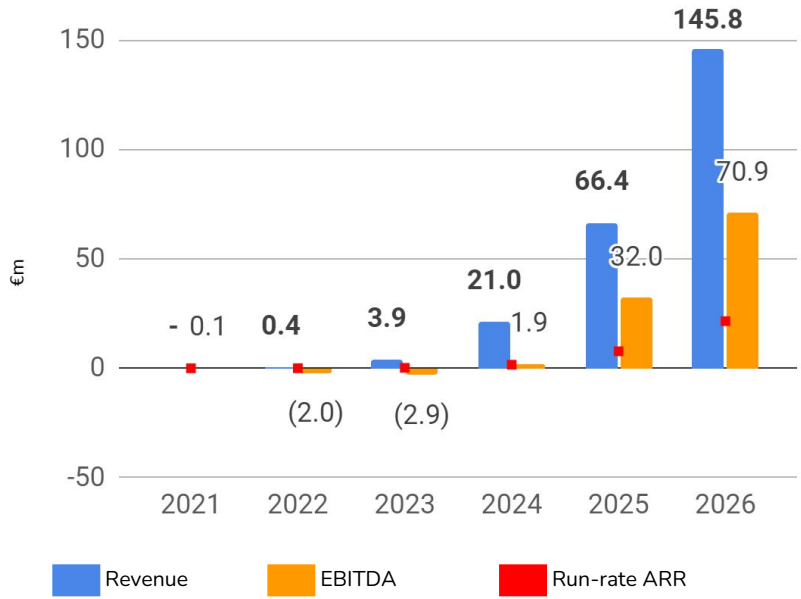
Average: 0.2 sensors per hectare

15% annual service fee for maintenance and access to cloud platform

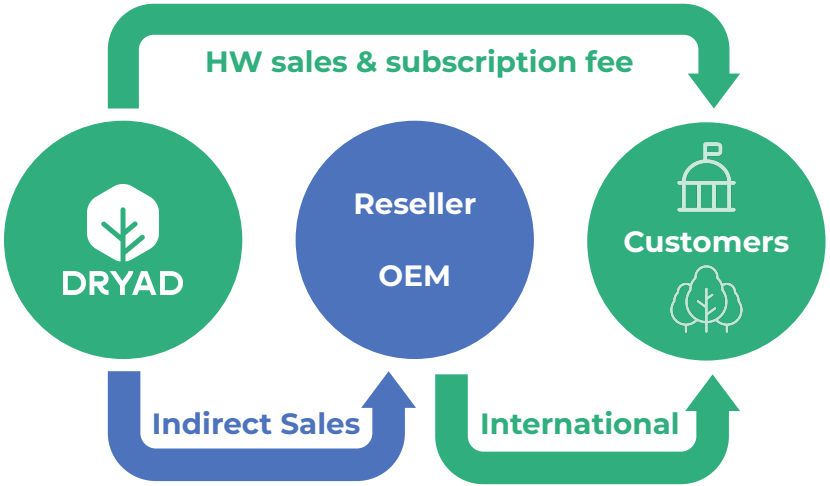


Financials

Revenue and Profitability



Go to Market



Funding

DRYAD

Sep 2020: €1.8m VC Seed Funding

Product Development & Market Entry

Brandenburg Kapital | ILB

STIHL

ISAR AG

LEAG

Aug 2022: €10.5m Series A

Scaling, marketing and international sales

eCAPITAL ENTREPRENEURIAL PARTNERS

Toba Capital

SEMTECH

TIME Ventures

Mar 2021: €1.6m EU Grants & Loans

Research & Development

Funded by the European Union

Sustainable Development Goals

By 2030 we project the following SDG related impact:

