



SIGMA

Industrial Precision



Electrical Analysis Experts

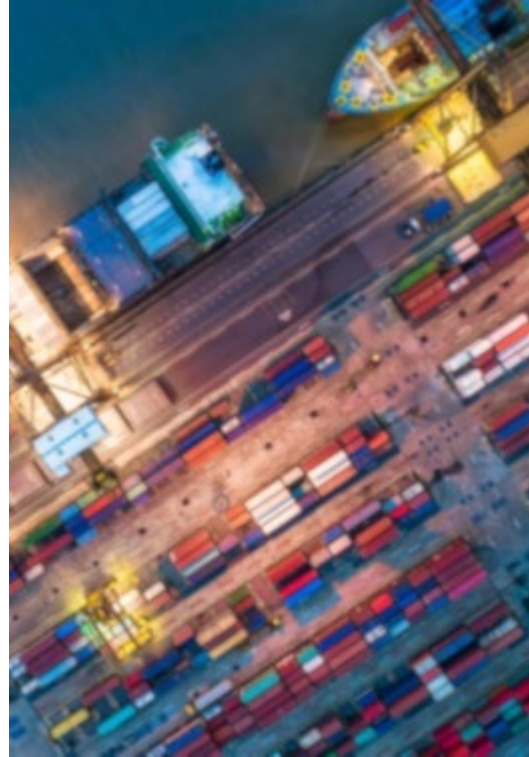
Short Investors Deck | IoTWeek Dublin 2022

Common Challenges

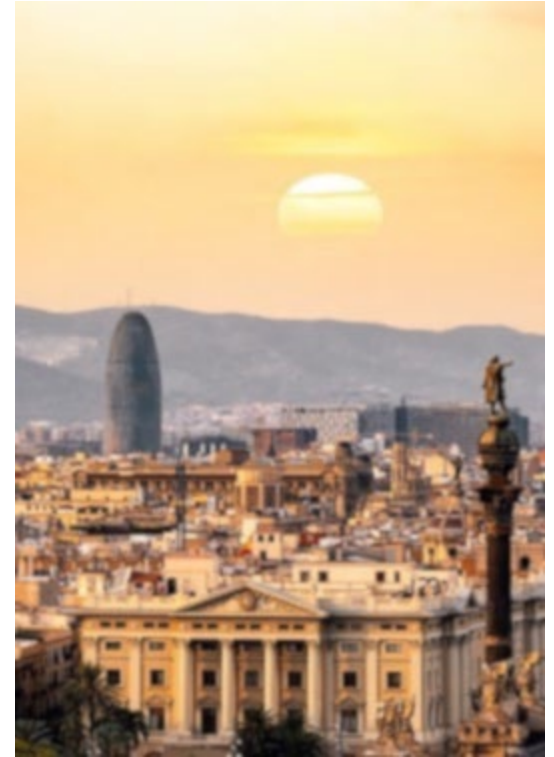
Global Challenges Common for Strategic Markets



Industry



Infrastructures



Cities

Common Challenges

Facts that Confirm the need for New Solutions

Lack of CONTROL

Global IoT market size
grew **22%** in 2021

Industrial Control market will grow up to
USD350B in 2026

Source: Enterprise IoT market 2019-2027 Report from
IoT analytics

SAFETY is a Must

3.408 Fatal accidents
reported by the EU in all
sectors in 2019

64.4% of them happened in:

- Construction
- Transportation & Storage
- Manufacturing & Agriculture
 - Forestry & Fishing

Source: <https://ec.europa.eu/Eurostat>

Ineffective Maintenance

40% of maintenance
costs are spent on assets
which are in correct
operation.²

82% of asset failures appear random.¹

Only **18%** of assets have an age-related
failure pattern.¹

¹ Source: ARC view. Optimize Asset Performance with
industrial IoT Analytics

² Source: Oniqua Enterprise Analytics, Reducing the Cost
of Preventive Maintenance.

