

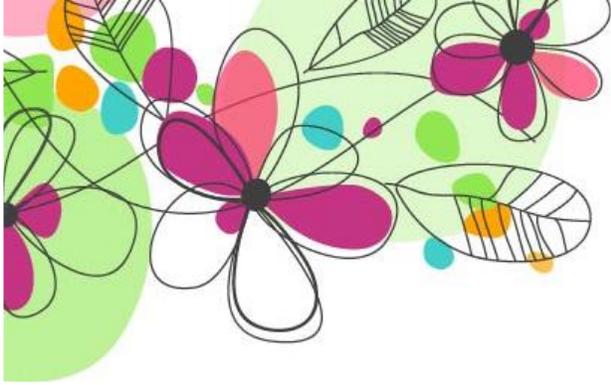
**UNION FLEURS**

INTERNATIONAL FLOWER TRADE ASSOCIATION

## **CONNECT-SESSION N°19**

**TOPIC: Measuring Environmental Footprint :  
FloriPEFCR  - What next?**

**ZOOM meeting – 28 February 2024 – 15h to 16h30 CET**

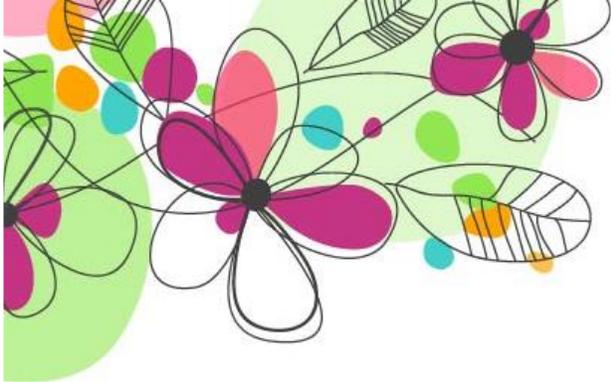


# WELCOME!

**122 participants**

**18 countries (8 EU / 10 non-EU)**

- UNION FLEURS and FSI membership
- Industry partners and wider network in the industry



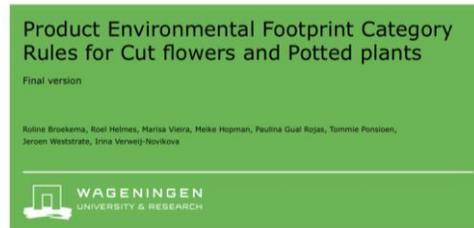
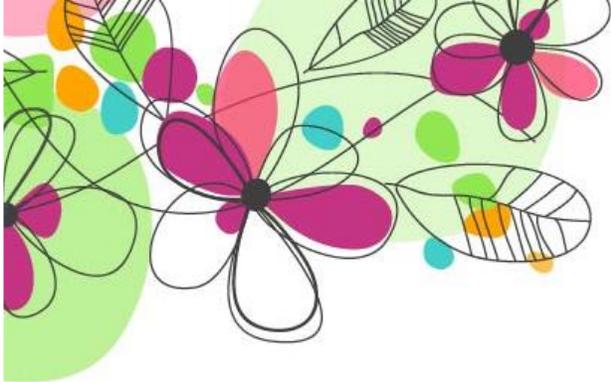
# TOPIC: Measuring Environmental Footprint : FloriPEFCR - What next?



## SPEAKERS:

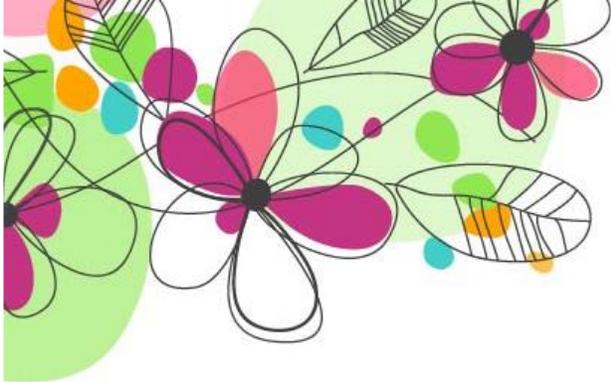
- **Albert Haasnoot, Chair Technical Secretariat FloriPEFCR, Royal FloraHolland**
- **Jeroen Oudheusden, Executive Officer, FSI (Floriculture Sustainability Initiative)**

# FloriPEFCR approved by the European Commission and launched on 14 February 2024



**FloriPEFCR** 

**Congratulations to the project leaders and all consortium partners for this achievement!**



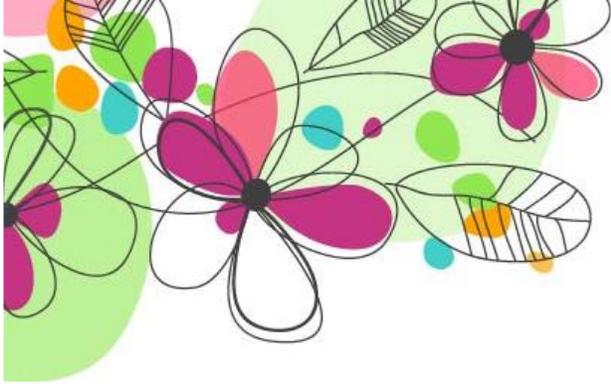
# INTRODUCTION

## • WHY?

- Growing scrutiny from consumers, policy-makers and markets in the context of climate change
- Need for harmonised and verified insights on the actual environmental performance of floriculture products (cut flowers and potted plants) : knowing in order to tell the story and to act
- EU Green Deal agenda: EU in the process of developing policy and regulations with PEFCRs being used as a basis for environmental assessments and “green claims”.
  - Impact on EU market access requirements for the international floriculture supply chain
  - Industry compliance might eventually become mandatory, in particular for products to be allowed to enter and be placed on the EU market in the future.

