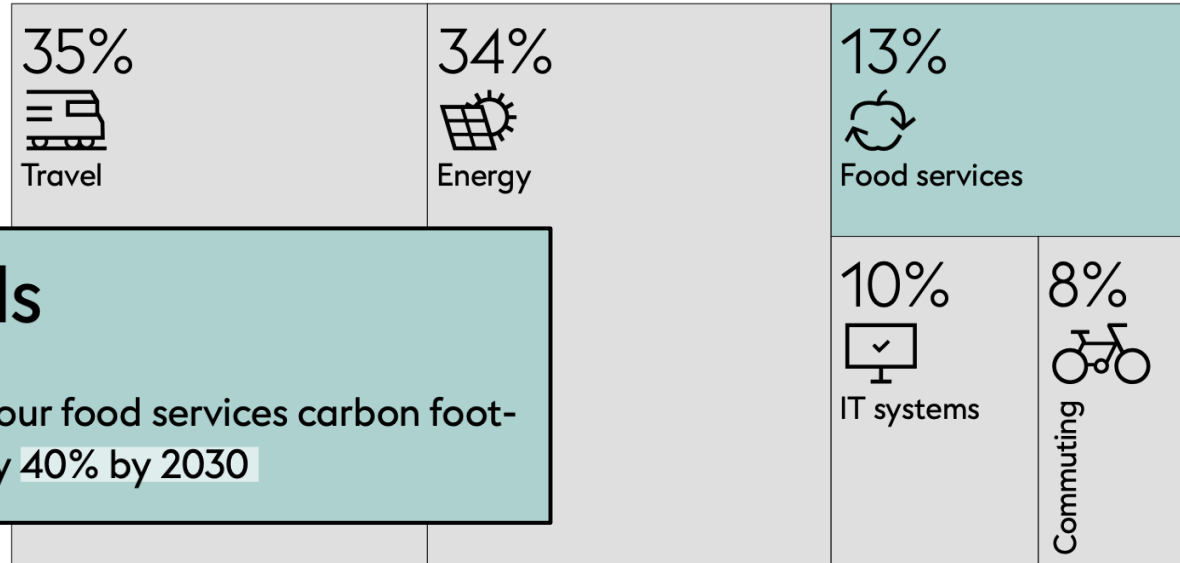


MegaBites

Measuring, Modeling, and Improving the Sustainability of EPFL's Food System

Total CO₂ balance

Breakdown of EPFL's partial GHG emissions in 2019



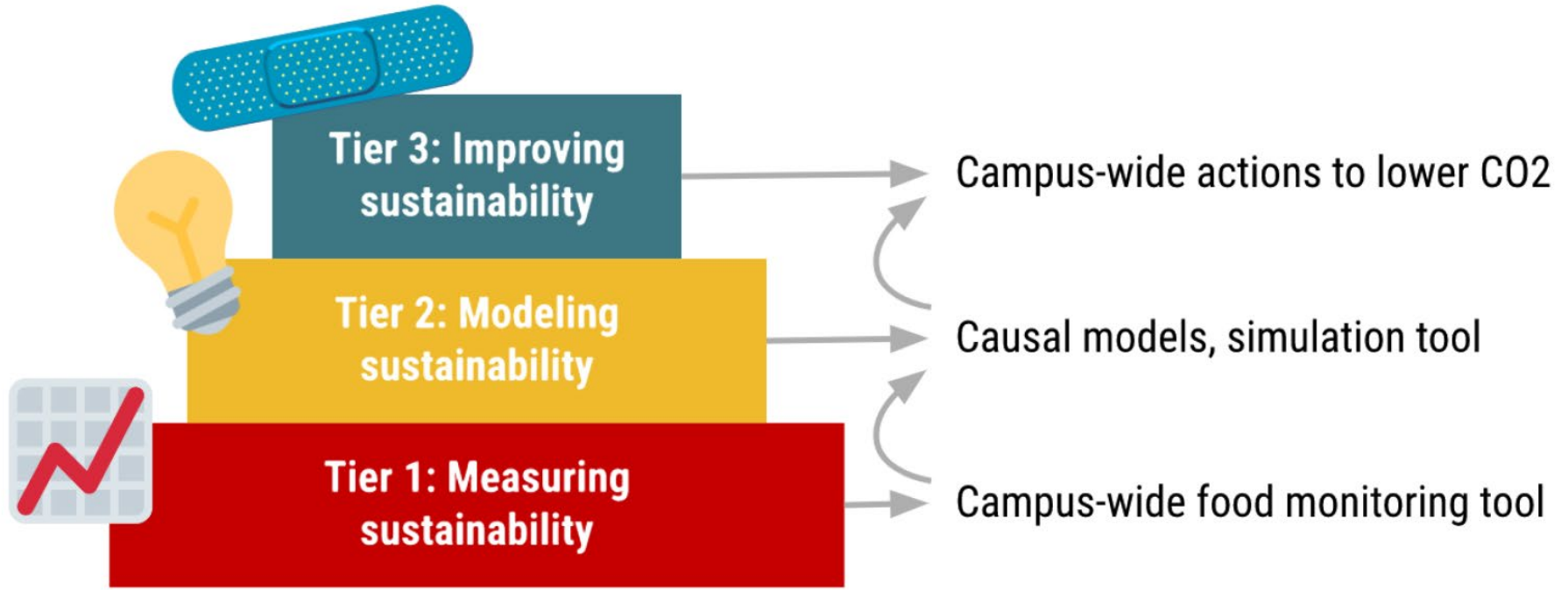


MegaBites mission:

Improve the sustainability of EPFL's food system with data science

- Shrink food carbon footprint by 25–33% by late 2025 (4.7 ↘ 3.1–3.5 kg CO₂e)
