



## Wearables and apps for resilient employees

*Duration of PhD trajectory: Q4 2017 until Q4 2021. PhD candidate: Herman de Vries*

### Problem outline

- Stress is a major cause of health problems and absenteeism under employees.
- Interventions to improve employees' resilience to stress exist, but have limited ability for continuous monitoring and to assist the employee real-time.
- Wearables and apps have potential to assist employees in managing their resilience, but automated methods to analyse data and create personalised feedback are lacking.
- Models that predict an employee's resilience based on data from wearables and apps are therefore needed to improve this aspect of employee resilience interventions.

### What is resilience?

*Resilience can be defined as  
"the process of positively  
adapting to adverse events."*

*Several approaches to measure  
resilience exist. In this project,  
data from wearables and apps  
will be used to develop  
prediction models for multiple  
resilience-related outcomes.*



### Aims of the project

This project aims to contribute to:

- the body of knowledge on how automated data-analysis (e.g. machine learning) can be used in order to create personalized feedback based on a single individual's data;
- the body of knowledge on how objective data derived from wearable sensor technology can complement subjective measures in predicting resilience outcomes;
- the development of a personalized resilience intervention using wearables and apps.

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