# INTRODUCTION

- **FLORIFEFCR: WHICH BENEFITS FOR THE FLORICULTURE SUPPLY CHAIN?**
  - A reliable, consistent, harmonised and internationally recognised **METHODOLOGY** on which all tools measuring environmental footprint can align
  - **IDENTIFY** hotspots and areas for improvement in the supply-chain
  - **STIMULATE** data collection, verified sector insights and meaningful reductions
  - Allow **COMPARABILITY** on Environmental Footprint across the floriculture supply chain
  - **ANTICIPATE** any future policy & regulatory measures by leading instead of conforming
  - **ADDRESS** false/vague sustainability claims



# INTRODUCTION

- **WHAT IT IS / IS NOT:** Terminology matters!
  - Methodology ≠ Tool
  - Environmental Footprint ≠ Carbon Footprint
  - Environmental Footprint ≠ Sustainable (triple bottom line: society (People), environment (Planet) and economy (Profit) / responsible production and trading)

# FloriPEFCR

- Demand for environmental information
- The need for a harmonized approach
- Product Environmental Footprint
- Developing FloriPEFCR



**FloriPEFCR**

# Demand for environmental information

In recent years the environmental impact has become of increasing interest to growers, retailers and consumers:

- Environmental impact is under debate
- Robust insight provides great opportunities



## The Environmental Impact of Roses: Is Giving Your Valentine a Bouquet Sustainable?

What's the environmental impact of roses, the ultimate Valentine's Day gift? Here's what you should know before buying a bouquet.

## 8 Unique Green Alternatives to Cut Flowers

These eco-friendly alternatives to bouquets express gratitude or affection.

By Amber Nolan | Updated December 8, 2022

## Are pot plants more eco friendly than cut flowers?

The global cut-flower industry is a behemoth to be reckoned with - but it's not straightforward with pot plants either

# The need for a harmonised approach

- +/- 460 green labels!
- Impacts are not comparable...
- Lack of verification
- Risk for greenwashing



# PPS Hortifootprint Consortium

Albert Haasnoot – Royal FloraHolland (penvoerder)

Richard Schouten – GroentenFruit Huis (penvoerder)

Marisa Vieira – PRé Sustainability

Paulina Gual – Blonk Consultants

Jan de Ruyter – ABN-Amro

Vincent de Breejen– MPS

Arne Bac – Rabobank

Quincy von Bannisseht – Glastuinbouw Nederland

Anne– Lotte Boudeling Ministerie van LNV

Roline Broekema – WEcR (project coördinator)



# Technical Secretariat (TS)

- Royal FloraHolland (TS-lead)
- Wageningen Economic Research – Independent Research Institute (Project coordinator)
- UnionFleurs – International Flower Trade Association
- MPS Group – Developer of standards
- Natuur&Milieu – NGO
- Blonk Consultants – LCA consultancy
- PRé Sustainability – LCA consultancy and software developer
- FSI (Floriculture Sustainability Initiative) – Market-driven sustainability initiative floriculture sector
- GroentenFruit Huis – Branche organization
- Florverde – Colombian developer of standards