- EPFL as a living lab to study food habits
- Insights, models, tools that can be ported to other campuses
- Advance science

Research plan



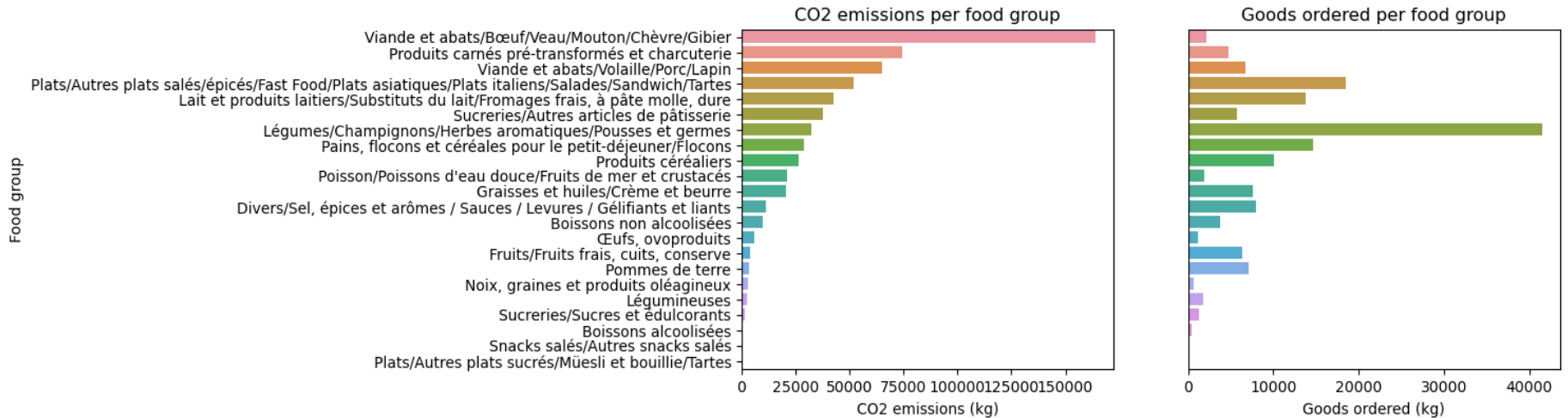
Tier 1: Measuring (un)sustainability

Data integration and existing measures

- 1.5 million meals a year
- 203.5 tons of food ordered (July 2022 to June 2023)
- 19.5 tons of food wasted (July 2022 to June 2023)
- Nutritional scores for all meals

