



FreshProducePEFCR: Calculating the environmental footprint of fresh fruits and vegetables

Tuesday, 26 March 2024 (15:30-16:30 CET)



Welcome & introduction

Philippe Binard

Freshfel Europe

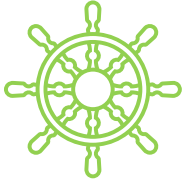
Opening remarks



Large audience across supply chain and media



Project in perspective and complementary to CSRD, CDDD and GlobalGAP ESS



Freshfel Europe leadership on pan-European sustainability solutions



Benefit of sector having a common measurement methodology to position fresh produce among food category



Drivers: international commitments and European legislation



Economic sustainability:
accountability = access to finance



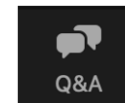
Objectives: environment sustainability → societal concerns and carbon neutrality



Get it right → stakeholders consultation starting 2nd April 2024

Agenda

1. Welcome & introduction (Philippe Binard, Freshfel Europe)
2. Why develop PEFCR for fresh fruits and vegetables? (Gil Kaufman, Freshfel Europe)
3. How are we developing PEFCR? (Nikki Hulzebos, Dutch Fresh Produce Centre)
4. Representative products and FreshProducePEF – category rules (Jeroen Weststrate, Wageningen Research)
5. Public consultation: what to expect and what is expected? (Jeroen Weststrate, Wageningen Research)
6. Q&A session with Technical Secretariat representatives





Why develop PEFCR for fresh fruits and vegetables?

Gil Kaufman

Freshfel Europe

The need for sustainability information

The **environmental impact of products** has increasingly gained attention:

- Supply chain demands
- Legislative sustainability requirements
- Consumers looking for trustworthy information
- NGOs demanding transparency

→ Overall **increasing demand in transparency** for producers, producer associations, or trading companies of fresh fruits and vegetables



Product Environmental Footprint (PEF)

Using a **uniform and reliable methodology** across the sector would ensure that the environmental footprint calculations and subsequent sustainability claims are:

- ✓ **Comparable**
- ✓ **Verifiable**
- ✓ **Reproducible**

→ EU Commission has developed the **Product Environmental Footprint (PEF)** method:

- ✓ **Life-cycle assessment (LCA)** based method = considers the environmental impact of a product unit from the extraction of raw materials to the waste treatment ("**cradle-to-grave approach**")
- ✓ **Recommended by the EC** as the method to measure and communicate the lifecycle environmental performance of products (and organizations)
- ✓ Connected to several **EU policy initiatives**
 - Green Claims Directive
 - Revision of Unfair Consumer Practices Directive banning unsubstantiated sustainability labels and claims
 - Proposal for a legislative framework for sustainable food systems, including food sustainability labelling

“Development of a harmonised methodology for the calculation of the environmental footprint of products and organisations”

Product Environmental Footprint Category Rules (PEFCR)

PEFCR – Product Environmental Footprint Category Rules = product-specific PEF rules

PEFCRs aim at solving the problem of the proliferation of environmental footprint methods for environmental claims/labels/initiatives.

PEFCR is **reproducible, comparable, verifiable**:

- ✓ Avoid market confusion
- ✓ Avoid mistrust on markets
- ✓ Allow comparison between products in the same product category more easily
- ✓ Increase transparency both in supply chain & to consumers on product sustainability

PEFCR projects developed formally with European Commission.



PEFCR projects: pasta, wine, olive oil, meat, dairy, coffee, beer, marine fish, cat/dog food & more non-food.

EC Guidance Rules developed for each PEFCR.

Data provision by European Commission



The benefits of developing a PEFCR for the fresh fruit and vegetable sector

- ✓ (Most) **Credible & transparent method** to identify environmental footprint of products on the market today
- ✓ Fosters **trust** in product sustainability for **B2B & B2C communication**
 - sector gains in **reputation**
 - facilitate the **transition towards a greener economy**
- ✓ Enables **comparison between products** within one product category
- ✓ Enables **hotspot identification & mitigation** options in product life cycles
- ✓ Ensures **compliance with future EU legislation**
- ✓ Helps **prepare business tackle upcoming requirements** on non-financial reporting at company level
-  **Complex methodology** which requires a large amount of data and LCA expertise
-  **Sector investment and engagement** required