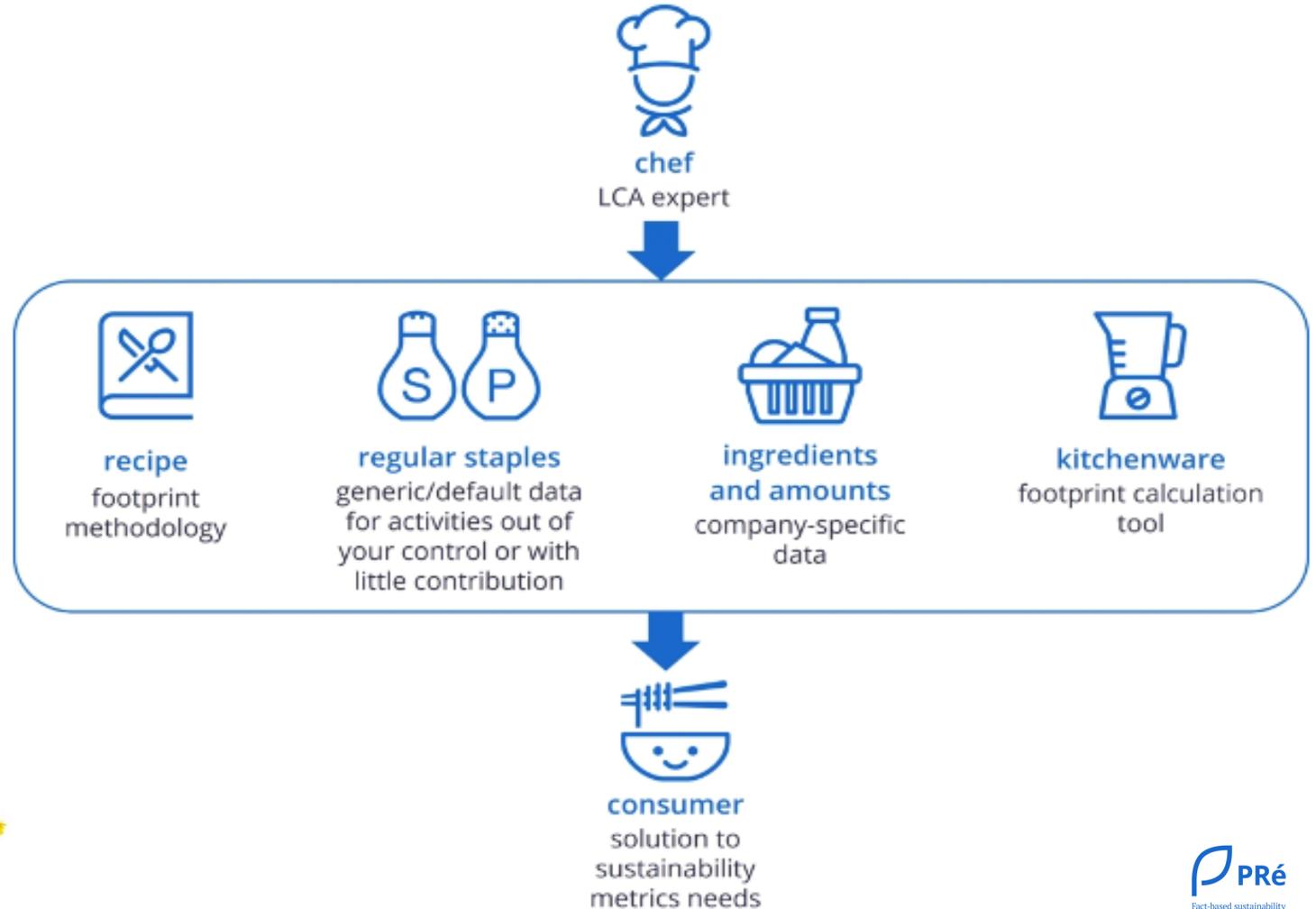


# Product Environmental Footprint

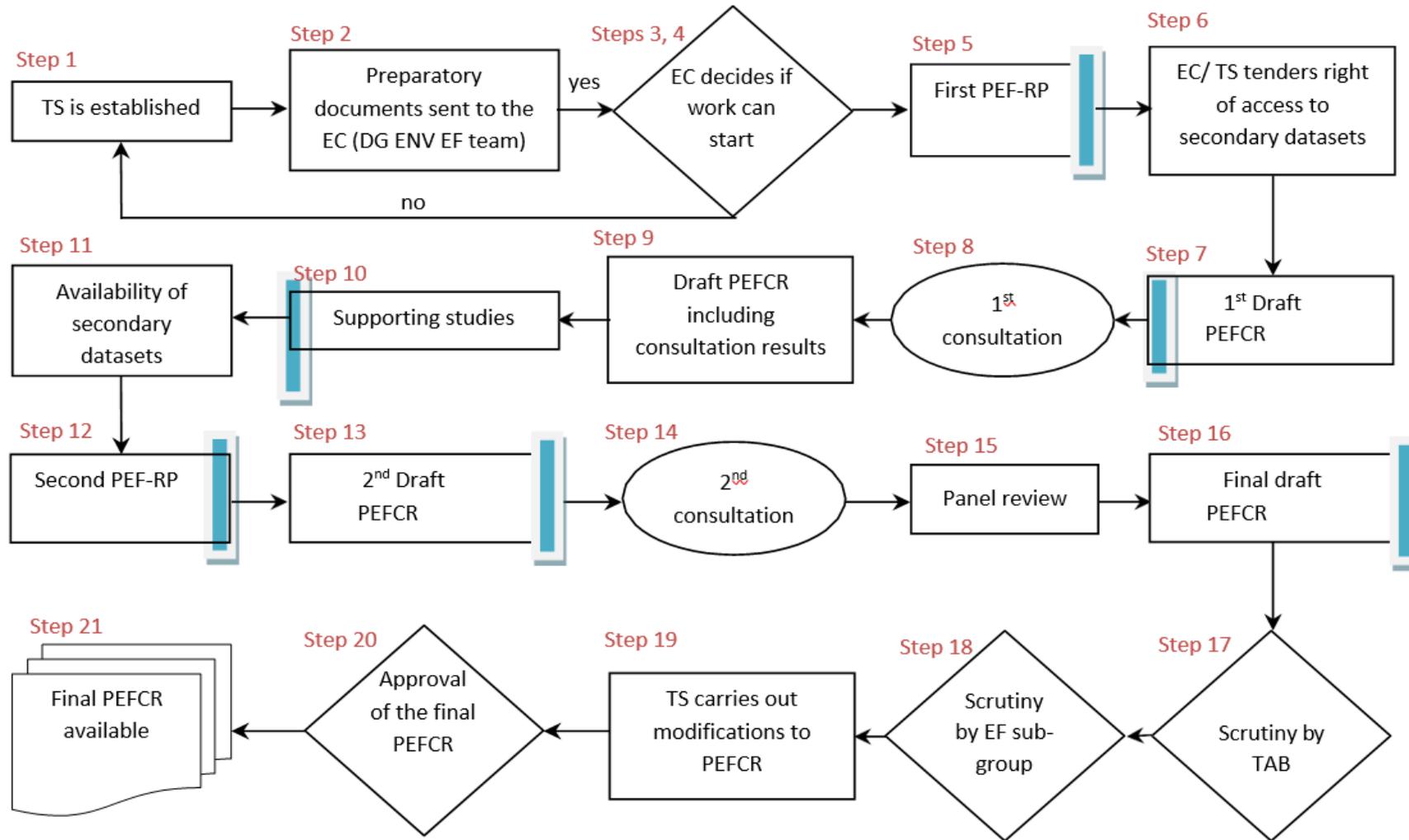
A PEFCR is the recipe...