Tier 1: Measuring (un)sustainability

From food groups to ingredients



Tier 2: Modeling sustainability

Causal analysis, who buys what and when

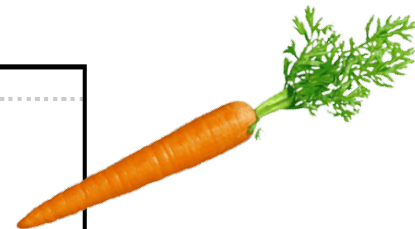
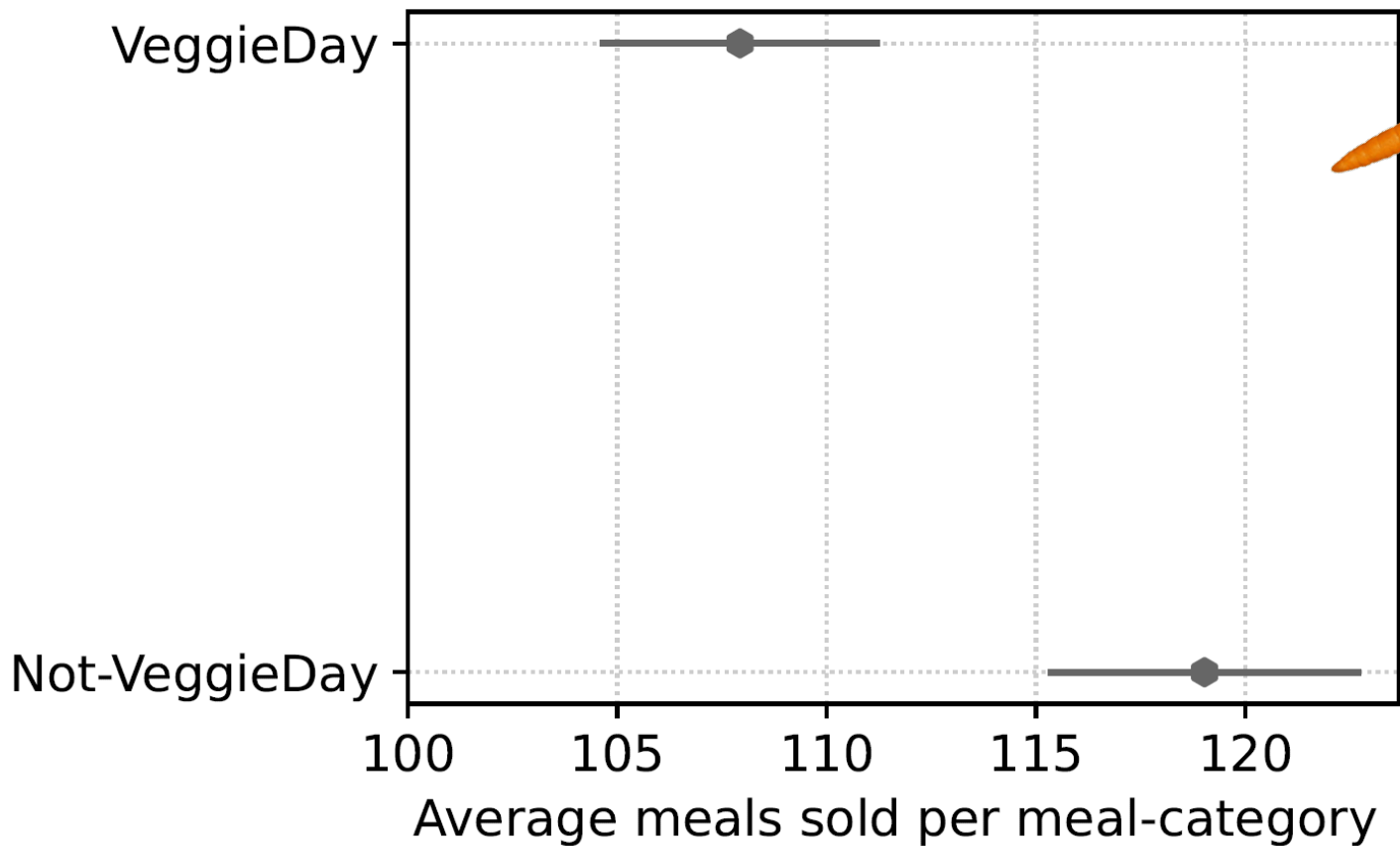
- Interventions to understand food related behaviour
- Evaluate the main determinants of food consumption, status, gender, age.
- Interventions to test promising measures to further reduce footprint