Great opportunities to improve

in operations, efficiency and waste reduction



Only UPS Railway maintenance cost for the Spanish High-Speed infrastructure represents approximately **€1M every year**

The major part of the UPS are changed preventively not knowing its real degradation level

SIGMA helps to identify which UPS have to be changed and when **saving in average more than 80% substitution costs**²

Only **18%** of assets have an age-related failure pattern.¹

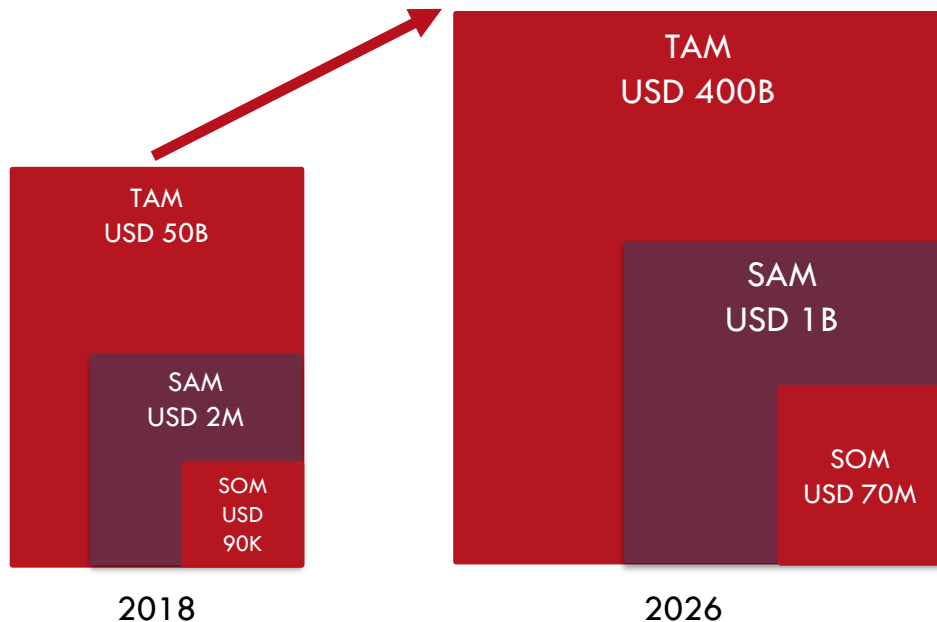
¹ Source: ARC view. Optimize Asset Performance with industrial IoT Analytics

² Calculation done using SIGMA's client projects

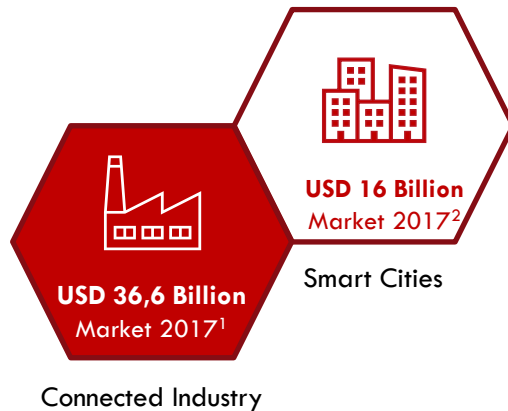
Global Rising Market

High Opportunities for New Solutions Worldwide

More than **30% CAGR** until 2026



USD50 Billion market in 2017



Source 1: Predictive Maintenance Market Report 2019-2024; IoT Analytics

Source 2: <https://www.grandviewsearch.com/industry-analysis/smart-cities-market>

