PET FOOD EXTRUSADO VS. DIETA CASEIRA

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14 E 15 DE MAIO | 2025

Principais apresentações de Pet food

- **Umido, seco e caseiro são diferentes em termos de:**

  - Ingredientes
  - Processamento
  - Digestibilidade
  - Embalagem
  - Condição de armazenamento

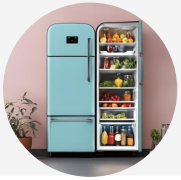
Dry Pet food

Wet Pet food

Homemade

Diferente em termos de desempenho ambiental

Formas de apresentação de Pet food

		Dry	Wet	Homemade
Ingredients		Vegetable and animal byproducts	Animal byproducts	Human grade food ingredients
Processing		Extrusion	Sterilization	Cooking or sterilization
Packaging		Plastic bag, paper bag, cartoon box	plastic pouch, metal can, aluminium tray	plastic bag, aluminium tray, glass can, metal can
Digestibility		Less than 90%	Variable	Higher than 90%
Storage Condition		Environmental temperature	Environmental Temperature	Environmental or frozen

Avaliação do desempenho Ambiental de dietas

Table 42 Most relevant life cycle stage comparing screening and supporting study results

	Cat				Dog			
Type:	Wet		Dry		Wet		Dry	
Product:	RP	C&D	RP	Purina	RP	Saturn	RP	Mars
Ingredients	✓	✓	✓	✓	✓	✓	✓	✓
Packaging production	✓	✓			✓	✓		
Manufacturing								
Distribution	✓	✓	✓	✓	✓	✓	✓	✓
Use								
Packaging EOL								

Product Environmental Footprint Category Rules (PEFCRs)

Prepared Pet Food for Cats and Dogs

fediaf
EuropeanPetFood

Updated version *(post positive opinion of the EF Steering Committee on December 18th 2024)*

Valid through 31 December 2025

Prepared by the ***Technical Secretariat****:*

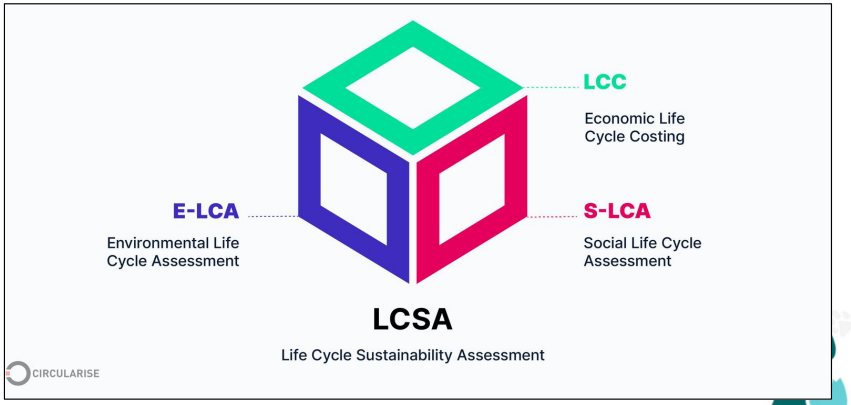
The European Pet Food Industry Association ***(FEDIAF),*** *the French Pet Food Association for Dogs, Cats, Birds and Other Domestic Pets* ***(FACCO)*** *Industrial Association of Pet Care Producers' (German: Industrieverband Heimtierbedarf,* ***IVH****),* ***Mars PetCare****,* ***Nestlé Purina PetCare****,* ***Affinity PetCare****, Pet Select, Normandise Petfood, Hills Pet Nutrition and* ***Blonk, a Mérieux NutriSciences Company.***

Most relevant life cycle stages (weighted)	Ingredients	Packaging	Manufacturing	Distribution	Use	End-of-Life	total
Dry cat food	78%	3%	5%	11%	3%	-1%	**100%**
Dry dog food	80%	2%	5%	12%	1%	0%	**100%**
Wet cat food	42%	36%	6%	20%	6%	-10%	**100%**
Wet dog fod	43%	40%	6%	18%	2%	-10%	**100%**

