



InviSense®

Presentation for LÅGAN

InviSense – helping the construction and property industry take control of moisture, save energy and ensure quality

LeakageSensor



PipeSensor



ConcreteSensor



RoofSensor



FacadeSensor

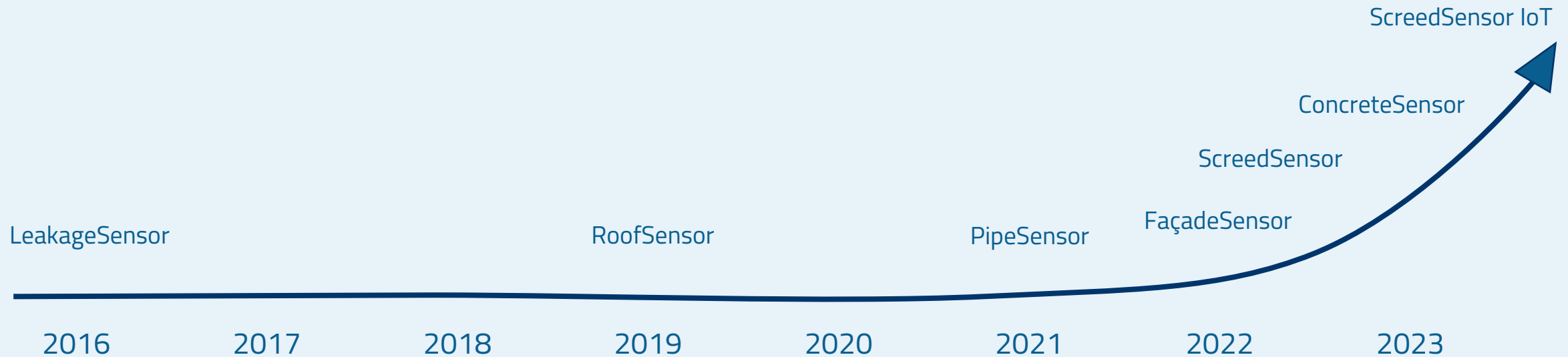


ScreedSensor



InviSense will digitize the property and construction industry by providing sensors for data-driven building

Based on a unique technology, different applications and markets have been discovered based on industry needs



Invisense started from a research project at LIU

Further development of scanner and cloud solution

On the 33 list

Partnership with SLD

On the 33 list

Industry organization SlutaRiv is started

Entry into construction industry

Framework agreement with NCC

Winner of Skapa price

On the 33 list

Winner of Byggindustrin's gold metal

InviSense sensors gives full insight into building moisture levels with a product portfolio that covers different use cases



Starting Point!

The patented LeakageSensor is an ultra thin moisture sensor based on printed electronics

Business area

Maintenance/ Inspection

LeakageSensor
Tracks moisture and makes moisture sensitive areas measurable for inspection and limitation of damage

PipeSensor
For monitoring and inspection of moisture in critical areas of piping which are difficult to reach

Sensors and usage

FaçadeSensor
For monitoring and inspection of moisture in façades, adapted for outdoor climate.

RoofSensor
Moisture tracking adapted to flat roofs, to enable inspection and damage avoidance.

Partial Repair

LeakageSensor
Enabler of partial repair of bathrooms, trough measurability of repair quality.

PipeSensor
Enabler of part repairs of piping and floor heating

Construction Projects

ScreedSensor
Visualizes the dry out of screed and gives valuable decision support.

ConcreteSensor
Visualizes the dry out of concrete and gives valuable decision support.

The Concrete and ScreedSensors are new high potential products that will build InviSense's future

ConcreteSensor

Product components



Sensor



Cloud Service

Usage

- Measures temperature and moisture level on three levels in concrete
- Mounted at casting
- Actively sends data to the cloud
- Approx. 1 sensor per 300 sqm

ScreedSensor

Product components



Sensor



Scanner



Cloud Service

Usage

- Measures moisture in screed and visualizes the dry out curve in the cloud
- Placed on the floor before screed is poured
- Placement of sensor is registered in app
- Sensor is scanned to send data to cloud
- Approx. 1 sensor per 100 sqm

