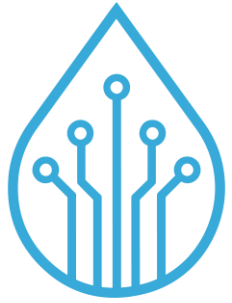




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# Company overview

# Company overview



- French Start-up company based in TOULOUSE

- 14 people



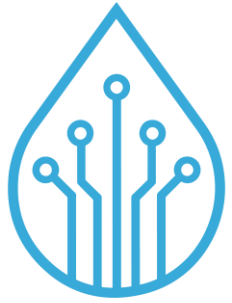
- + 20 patents



- 42<sup>nd</sup> most innovative



company 2019 by **Forbes**



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# Strain sensing technology principle

# Strain sensing technology principle

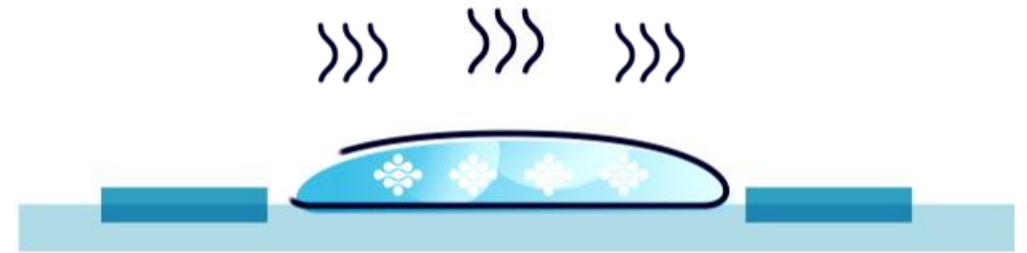
Technology principle



Electrodes

Nanoparticles-based ink is deposited on insulating flexible film with conductive electrodes

1



Substrate is then annealed

2

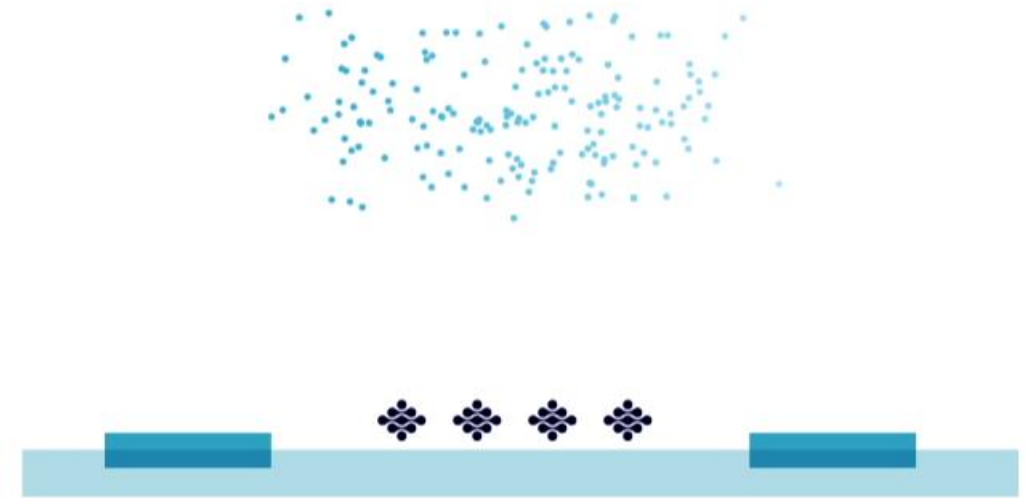
# Strain sensing technology principle

Technology principle



Nanoparticles-based ink is deposited on insulating flexible film with conductive electrodes

