

1. Changes in PEFCR

Chapter	Changes
1-4. List of tables, figures, acronyms, definitions	Generic update
5. Introduction	
<p>6. General information about the PEFCR</p> <ul style="list-style-type: none"> ▪ 6.1 Technical secretariat ▪ 6.2 Consultations and stakeholders ▪ 6.3 Review panel and review requirements ▪ 6.4 Review statement ▪ 6.5 Geographic validity ▪ 6.6 Language ▪ 6.7 Conformance to other documents 	Update of TS, consultation procedure, review panel and review statement
<p>7. PEFCR scope</p> <ul style="list-style-type: none"> ▪ 7.1 Product classification ▪ 7.2 Representative product ▪ 7.3 Functional unit and reference flow ▪ 7.4 System boundary ▪ 7.5 EF impact assessment ▪ 7.6 Limitations ▪ 7.6.1 Assumptions 	Update of EF method
<p>8. Most relevant impact categories, life cycle stages and processes</p> <ul style="list-style-type: none"> ▪ 8.1 Most relevant impact categories ▪ 8.2 Most relevant life cycle stages ▪ 8.3 Most relevant processes 	<p>8.1-8.3 Update of most relevant impact categories, life cycle stages and processes based on new RP</p> <p>8.3 Identical processes taking place in different life cycle stages (e.g. transportation, electricity use) shall be accounted for separately. Identical processes taking place within the same life cycle stage shall be accounted for together. The list of most relevant processes shall be reported in the PEF report together with the respective life cycle stage (or multiple</p>

	<p>life cycle stages if relevant) and the contribution in %.</p> <p>Add most relevant elementary flows, separately for each most relevant impact category.</p>
<p>9. Life cycle inventory</p> <ul style="list-style-type: none"> ▪ 9.1 List of mandatory company-specific data ▪ 9.2 List of processes expected to run by the company ▪ 9.3 Data gaps ▪ 9.4 Data quality requirements ▪ 9.5 Data needs matrix (DNM) ▪ 9.6 Which datasets to use? ▪ 9.7 How to calculate the average DQR of the study ▪ 9.8 Allocation rules ▪ 9.9 Electricity modelling ▪ 9.10 Climate change modelling ▪ 9.11 End of life modelling for packaging materials 	<p>9.3 Possible update data gaps based on new dataset</p> <p>9.4 data quality of i) the company-specific activity data and ii) the company-specific direct elementary flows (i.e. emission data) to be assessed separately</p> <p>9.5 Slight update (simplification) of DNM</p> <p>9.6 update based on new EF dataset</p> <p>9.7 to include tox categories now</p>
<p>10. Life cycle stages</p> <ul style="list-style-type: none"> ▪ 10.1 Raw material acquisition and processing (i.e. production of feed ingredients) ▪ 10.2 Agricultural modelling ▪ 10.3 Manufacturing ▪ 10.4 Distribution stage 	<p>Update of agric modelling, likely in line with PEFCR feed</p>
<p>11. PEF results</p> <ul style="list-style-type: none"> ▪ 11.1 Representative product ▪ 11.2 PEF Profile ▪ 11.3 Additional technical information ▪ 11.4 Additional environmental information 	<p>Update based on outcomes RP</p>
12. Verification	
13. References	
Annex	<p>1. Update based on new EF methodology</p> <p>3. New review report</p>

<ul style="list-style-type: none"> ▪ Annex 1 - List of EF normalisation and weighting factors ▪ Annex 2 - check-list for the PEF study ▪ Annex 3 - Critical review report ▪ Annex 4 - Illustrative implementation of the Data Needs Matrix from the perspective of a feed company ▪ Annex 5 - Limitations relative to the definition of the system boundaries ▪ Annex 6 - Default activity data for transport (distances and mode) ▪ Annex 7 - Representative product ▪ Annex 8 - Sampling procedure 	<p>4. update based on new DNM</p> <p>7. Update based on modelling of new RP</p>
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2. Results change between EF 2.0 and EF 3.1

Impact category	EF 2.0	EF 3.1	Difference	
Acidification	9.09E+00	5.64E+00	-37.9%	More detailed modelling of ammonia emissions; higher NUE, regionalization of ammonia flows
Climate change	1.02E+03	1.02E+03	-0.1%	Updated energy and peat modelling
Ecotoxicity, freshwater	1.24E+04	1.42E+05	1042.8%	Inclusion of more chemicals, some with high emission factor. Different emission factors in EF 3.0 method.
Particulate Matter	7.31E-05	6.90E-05	-5.5%	Improved modelling ammonia emissions, higher NUE
Eutrophication marine	7.37E+00	7.27E+00	-1.4%	Higher NUE
Eutrophication, freshwater	1.82E-01	1.66E-01	-9.0%	Reduced use of phosphorus
Eutrophication, terrestrial	3.93E+01	2.63E+01	-33.0%	Improved modelling ammonia emissions, higher NUE
Human toxicity, cancer	2.82E-05	2.45E-07	-99.1%	Different emission factors in EF 3.0 method. More detailed modelling of chromium emissions
Human toxicity, non-cancer	1.39E-03	2.77E-05	-98.0%	Different emission factors in EF 3.0 method
Ionising radiation, human health	4.08E+01	3.09E+01	-24.1%	Related to electricity use

Land use	2.16E+05	1.26E+05	-41.7%	Regionalisation of land use flows in EF 3
Ozone depletion	8.14E-07	2.05E-06	151.3%	Due to Agribalyse processes
Photochemical ozone formation - human health	1.84E+00	2.15E+00	17.2%	Different dataset for fuel combustion
Resource use, fossils	5.60E+03	4.59E+03	-18.1%	Update energy model; different energy datasets
Resource use, minerals and metals	2.43E-04	1.58E-04	-35.1%	Update energy model; different energy datasets
Water use	1.77E+03	1.51E+03	-14.8%	Different wastewater treatment process