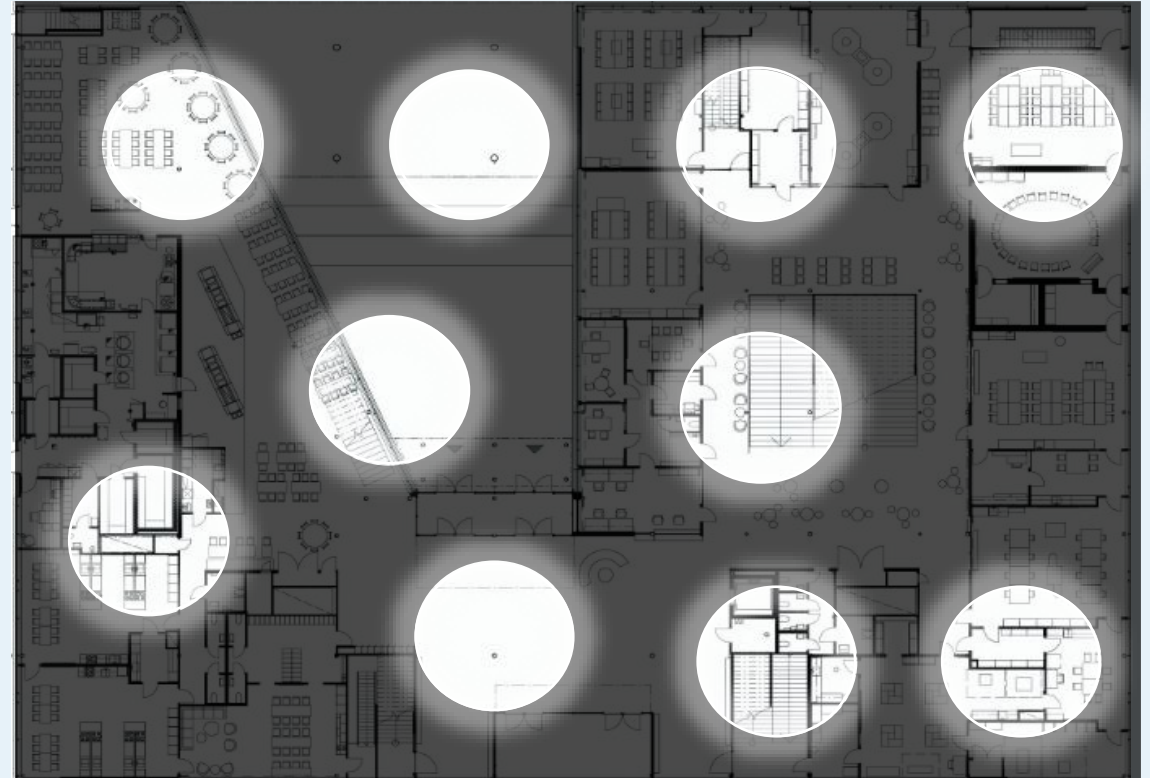
The drying process is invisible for us until we measure

GBR measurement



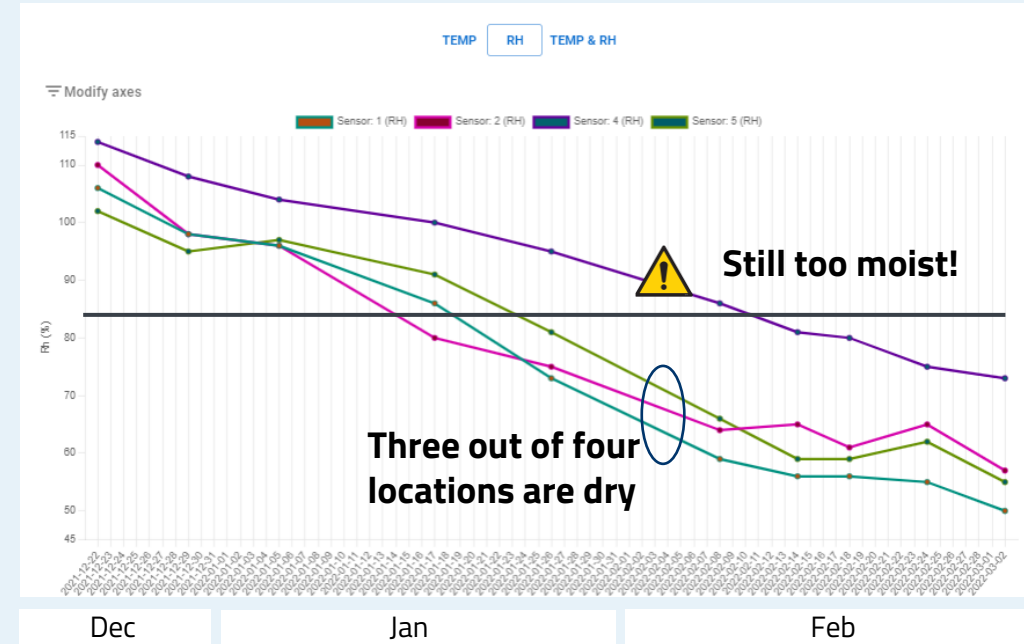
- Single measurement points on a floor level
- Measurement at one occasion

InviSense ScreedSensor



- Several measurement points on a floor level
- Continuous measurement until material is dry