1

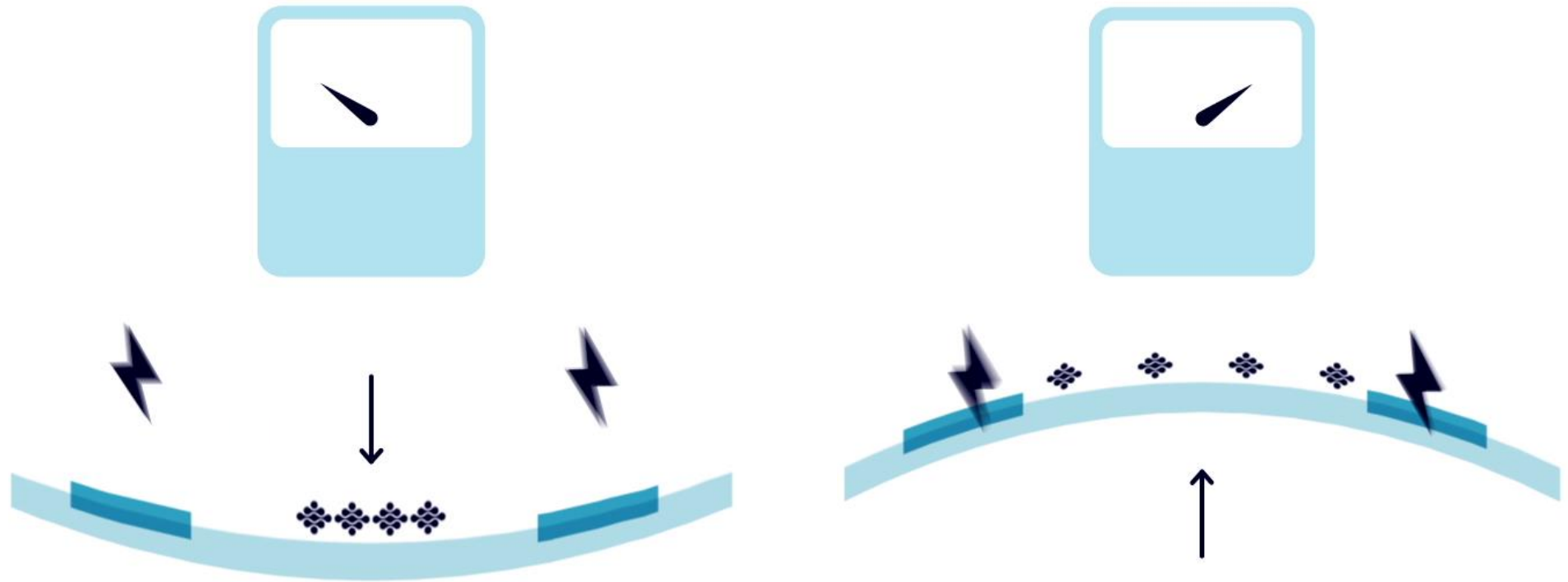


This annealing removes solvents leaving a uniform nanoparticles layer

2

# Strain sensing technology principle

Technology principle



- 3 Substrate deformation induces nanoparticles distance variation resulting in electrical resistance change

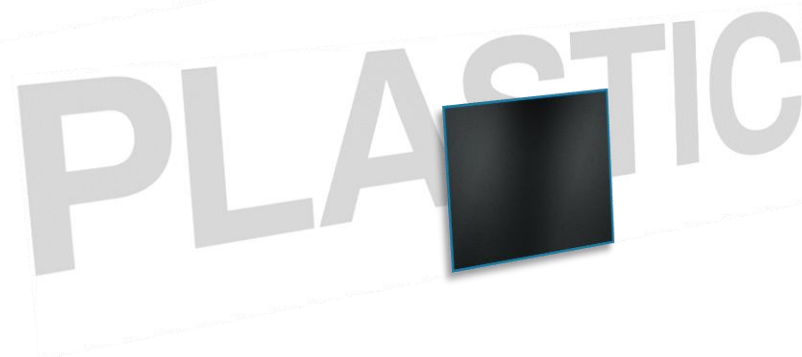
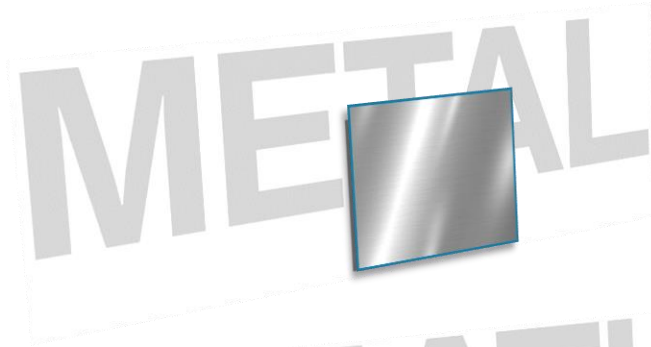
CONFIDENTIAL

