

Little bests in town

How environment and urbanization can drive children's health

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Every child deserves a healthy start in life

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Children's lifestyle behaviors track into adulthood

Source: e.g. Singh et al., 2008, Obes Rev

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Healthy lifestyle

Source: e.g. Verjans-Janssen et al., 2018, Plos One

Physical
activity

Fruit

Vegetables

Exposed to different settings

Other

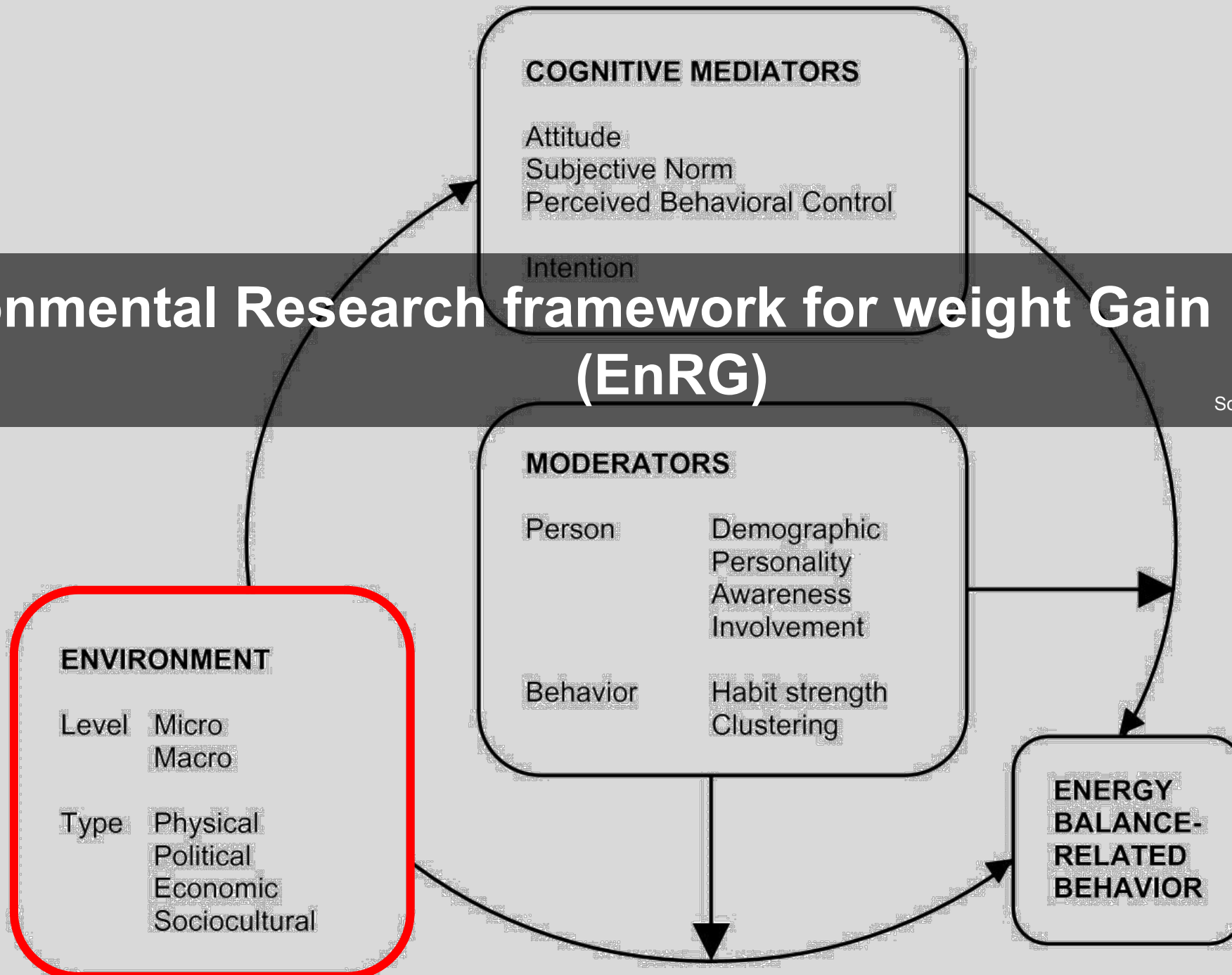
School

Home

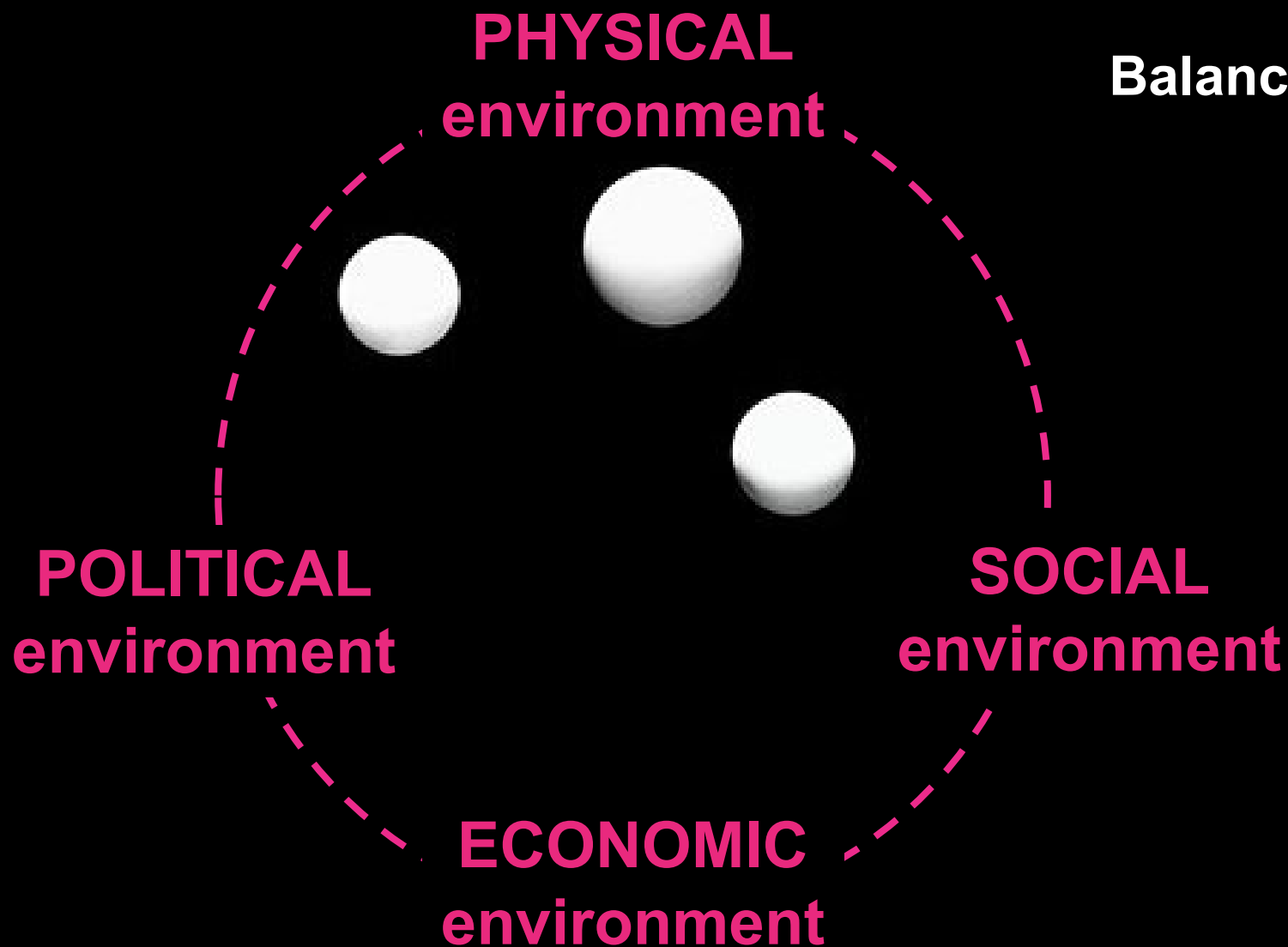
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Environmental Research framework for weight Gain prevention (EnRG)

Source: Kremers et al., 2006, IJBNPA



Balancing / Interacting



A large, dense crowd of people is shown from a high angle, filling a city street. The image is slightly blurred, emphasizing the sheer number of individuals. A semi-transparent dark grey rectangular box is positioned in the upper right corner, containing the word 'Urbanization' in white. Another semi-transparent dark grey rectangular box is centered horizontally across the middle of the image, containing the equation 'Impact = Effectiveness x Reach' in white. In the bottom right corner, there is a logo for 'Fontys Sporthogeschool' featuring a stylized white bird icon above the text 'Fontys' and 'Sporthogeschool' below it.