Avaliação do ciclo de vida

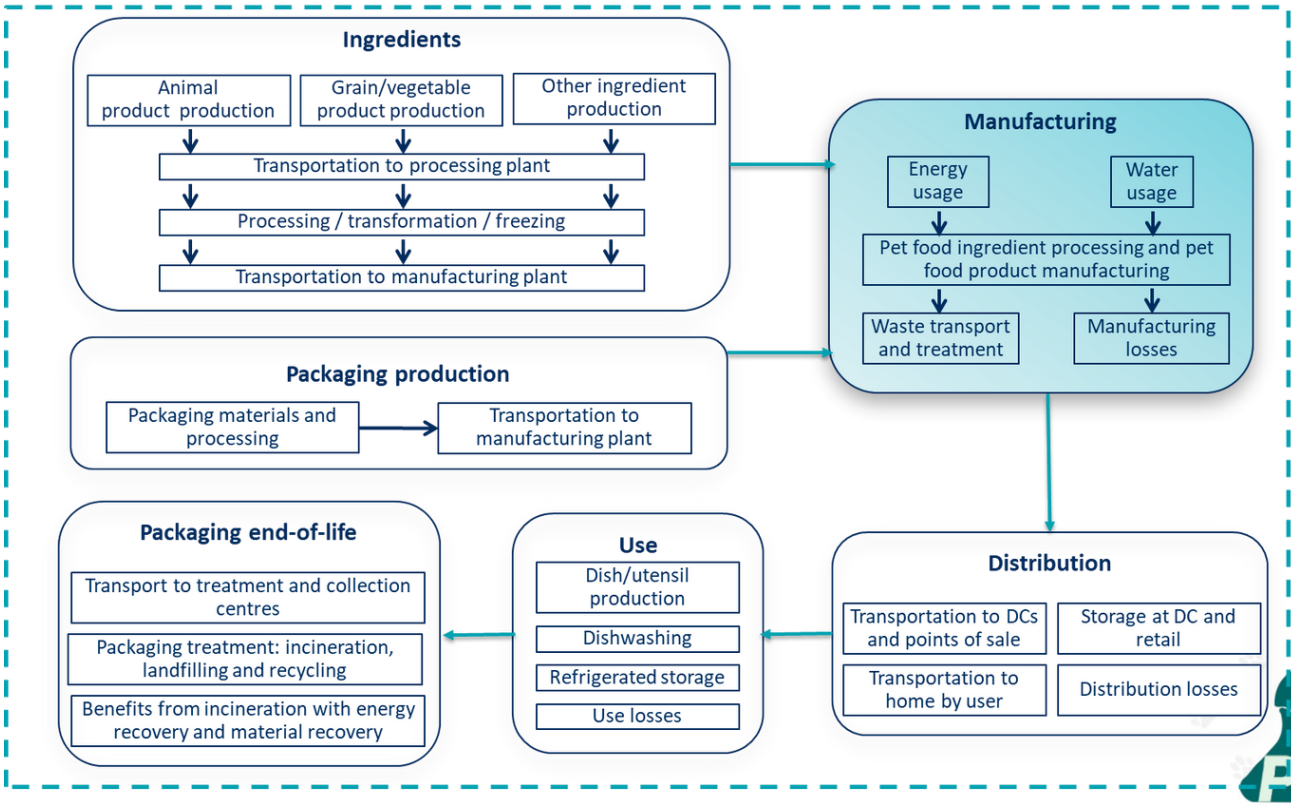
"É uma ferramenta de compilação e avaliação das entradas, saídas e potenciais impactos ambientais de um sistema de produto ao longo de seu ciclo de vida" (ISO, 2006).

