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SHARE ACCELEROMETRY PROJECT

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HORIZON 2020

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Federal Ministry
of Education
and Research

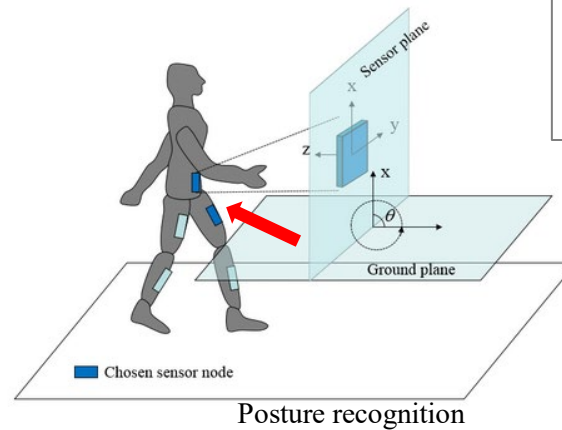


National Institute
on Aging

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SOCIAL LAW AND SOCIAL POLICY
Munich Center for the Economics of Aging



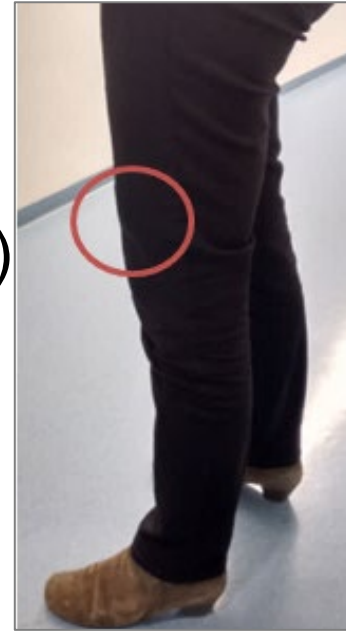
- Objectively measure respondents' activity



The Axivity ax3 device

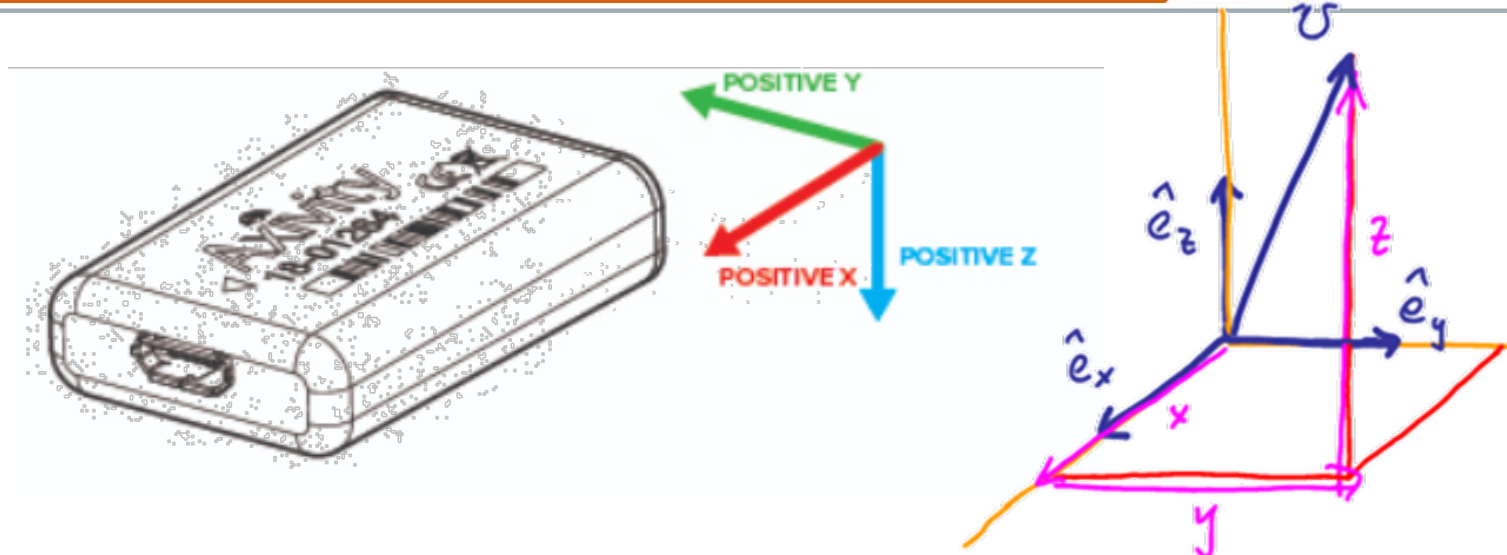


- Lightweight and small
- Waterproof
- Easy data download (USB)



