

## Innovation pathways for fruit and vegetable consumption

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#### Content

- Background
- Innovations (consumption, product, circular)
- Innovation strategies (consumer, fruit, vegetables, circular)
- Innovation pathways (high tech, self organisation, collapse)
- Reflection
- Break out session





### Background and aim

Fruit and vegetable consumption is below recommended levels

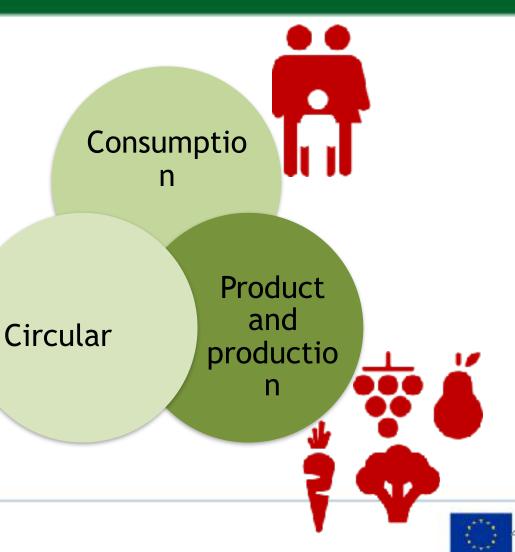
 Aim: to identify innovation pathways in the fruit and vegetable chain from a consumer perspective





#### Innovations

Ways to support the increase of fruits and vegetable intake.





## Consumption related innovations

- Targeting different groups of consumers (demographics, attitudes, health status)
- Motivation opportunity and availability (willingness and enablers to change)
- Considering social context cultural identity (habits and traditions)
- Communicating to inform (education, knowledge)
- Improving acceptance of new technology or new products





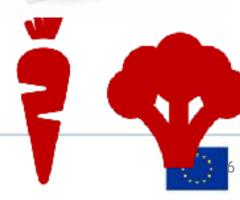


# Product and production innovations

- Product innovations
  - New varieties, quality, taste
- Packaging and branding
  - Tailored to channel, recyclability
- Processed products
  - Convenience, hybrid products
- Production chain
  - More efficient, less pesticides, social welfare









#### Circular innovations

- Rest streams
  - Animal feed
  - Package
  - Others ..... durable products



- Food waste
  - Support planning, buying, storing, preparing and left-overs

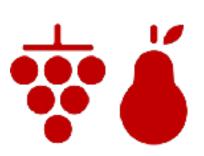




## Innovation strategies

 Combinations of actions where innovations from the perspective of consumer, product, context and or circular are integrated













## Innovation strategies

- Consumer related innovation strategies
- Support targeting:
  - Combine groups of consumers with specific product, context, and tailored communication.
  - Support providing information about F&V health perception towards specific target groups.
- Making consumers aware of their overestimation of own F&V consumption.







- Fruits and vegetable related innovation strategies
- Support seasonal and local fruits and vegetables.
- Support the guidelines to eat less animal-based and more plant-based foods.
- Support more convenient easy to eat or prepared fruits and vegetables.
- Support availability of F&V in different outlets including online shopping.
- Support of fruits and vegetables with higher content of specific nutrients.







- Fruit and vegetable in context innovation strategies
- Support vegetables with larger portions in recipes and dishes.
- Support vegetables at other moments: snack vegetables.
- Support innovative varieties of vegies at regular moments.
- Support innovative varieties of vegies at new moments, for example snack cucumber.





- Consumer choice of fruits innovation strategies
- Support of more local fruit instead of exotic.
- Support more seasonal fruits instead of imported fruits.
- Support to more convenient fruit and processed fruit products.
- Support to eat fruit instead of sweet energy dense snacks





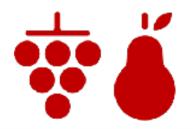
- Consumer choice of vegetable innovation strategies
- Support local or seasonal vegies instead of imported or greenhouse vegies.
- Support to more convenient vegies and processed vegetable products.
- Support eating vegetables at other moments than the warm dish







- Circular related innovation strategies
- Support avoiding food waste.
- Support making use of waste streams.











## Innovation pathways





















## Innovation pathways

- High tech
  - Fully convenient
  - Targeting communication personalized nutrition
- Self organisation
  - Internet of fruits and vegetables
  - Country of origin from tropical to local
- Collapse
  - Empowerment of fruit and vegetable consumer
  - Increase awareness: packages and portions





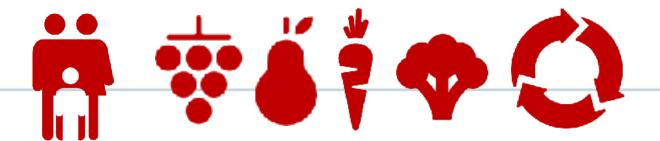






#### reflections

- Fruits and vegetables have different positions with regard to eating habits and production
- Some fruit and vegetable innovations are improving health but not necessarily sustainability
- Uncountable opportunities: combinations of target group, product, context not only including consumption but also production and processing.







### Thanks for your attention!