...the recipe for cooking up an LCA!

## Cooking up an LCA study



# Development process





# Six supporting studies

Horticultural companies potted plants:

Gova – Netherlands, Bay Laurel – LCE

Riotollo – Spain, Camelia – LCE

Van Schie – Portugal, Hortensia – LCE

Horticultural companies cut flowers:

Tesselaar Alstroemeria – Netherlands,  
Alstroemeria – Ecochain

Ethiopian Magical Farm – Ethiopia, Carnation –  
Ecochain

Eycoflowers – Portugal, Agapanthus –  
Greenhouse Sustainability

# Two public consultations

	1 <sup>st</sup> public consultation	2 <sup>nd</sup> public consultation
<b>Start date</b>	September 1 <sup>st</sup> 2021	June 19 <sup>th</sup> 2023
<b>End date</b>	September 30 <sup>th</sup> 2021	July 16 <sup>th</sup> 2023
<b>Duration (weeks)</b>	4	4
<b>Number of participating stakeholders</b>	13	14
<b>Number of comments</b>	215	324
<b>Organisations that have provided comments</b>	Universidad Escuela Colombiana de Ingeniería Julio Garavito; CTCP; SOLTUB Ltd.; Klasmann-Deilmann GmbH; Blonk Consultants; Nordic Environmental Footprint; Wageningen Research; Orchidee Nederland; Afriflora; Addenda; Yukan/Glimpact; EF Helpdesk; PEF-team EC	Blonk Sustainability, Greenhouse Sustainability, EF Helpdesk, Universidad Escuela Colombiana de Ingeniería Julio Garavito, Environment Agency Austria, Cecodes, O2m Lab, Oxin Growers, Glastuinbouw Nederland, Growing Media Europe, Florverde Sustainable Flowers, Greenports Nederland, Coöperatie Growers United UA, Harvest House

# Review team

➤ Sector expert, and lead of review team:

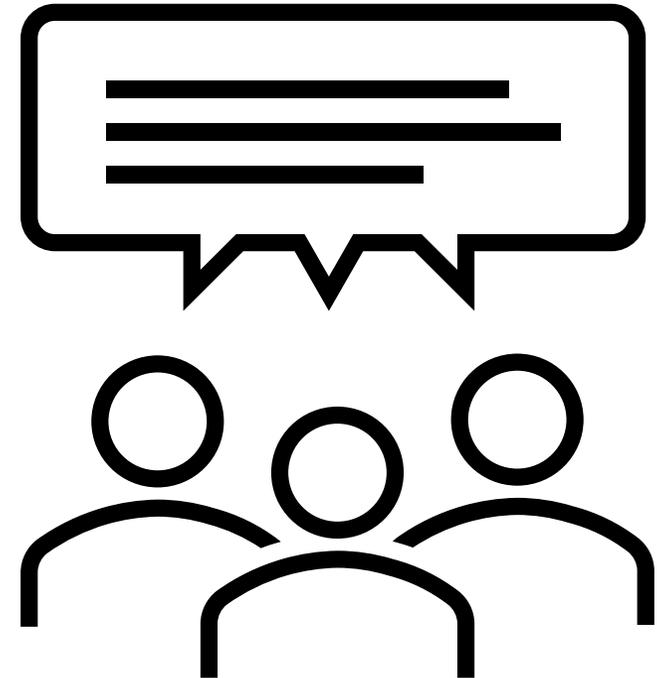
René Corsten & Jeroen van Buren, Delphy

➤ LCA expert:

Johannes Lijzen & Elias de Valk, RIVM

➤ NGO:

Judith Brouwer, Milieu Centraal



# Thirteen deliverables reviewed

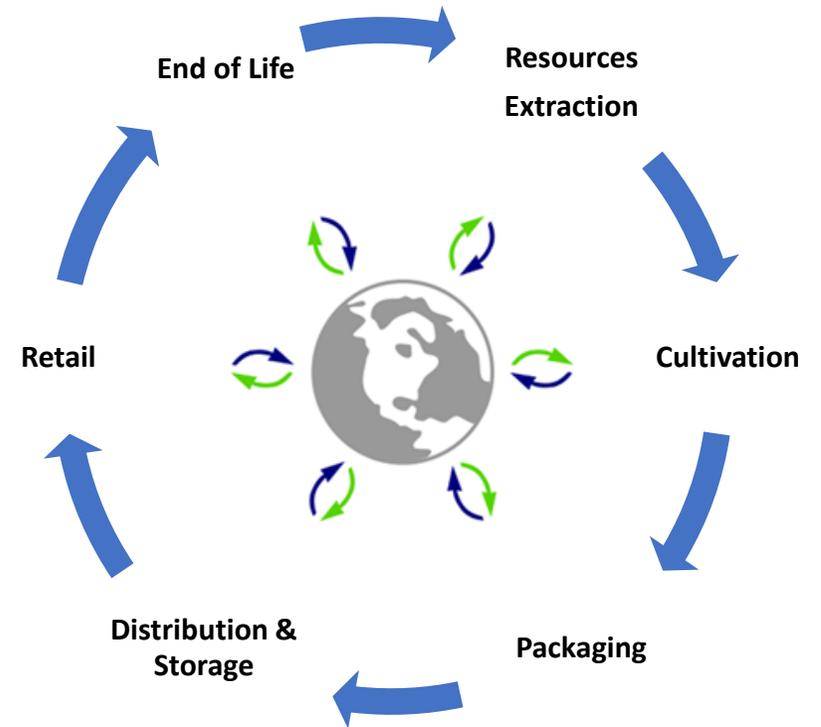
- 1 Representative Product report cut flowers – version 1
- 2 Representative Product report potted plants – version 1
- 3 1st Draft PEFCR “Cut Flowers and Potted Plants”
- 4 Supporting study cut flowers 1
- 5 Supporting study cut flowers 2
- 6 Supporting study cut flowers 3
- 7 Supporting study potted plants 1
- 8 Supporting study potted plants 2
- 9 Supporting study potted plants 3
- 10 Representative Product report cut flowers – version 2
- 11 Representative Product report potted plants – version 2
- 12 2nd Draft PEFCR “Cut Flowers and Potted Plants”
- 13 Final Draft PEFCR “Cut Flowers and Potted Plants”



