



S mart  
P revention,  
R ehabilitation &  
IN tervention  
T echnologies;

# Artificial Intelligence and sensor technology for sustainable employees

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# Citizens, patients and employees@risk

## Problems:

- Chronic illness (37%) with limitations (52%)
- Overweight (48% in NL)
- Diabetes (1 million in NL)
- Physical condition (muscle strength, balance, posture, energy)
- Cognitive condition (burn-out, dementia)



# Vision

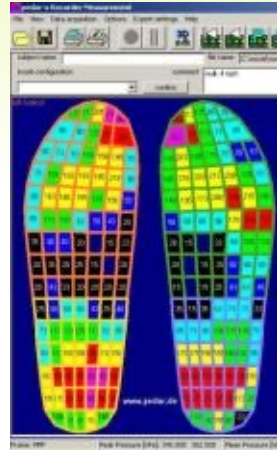
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**Keep employees@work as long as possible**

- ▶▶ ***Change behavior*** into a health-responsible one using ***motivational strategies***
- ▶▶ Measure who is @risk with ***unobtrusive smart sensors*** vs questionnaires; ***24/7*** vs now&then, with an ***integrated*** approach vs single action
- ▶▶ ***Data transfer*** and storage
- ▶▶ ***Data analysis*** with self-learning decision support system
- ▶▶ Based on ***individual overall picture***: weekly progress
- ▶▶ Prevent incapacitation by ***motivating feedback*** and ***intervention systems*** that are ***proven effective***
- ▶▶ ***Exploitation*** of the toolbox via employers

# Case study 1

## ►► All employees



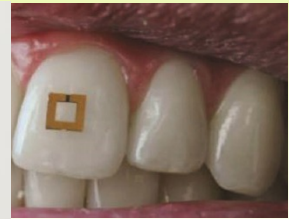
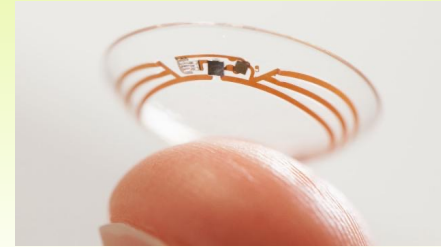
# Case study 2

## ►► Office worker



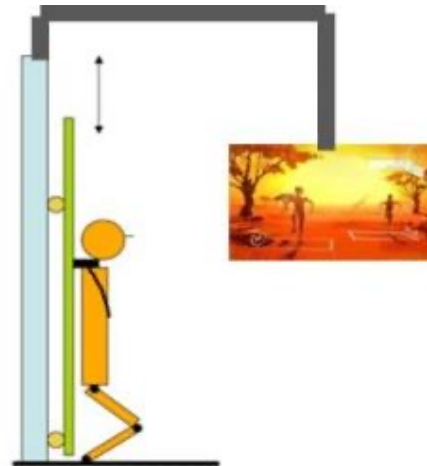
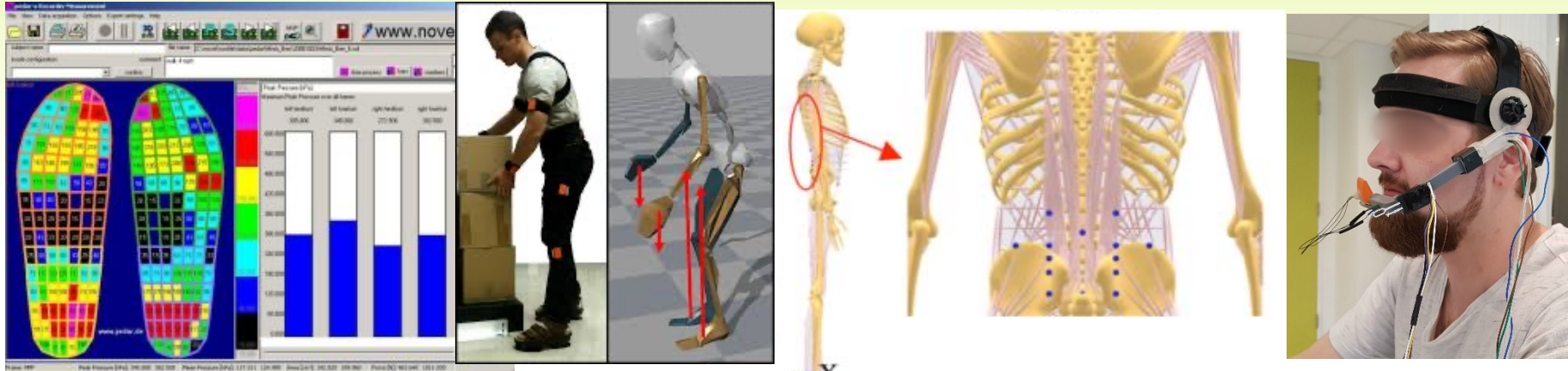
# Case study 3

