

# Modelizing the recurency of a new physical activity habit assessed by accelerometer

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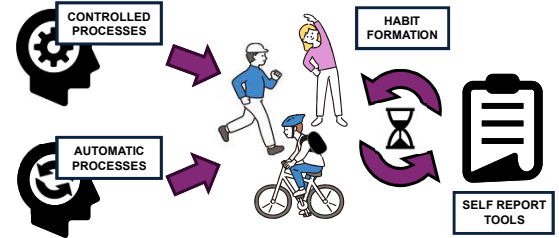
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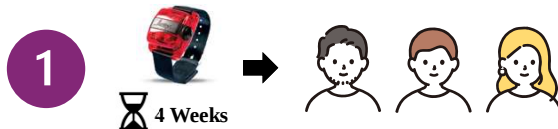
## 1 THEORETICAL BACKGROUND

While **controlled psychological processes** are deemed essential to drive the initiation of structured and newly adopted behaviors, **automatic factors** play a major role in their maintenance through time.

There are few longitudinal studies reporting data in individuals who regularly adopt a new physical activity habit, and all of them used **self-report tools** to assess automatic processes (i.e., habits scores) and behavior adoption.



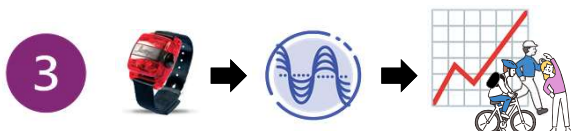
## 2 GOALS OF THE INTERNSHIP



**Recruit a sample of healthy individuals** who intend to adopt a new active routine regularly and will be **equipped with a GT3X accelerometer** during a **4-week follow-up period**.



**Use classification techniques** to track the adoption of the new PA behavior.



**Conduct time-series analyses** to estimate the increase in objectively assessed behavior adoption through time.

## 3 INTERNSHIP KEY POINTS

Combining **psychological theory**, **objective data analysis** and **machine learning** to understand exercise habit formation.

- **Psychology of behavior change**
- **Objective sensor-based assessment**
- **Machine learning & time series**
- **Applied interdisciplinary work**

## 4 ABOUT SUPERVISION

The internship will be supervised by a **mixed team** from the Euromov and IES laboratories, respectively, **specialists in human movement** and the **analysis of temporal signals**.

**EuroMov**  
Digital Health in Motion



### Références

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