# Developing FloriPEFCR

## Eight life cycle stages for cut flowers and potted plants:

1. Raw materials
2. Cultivation
3. Distribution
4. Storage
5. Auction/trade
6. Retail
7. Use stage
8. End-of-life



# 16 Impacts covered



## Normalisation

results divided by normalisation factors  
defined based on yearly emissions  
of an average global citizen



## Weighting

normalized results multiplied by weighting factors  
(expert panels, planetary boundaries, reliability of  
indicator)



## Single score

+

**Additional environmental information**

Impact category	Unit		Stage 1. Raw materials	Stage 2. Cultivation	Stage 3. Distribution	Stage 4. Storage	Stage 5. Auction	Stage 6. Retail	Stage 7. Use stage	Stage 8. End-of-life
		Total								
<b>Acidification</b>	μPt	1.5	0.1	0.6	0.8	0.0	0.0	0.1	0.0	-0.1
<b>Climate change</b>	μPt	6.1	0.4	0.7	4.7	0.0	0.1	0.4	0.0	-0.1
<b>Ecotoxicity, freshwater</b>	μPt	3.7	0.6	1.9	1.0	0.0	0.0	0.2	0.0	0.0
<b>Particulate Matter</b>	μPt	1.3	0.2	0.7	0.4	0.0	0.0	0.1	0.0	-0.1
<b>Eutrophication, marine</b>	μPt	0.9	0.0	0.4	0.5	0.0	0.0	0.0	0.0	0.0
<b>Eutrophication, freshwater</b>	μPt	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
<b>Eutrophication, terrestrial</b>	μPt	1.2	0.1	0.4	0.7	0.0	0.0	0.1	0.0	0.0
<b>Human toxicity, cancer</b>	μPt	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
<b>Human toxicity, non-cancer</b>	μPt	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
<b>Ionising radiation</b>	μPt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Land use</b>	μPt	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
<b>Ozone depletion</b>	μPt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Photochemical ozone formation</b>	μPt	1.2	0.1	0.2	0.9	0.0	0.0	0.1	0.0	0.0
<b>Resource use, fossils</b>	μPt	3.8	0.3	0.3	3.1	0.0	0.1	0.2	0.0	-0.2
<b>Resource use, minerals and metals</b>	μPt	0.5	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0
<b>Water use</b>	μPt	2.7	2.4	0.0	0.1	0.0	0.0	0.1	0.0	0.0
<b>Total</b>	<b>μPt</b>	<b>23.5</b>	<b>4.6</b>	<b>5.5</b>	<b>12.4</b>	<b>0.0</b>	<b>0.2</b>	<b>1.3</b>	<b>0.0</b>	<b>-0.6</b>

# Cut flowers

Most relevant:

- **Impact categories:** Climate change, Resource use; fossil, Particulate Matter, Acidification, Photochemical ozone formation

Additionally report on: Ecotoxicity; freshwater, Water use and Land use

- **Life Cycle Stages:** Stage 3. Distribution, Stage 2. Cultivation, Stage 1. Raw material acquisition, pre-processing and starting material

# Potted plants

Most relevant:

- **Impact categories:** Climate change, Resource use; fossil, Particulate Matter

Additionally report on: Ecotoxicity; freshwater, Water use and Land use

- **Life Cycle Stages:** Stage 2. Cultivation, Stage 1. Raw material acquisition, pre-processing and starting material, Stage 8. End-of-life, Stage 3. Distribution

# Final FloriPEFCR

We have played quite a  
goose board game!

And are very happy to provide the final  
FloriPEFCR to the sector



Product Environmental Footprint Category  
Rules for Cut flowers and Potted plants

Final version

Rutine Broekema, Rod Helmes, Marius Vieira, Melke Hopman, Paulina Guaf Rojas, Timme Ponsioen,  
Jeroen Weststrate, Irina Verweij-Novikova





The FloriPEFCR :

<https://library.wur.nl/WebQuery/edepot/549543>

The EC webpage :

[https://green-business.ec.europa.eu/environmental-footprint-methods\\_en#the-environmental-footprint-transition-phase](https://green-business.ec.europa.eu/environmental-footprint-methods_en#the-environmental-footprint-transition-phase)

Helpdesk for technical questions about the application of the PEF methods :

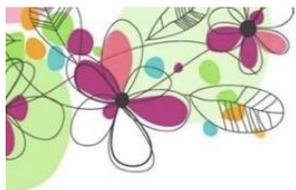
[EF\\_Helpdesk@sphera.com](mailto:EF_Helpdesk@sphera.com)



# FSI Presentation

Environmental Footprint  
Connect session – WHAT NEXT?