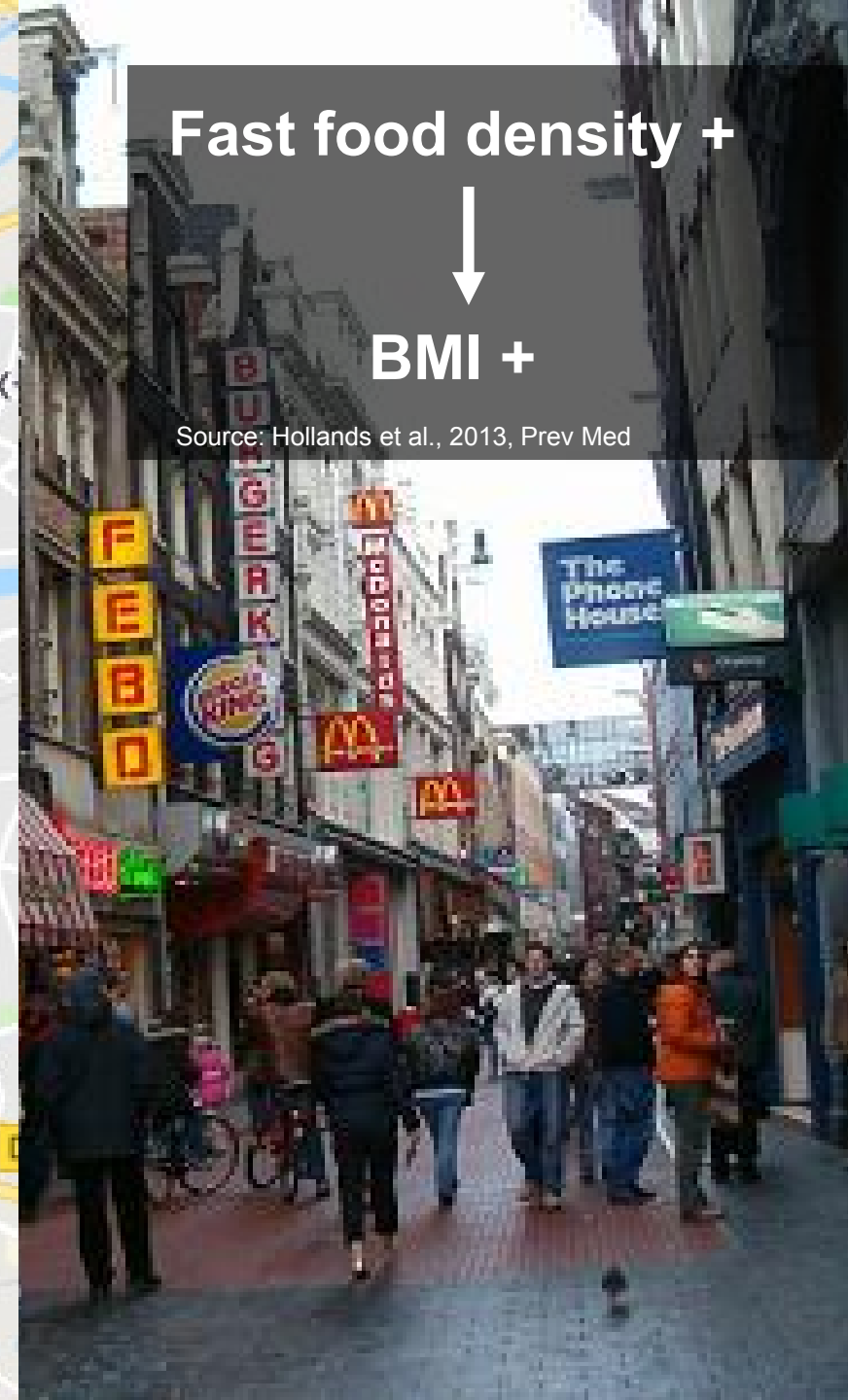
Urbanization

Impact = Effectiveness x Reach

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Urbanization

Impact = Effectiveness x Reach



Fast food density +



BMI +

Source: Hollands et al., 2013, Prev Med



Healthy food outlets +



Healthy Nutrition +

Source: Pessoa et al., 2016, BMC Public Health



Availability +



F&V intake +

Source: Lee et al., 2017, IJBNPA

ENCOURAGING HEALTHIER EATING HABITS

Direct provision +
(e.g. EU School Fruit,
as part of school policies)