Tier 3: Improving sustainability

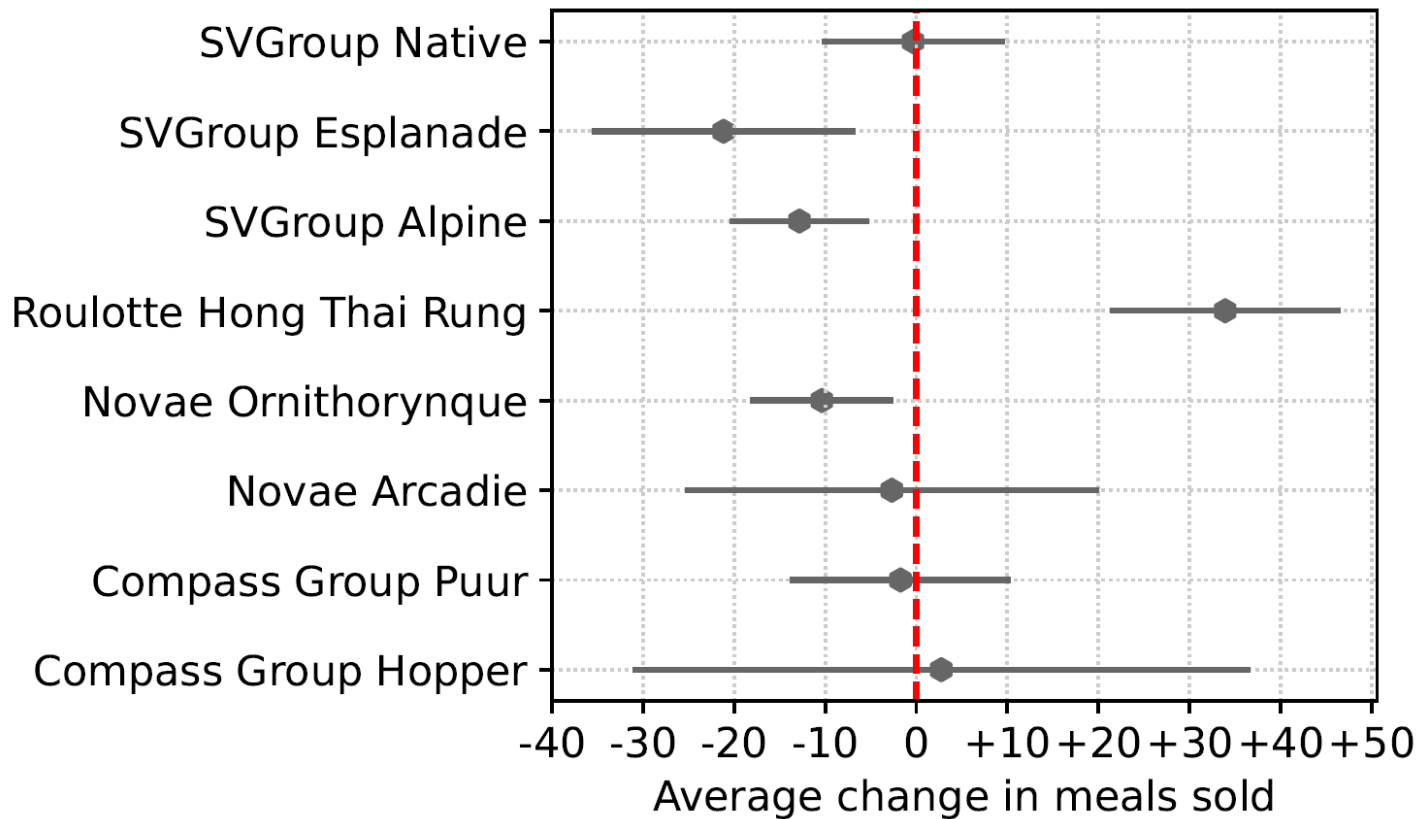
Implement and monitor effective measures at scale