CAGR: Compound Annual Growth Rate

TAM, SAM, SOM projected values

Fragmented Ecosystem

Companies and startups developing globally

SIGMA is more

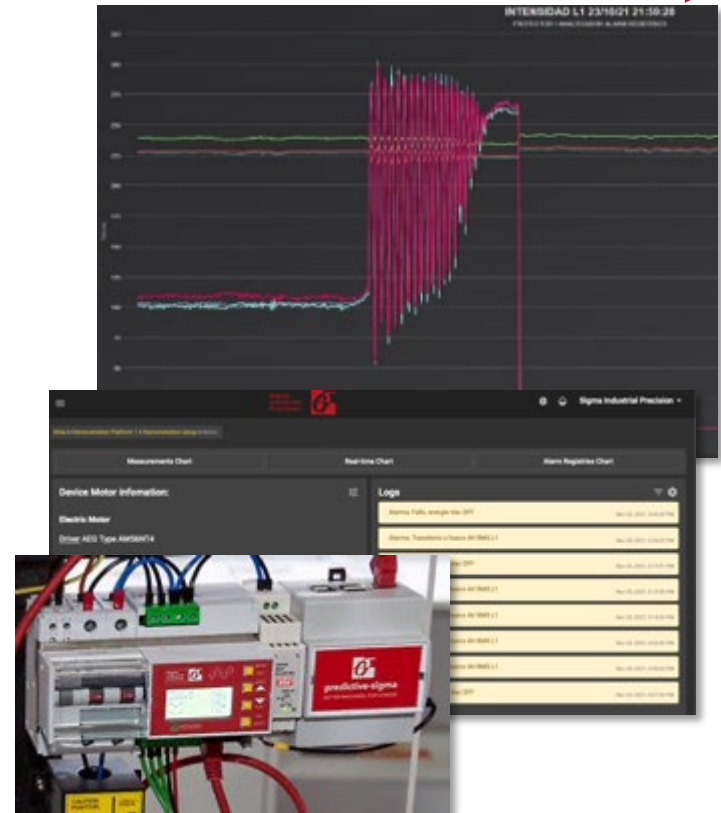
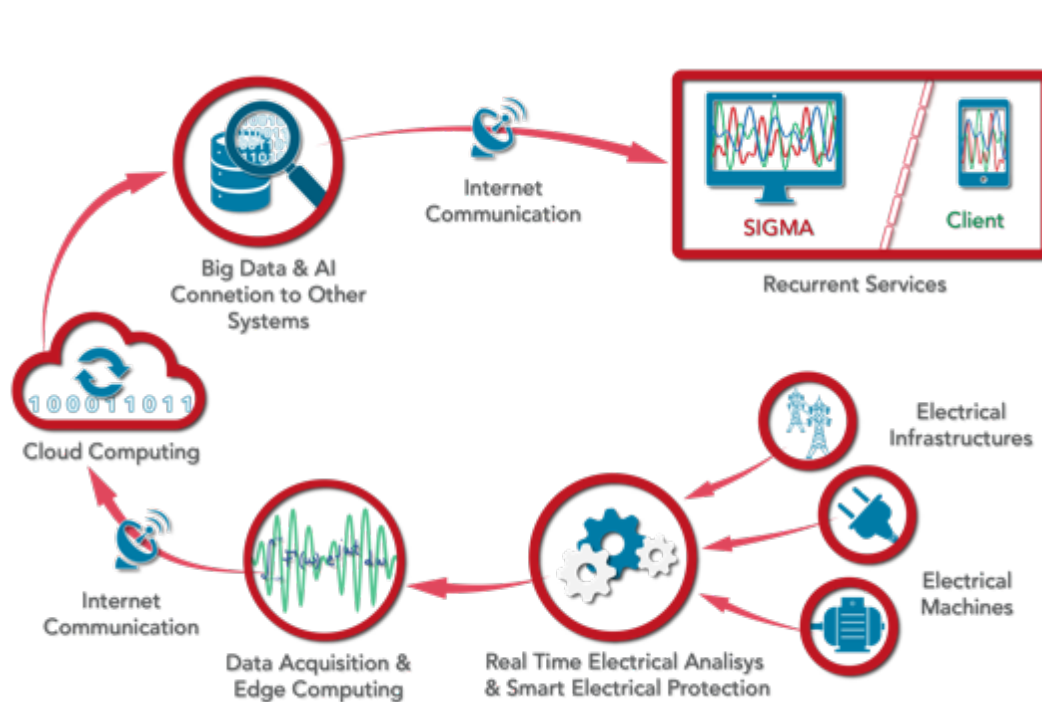
- **Affordable**
- **Flexible**
- **Easy**

Than other competitors

[illegible]

A Complete Solution

From smart electric sensors up to advanced analytics, easy to install and implement