# Strain sensing technology principle

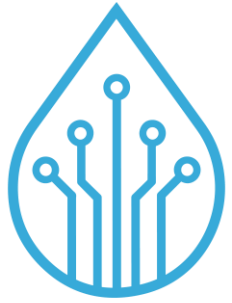
4

Sensor is then simply fixed behind any material which is thus turned into a touch & force sensitive interface.

Technology  
principle







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# Sensor manufacturing

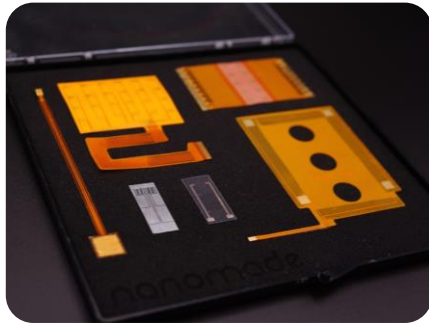
# Simple manufacturing process



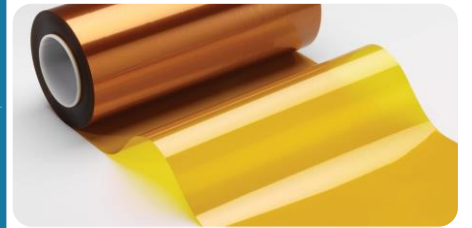
Substrate design  
and  
manufacturing



Nanomade Ink



Ink Deposition

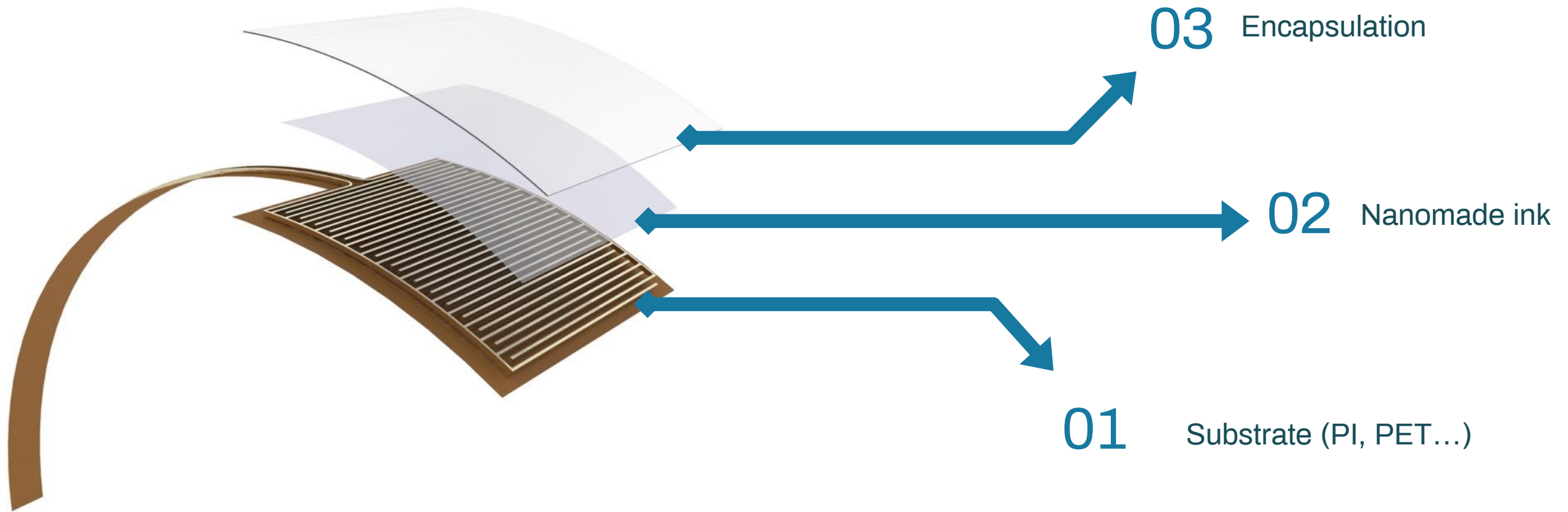


Encapsulation

Onsite manufacturing  
capabilities

# Technology principle

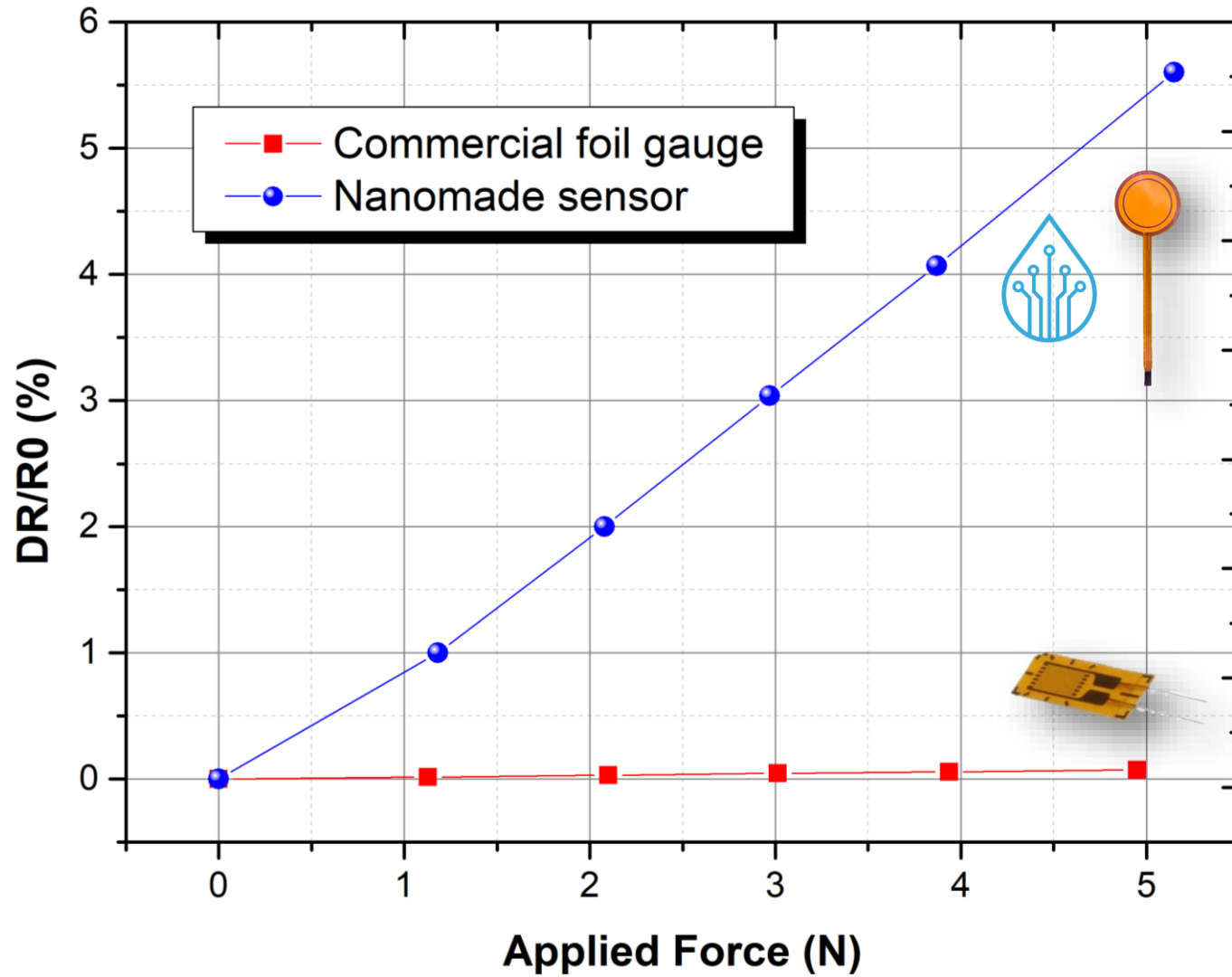