- Apenas ambiental (atribucional)
- Aspectos sociais, econômicos e ambientais (conseqüencial)



Fases do produto

- Matéria prima
- Processamento
- Embalagem
- Distribuição
- Uso
- EoL embalagem



LCA and Brazilian Dry Pet food production

- **LCA from the cradle to gate (raw material to distribution)**

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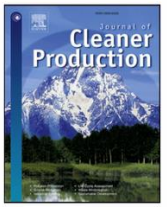
journal homepage: www.elsevier.com/locate/jclepro



Life cycle assessment of the production of an extruded dog food in Brazil

Jéssyka L.G. Costa [a], Ferenc I. Bánkuti [a], Olivia T. Oiko [b], Mariana Monti [c], Bruna A. Loureiro [d], Lucas B.F. Henríquez [a], Thiago José Florindo [e], Ricardo S. Vasconcellos [a,*]

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[e] Federal University of Mato Grosso do Sul, Nova Andradina, MS, 79750-000, Brazil

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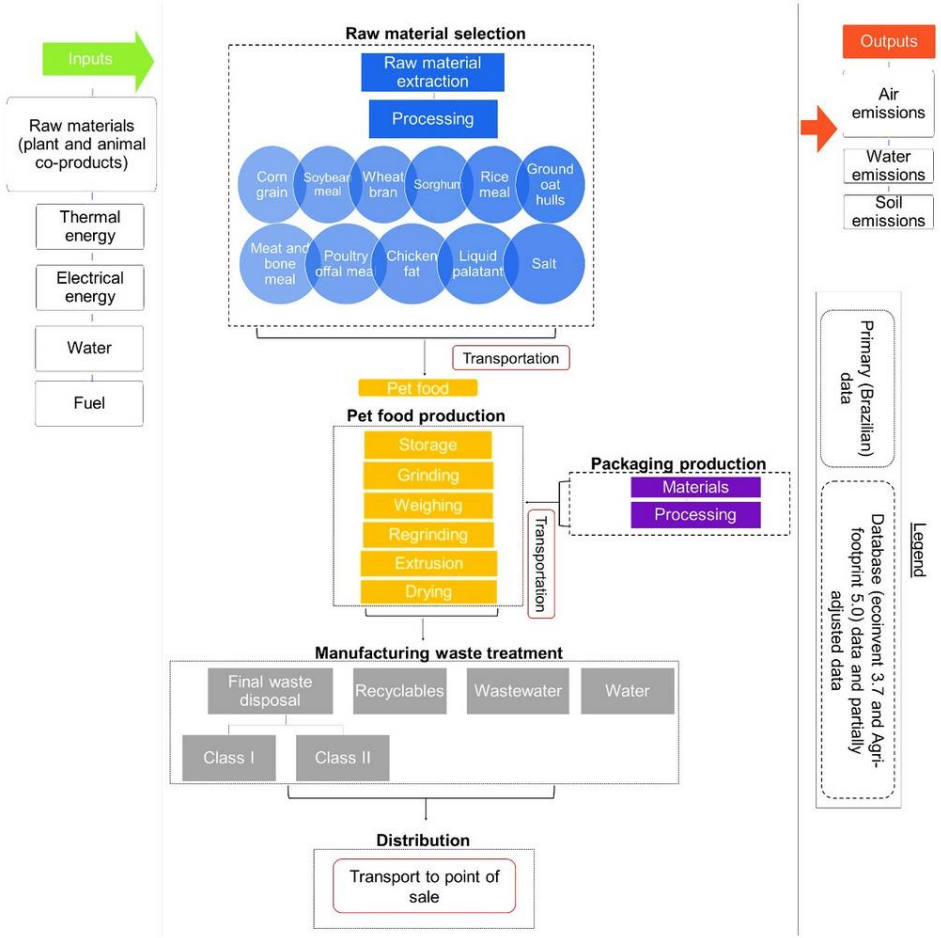
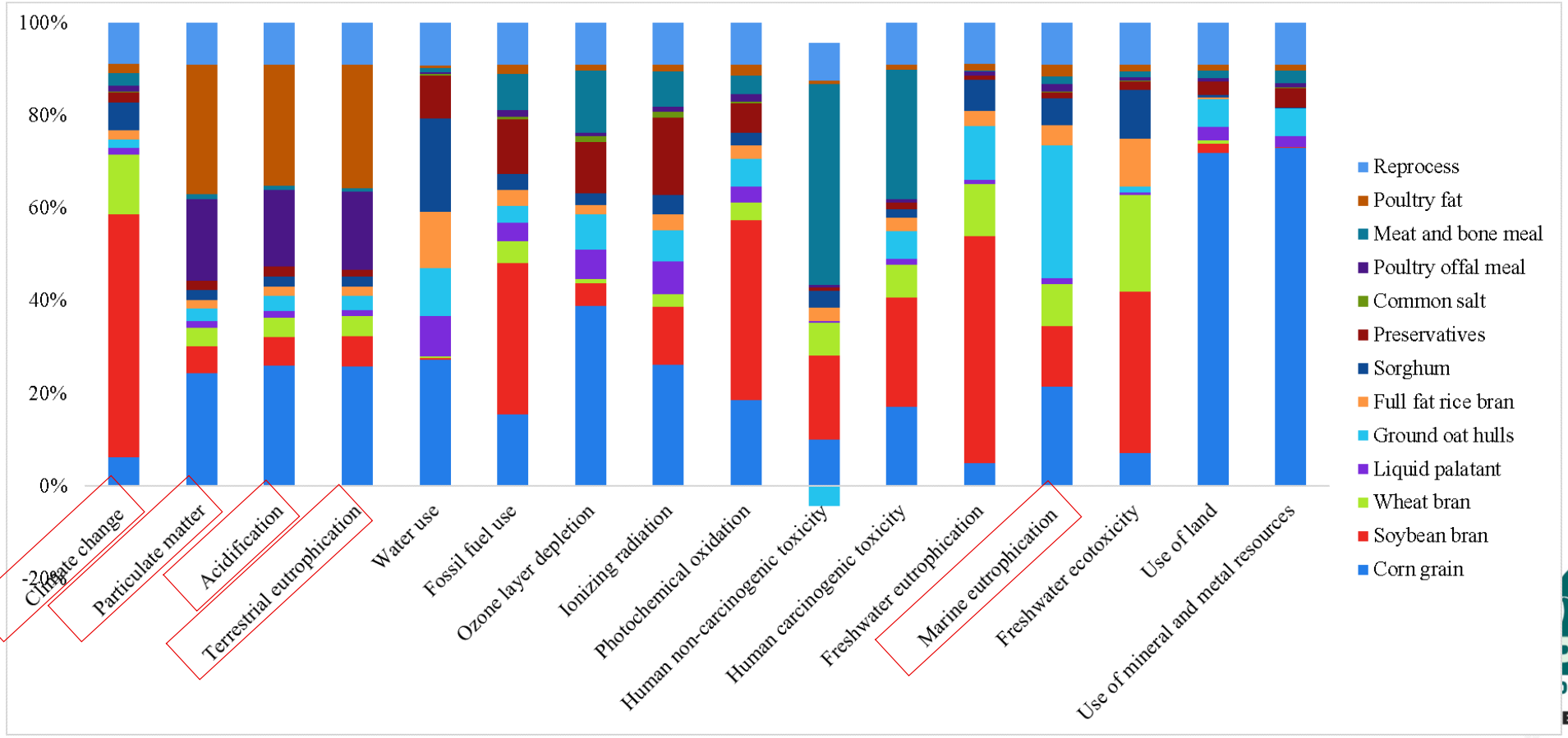
System boundaries

