

International Society of Exposure Science — 2022 Annual Meeting

Advancing the New European Bauhaus for Environmental Health and Wellbeing – the AdNEB project

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Personal Financial Interests:	Nothing to disclose

Overview

Methods

- *New European Bauhaus and ideas for advancing it*
- *German Environmental Survey (GerES V, 2014-17)*

Results

- *Walking times to public green space in urban areas*
- *UBA’s concept of a qualitative inner urban development*

Conclusions, outlook and discussion



The New European Bauhaus (NEB)

NEB is an **2020 initiative by the European Commission**. It shall trigger a creative and interdisciplinary movement **expanding the European Green Deal**. The main goal is to find new ways for Europe to become **climate neutral by 2050**.

The historic Bauhaus complemented the transition to an industrial society. In this tradition, NEB should strengthen the transition to sustainability in the building sector.

EU building sector: 40 % of total final energy consumption and 36 % of CO₂ emissions.



Advancing the New European Bauhaus (AdNEB, 2022-2025)

AdNEB provides a **conceptual and interdisciplinary contribution** to the idea of the New European Bauhaus for urban spaces.

The current **focus** of the NEB on construction **will be expanded** to additional dimensions

- **green and open spaces,**
- **health and well-being,**
- **environmental justice,**
- **climate change adaptation, and**
- **active and sustainable mobility.**



Source: William Dross / UBA

AdNEB for Exposure Science and Environmental Health

Various aspects of cities and our homes influence our **exposure to health-relevant stressors** and access to **health-promoting resources**.

Built environment

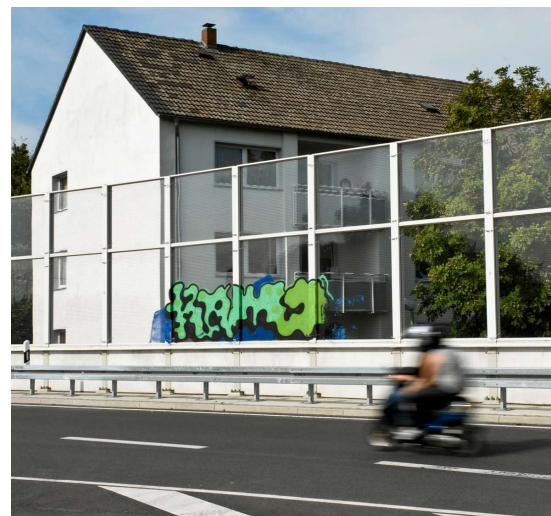
- *Emissions from building products*
- *Humidity and molds*

Urban Mobility

- *Noise*
- *Air pollution*
- *Promotion of physical activity*

Green space

- *Urban heat islands*
- *Air pollution*
- *Promotion of physical activity and recreation*



Source: Harald07 / Fotolia.com

GerES V and KiGGS Wave 2

The **German Environmental Survey for Children and Adolescents 2014-2017 (GerES V)** is a population-representative study on **3 to 17-year-olds in Germany**.

GerES V includes human biomonitoring, indoor and drinking water monitoring, and **standardized interviews**, i. a. on the **walking time to reach specific locations**.



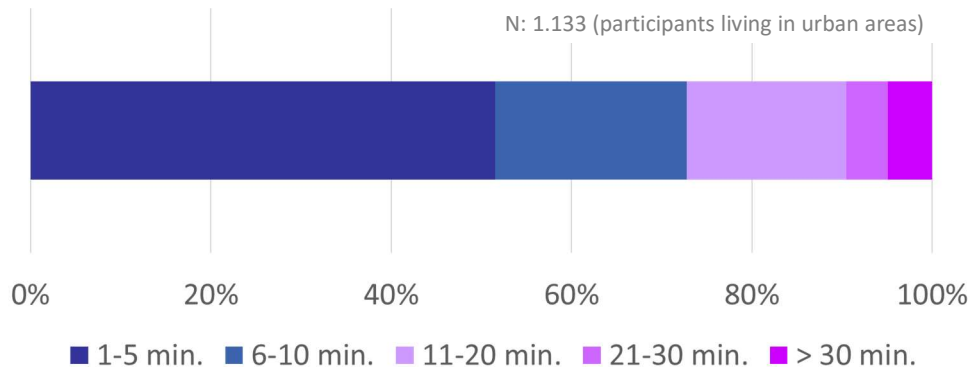
Source: Constanze Fruth

Environmental Module of the 2nd follow-up to the **German Health Interview and Examination Survey for Children and Adolescents (KiGGS Wave 2)** of the Robert Koch-Institute (RKI)