- Worn on upper thigh for 8 consecutive days
- Put on by R using gauze pads and medical adhesive tape





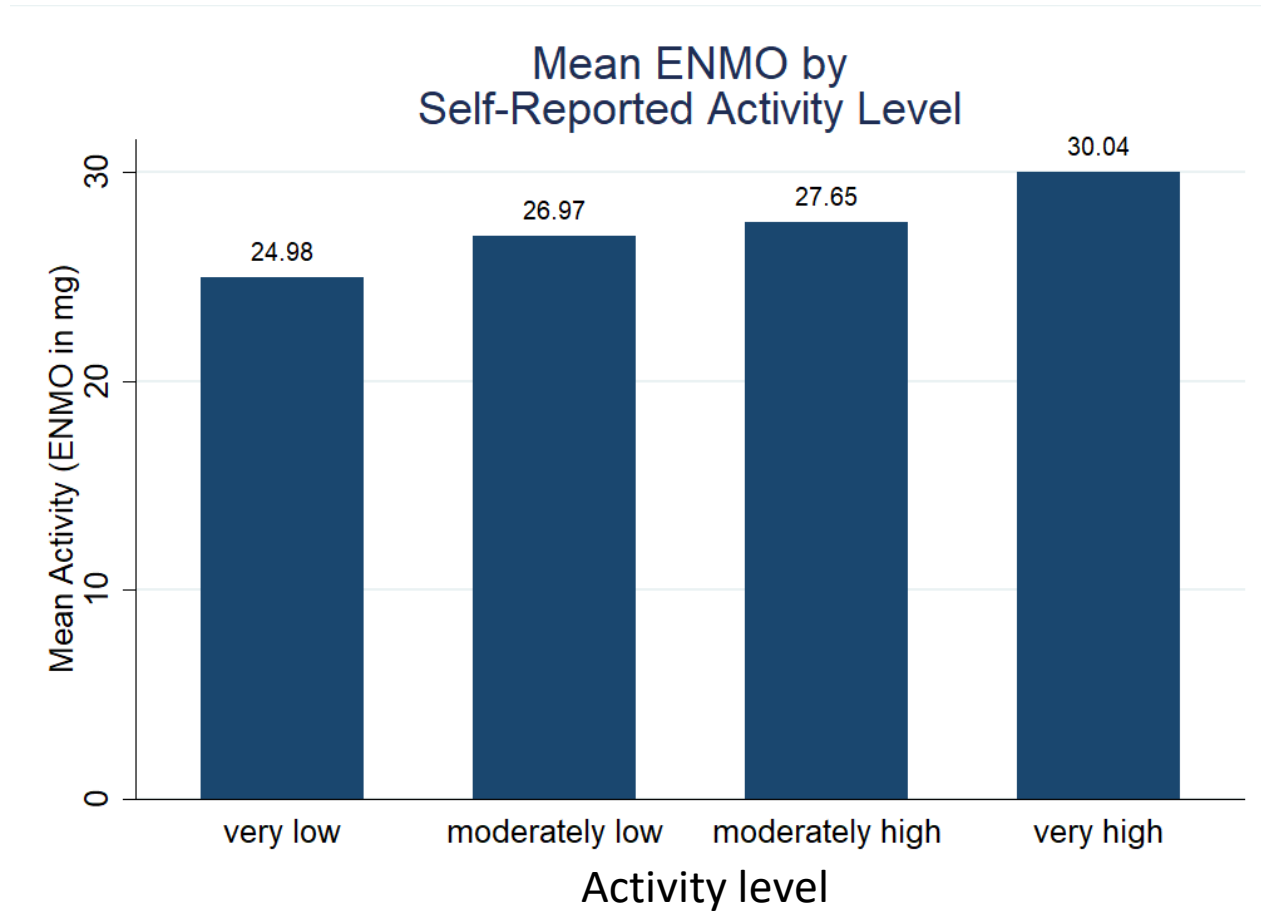
- Combine three vectors to one measure:
 - Euclidean norm (vector magnitude)