28 February 2024 – 15:00h CET



CONNECT-SESSION N°19



**TOPIC:** Measuring Environmental Footprint :  
FloriPEFCR  - What next?

# The FloriPEFCR



## Floriculture Sustainability Initiative

4.412 volgers

1 d • 🌐

Exciting news: The FloriPEFCR guidelines have been approved by the European Commission!

The story of flowers and plants is a powerful one that needs to be told. With a positive mindset and in a credible way, demonstrate that as a sector, we do our utmost to reduce negative emissions and create positive impact for everybody.

The FloriPEFCR (Floriculture Product Environmental Footprint Category Rules) serves as the guidance to measure the environmental impact of cut flowers and potted plants using 16 environmental indicators. The FloriPEFCR now becomes the new standard method for footprint calculations for flowers and plants, in the EU but with a global reach.

# About FSI

- Multistakeholder network
- Business driven
- Global reach
- Not for profit association
  
- Founded in 2013
- 87 active members



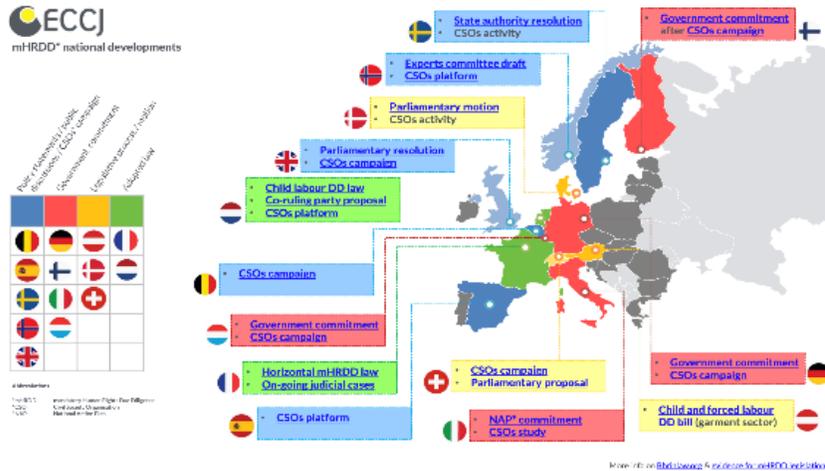
# Way forward

1. What next, why next?
2. Stimulate use FloriPEFCR methodology
3. Demonstrating what good practice looks like
4. Fact based discussions and communication



# 1. What next, Why next?

- Climate action, Market requirements and Legislation urge us to **take action**, there is a clear business need to make use of the time now to reduce footprints



- Consumers are demanding full transparency and traceability

# Valentine's 2024



## Opinion | Why giving roses on Valentine's Day – or any day – is really a bad idea

By [Amanda Shendruk](#)

Illustrations by [Michelle Kondrich](#)

Feb. 12, 2024 at 9:05 a.m.



Share



Comment



Save

Here's an unromantic question for Valentine's Day: Can we live without roses?

# The Washington Post

8 lbs. CO2e

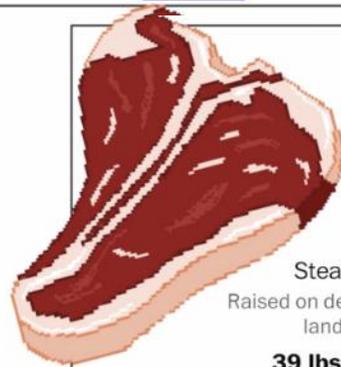


Strawberries (0.5 lbs.)  
Flown from South Africa



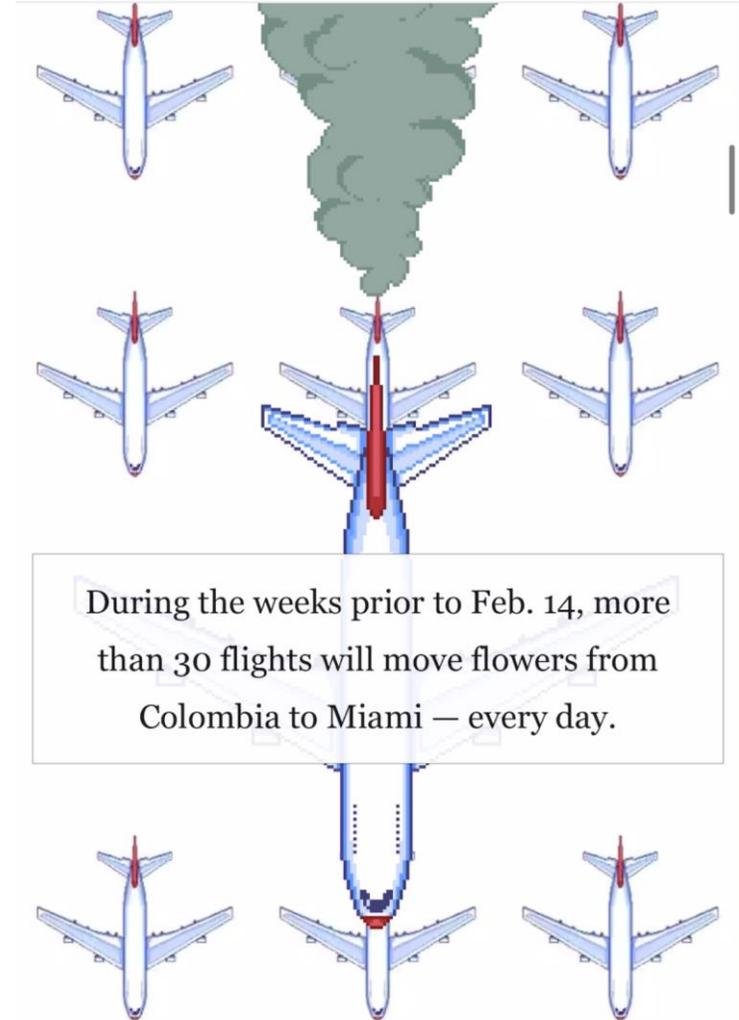
Bouquet  
Dutch roses and lilies, Kenyan gypsophila

71 lbs. CO2e



Steak (8 oz.)  
Raised on deforested land in Brazil

39 lbs. CO2e



During the weeks prior to Feb. 14, more than 30 flights will move flowers from Colombia to Miami – every day.