Applications of PEFCR

PEFCR is not only facilitates sustainability reporting obligations, but also **aids operational sustainability accounting at company and sector level:**

A PEFCR for fresh produce has many applications to enhance **verifiability, accountability, and credibility** of industry operations (non-exhaustive), especially at **legislative level** and for **private certification**:

Substantiation of
pertinent operational
decisions:

- ✓ Packaging choices
- ✓ Logistics decisions
- ✓ Energy usage
- ✓ Hot spot identification for emissions reductions
- ✓ Green claims
- ✓



FreshProducePEFCR



- Objective: **Develop an objective, standardized environmental footprint methodology, database and digital tool for the fresh produce sector that is broadly accepted by the industry, stakeholders as well as consumers**
- Discussions in Freshfel since 2019 on environmental footprint regarding sustainability labelling, PEFCR
- March 2021: launch of **Freshfel Environmental Footprint Initiative**
- Formal **revision of pre-existing HortiFootprint Category Rules** with a **‘shadow-PEFCR’ (2023-Q12025)** developed with **Wageningen University Research** to be joined with the EC programme once open

Freshfel Europe
(Management & sector representation)



Initiative Members
(Voluntary active participation)



Supporting Organisations
(Advisory participation)





Thank you

Gil Kaufman
g.kaufman@freshfel.org



How are we developing PEFCR?