## *Sensor stack-up*



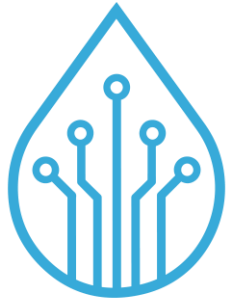
**FLEXIBLE – THIN – HIGHLY SENSITIVE**

# Technology principle

Technology principle



> 60 times  
more sensitive



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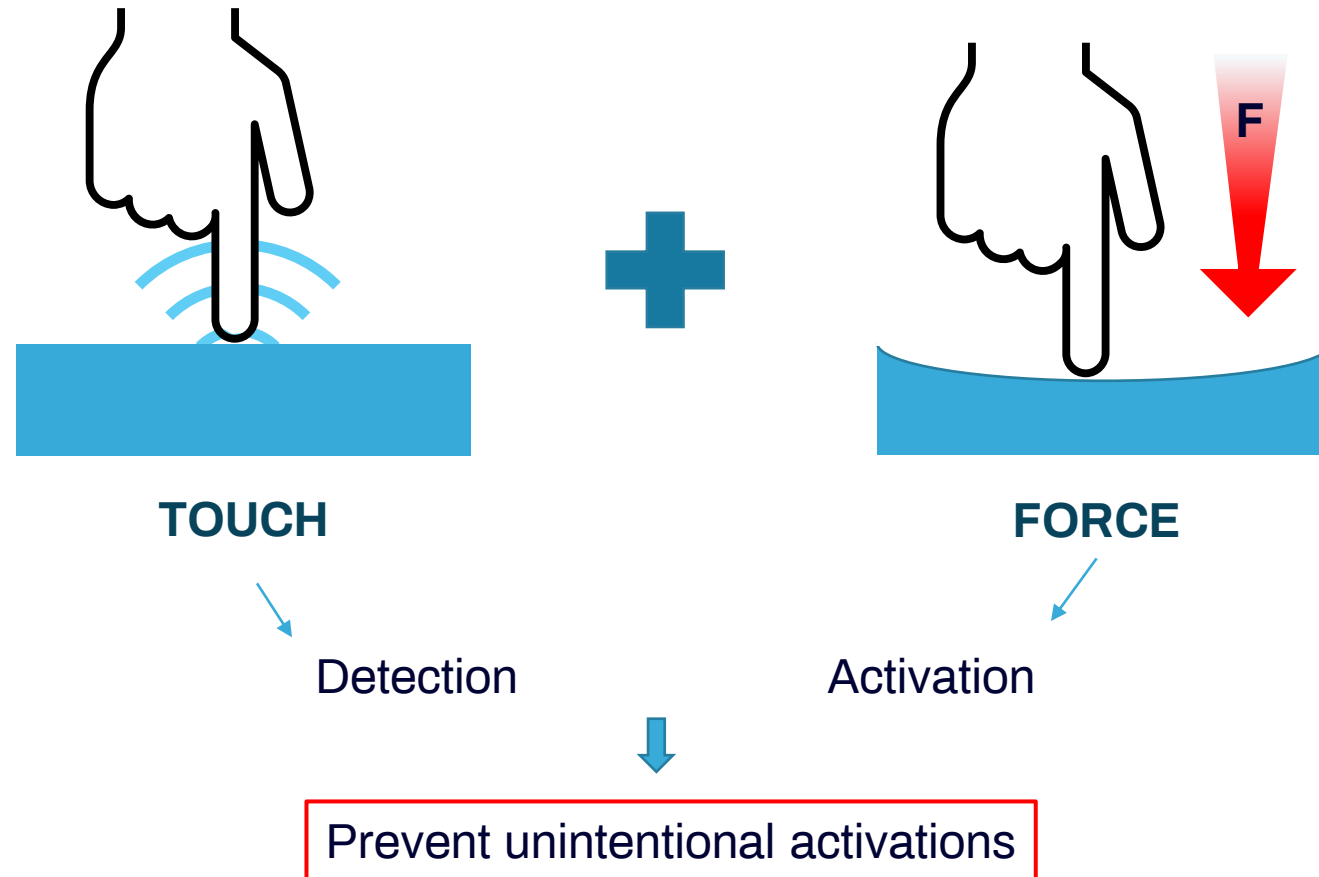
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**CapaForce© technology**