## ►► Controller/transport



# Case study 4

## ►► Heavy physical work

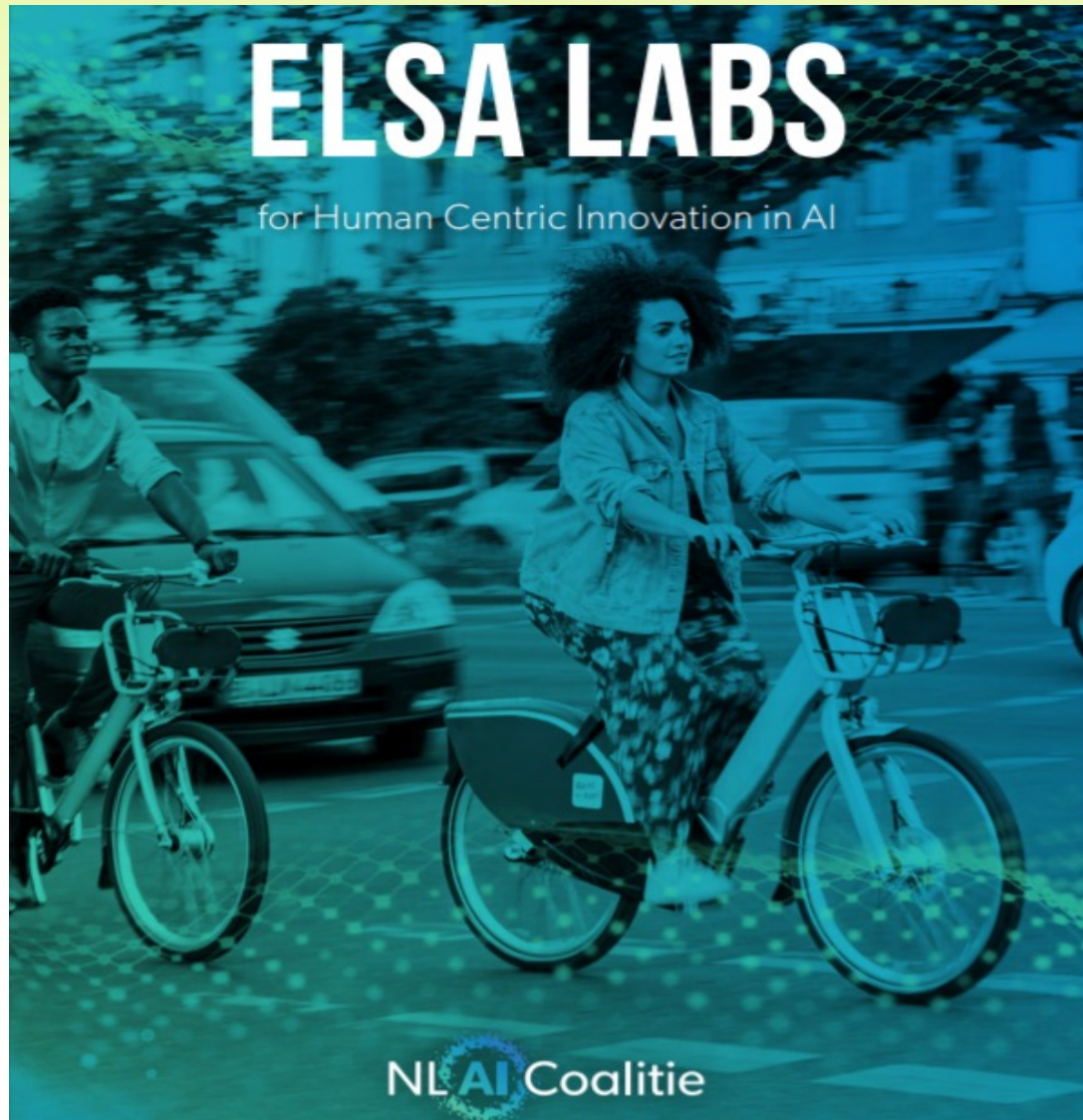


# ICT-platform

- ▶▶ Data-transport
- ▶▶ Big data analysis  
(integral approach)
- ▶▶ Decision Support System
- ▶▶ Intervention
- ▶▶ Decision quality from sensors  
>> self-learning



# Ethical, legal, social aspects



# Artificial Intelligence and sensor technology for sustainable employees