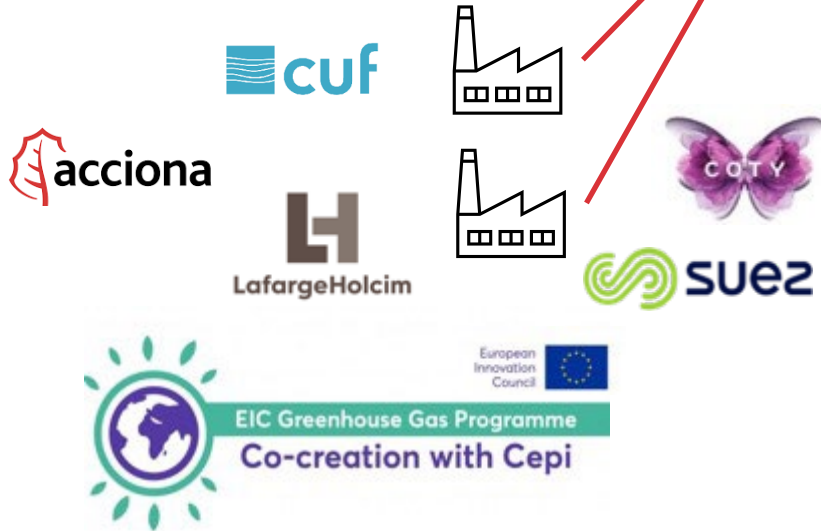
Easy to install, implement and run

Go to market

High speed strategy

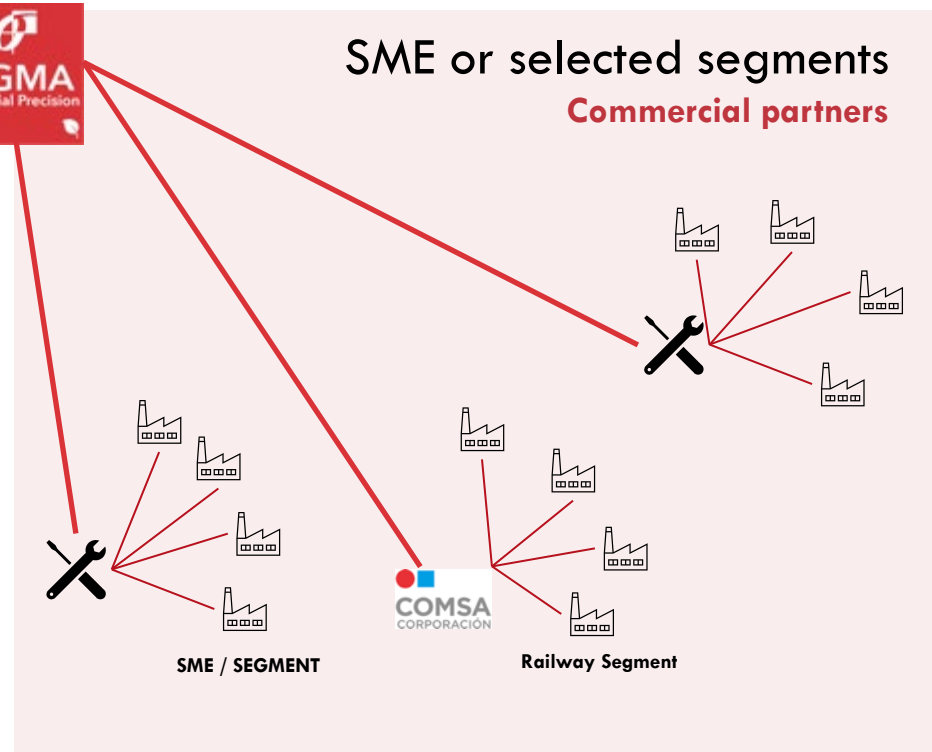
CORPORATIONS

Direct contact: Open Innovation programs



SME or selected segments

Commercial partners



Clients

Domestics and Internationals

CITIES



**Diputació
Barcelona**



AJUNTAMENT DE SANT BOI DE LLOBREGAT

INDUSTRY



INFRASTRUCTURES



AIGÜES DE
MANRESA
S.A.



SIGMA disrupts the market

Simple Solution for Fast and Massive Implementation



Business Model

From Hardware+ Service combination to 100% Recurrent Service

Today	Avg. Price	Avg. Margin	Tomorrow	Avg. Price	Avg. Margin
Sensor + IoT Dev	€1000	50%	All included Recurrent Service	€700	64%
Recurrent Service	€500				

60

Sensors
15 clients
2021

**Organic growth through new clients
And increasing sales in existing clients**

75.000

Sensors
2500 clients
2025

3 key founders for a great team

A balanced mix with more than 50 years of combined experience:



Ramón Serra
CTO

Engineer and Master in Robotics & Automation.

PhD candidate in Electrical Engineering.

Responsible for disruptive technology, software creation, development new hardware technologies.



Patricio Sáez
CEO

Industrial Engineer And Executive MBA.

Managing Director



Carles Paul
Scientific Director

Physics and Master in Physics & Applied Mathematics.

PhD candidate in Electrical Engineering.

Mathematical design models Responsible and Technology development based on Big Data & AI.



Begoña Segarra
Marketing Manager



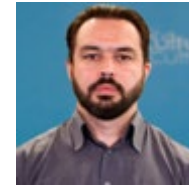
Claudio Sarra
Business developer



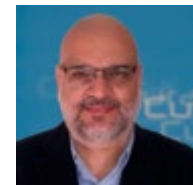
Adriano Sorci
Business advisor



Josep Casals
Analyst



Jose Serra
IoT & Cloud expert



Rodolfo Aguilar
Electrical expert

Roadmap

One-shop solution with sensing + IoT platform + Recurrent Analytics Services

Scalable IoT
Platform



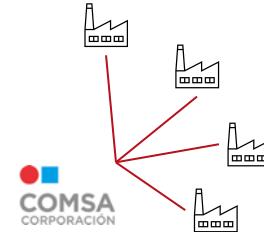
Operating own proven IoT
platform with scalable
structure and in continuous
improvement

Scalable
Data
Analytics



Approved €450K
Budget for AI own algorithms
development
Starting project 2022/Q2

Scalable
Sales



Railway Segment

Contract in negotiation with
maintenance and construction
global corporation

Time to Scale-up

An experienced Startup with Proven Market Fit

Market validation already done

- > **4Y** startup
- > **€800K** invested¹: entrepreneurs + FFF + Loans & Grants³
- > **€350k** accumulated sales and current orders²

Public funding and validation



This project has received funding from the European Union's **Horizon 2020 research and innovation programme** under grant agreement No **886905**.