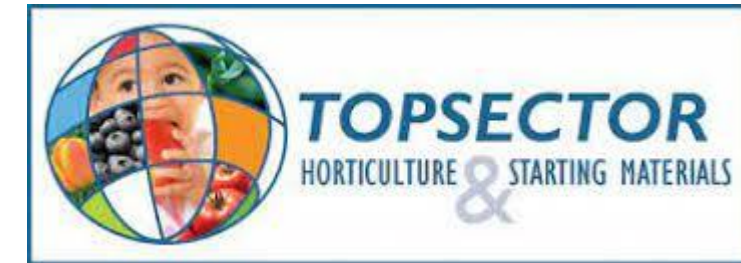
Nikki Hulzebos

Dutch Fresh Produce Centre

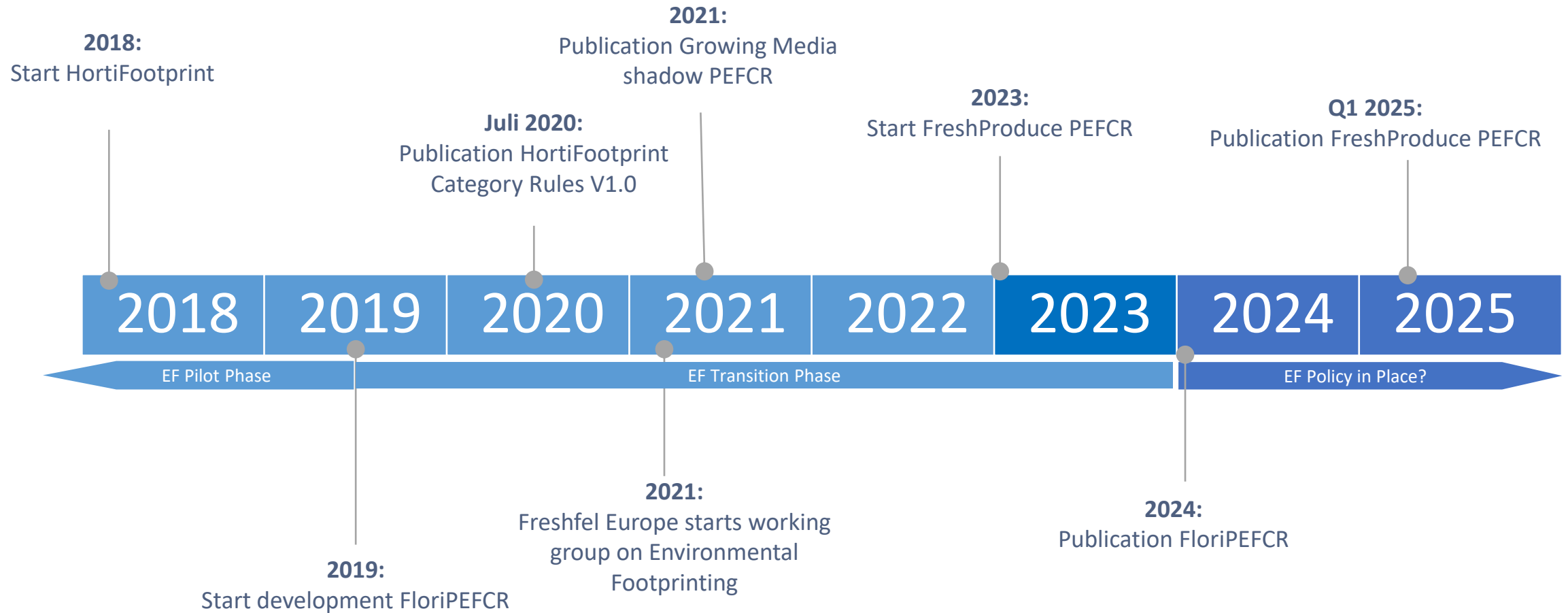
A public-private partnership



- A project with co-funding through the Topsector Horticulture & Starting materials and topsector Agri & Food
- Contribution from the private sector and Dutch government
- 2 year project (2023/2024)



From Hortifootprint Category rules to a PEFCR



Structure of PEFCR development



- Mix of **sector knowledge & scientific/LCA experts**
- Bi-weekly meetings Freshfel Europe, Wageningen University Research and Fresh Produce Centre
- **Technical Secretariat** – Freshfel Europe, Fresh Produce Centre, Wageningen University Research, PRé Sustainability, Blonk Sustainability, Greenyard, Dole
- **Consortium** – Royal FloraHolland, ABN AMRO Bank, Rabobank, MPS, AQS Holding and Glastuinbouw Nederland
- **External review team** - National Institute for Public health and the Environment (LCA-expert), Doff Consulting (sector expert), Milieu Centraal (NGO)

Developed in a broad consortium of partners

Technical Secretariat:



Supported by:



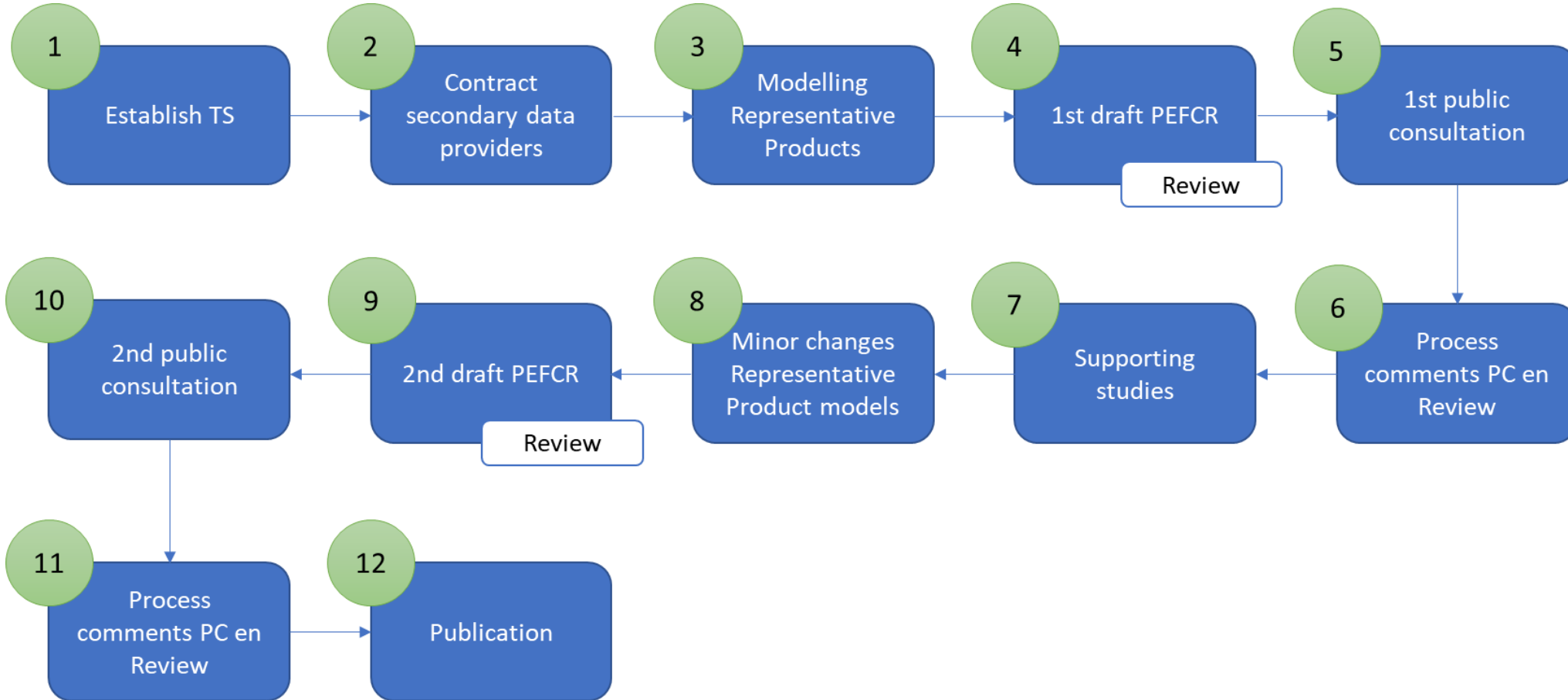
Advisory by:



Co-financed by:



The steps within the PEFCR proces





Thank you

Nikki Hulzebos

hulzebos@groentenfruihuis.nl



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Representative products and FreshProducePEF – category rules

Jeroen Weststrate

Wageningen Research

What is life cycle assessment?

Life Cycle Assessment (LCA) is a quantified and scientifically based method to quantify the environmental impact of products and processes



considering their complete life cycles



covering multiple environmental topics

The PEF method is an LCA method recommended by the European Commission as the method to measure and communicate the lifecycle environmental performance of products (EC 2021/2279), and can be considered as consensus for products sold in Europe

What this project is about



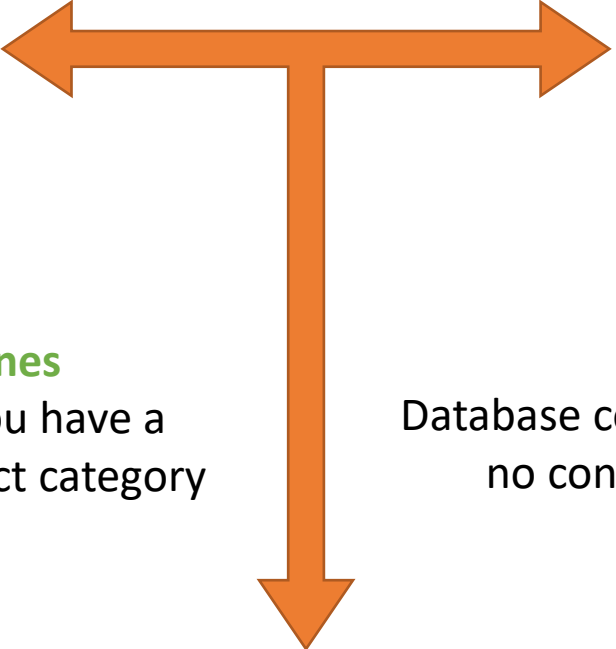
Environmental footprint guidelines

Specifies calculations rules - Ideally you have a guidelines that's specific for your product category



Background database

Database containing data of processes you have no control of, or with little contribution



Comparable, verifiable and reproduceable results
Level-playing field across all actors in the sector

Representative Product studies

The representative product is a virtual (i.e. non-existing) product that reflects the average consumption per sub-category at the European market. The RP reflects the current situation.

The representative products are used to determine:

- What to include into the PEFCR in terms of calculation rules and other relevant requirements;
- What the most relevant impact categories, life cycle stages, processes and direct elementary flows are;
- What the data needs, data collection activities and data quality requirements are.

RP-studies can be seen as the skeleton for developing the FreshProducePEFCR.



The functional unit qualitatively and quantitatively describes the function(s) of the product in scope.