# CapaForce© technology principle

COMBINING TOUCH CAPACITIVE AND RESISTIVE STRAIN SENSORS IN THE SAME THIN FLEXIBLE DEVICE

CapaForce©

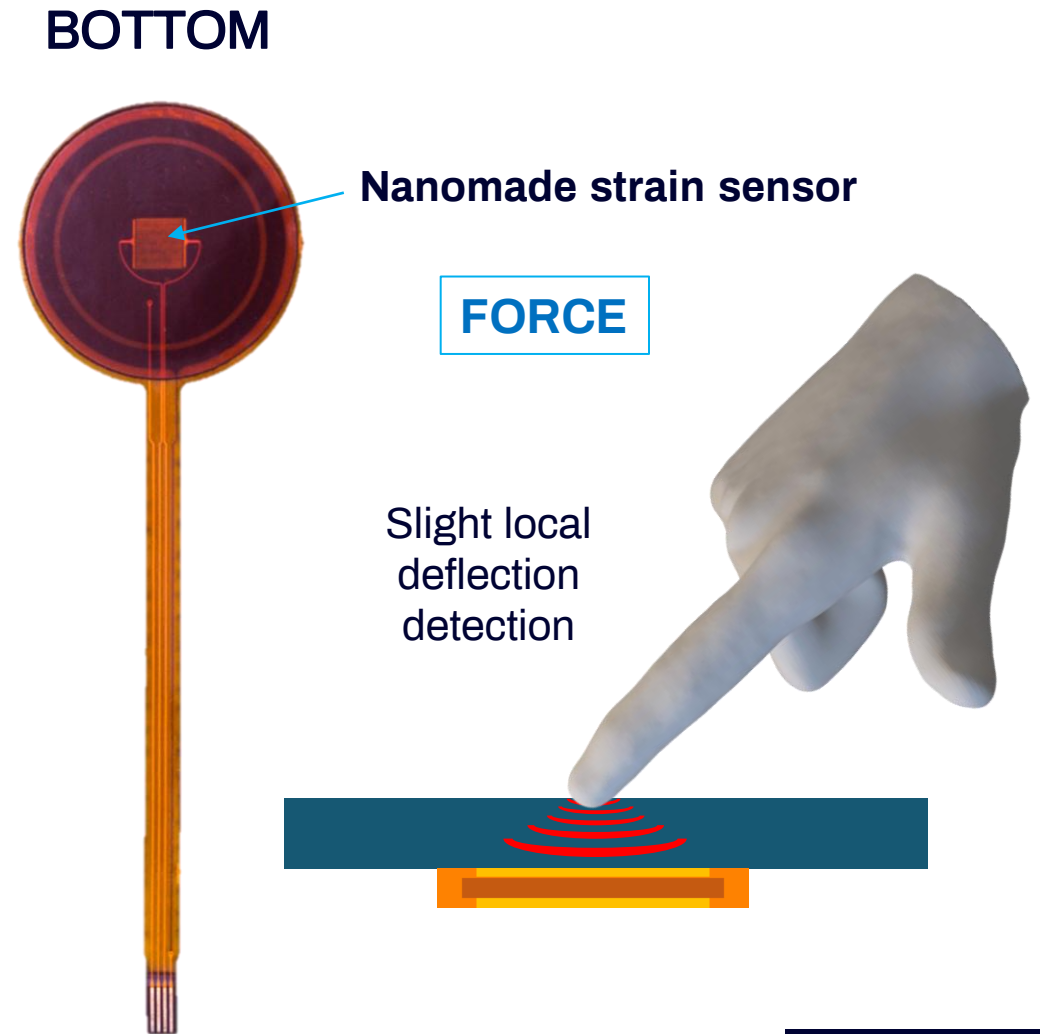
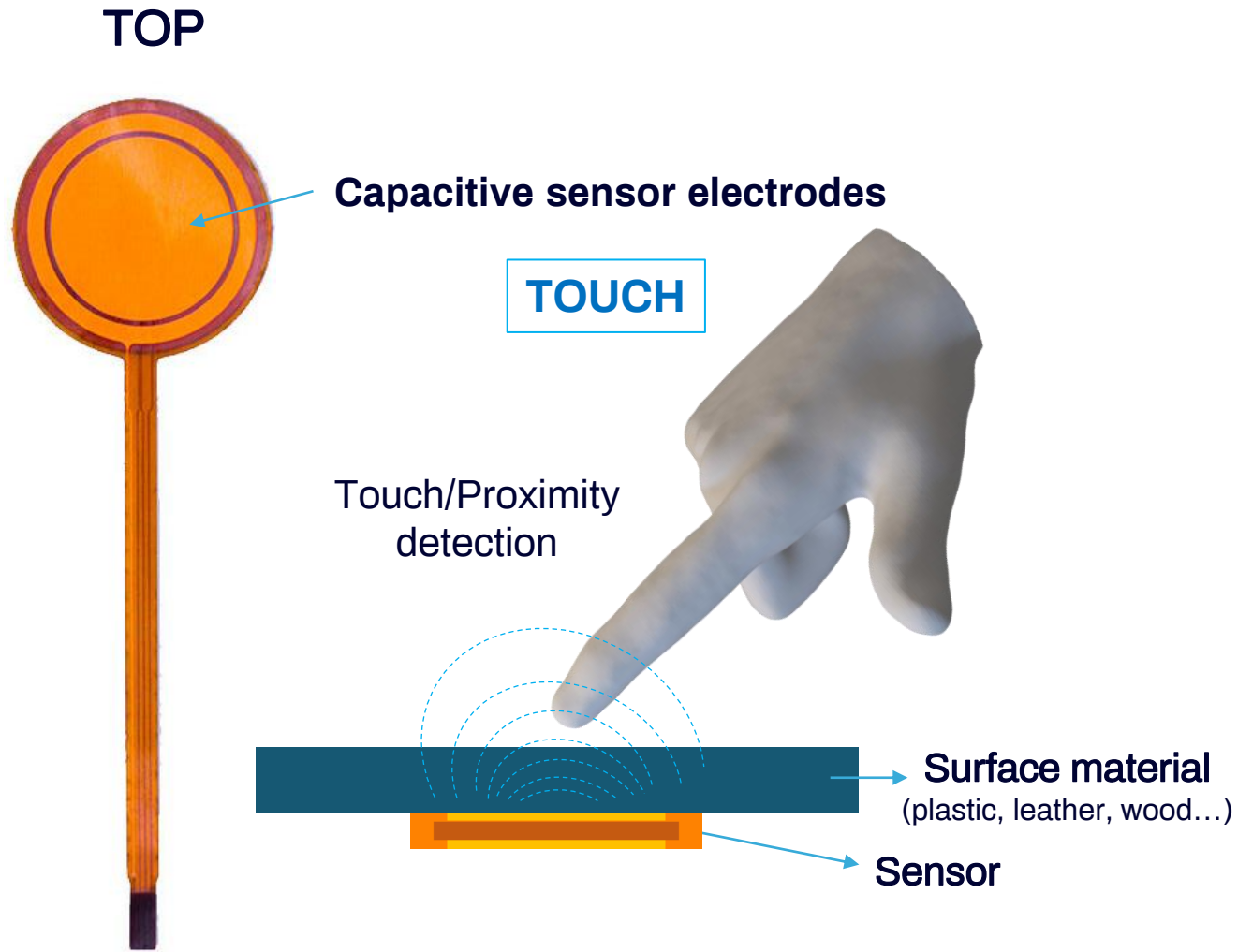