- **Primary data (collected from the company)**
  - Energy/water use
  - Ingredient and package
  - Residuals/reprocessing
  - Distance
- **Secondary data (market data and others)**
  - Raw materials production
  - Packaging production
  - Emissions
- **Excluded data**
  - Use step (from the retailer)
  - Facilities and equipment
  - Microingredients (premix)

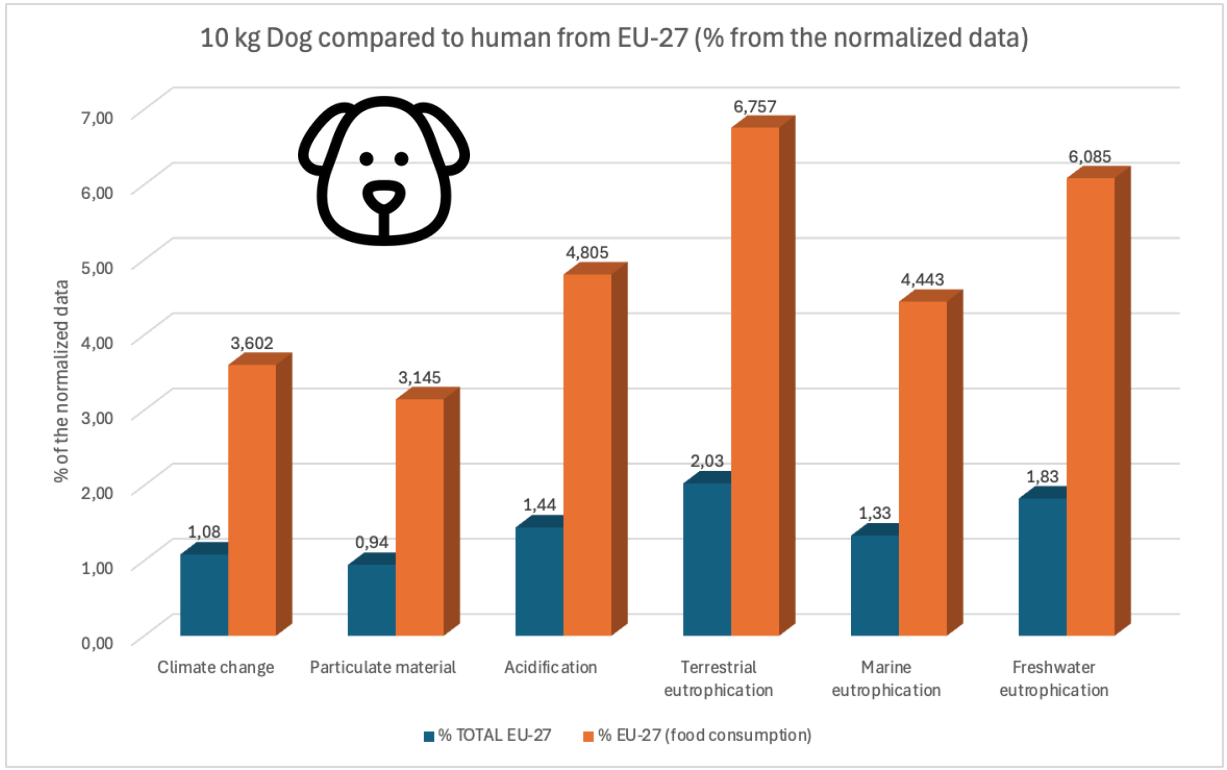


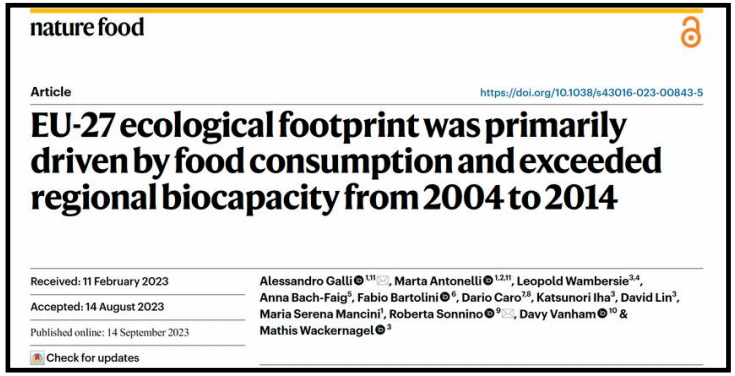
Contribuição de ingredientes em alimento seco

- From the normalized data, 5 impact categories presented most relevant contribution (raw material selection)



Normalização dos dados





nature food

Article

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EU-27 ecological footprint was primarily driven by food consumption and exceeded regional biocapacity from 2004 to 2014