Drying process of screed in a live project shows how data driven decisions can be taken on the building site

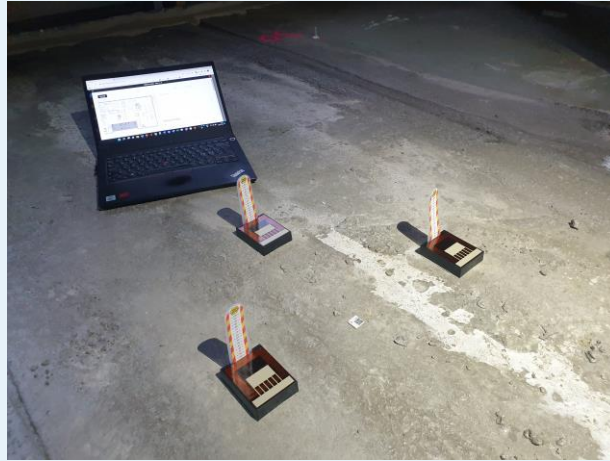


Approved moisture level

Added value

1. Having a moisture curve enables early action to be taken where drying is slower to avoid delay
2. Decision to postpone traditional tests can be taken when material isn't dry to avoid cost for extra testing

Active ScreedSensor IOT – for the building site

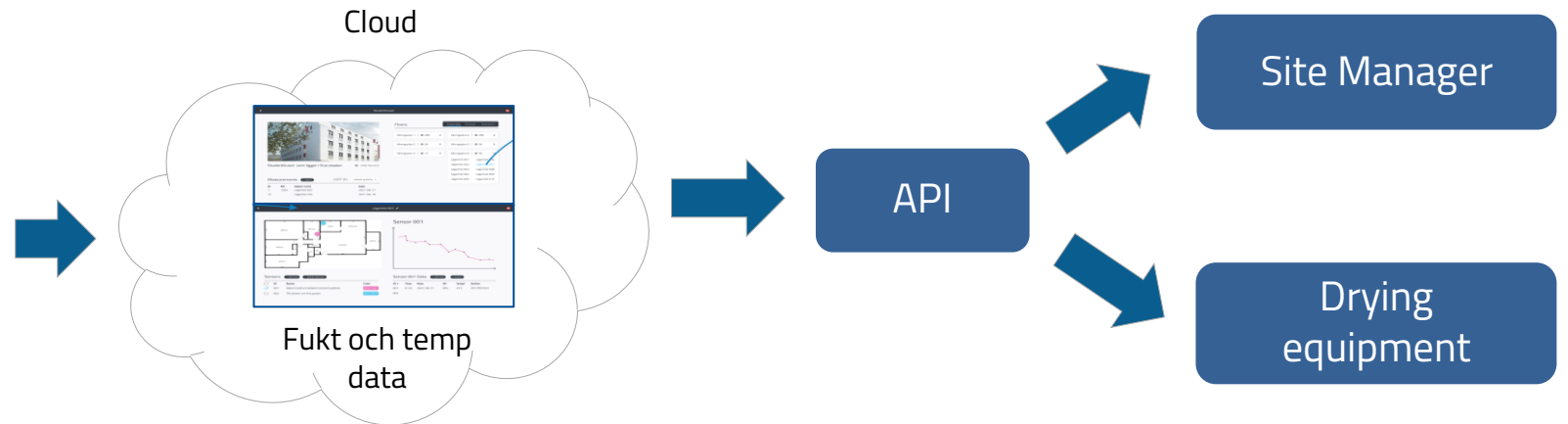


Benefits

- Control of dry out
- Site manager in control
- Reduced energy use 50%



Process



With InviSense sensors, efficiency improvements made by getting control of moisture saves both cost and emissions



>5 days reduced project time¹

- Shorter project time due to decreased risk for delays
- Value of 5 reduced days is ~ 1.25 m SEK in a 5000 sqm build²
- Makes it possible to accurately plan for next work moment
- Measures can be taken if of irregular drying pattern is detected



50% reduced energy need

- Drying only where needed decreases energy consumption from heaters and fans, saving ~250 000 SEK³ per 5000 sqm project
- Proactive drying measures instead of panic actions lead to less stress and use of more environmentally friendly energy



Increased quality assurance

- Ensures dry material in all parts of the facility - affordable sensors give better coverage than traditional, expensive measurement
- Proof that moisture levels are in control years after finalized project
- Less billable time from moisture consultants and higher quality

With real-time measuring approximately 1.5 m SEK can be saved in a 5000 sqm building project by getting in control of moisture

The benefits of measurability is seen by our costumers across industries

Maintenance/ Inspection



Partial Repairs



Fiskarhedenvillan®

SLUTA ! RIV

Construction Projects