This project has indirectly received funding from the European Union's **Horizon 2020 Research and Innovation programme**, via an **Open Call** issued and executed under project **MINE.THE.GAP** (grant agreement No **873149**)



Business in acceleration

- > **15** clients
- > **60** sensors under surveillance
- > **20** new customers in sales pipeline
- > **90** new sensors in sales pipeline

International validation



Current leads



Current sales

Note 1: capital, grants and participative loans included

Note 2: added estimated sales from 2017 to December 2021

Note 3: pending to sign €120K grant + €200K soft loan from CDTI

Investment Opportunity

A great Opportunity with high Potential

2.000.000 €

40% Sales and Marketing
26% General and Administrative
34% Research and Development

Profit & Losses

	2021	2022	2023	2024	2025
Service Revenue	8.940 €	130.000 €	810.000 €	6.360.000 €	50.780.000 €
Product Revenue	20.859 €	210.000 €	1.160.000 €	8.110.000 €	17.650.000 €
Total Revenue	29.799 €	340.000 €	1.970.000 €	14.470.000 €	68.430.000 €
Gross Profit	15.000 €	130.000 €	810.000 €	5.690.000 €	43.510.000 €
Operating Profit	(115.000) €	(1.010.000) €	(1.700.000) €	2.440.000 €	40.260.000 €
Net Profit	(122.000) €	(1.020.000) €	(1.710.000) €	2.430.000 €	30.300.000 €

Staff planning

Staff forecast	2021	2022	2023	2024	2025
R+D	1,25	4,75	10,25	14	15
Sales	0,7	3,25	8,75	13,25	15
Marketing	0,625	1,25	3,25	4	4
Operations	0	2,25	8,75	12,25	14
Administration	1	2,125	6,25	7	7
Total Avg. Staff EoY	3,575	13,625	37,25	50,5	55

We invite you to win with us!

Patricio Saez
CEO

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www.sigmaindustrialprecision.com



SIGMA

Industrial Precision



Electrical Analysis Experts

Exit Strategy

Corporate Acquisition



SIEMENS



Schneider
Electric



Rockwell
Automation

YOKOGAWA 

Honeywell











Great opportunities to improve

in operations, efficiency and waste reduction

From €66 M/Y estimated losses and upwards²



Minimum average loss per failed operation €20K²
Considering 30 trips a year² for 2210³ oil tankers worldwide in 2020
Failure in 5% operations for a total of 3315²

Failure in pump to discharge am Oil Tanker in port

Pumps that work once in a while in chemical downloading operations, during 20-30 continuous hours

An unexpected failure of the pump can carry important direct and indirect costs:

- Fines and extra costs for mooring and unmooring operations
- Direct costs in spare parts and pump repairment
- Oil tanker delays for operation and possible losses in following contracts

82% of asset failures appear random¹

¹ Source: ARC view. Optimize Asset Performance with industrial IoT Analytics

² Source: Calculation done using SIGMA's client projects

³ Source: <https://www.statista.com/statistics/468405/global-oil-tanker-fleet-by-type/>

Where we can help in Maritime

Example in Barcelona's Port



Electricity is
present
in all maritime
operations

- A** **Ships:** electric engines, power generators, pumps, compressors, etc.
- B** **Dock cranes:** power supply analysis, motors mechanical damage surveillance, etc.
- C** **Gas & Fuel Storage:** electric compressors, pumps, etc.
- D** **Silos:** loading and unloading machines, conveyors, etc.
- E** **Containers:** power supply, cryogenic systems, etc.

