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PLANTYLICIOUS

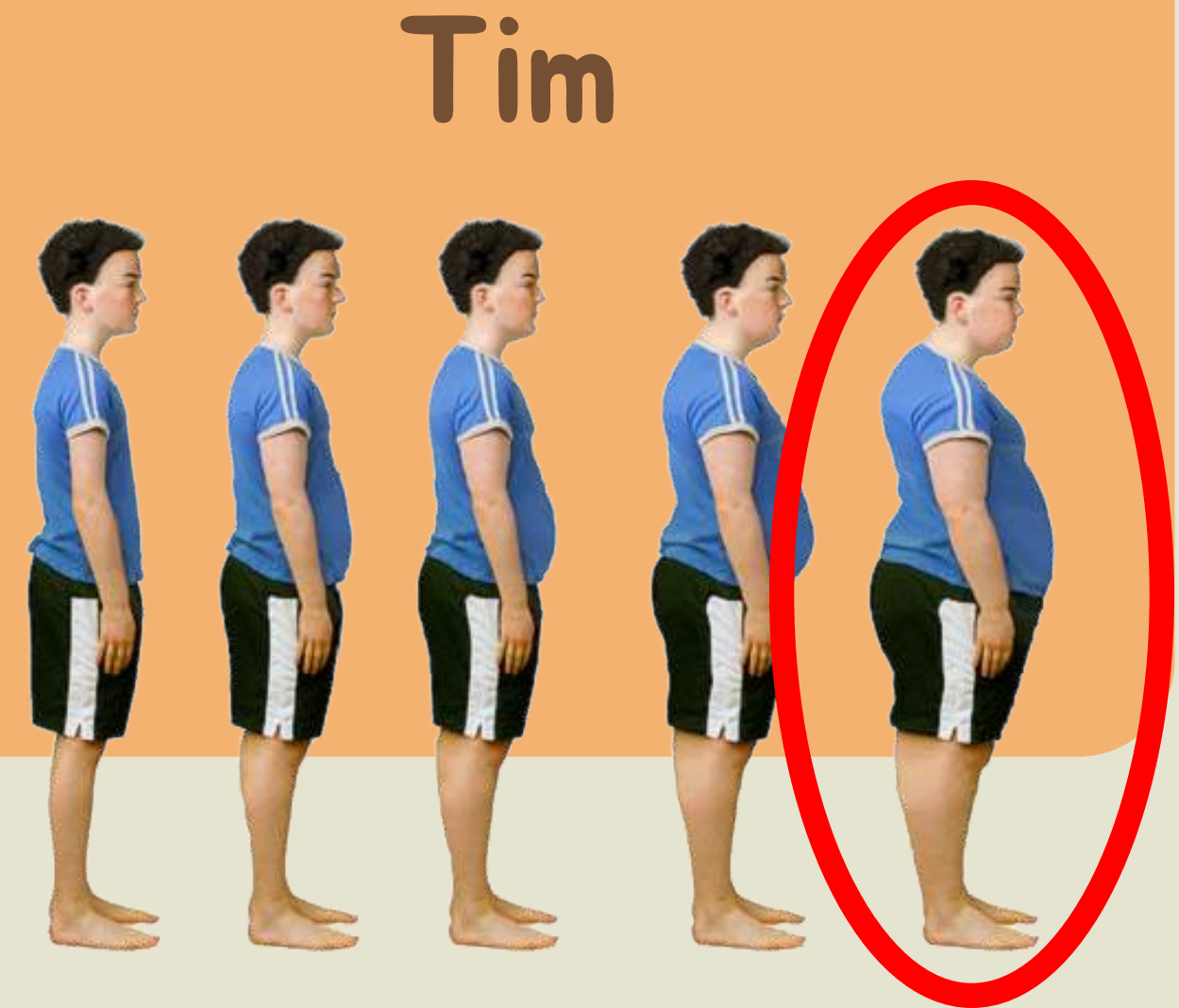
Urban School Farming

Group 8: Jan Kaiser (CZ) – Andreas Wabro (GE) – Jing Qi (SE) – Sofie Pio (DK)

The current problem

Children aged 6-10 from marginalized families

- > No shared meals
 - > No information on healthy food
 - > No money to buy healthy food
 - > High intake of UPF
- > Risk of developing obesity in adolescence
- > Need for prevention in community setting



The solution

Plantylicious©

– Urban School Gardening

- Reuse of plastic bottles using soil and seeds to promote locally grown vegetables
- Taste of healthy food & plant based diet to prevent obesity



Figure 1: Illustration of the Plantylicious© system installed in a school.

A terrarium setup featuring a 3D printed wooden stand that holds a glass bottle inverted to serve as a water source. The stand is positioned over a glass container filled with dark soil. The background shows a window with greenery outside.

Existing free model

Just 3D print it!



Trading cards

- Gamification for children
- Motivation and activation of target group
- Information on nutrition facts
- Recipes using the produce from the Plantylicious© system



Figure 2: Children trading Plantylicious© Cards

EXAMPLE



“From seeding to feeding”



Scientific studies



Gardening, Nutrition, and Cooking reduce obesity in children

Davis et al. LA Sprouts: A Gardening, Nutrition, and Cooking Intervention for Latino Youth Improves Diet and Reduces Obesity. *J Am Diet Assoc* 2011, 111(8): 1224-1230.

School gardening improves BMI

Rochira et al. School Gardening Activities Aimed at Obesity Prevention Improve Body Mass Index and Waist Circumference Parameters in School-Aged Children: A Systematic Review and Meta-Analysis. *Childhood Obesity* 2020 16:3, 154-173.

Advantages

- ✓ Promotion of healthy eating
- ✓ Increased vegetable consumption
- ✓ Encouragement of physical activity
- ✓ Stress reduction and emotional well-being
- ✓ Integration of physical and environmental education
- ✓ Long-term healthy habits

Implementation & Costs

Feasible (existing ecosystem) and low costs (raw materials)

City council proposes concept

City council provides models

City council provides
funding for implementation

Schools implement concept

Schools gather plastic bottles &
set up racks

Schools allocate staff &
resources to 'Plantylicious'

Goals of Plantylicios©

- Implementing gardening into school setting
- Target population learns how to grow plants
- Deeper understanding of healthy food, plants and nutrition
- Gamification incentivizes motivational change



Thank you

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