## 2. Stimulate use FloriPEFCR methodology

*FSI 2025 Objective on carbon footprint*

***By 2025, FSI members will reduce the product carbon footprint of Roses, Chrysanthemum and Phalaenopsis.***



*Towards 2030 this objective will become more quantitative and cover more impact categories*

## 2. Stimulate use FloriPEFCR methodology

### *FSI 2025 Objective on carbon footprint*

- Environmental Record Keeping as new requirement FSI Basket
- Actively support the FloriPEFCR development
- Developed & Tested Footprinting Tool to get started
- Selection of three priority products
- Stimulate reduction efforts by aligning methods



## 2. Stimulate use FloriPEFCR methodology

### *FSI Basket for FloriPEFCR tools*

Voluntary benchmarking of tools on 3 main criteria

1. FloriPEFCR methodology implemented
2. Data verification in place (complete and validated)
3. Data exchange possible and in structured format

Planned start Q2 2024



## 2. Stimulate use FloriPEFCR methodology

Alignment will help to:

- Create a level playing field
- Speak the same language
- Give structure to next steps
  - data exchange/data platforms/data ownership
- Focus on impactful reductions
- Make collective learning possible
- Share best practices





### 3. Demonstrating what good practice looks like

The FloriPEFCR is not a tool but the cookbook, and the recipes in that cookbook will be updated and expanded the coming years

#### Practical next steps

- For producers the method will be integrated as part of their certification, making use of their record keeping data
- For suppliers, wholesalers and retailers it should be part of their environmental policies, where needed supported by LCA consultants
- As FSI we will integrate new methodologies using previous work into the existing SSS platform

# 3. Demonstrating what good practice looks like

*Example: Comply to ESG/CSRD legislation (Scope 3-upstream – supply chain)*



Part of the management report	ESRS	Title	ESRS (partly) covered within Flori Risk Assessment Tool
<b>1. General information</b>	ESRS 2	General disclosures about the company	
	ESRS E1	Climate change	YES
<b>2. Environmental information</b>	ESRS E2	Pollution	YES
	ESRS E3	Water and marine resources	YES
	ESRS E4	Biodiversity and ecosystems	YES
	ESRS E5	Resource use and circular economy	YES
<b>3. Social information</b>	ESRS S1	Own workforce	NO
	ESRS S2	Workers in the value chain	YES
	ESRS S3	Affected communities	YES
	ESRS S4	Consumers and end-users	NO, however possible in the long term
<b>4. Governance information</b>	ESRS G1	Business conduct	YES

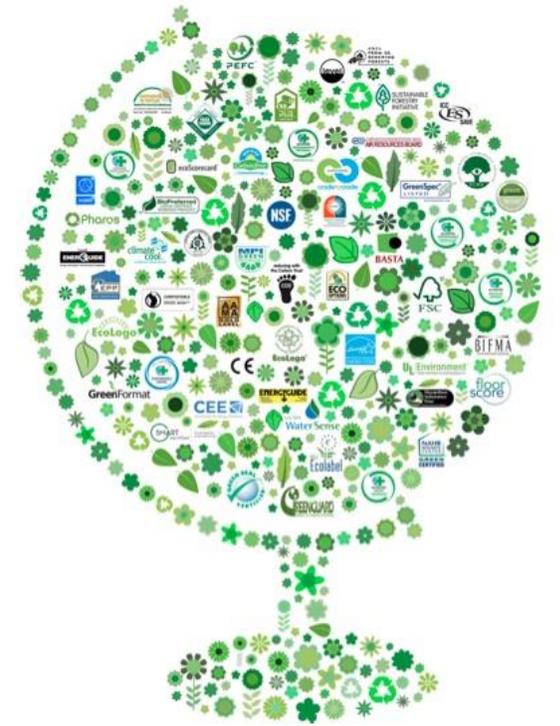
in collaboration with and supported by:



# 4. Fact based discussions and communication

We need to see the value beyond the customer

- Start by assessing your operation and products
- Engage others in your B2B supply chain
- Compare to learn, it is a process
- Stimulate stakeholders to support good practice
- Show data-driven progress



# 4. Fact based discussions and communication

BRIEFING  
EU Legislation in Progress



European Parliament

---

**'Green claims' directive**  
Protecting consumers from greenwashing

- Carbon-neutral
- Climate-neutral
- Carbon-positive
- Carbon-friendly
- Green
- Eco



## AN AGRIBUSINESS GREENWASHING GLOSSARY



# Towards 2030 - Integrated approach



FSI2025



FSI 2030



## 4. Fact based discussions and communication

*Communicating impactful reductions,  
good practice & improvement*

*Based on data and sector progress*

*Not to win short term battles that might harm the  
industry and negatively impact consumer behavior*

