



# Promoting Dietary Recommendations in EU Countries: Climate Mitigation, Health Benefits and Welfare Effects

Xavier Irz, Jørgen D. Jensen, Pascal Leroy, Vincent Réquillart & Louis-Georges Soler



- Lack of sustainability of current diets: climate; health
- Nutritionally-adequate and climate friendly diets:
  - More plant-based products
  - Less animal products
- How to get there?



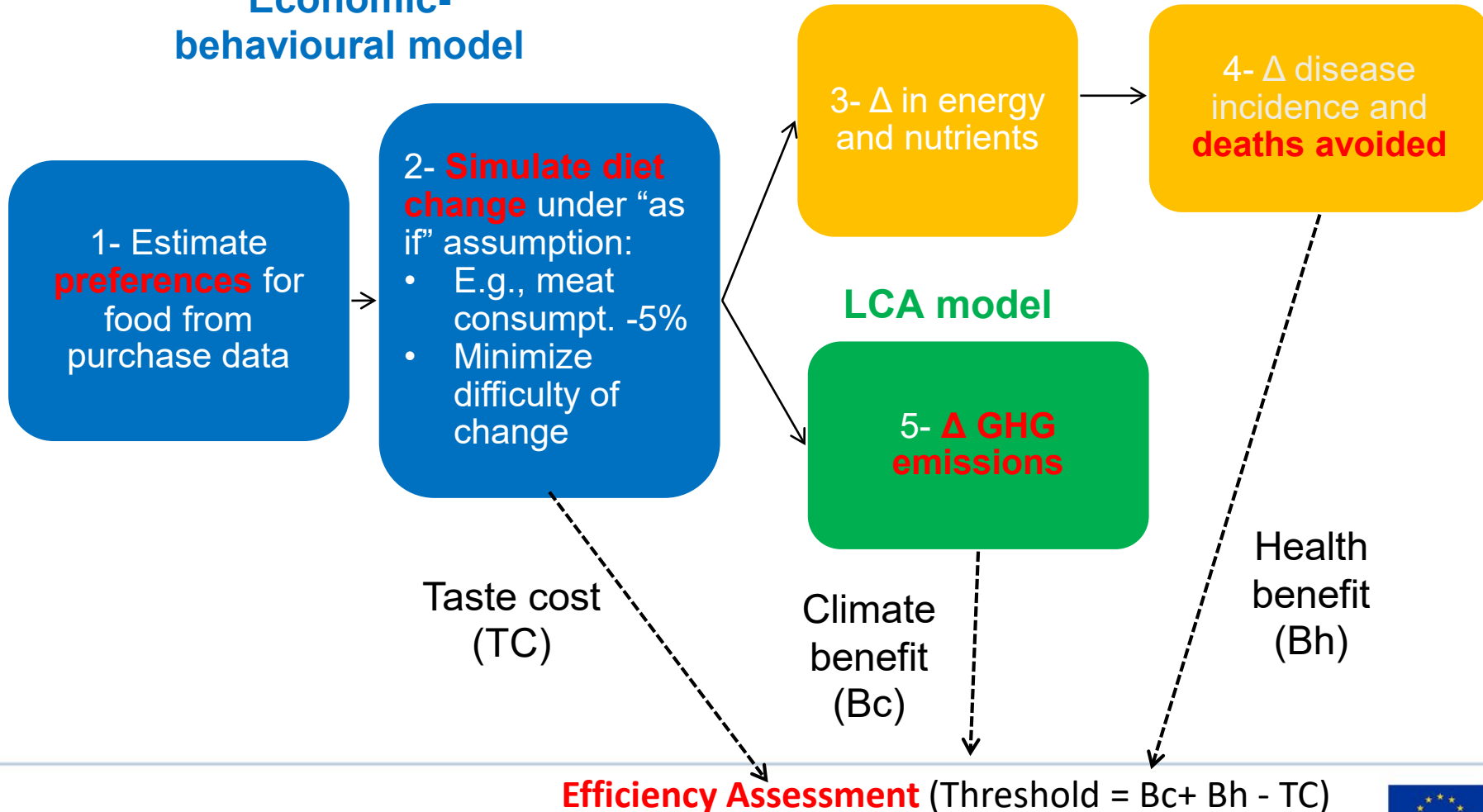
- Fiscal policies – politically difficult, distributional effects
- Informational measures as default policy option but:
  - Modest effects (UK 5-a-day campaign, £8 million, +5-8%, Capacci & Mazzocchi, 2011)
  - Information overload – need for simple messages
  - Compatibility of advocated changes and consumer preferences

- Identify simple dietary recommendations to promote in priority to enhance sustainability:
  - Five messages: more F&V; less meat (all/red); less animal products; less CO<sub>2</sub>e
  - Three EU countries: FR; FI; DK

# Overview of the Approach

## Epidemiological model

### Economic-behavioural model



# Climate Mitigation: % Reduction in GHG Emissions

	F&V +5%	Red meat -5%	All meat -5%	Animal Products -5%	CO <sub>2</sub> e -5%
Denmark	-0.7	-0.01	<b>-1.5</b>	-0.3	-5.0
Finland	-0.3	<b>-1.40</b>	-0.8	-0.2	-5.0
France	<b>-5.1</b>	-1.40	-2.1	<b>0.9</b>	-5.0

- Modest and varied mitigation effects – with one exception. Importance whole-diet substitutions, often within categories
- Pattern of substitution and resulting effects vary across countries – large differences in initial diets and preferences

# Health Benefits – Deaths Avoided as % Total Deaths

	F&V +5%	Red meat -5%	All meat -5%	Animal Products -5%	CO <sub>2</sub> e -5%
<b>Denmark</b>	0.7	-0.2	-0.4	0.9	-0.5
<b>Finland</b>	2.2	0.3	-0.1	0.3	1.7
<b>France</b>	4.4	0.4	0.4	-1.2	1.5

- Synergies health-climate dominate – but not systematic
- Only F&V results in mitigation in 3 countries

# Efficiency Threshold (€million per 10 million people)

	F&V +5%	Red meat -5%	All meat -5%	Animal Products -5%	CO <sub>2</sub> e -5%
<b>Denmark</b>	61	Trade-off	Trade-off	103	Trade-off
<b>Finland</b>	103	31	Trade-off	11	-69
<b>France</b>	73	22	8	Trade-off	46

- Threshold = max budget to promote recommendation, provided that the 5%-target is met
- A majority of thresholds are positive and large
- Best option is country-specific, but each country has at least one large threshold (> €70 million)
- Encouraging F&V consumption is attractive in all three countries
- Focusing on meat or CO<sub>2</sub>e is never the best option



# Conclusions

- Synergies climate-health the rule but some exceptions → Need to examine whole diet-substitutions empirically
- In the three countries, we identify simple messages that deliver climate and health benefits while delivering value for money

# Conclusions (2)

- Best option is always country-specific – need for prioritization at national level
- However, promotion of F&V works in all 3 countries
- More social marketing to promote sustainable diets appears socially desirable
- Some limitations of simulations, and lots of potential extensions