CONFIDENTIAL

# CapaForce© technology principle



[WO2021170883A1]



# CapaForce© technology principle

CAN WORK AS SINGLE, MATRIX SENSOR, 3D SHAPE

CapaForce©



Single sensor example

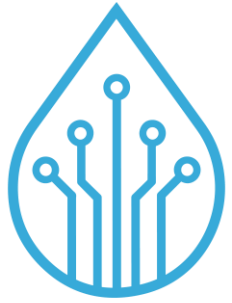


Matrix sensor example



3D shape matrix  
sensor example





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# Applications examples

# Touch and Force sensing for HMI applications

CapaForce©

NOVA CAR  
EXPERIENCE  
NOVARES

3D IN-MOLD DOOR  
COMMAND MODULE  
PANEL



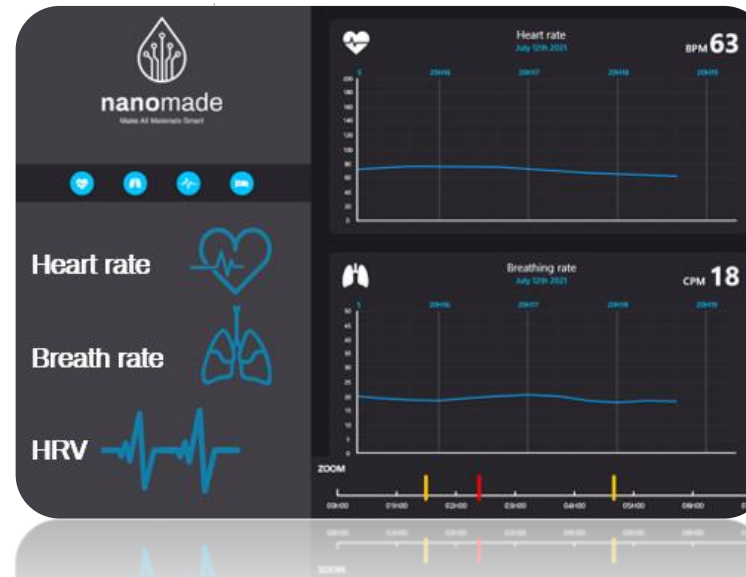
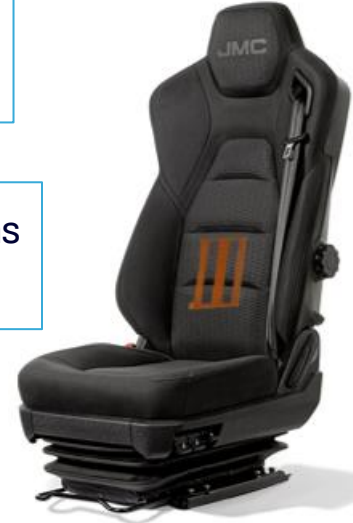
WOODEN COMMAND  
CONTROL PANEL

# Unobtrusive vitals monitoring

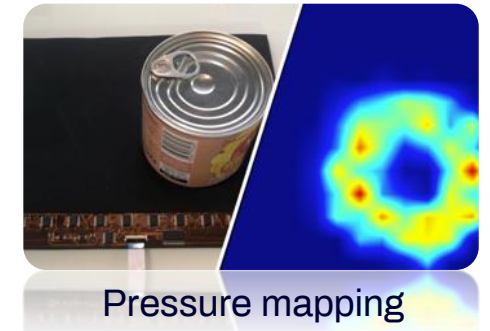
Nanomade strain  
sensor under foam

Body micro deformations  
measurement

Signal processing



# Force and deformations measurements



Force/impact measurement



In-flight luggage management

*Presence and weight estimation*



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WE LOOK FORWARD TO DISCUSSING WITH YOU  
ABOUT HOW OUR TECHNOLOGY CAN BENEFIT TO  
YOUR BUSINESS.

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