

N-FOOTPRINT IN PORTUGAL



HOW DO SPECIFIC DIETS AFFECT NATIONAL NITROGEN FOOTPRINTS - Case of the **MEDITERRANEAN DIET**

Cruz S, Graversgaard M, Cordovil CMdS, Leach A, Galloway J, Serra J

What is a Nitrogen Footprint?

A nitrogen footprint is the amount of reactive N released to the environment as a result of an entity's resource consumption

1 FOOD



2 ENERGY



The impact of **FOOD CHOICES** on a N Footprint

PORTUGAL



MEDITERRANEAN DIET

HOW DO SPECIFIC DIETS AFFECT NATIONAL NITROGEN FOOTPRINTS

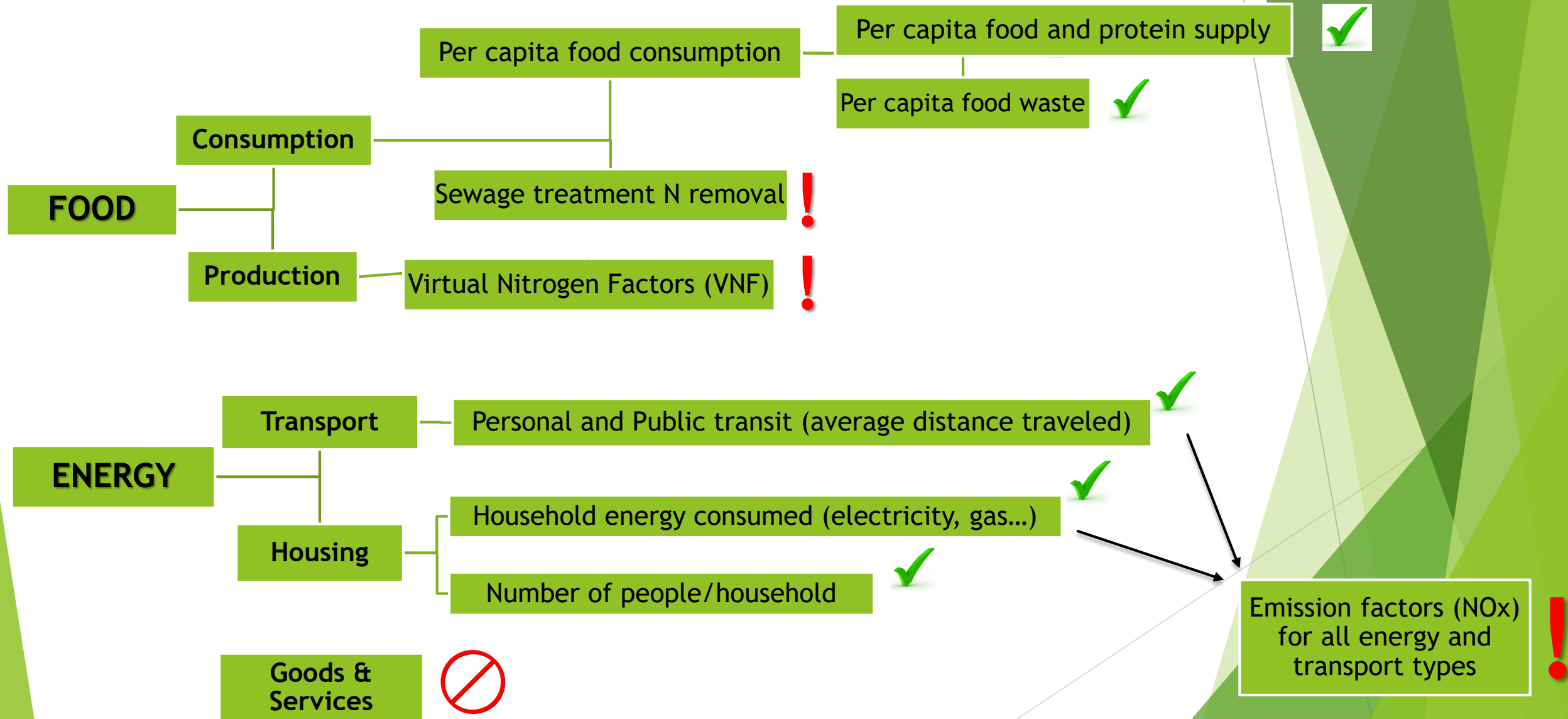
- Case of the MEDITERRANEAN DIET

Objectives

- **Determine the N-Footprint for PT** (personal and agricultural footprint)
- Describe the connection between Diets and Nitrogen (Mediterranean Diet)
- Understand the differences in the country's N-Footprints with the same diet
- Stand out the importance of the **Nitrogen Footprint concept** to help creating awareness of **consumption patterns and environmental problems**

Calculations of the N-Footprint in PT (in progress)