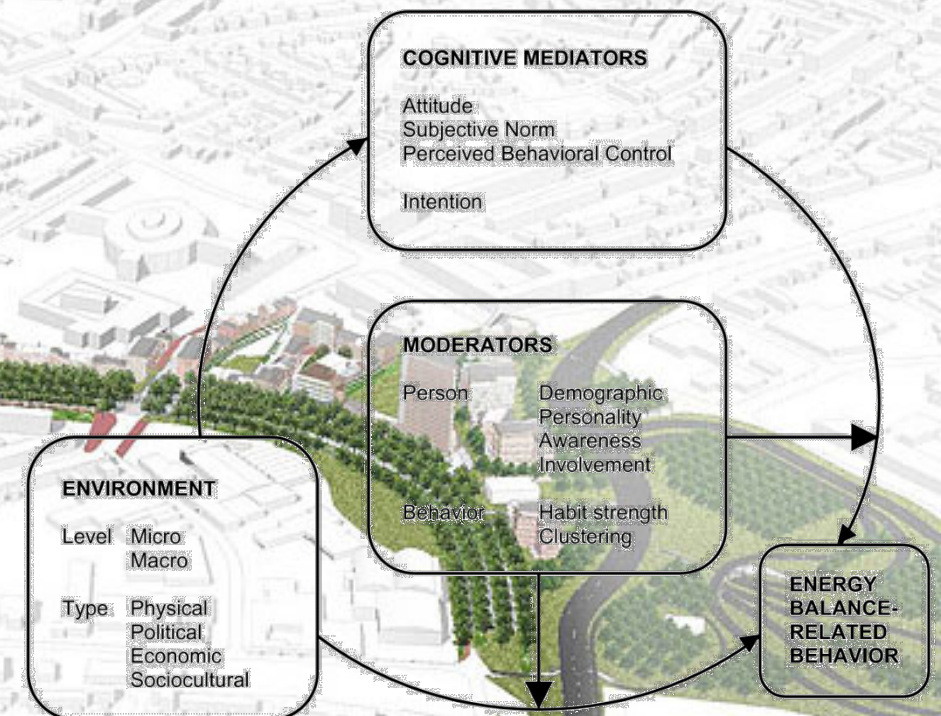
F&V intake +

Source: Micha et al., 2017, Plos One

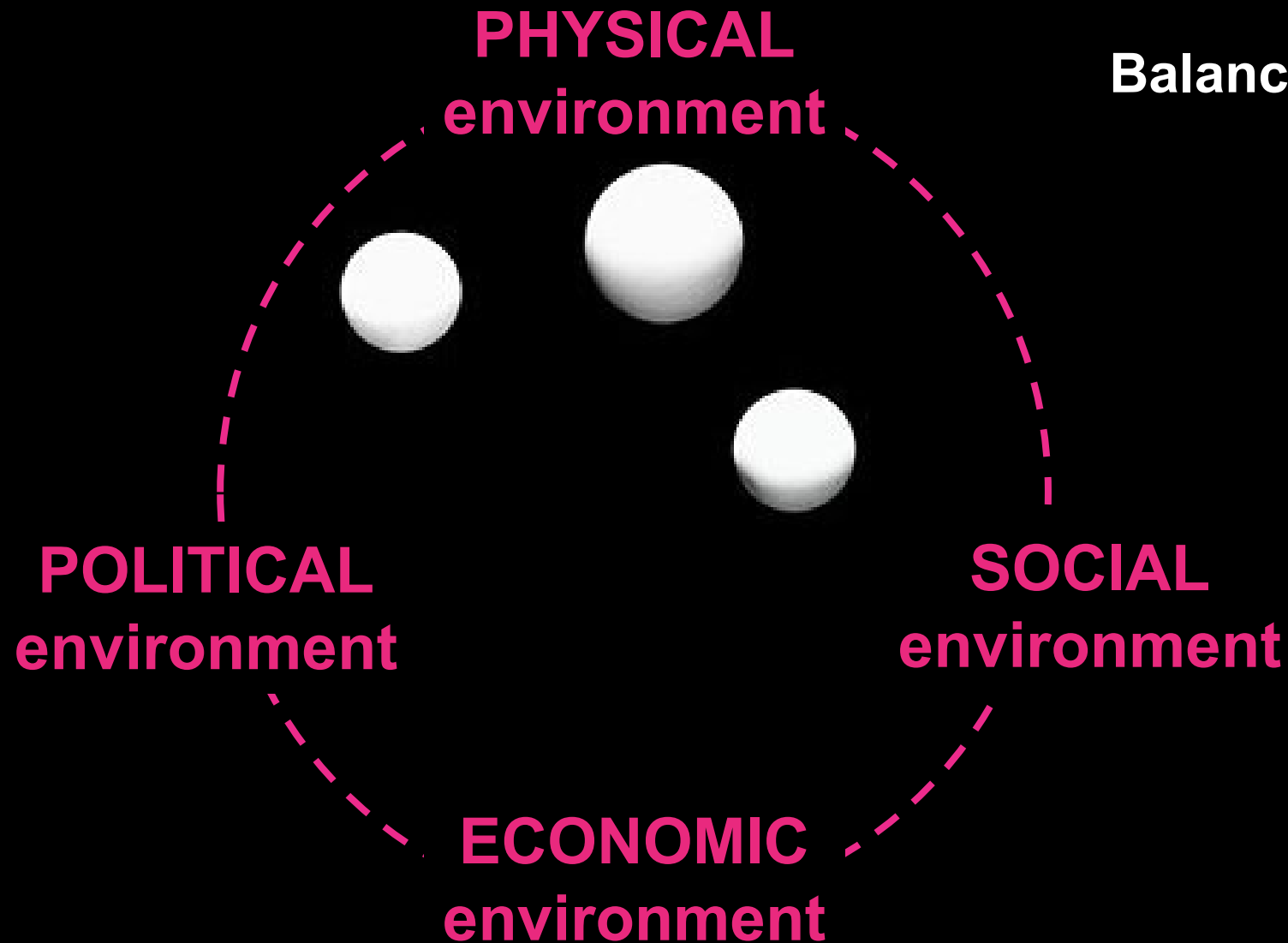


Changing environments → break (un)healthy habits

Source: e.g. Neumark-Sztainer et al. 1999, J AM Diet Ass; Albani et al., 2018 Appetite