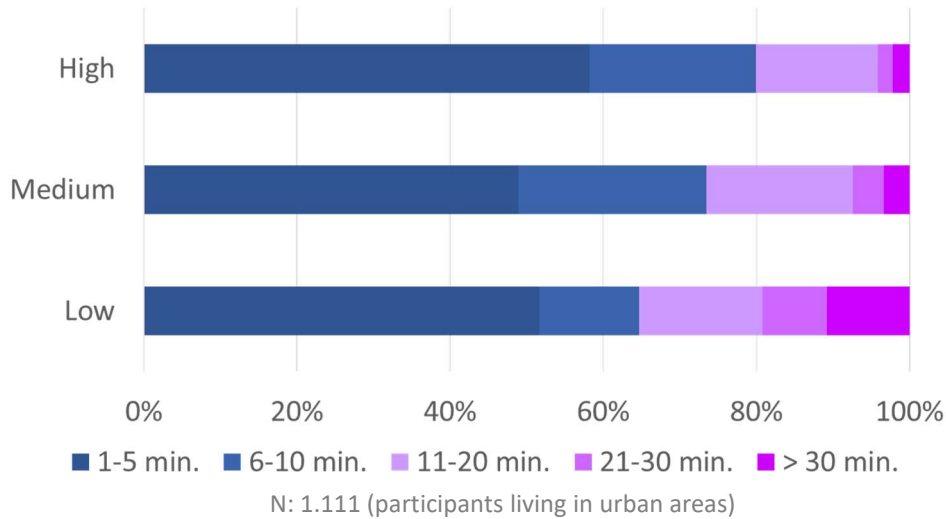
Cooperation: **Environment + Health**

Walking Time of Children and Adolescents to Public Green Space, Urban Areas (2014-2017)



Source: Rehling et al. (2020) <https://doi.org/10.3390/ijerph18052326>

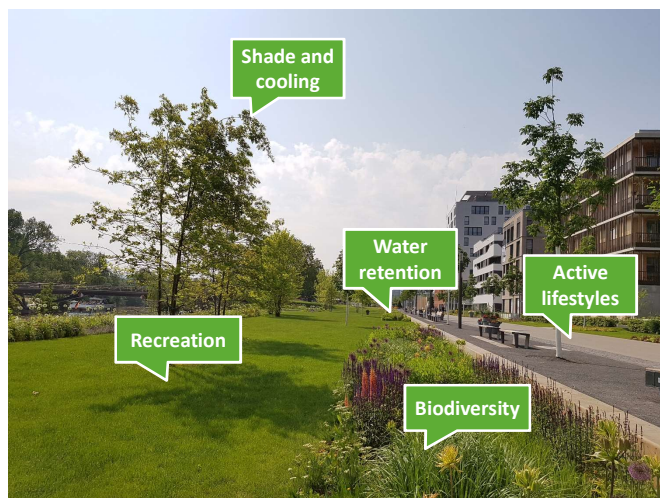
Walking Time to Public Green Space by Socio-economic Position (2014-2017)



Source: Rehling et al. (2020) <https://doi.org/10.3390/ijerph18052326>

Context: Green Space

-  More than **25 %** of children and adolescents in urban areas **cannot** reach a public green space on foot **within 10 minutes** from home ²
-  Gradient by socio-economic position ²
-  Average of **30 – 40 %** green space per total build area ¹
-  Approx. **6 – 13 m²** of recreational space per person ¹
-  Orientation value: **20 m² per person** urban green ³



1) BBSR 2022; 2) GerES V (2014-2017), 3) BBSR 2017, Photo: Alice Schröder, UBA

Strengthening Integrated Perspectives: Qualitative Inner Urban Development

- Reducing private motorized transport (i. e. more public transport & active mobility)
- Urban green spaces are „multi-talents“ for health, climate adaptation, etc.
- Develop a compact inner city (city of short distances)
- Concepts for solving conflicting interests are necessary

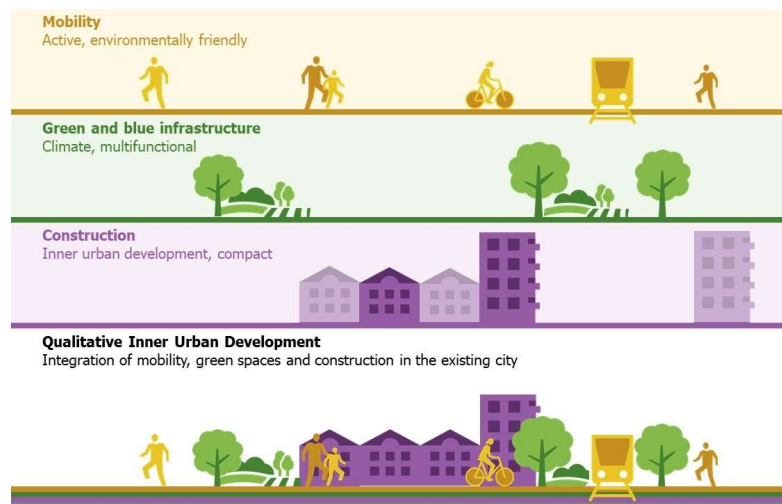


Figure: Karl Eckert

Conclusions

- The **New European Bauhaus** offers various interfaces to **exposure science, health and well-being, and urban environmental justice**.
- **AdNEB** is integrated research broadening the view by including aspects of **inner urban development and urban mobility**.
- GerES reveals **many facets of potential health-related disadvantages** of vulnerable **population sub-groups** in urban settings.



Source: pixabay.com, Pexels

Outlook

- GerES data evaluation:
 - Investigate relevance of **private green spaces** (e.g. gardens)
 - **Walking time to other places** (e.g. blue spaces, sports fields, and bus stops)
- Support **integrated and inter-sectoral planning** by engaging with relevant stakeholders and understanding the various interests
- **Networking** also outside of the German national context, working together with different scientific fields



Source: Martin Stallmann / UBA

Muito obrigado pela vossa atenção.

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