N-Calculator



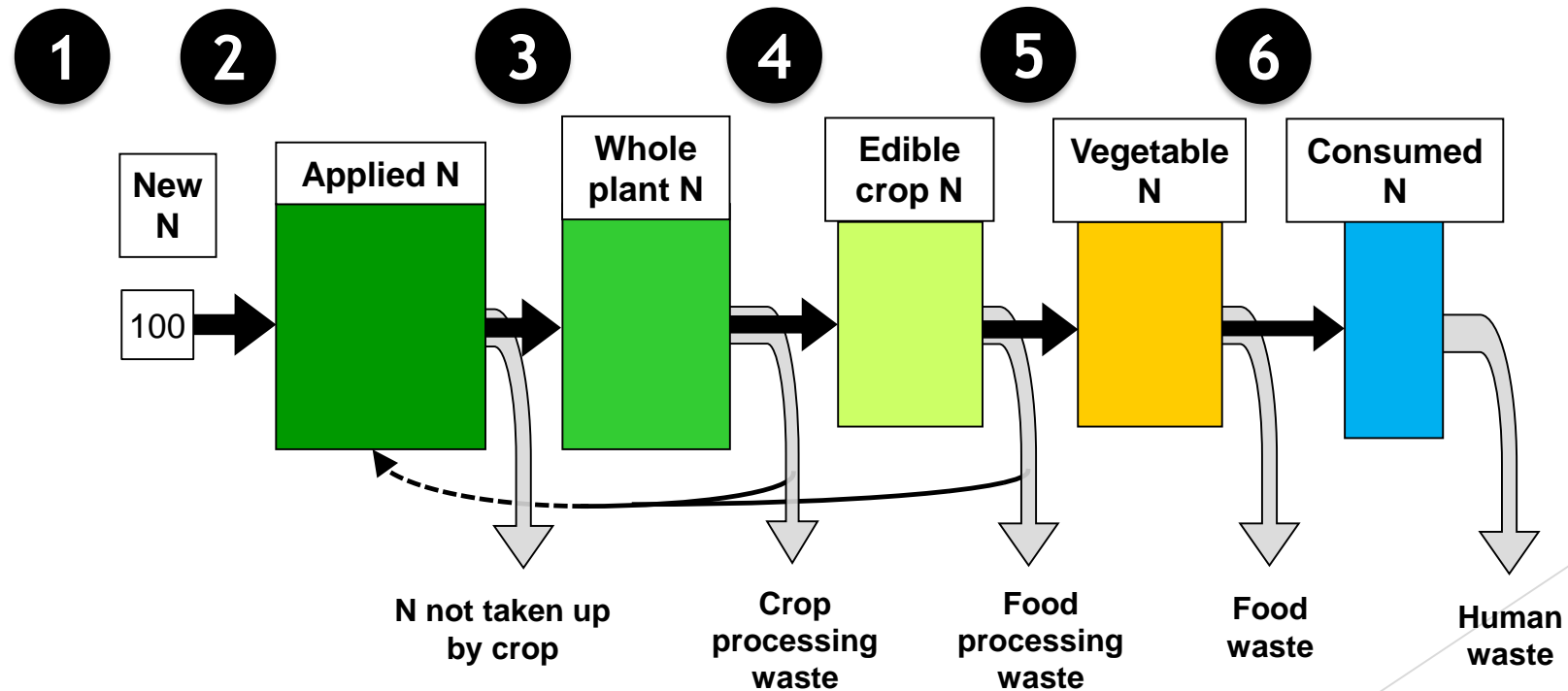
Calculations of the N-Footprint in PT (in progress)

Virtual
Nitrogen
Factors (VNF)

CROPS

MEAT & ANIMAL PRODUCTS

Example for Vegetables Production



Colaborations



NEP – high **Nitrogen Efficient**
crop **P**roduction for better
water management



N-Footprint Team



Colaboration with NEP

Field Experiments, Monitoring, Sampling, Laboratory analysis (N)

VINEYARDS

TOMATOES

63 %
Horticultural crops



Nitrogen input/output values for the VNF

Why tomatoes and grapes?

PT

- ▶ Main crop produced (related products)
 - ▶ Forage crops: 4,283,841 t (+forage corn)
 - ▶ **Horticultural crops: 2,534,146 t (+processing tomato =1,598,398 t) 63 % Horticultural crops**
 - ▶ Cereals for grain: 1,138,086 t (+corn, rice, wheat)
 - ▶ **Vineyard: 800,738 t (+wine=56,839,513 hl)**
 - ▶ Olive grove: 493,319 t
 - ▶ Potato: 451,041 t
 - ▶ Fresh fruits: 450,683 t
 - ▶ Citrus: 354,294 t

Colaboration with N-Footprint Team



Contribution of PT for the World Country's N Footprints

Country's N Footprints (mapped)



Methodology

Nacional N-Footprint » Calculate your own nitrogen footprint



Site Pegada de N Internacional: www.N-Print.org



Suggestions are welcome.

Thank you all for your attention!

Suggestions are welcome.

Soraia Cruz

Instituto Superior de Agronomia