



**INDustrial TECHNOLOGIES 2018**  
Innovative Industries for Smart Growth



# **INDTECH2018**

## **Innovative industries for smart growth**

29-31 October, 2018  
Vienna, Austria

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**PILLAR 2**

**Session 2.3**

**Improve the competitiveness of the industry through the provision of design-driven innovative solutions**

**Bertrand FILLON**

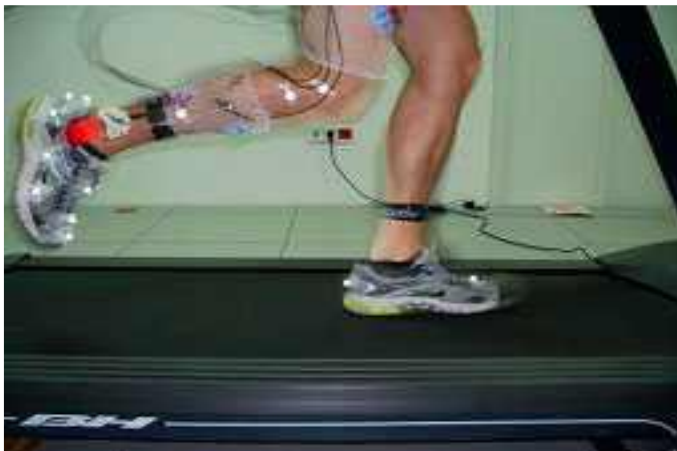
**IPC**

**30 October 2018**

## Towards smart and connected shoes



Virtual Technologies  
for the Point of Sale

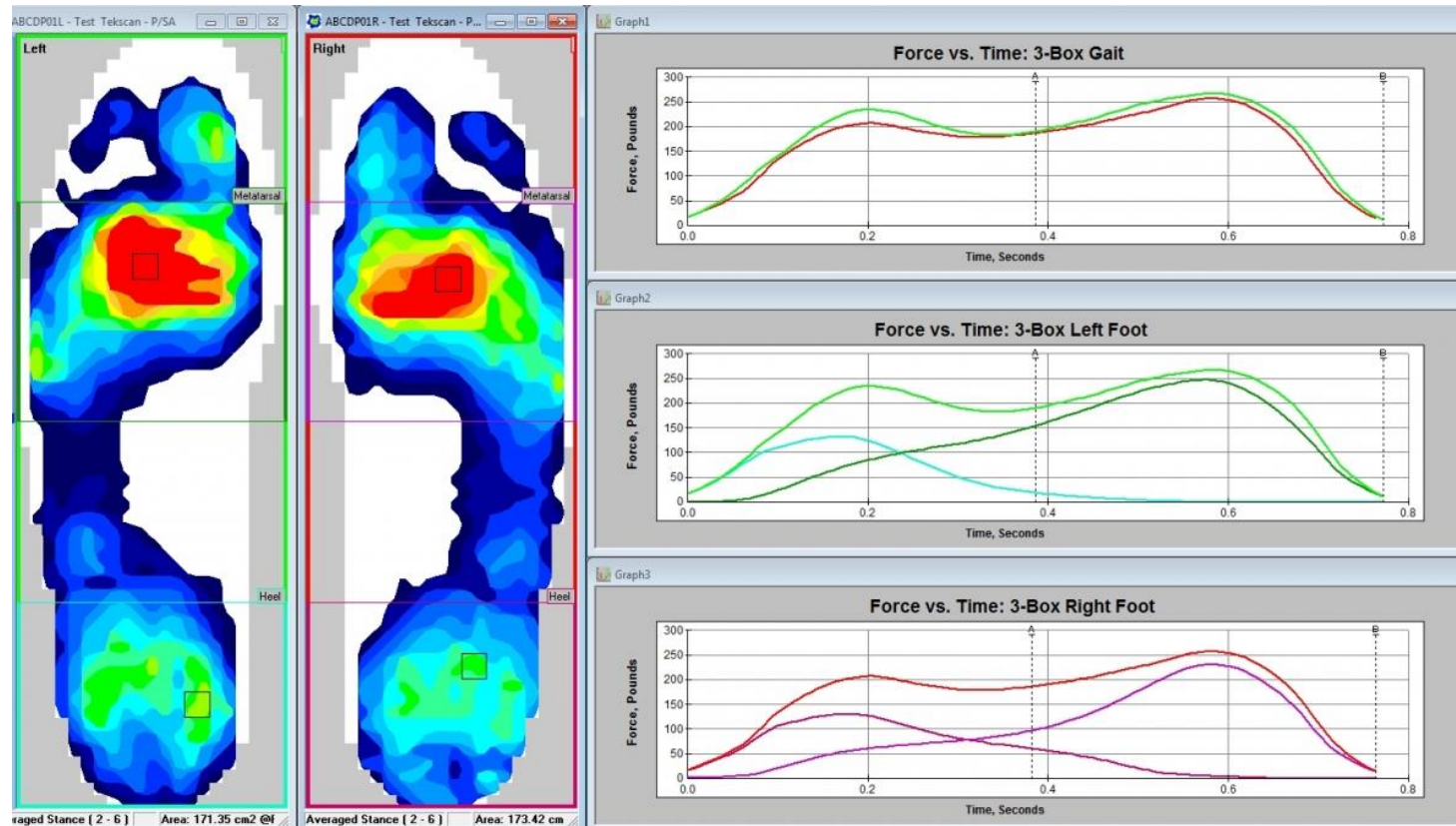


The biomechanics of  
human-shoe-environmental  
interactions



Advise related to fashion design.  
Advise related to industrial design.