FU: 1 kilogram of consumable fruits and vegetables

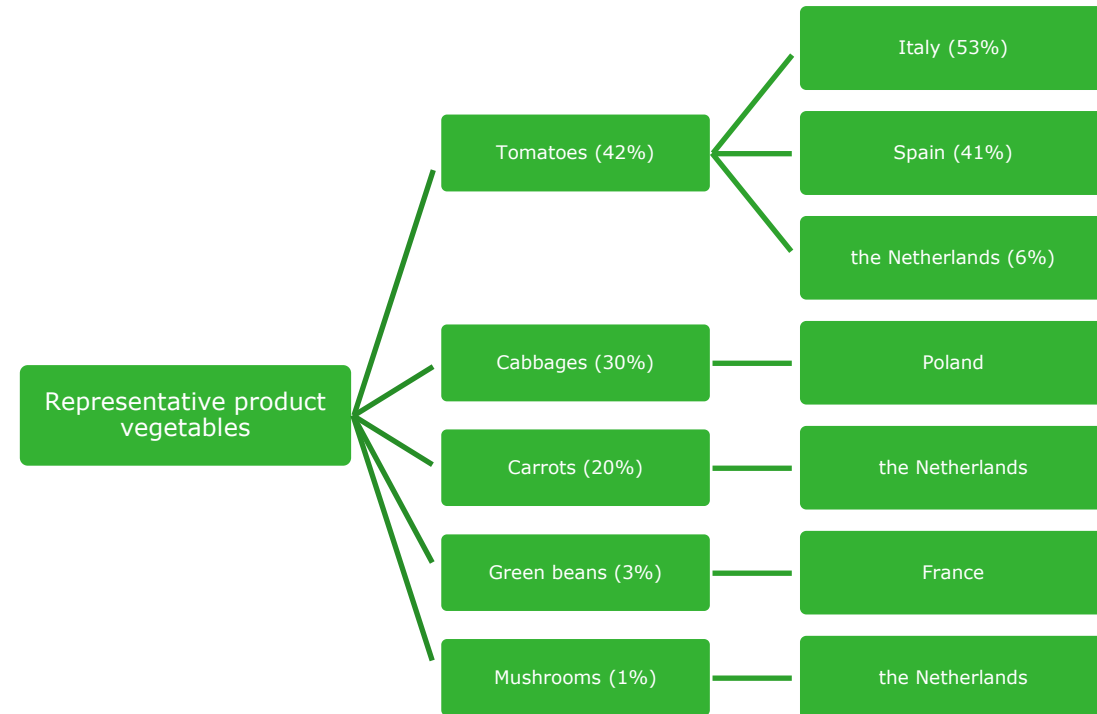
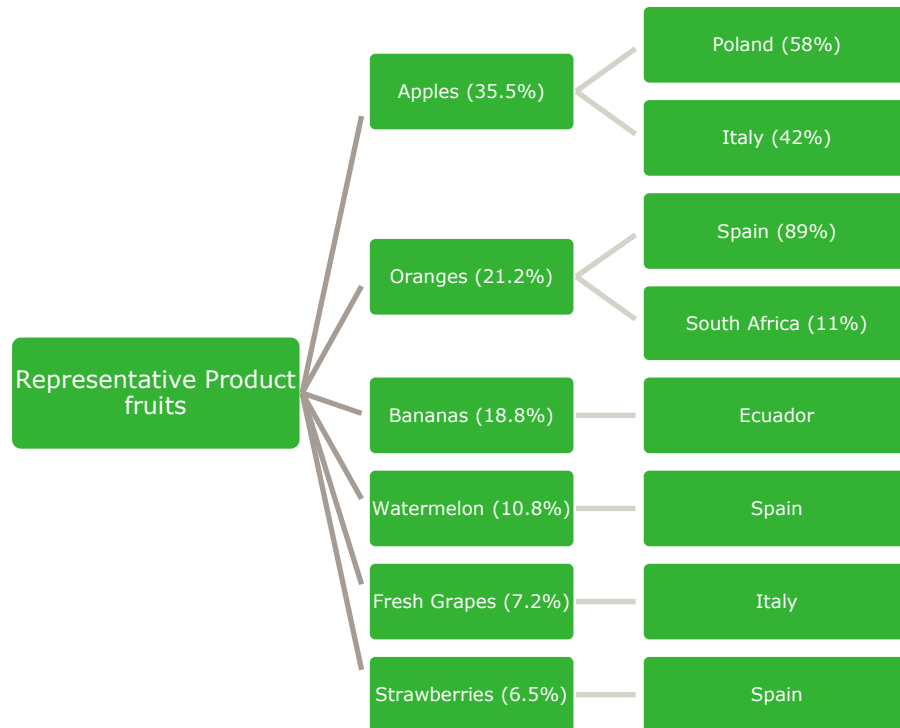
- excluding inedible parts
- excluding preparation