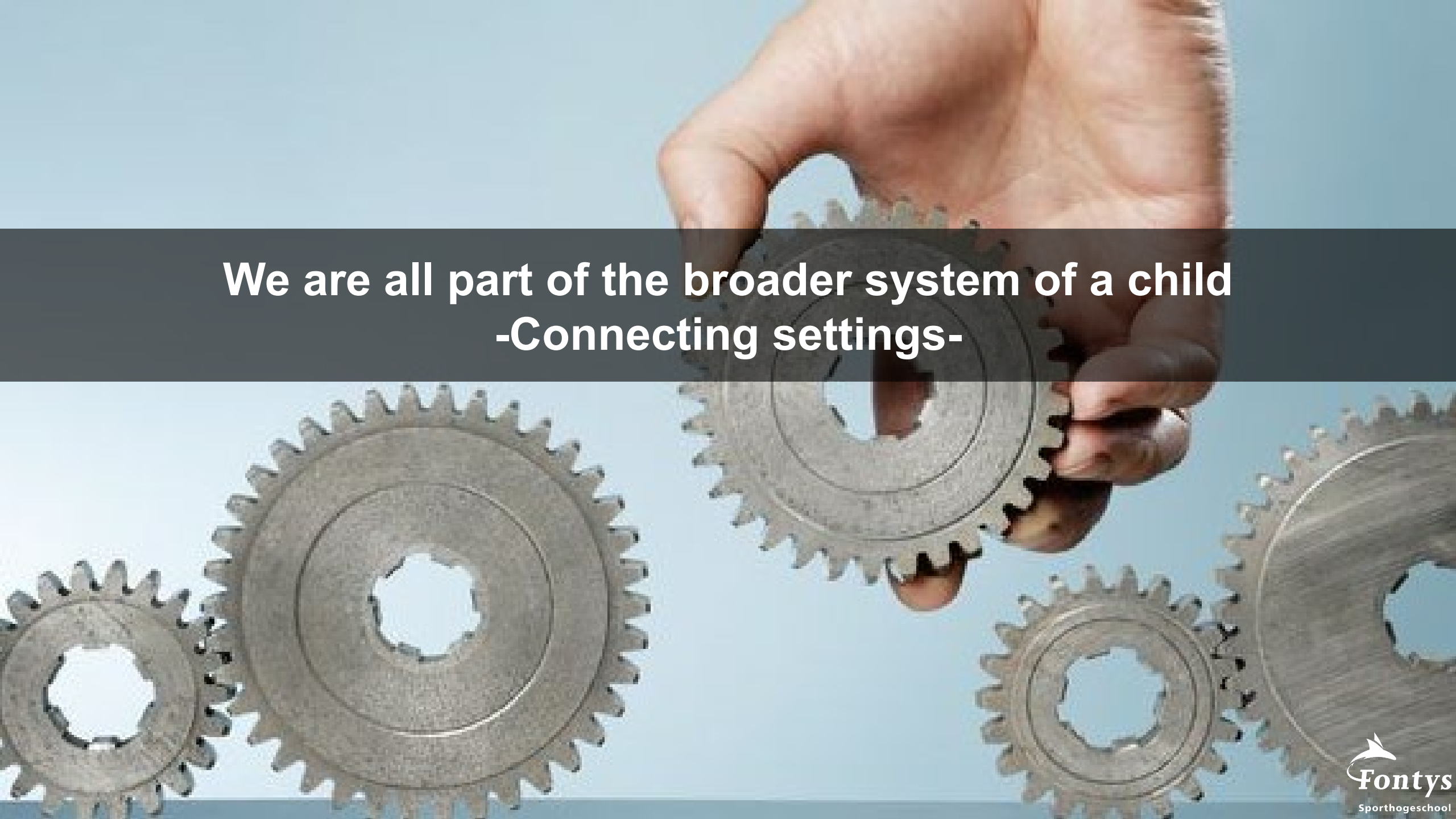


Balancing / Interacting

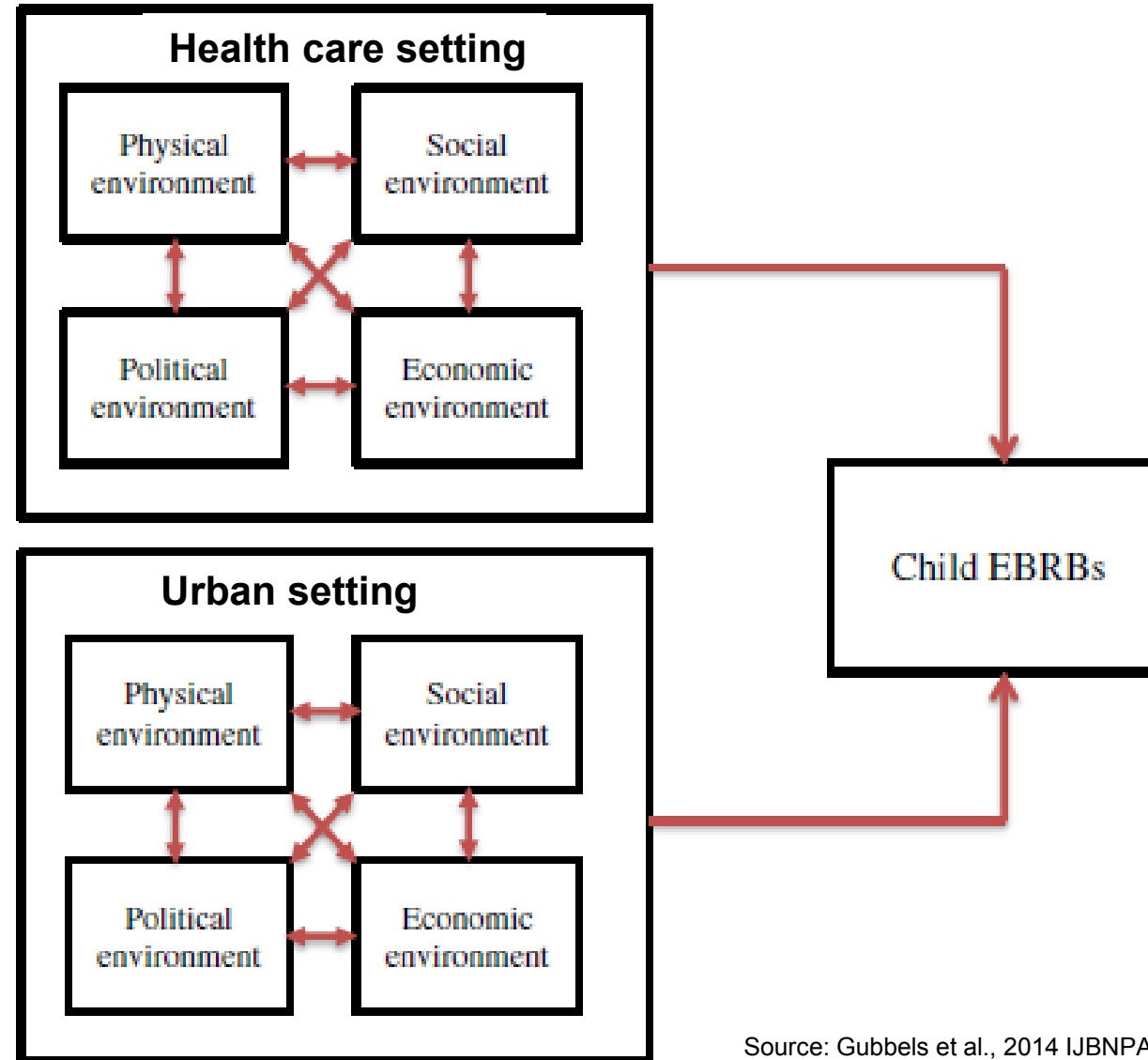


A close-up photograph of a human hand adjusting a large, metallic gear. The gear is part of a larger system of interlocking gears of various sizes, all made of a dark, textured metal. The background is a solid, light blue color. The hand is positioned at the top right, with fingers gripping the gear's teeth. The text is overlaid on a dark grey horizontal band across the middle of the image.

‘The environment’ is an outcome of an interplay between all types of environment across multiple settings on different levels

A close-up photograph of a hand placing a metal gear into a system of other gears. The gears are of various sizes and are arranged in a way that suggests they are part of a larger mechanical system. The background is a solid light blue color.

**We are all part of the broader system of a child
-Connecting settings-**



Source: Gubbels et al., 2014 IJBNPA



Interactions between types of environment show synergetic outcomes in children's EBRB