## Pressure measurement and analysis system.





## The technologies are ready to be transferred in application

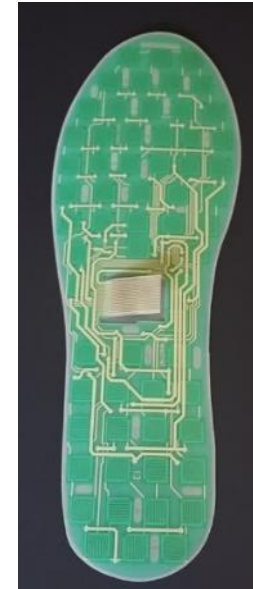
### 3 D Prototyping to validate pressure requirement



## The technologies are ready to be transferred in application

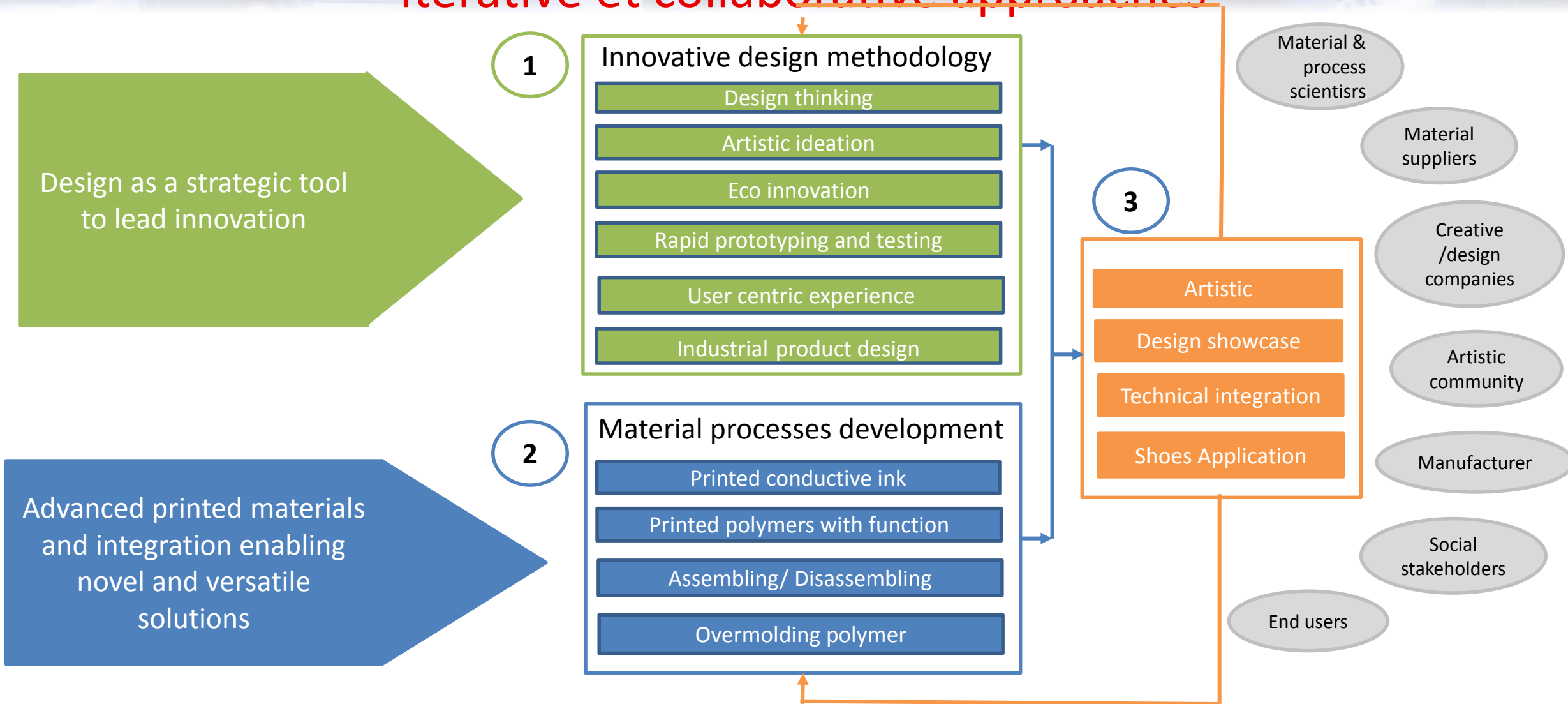
Difficulty to integrate sensors into the shoe: space, flexibility...

We need solutions for these problems: OLAE can be very helpful to make smaller and more flexible devices





# Iterative et collaborative approaches



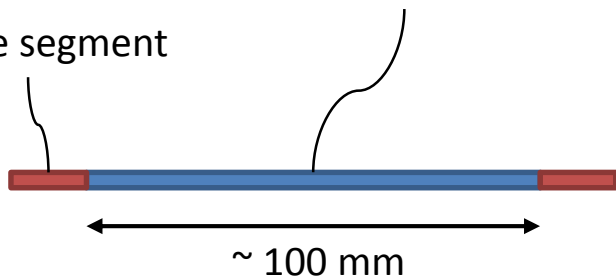


# Example: a connected cross country ski boot

Smart ribbon system  
(~wireless sensor node)

Active segment (5 pressure sensors, batterie, wireless communication)

Passive segment



Smart ribbons integration  
(~wireless sensor system)

Smart ribbon system



Cross country ski boot with integrated foot plantar pressure measurement