The nutritional content might possibly better reflect the primary functionality of vegetables. However, the current state of science does not yet allow for fair comparisons taking into account the full pallet of nutritional properties.

It should be noted that the type of packaging might affect the shelf-life of vegetables. The Technical Secretariat did not find sufficient data or methods to integrate this aspect into the functional unit satisfactorily.

Composition of Representative Products

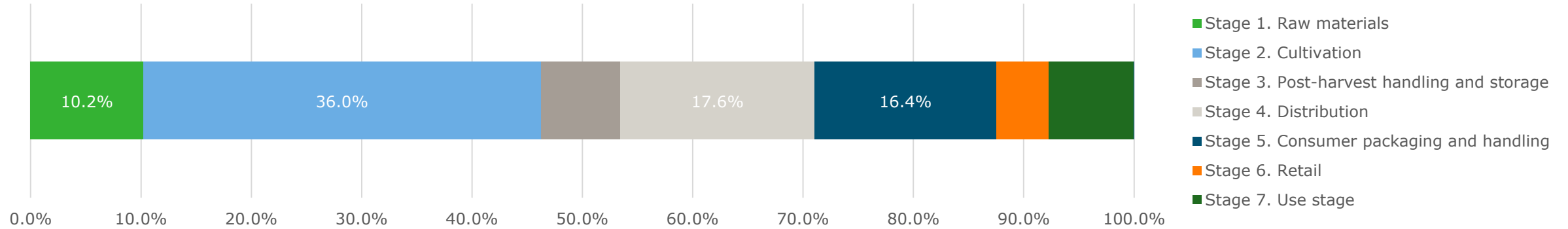
Composition of the representative products, including market shares that are used to calculate the environmental impact. Market shares are based on the average consumption in kilograms, per capita-year at the European market.



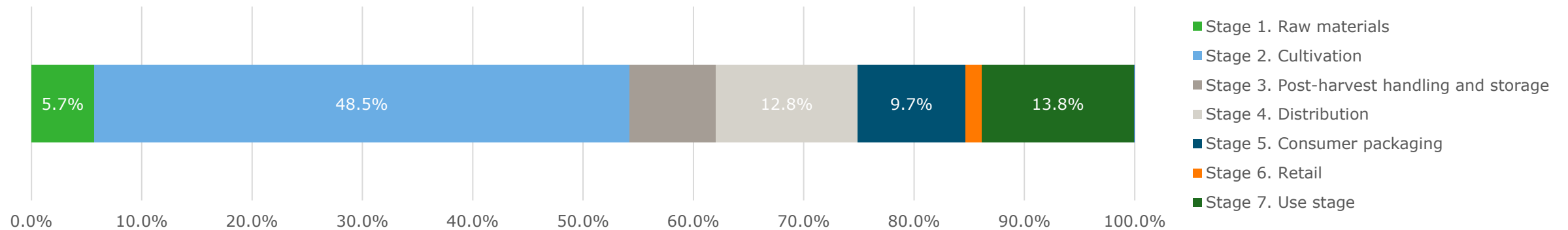
Results of RP-studies

Contribution per life-cycle stage to the overall single score

RP vegetables: relative contribution per life cycle stage to overall single score