Connecting the natural world

DRYAD

Thank You

Gartner
COOL VENDOR 2021

IMPACT AWARDS
2021
ENERGY & ENVIRONMENT
AWARD WINNER

Dryad Networks GmbH

Berlin-Brandenburg | Germany
www.dryad.net

SOLAR IMPULSE
EFFICIENT SOLUTION
LABEL

EUROPEAN UNION
European Regional Development Fund

Use-Cases, Benefits & Roadmap

DRYAD

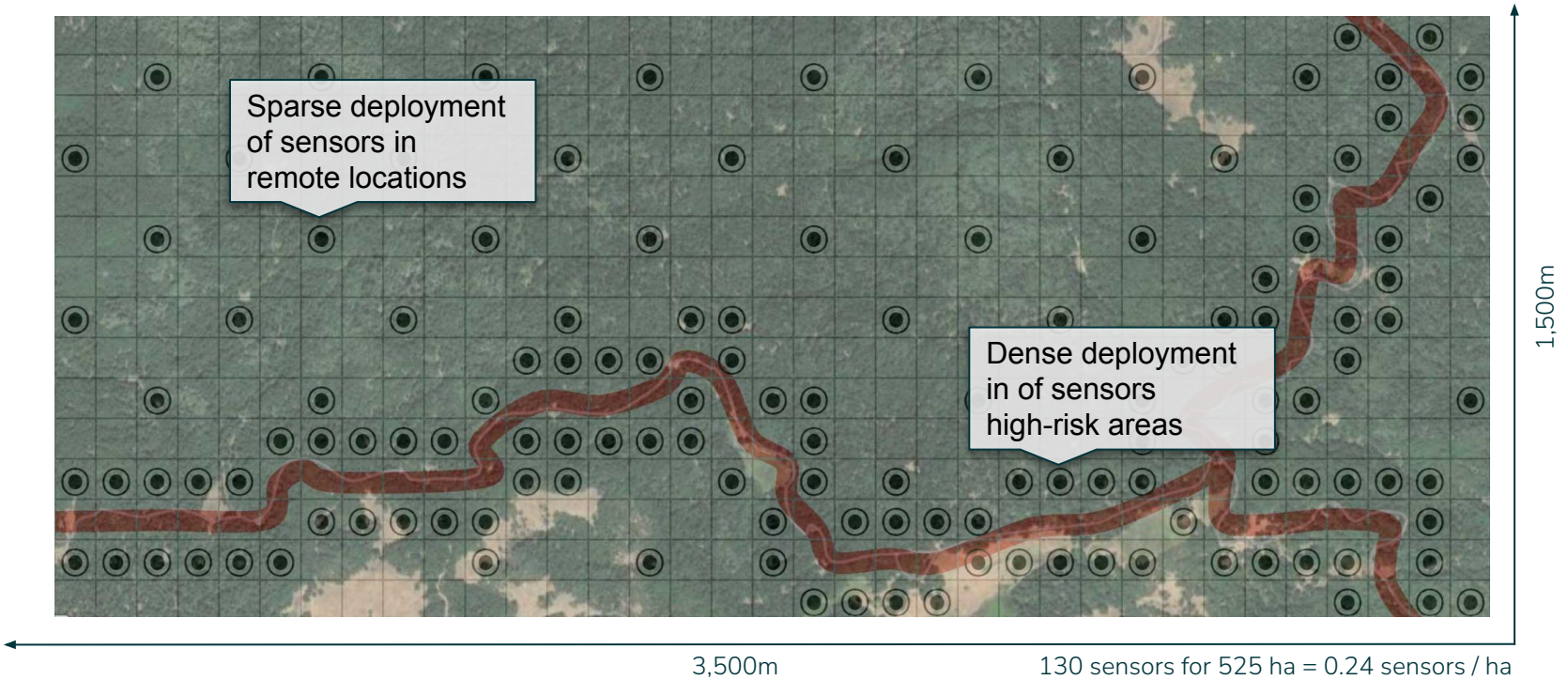
Ultra-Early Fire Detection

- Protects assets and prevents financial damages
- Dramatically reduces costs of firefighting
- Reduces insurance payments
- Saves human and wildlife

Roadmap: Forest Monitoring

Sensor / Device	Function
Fuel moisture	Determine fire risk level
Sap flow	Tree water consumption
Soil moisture	Measure water reservoir
Dendrometer	Measure tree growth
Chainsaw detector	Prevent illegal logging
2-way Pager	Chat for forest workers

Optimizing Wildfire Sensor Deployments



Dense deployments (roads, campsites, etc): 0.7 / ha
Sparse deployments (remote locations): 0.1 / ha

Average of 0.2 sensors per hectare

Suggested Retail Pricing

Sensor

Hardware: **€48**
Service (15%): €7

Mesh Gateway

Hardware: **€371**
Service (15%): €55

Border Gateway

Hardware: **€549**
Service (15%): €82

Annual service fees includes access to analytics platform and alerting
Average: 0.2 sensors per hectare (0.7 sensors per ha for high-risk, 0.1 per ha for remote deployments)

Note: (1) Volume discount: >10,000 devices: 15%, >100,000 devices: 25%

Deployment Stages

Proof of Concept (PoC)

1

Small

Objective: Core functionality of the system with minimum size.
Duration: 1-2 Months
Criteria: Detect nearby controlled fire in single location.

System:
- 16 Sensors
- 1 Mesh Gateway
- 1 Border Gateway

Pilot

2

Medium

Objective: Scalability of the system, preparing large deployment.
Duration: 2-4 months
Criteria: Scalability, mesh network, detect controlled fires in multiple locations.

System:
- 400 Sensors
- 6 Mesh Gateways
- 2 Border Gateways

Live

3

Large

Objective: Live, large-scale deployment across the target forest.
Duration: 10-15 years
Criteria: Detect real wildfires caused by accident / arson / recklessness, Health & growth monitoring.

System:
- 2000+ Sensors
- 30+ Mesh Gateways
- 2+ Border Gateways

Dryad Team

Experienced team covering business, technology, marketing and science

Carsten Brinkschulte

Management, Technical and Corporate Strategy, Marketing & Sales

Serial entrepreneur (3 exits) with 20 years experience in mobile network infrastructure. Previously Movirtu, Core Network Dynamics, 7 years running AIM-listed Synchronica

Marco Bönig

Hardware Development Lead

Seasoned expert in RF-hardware and custom design of electronic solutions, patent for energy harvesting in smart-home products

Eike Marx

Financial Planning, Corporate Strategy

Experienced CFO, investment banking & VC background. Previously Movirtu, Blackberry, Morgan Stanley, Arma Partners. PhD Nanotech/ Optoelectronics

Daniel Hollos

Embedded Software Lead

Senior Embedded Systems and Mesh Network Software Engineer with 10+ years experience in embedded system design and development

Cherian Mathew

Cloud and Analytics Software Lead

16+ years of experience in software architecture, design and development in both industry and academia with a focus on cloud based data analysis systems

Dr. Jürgen Müller

Research and Scientific Advice, Strategic Partnerships

Until recently leader of department of forest ecology Thünen-Institute of Forest Ecosystems. Developed INPRIWA, a prototype for early forest fire detection

Ben Banerjee

SVP Worldwide Sales

Until recently Partner and head of sales TME at Infosys. Previously, global sales head at Wipro Technologies and VP worldwide sales at Synchronica