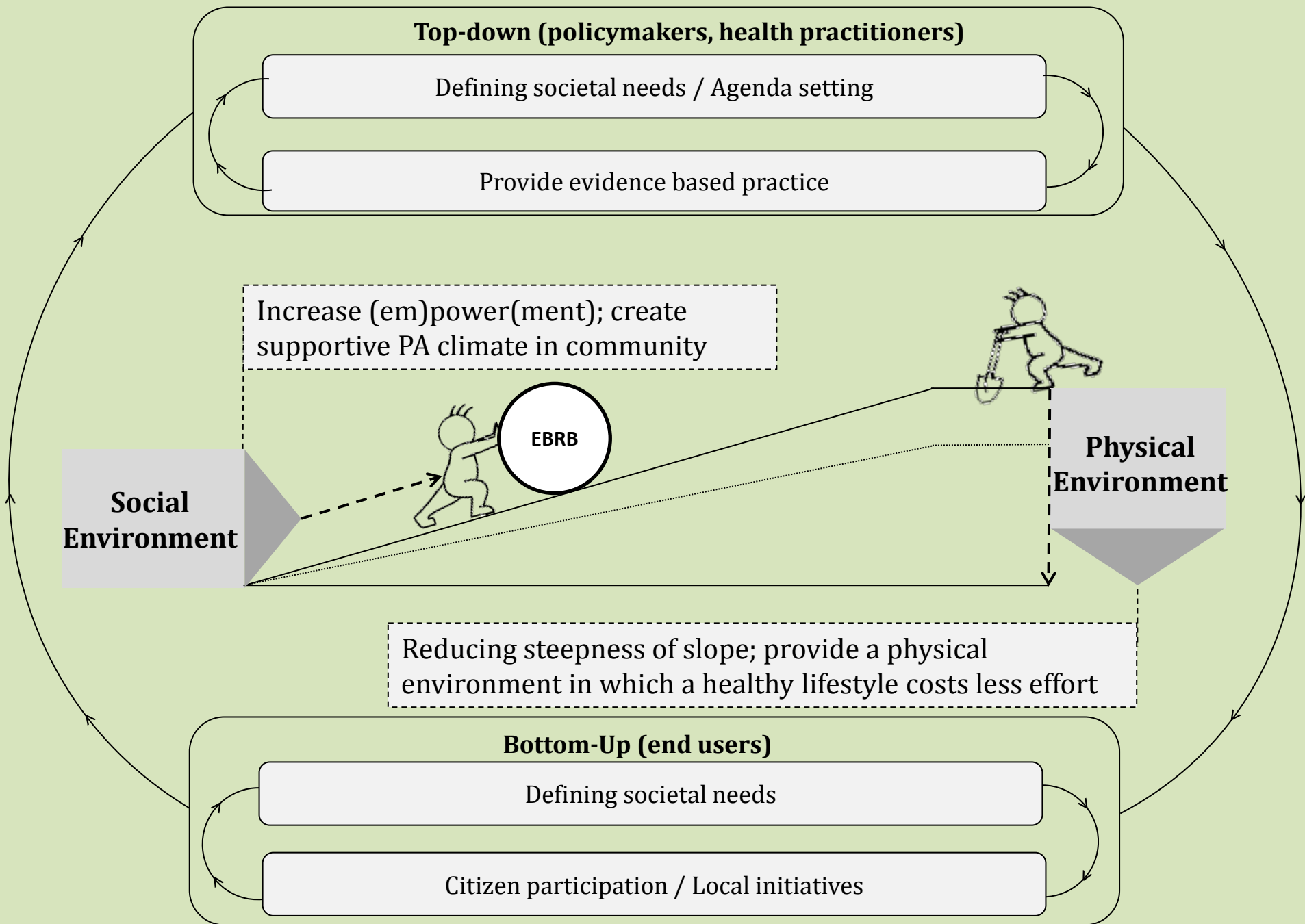
Source: Gubbels et al., 2011 Health Psych; 2014, IJBNPA; 2018 IJERPH; Van Kann et al., 2016 Prev Med

Top-down, bottom-up



Creating an optimal fit





A hand is shown holding a large, dark, metallic gear. Several other similar gears are visible in the foreground and background, all set against a light blue background. A dark grey horizontal band is superimposed over the middle of the image, containing the text.

From science to practice









To wrap up

1. **Urbanization is a major chance for creating sufficient impact by F&V and other lifestyle interventions**
2. **Creation of health-supportive environments contain changes in multiple types of environment (and are tailored to the needs of vulnerable populations)**
3. **Environments in which healthy alternatives take less effort than current unhealthy patterns are most likely to be successful in changing lifestyle behaviors**
4. **Health-supportive environments should be co-designed by end-users to become effective**
5. **Focus on the broader system in which children operate; children are exposed to multiple settings throughout the day. Integrative programs are needed, such as providing healthy alternatives in the physical environment in combination with a supportive (urban) social environment, e.g. role modeling by parent or GP**

Thank you for your attention

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