Benefits

from an Electrical Automated Surveillance and SIGMA's analysis:

A	SHIPS:	<ol style="list-style-type: none">1. Pumps2. Compressors3. Electric engines4. Power generators	}	<ul style="list-style-type: none">➤ Ensure critical operations in docking process➤ Increase on board electric infrastructure safety
B	DOCK CRANES:	<ol style="list-style-type: none">1. Power supply analysis2. Motors mechanical damage surveillance	}	<ul style="list-style-type: none">➤ Mechanical & electrical surveillance for cranes' motors from electrical cabinet➤ Reduce maintenance, complexity and costs
C	GAS & FUEL STORAGE:	<ol style="list-style-type: none">1. Pumps2. Electric compressors	}	<ul style="list-style-type: none">➤ Pumps and compressors easy surveillance and protection➤ Electrical power supply analysis to ensure safe operation
D	SILOS:	<ol style="list-style-type: none">1. Conveyors2. Loading and unloading machines	}	<ul style="list-style-type: none">➤ Avoid breakdown during loading or unloading operations➤ Increase protection for people, easy surveillance in hazardous areas
E	CONTAINERS:	<ol style="list-style-type: none">1. Power supply2. Cryogenic systems	}	<ul style="list-style-type: none">➤ Ensure electrical correct supply➤ Immediate alert against problems that can risk the goods

SIGMA disrupts the market

Electricity is everywhere and speaks

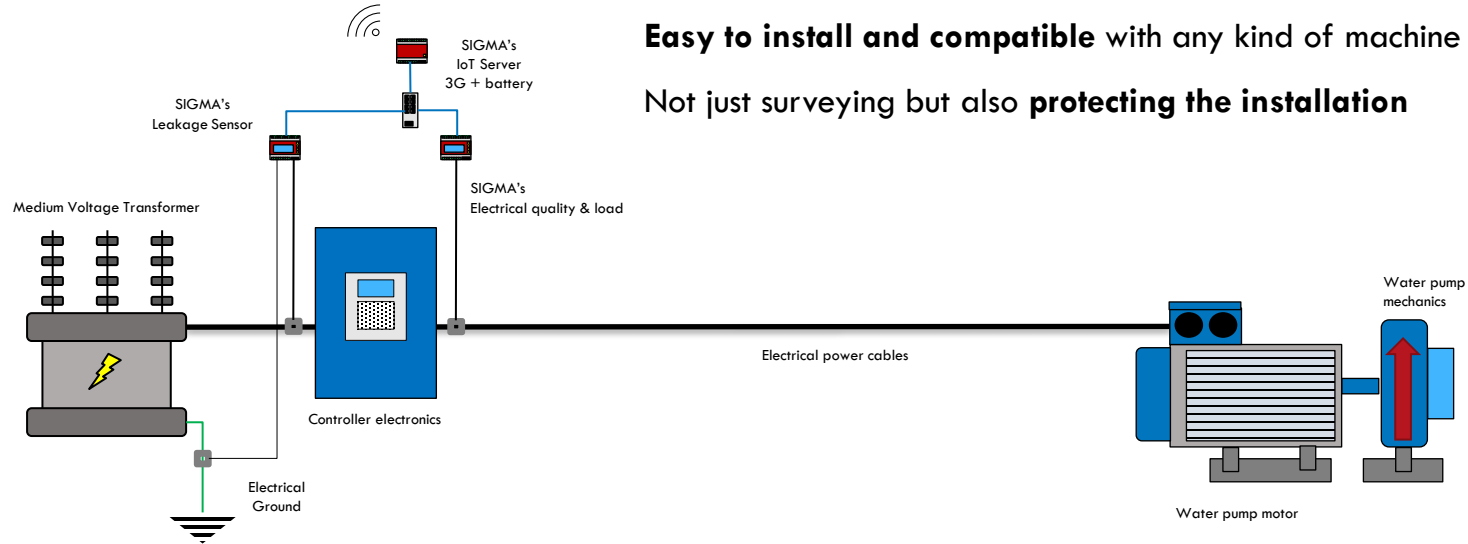


Complete solution: sensor + IoT + cloud analytics

Covering all key assets process with one solution
























Easy to install and compatible with any kind of machine

Not just surveying but also **protecting the installation**



Why Electrical Analysis

A common component in all operations and infrastructures

Technology	Assets covered	Failure detection	How is done
 Electric Analysis	 Transformer  Wiring  Motor  Pump  VFD  Fan  Generator  Compressor	Mechanical & electric <ul style="list-style-type: none"> • Electric arch • Energy quality • Mechanical in motors, pumps, etc. 	 MCSA, motor current signature analysis  Leakage current analysis  Voltage analysis  Power analysis  Smart electric protection  Electric efficiency
Other technologies Vibration analysis	 Motor  Pump  Fan  Generator  Compressor	Mechanical <ul style="list-style-type: none"> • Unbalance • Misalignment • Bearing damage 	<ul style="list-style-type: none"> • Vibration sensors installed over motors. • Online or data logging
Other Technologies Thermal analysis	 Transformer  Wiring  Generator	Mechanical & electric <ul style="list-style-type: none"> • Cold points • Hot points • Electric arch • Fluid leaks 	<ul style="list-style-type: none"> • Thermal cameras. • Online or data logging