# Inspire and be inspired!



# The ripple effect of positive storytelling





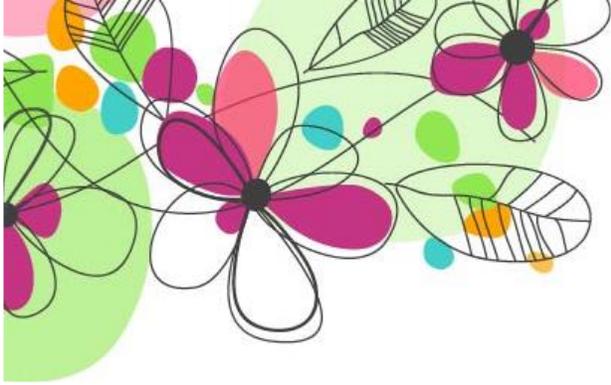
**Floriculture  
Sustainability  
Initiative**

# Thank you

[www.fsi2025.com](http://www.fsi2025.com)

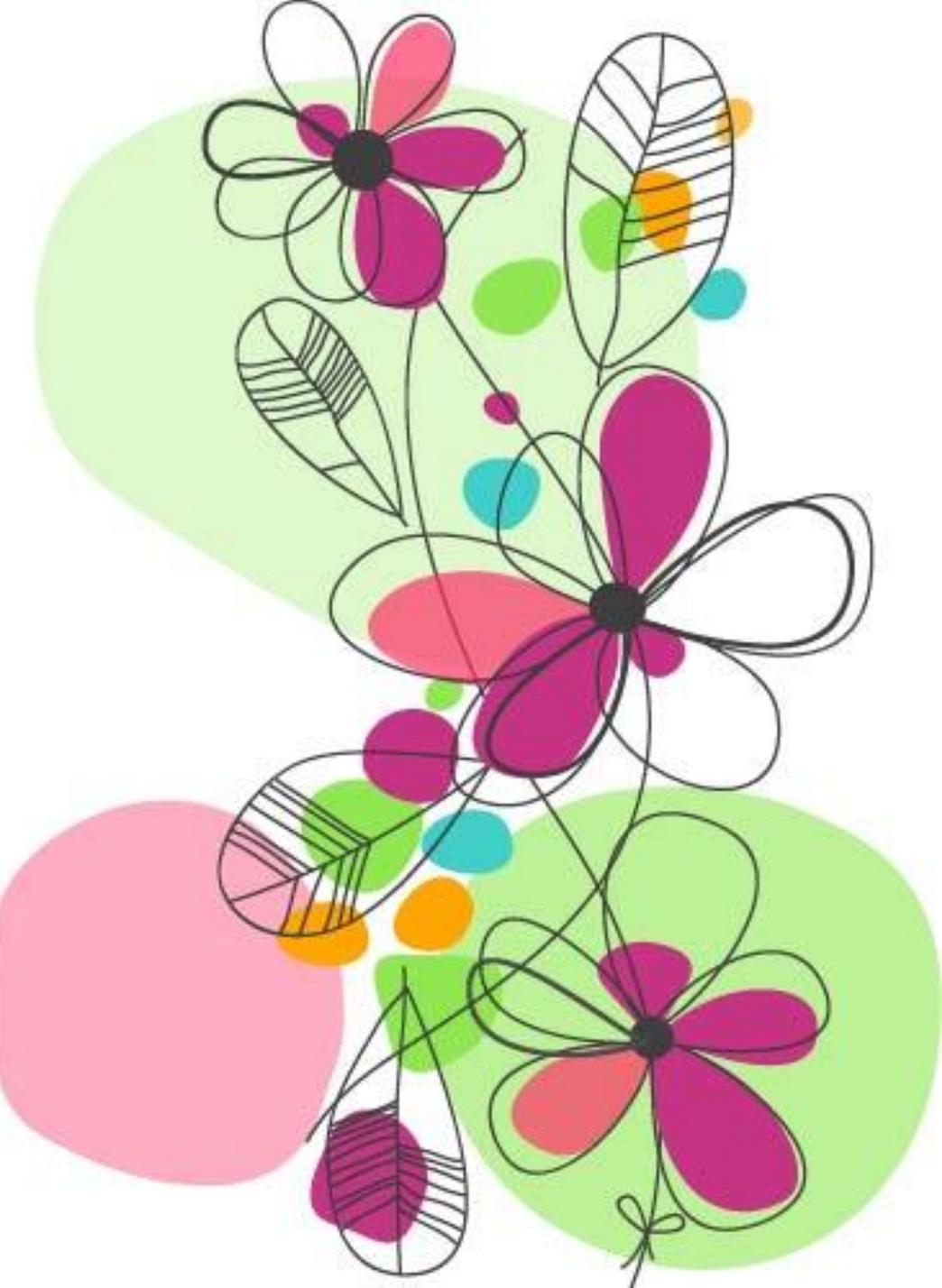
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## FOR MORE DETAILS ON FLORIFEFCR:

- [\*\*FloriPEFCR: Product environmental footprint category rules for cut flowers and potted plants: Final version \(Published – Jan 2024\)\*\*](#)
- [Product environmental footprint of the representative product for cut flowers \(Published – February 2024\)](#)
- [Product environmental footprint of the representative product for potted plants \(Published – February 2024\)](#)



**UNION FLEURS**

INTERNATIONAL FLOWER TRADE ASSOCIATION



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[info@unionfleurs.org](mailto:info@unionfleurs.org)



<https://www.linkedin.com/company/union-fleurs-international-flower-trade-association>