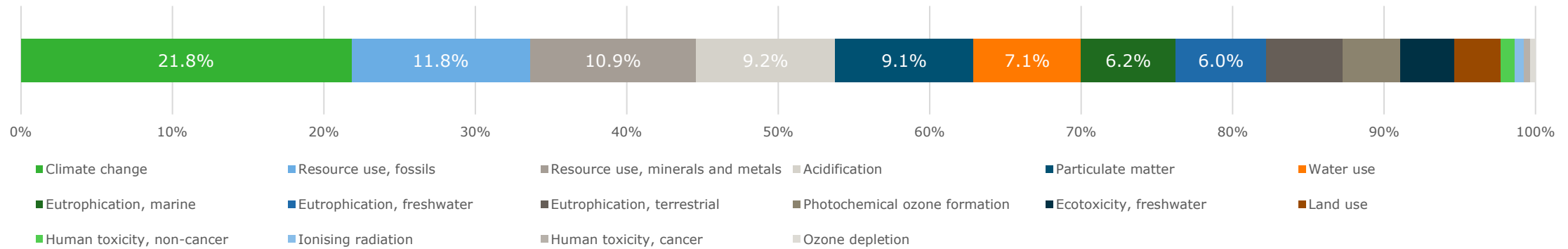
RP fruits: relative contribution per life cycle stage to overall single score



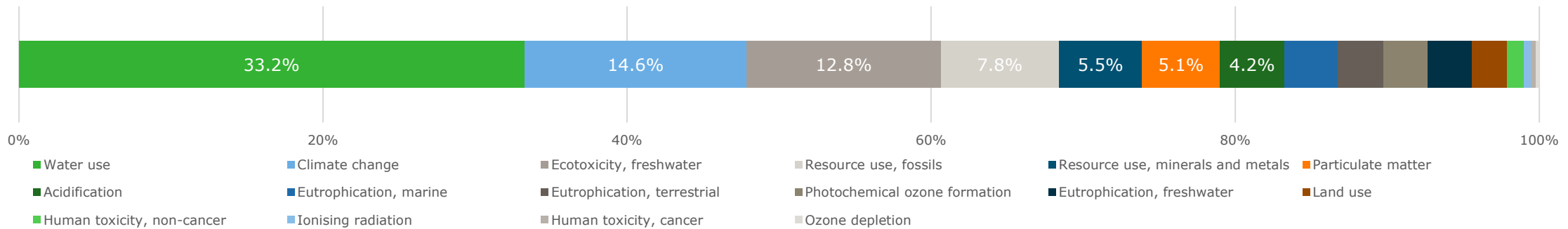
Results of RP-studies

Most relevant impact-categories

RP Vegetables: weighted impact results sorted from high to low contribution per impact category, per 1 kilogram consumable vegetables



RP Fruits: weighted impact results sorted from high to low contribution per impact category, per 1 kilogram consumable fruits



Company-specific data needs

Based on a hotspot analysis of the RP studies, mandatory company specific data needs are identified:

Raw material acquisition, pre-processing and starting material

- *Starting material*
- *Growing media*
- *Greenhouse construction*
- *Materials*
- *Plant protection products*
- *Fertilisers*

Cultivation

- *Yield of product and co-product*
- *Losses*
- *fuel combustion*
- *Emissions related to fertilisers, plant protection, land use change and such*

Distribution

- *Distance and transport modality*

Consumer packaging

- *Type of material and amounts*

The complete overview of company specific data needs can be found in the 1st draft of the FreshProducePEFCR



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Public consultation: what to expect and what is expected?

Jeroen Weststrate

Wageningen Research

Have your say!



- This webinar is the launch of the 1st public consultation of the FreshProducePEFCR. With this public consultation we ensure different perspectives are considered in the development process.
- **Who should participate?** Anyone can take part in the public consultation. We especially encourage sector experts and LCA-expert with sound expertise in the fruit & vegetable sector.
- The Technical Secretariat is obliged to address all comments received during the public consultation. We are looking forward to receive your meaningful and pragmatic feedback!

Have your say!