$$ENMO = \sqrt{x^2 + y^2 + z^2} - 1$$

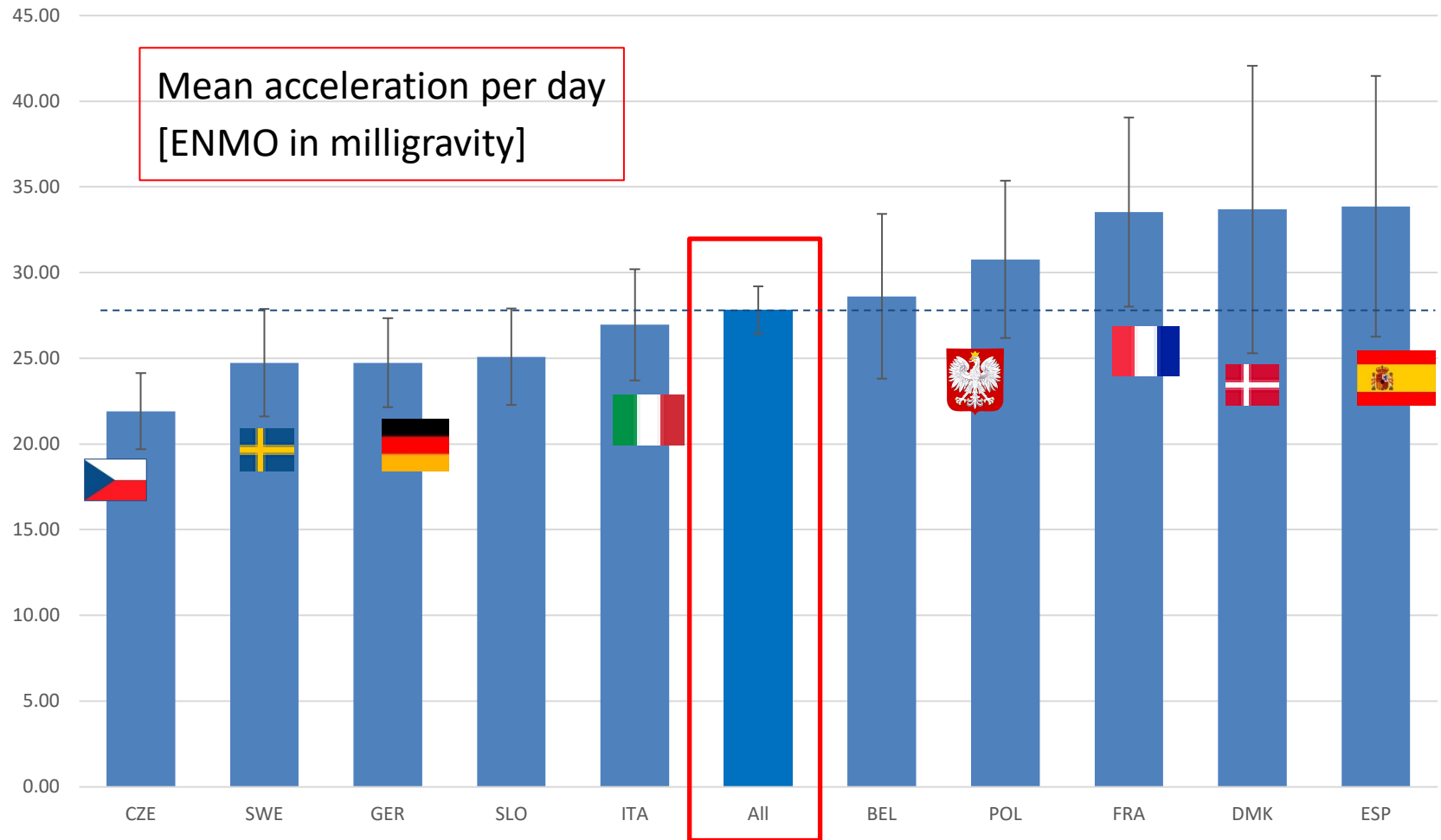
- R-package: GGIR

- Wave 8 (Nov 2019-Mar 2020)
- 10 countries
 - BEL, CZE, DEN, ESP, FRA, GER, ITA, POL, SWE, SLO
- Gross sample was drawn based on information from previous waves
 - Plan was about 750 per country
 - Oversampling of inactive and older respondents
- Stopped due to COVID-19: ~840 respondents

Results: face validity



Results: Accelerometry by country



Results: Self assessment vs. accelerometry

Standardized score [Std.Dev.]