- 25% reduction in CO₂ emissions?
- Measures on the production side, onsite vs offsite
- Changes in consumption, short vs longterm
- Waste reduction and treatment

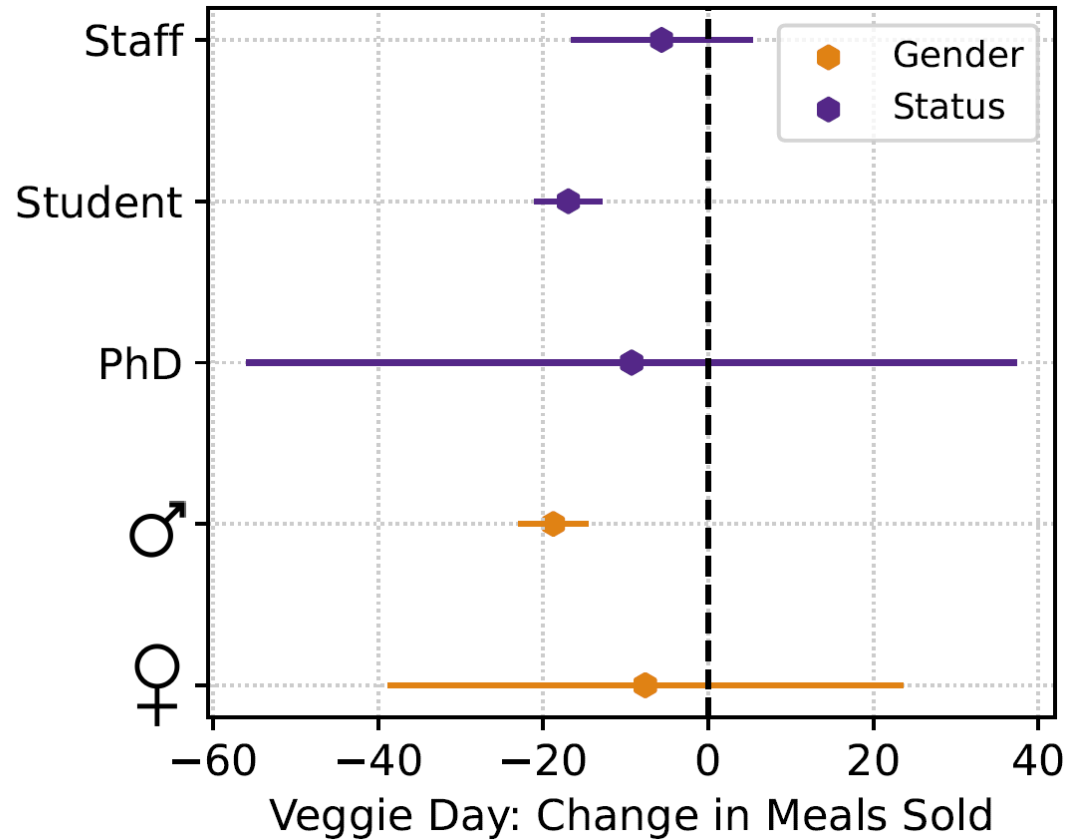
Initial results: Veggie Day



Veggie Day across restaurants



Veggie Day across groups



Thank you for pudding up with us!



Measuring, Modeling, and Improving the Sustainability of **EPFL** 's Food System