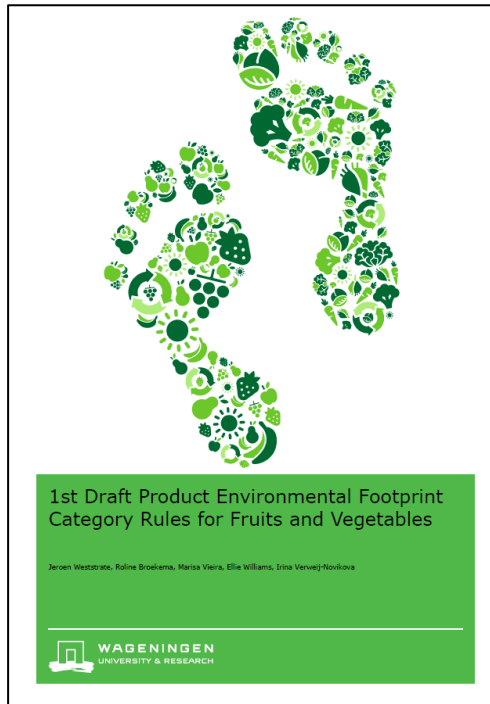


- Documents will be made available for your review and information via Freshfel Europe's dedicated webpage (to be launched on April 2nd 10:00 CET via PRESS RELEASE).
- An excel template will be provided to gather feedback
- Questions and final feedback can be send to: FreshProducePEFCR@wur.nl
- The public consultation runs from **April 2nd until April 30th 2024**.
- Feedback received after April 30th 2024, will not be addressed in this round. The 2nd public consultation is planned for the Q4 2024/Q1 2025.

Documents for public consultation

Documents

For your review



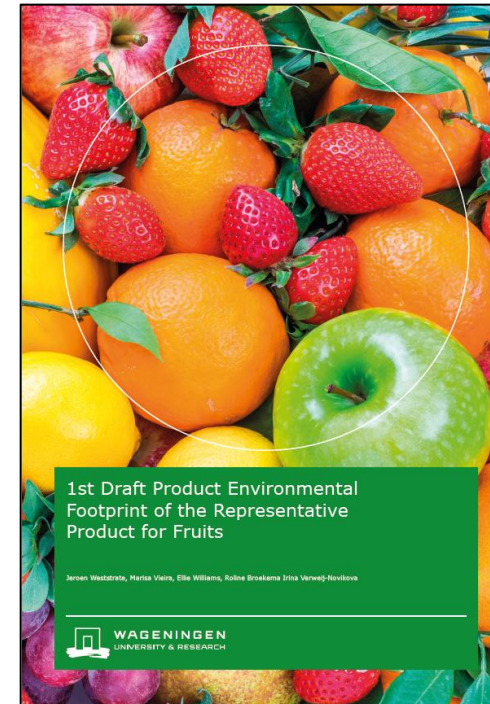
1st draft Product Environmental Footprint Category Rules for Fruits and Vegetables



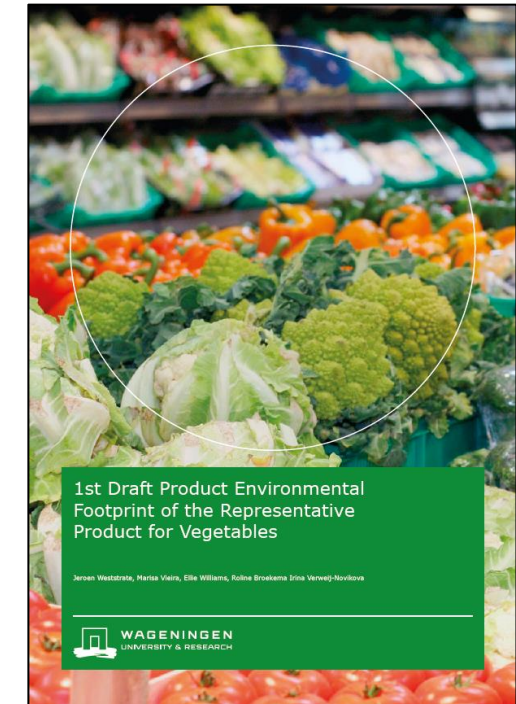
Overview of datasets in background database (xlsx)

Supplementary materials

For information purposes only



1st draft Product Environmental Footprint of the Representative Product for Fruits



1st draft Product Environmental Footprint of the Representative Product for Vegetables



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Thank you

Jeroen Weststrate

jeroen.weststrate@wur.nl



Q&A session with Technical Secretariat representatives



FreshProducePEFCR: Calculating the environmental footprint of fresh fruits and vegetables

Thank you for joining us!