Bringing Value from Day 1

Many benefits oriented to ensure efficiency

1. **Save** costs
2. Increase **Safety**
3. Increase **Productivity**
4. Guarantee optimal **operation**
5. **Identify & Control** critical equipment
6. **Extend** old or new machines **Lifetime**
7. **Identify** technical and electrical problems
8. To make better use of **Staff time**

SAFETY:

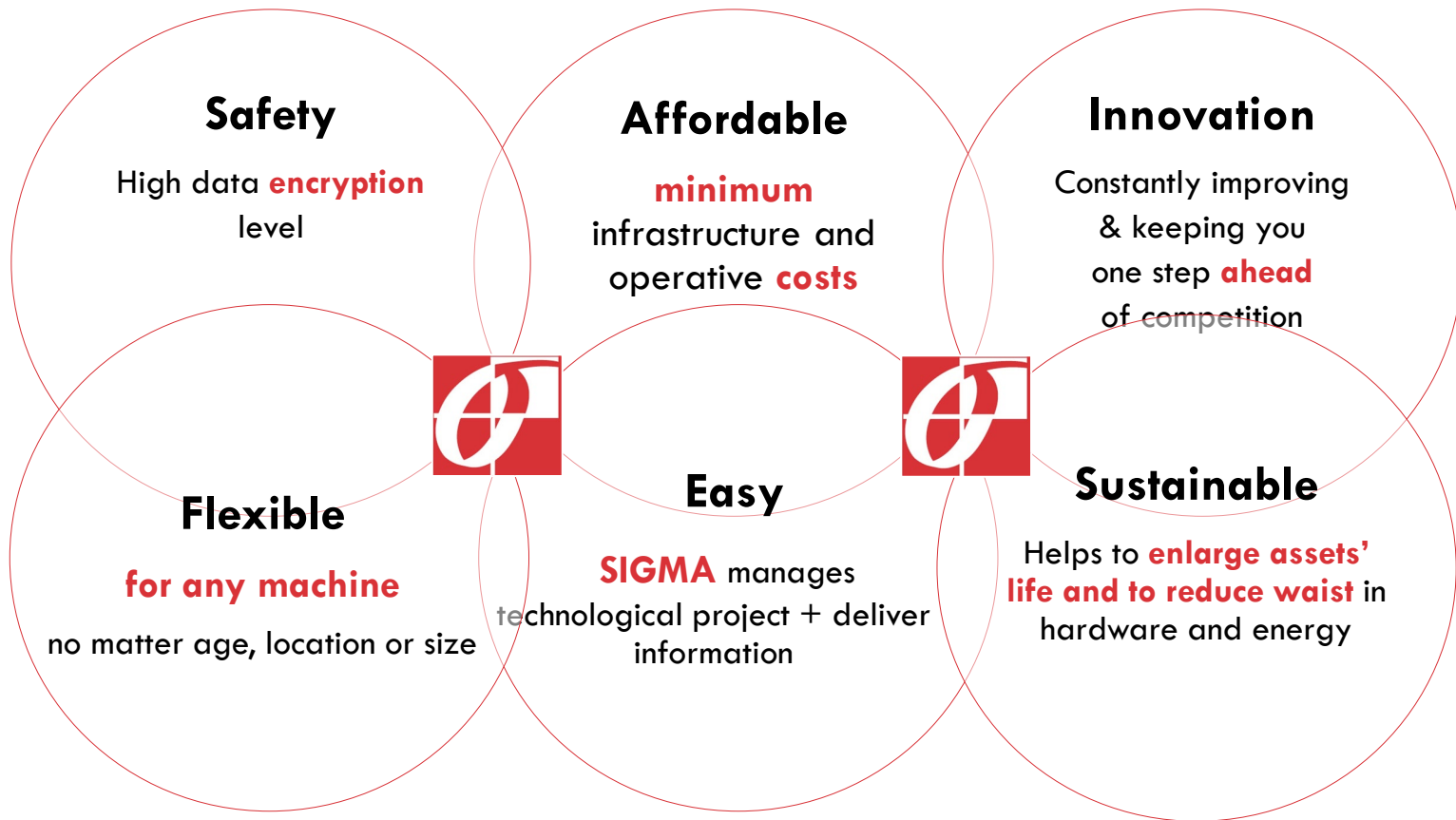
Staff
Machines
Infrastructures

SAVINGS:

Electricity
Maintenance costs
Unforeseen stops

**E
F
F
I
C
I
E
N
C
Y**

SIGMA's Advantages



Huge market in acceleration

Relevant competitors for Predictive Maintenance



Samotics Overview

Founded **2015** | Status **Private** | Employees **56**

Latest Deal Type **Corporate** | Financing Rounds **2**

Estimated valuation
EUR +100 M

<https://pitchbook.com/profiles/company/171330-13#funding>



Founded **2017** | Status **Private** | Employees **9**

Pre-money Valuation
EUR 6M



Augury Overview

Founded **2011** | Status **Private** | Employees **250**

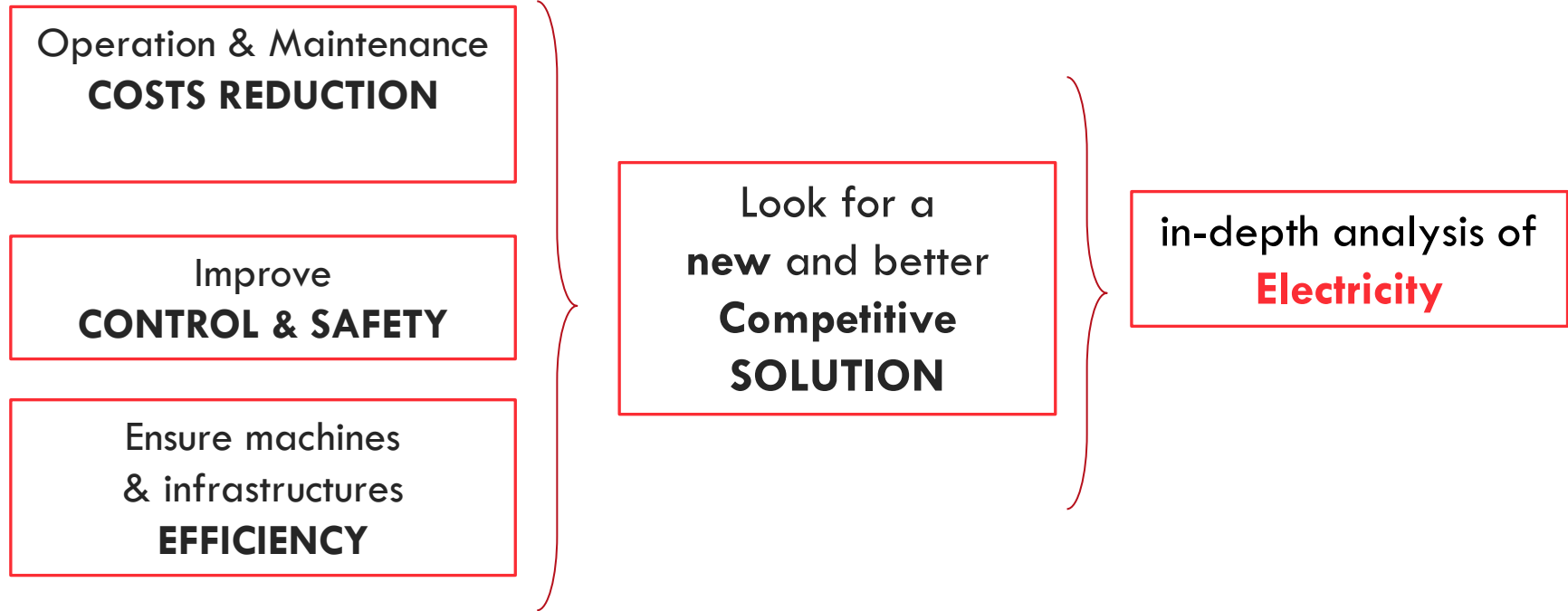
Latest Deal Amount **\$180M** | Investors **18**

Estimated valuation
EUR +1000 M

<https://pitchbook.com/profiles/company/82952-56>

Common Solution

Deep Electrical Analysis can be the Key



Electrical Analysis Platform

A complete solution starting in the electrical panel

SIGMA gets all **information** required, using our own electrical analysis platform:



With an easy implementation
in the electrical panel:



Competitors

Predictive Maintenance and Energy Surveillance

Our approach is more
flexible and scalable

SIGMA is relevant for:

 Energy  Predictive Maintenance

Flexibility

- By the number of different assets that can be surveilled
- By the different numbers of failures that can be identified
- By the dependence on external resources: software, expert staff, etc.

Scalability

- By the cost per asset surveilled
- By the number of enabling technologies integrated
- By the dependence on external resources