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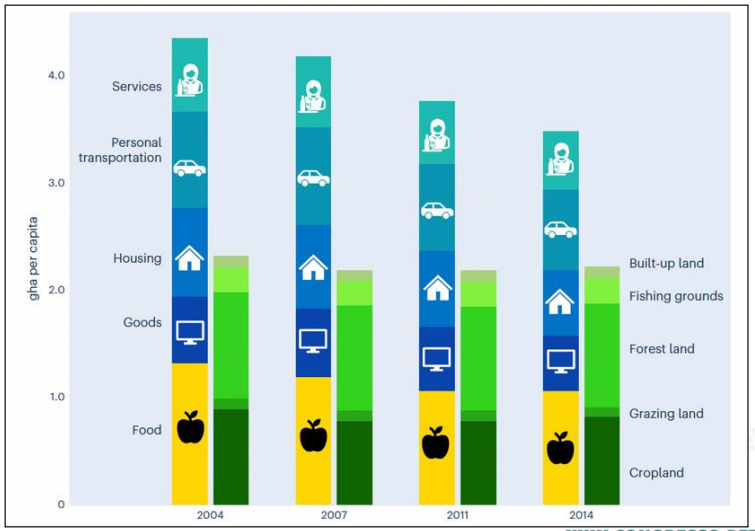
Check for updates

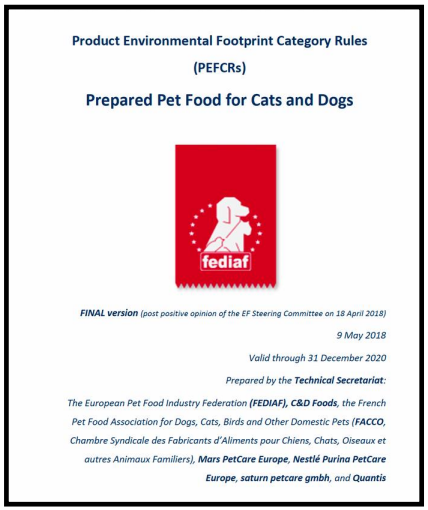
Alessandro Galli[1,11], Marta Antonelli[1,2,11], Leopold Wambersie[3,4], Anna Bach-Faig[5], Fabio Bartolini[6], Dario Caro[7,8], Katsunori Iha[3], David Lin[3], Maria Serena Mancini[1], Roberta Sonnino[9], Davy Vanham[10] & Mathis Wackernagel[3]



Climate change impact of Pet food – comparison among studies

- Total quantified emission = 0.230 kg CO2 eq day (10 kg dog)
- 84.46 kg CO2 eq year
- Consumption: 64.97 kg per year

1,30
kgCO2.Eq/kg
dry Pet food



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*Prepared by the **Technical Secretariat**:*
*The European Pet Food Industry Federation **(FEDIAF), C&D Foods**, the French Pet Food Association for Dogs, Cats, Birds and Other Domestic Pets (**FACCO**, Chambre Syndicale des Fabricants d'Aliments pour Chiens, Chats, Oiseaux et autres Animaux Familiers), **Mars PetCare Europe, Nestlé Purina PetCare Europe, saturn petcare gmbh**, and **Quantis***

1,64
kgCO2.Eq/kg
dry Pet food

Alexander (2020)

Pet food Production: 26.6 millions of tonnes/y

2,10
kgCO2.Eq/kg
dry Pet food

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LCA and Homemade diets

Premium

Super Premium

Homemade

10
representative companies

2
More cited Sources of each ingredient category (starch, protein, fiber, fat)

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LCA and Homemade diets

Super premium	Premium	Homemade
Maize gluten feed	Soybean meal 46%	Red meat, cooked
Poultry byproduct meal	Poultry byproduct meal	chicken breast, cooked
egg powder	maize grain	white rice, cooked
maize grain	broken rice	sweet potato, cooked
broken rice	poultry fat	carrots, cooked
poultry fat	beet pulp	sunflower oil
fiber cane	linseed	oat grain
beet pulp	mold inhibitor	calcium carbonate
mold inhibitor	antioxidant	mineral and vitamin premix
antioxidant	dicalcium phosphate	
dicalcium phosphate	palatant	
palatant	mineral and vitamin premix	
mineral and vitamin premix		

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LCA and Homemade diets

Scope: Cradle-to-gate

- ☑ **Production and processing of ingredients**
- ☒ **Packaging, distribution and use steps**

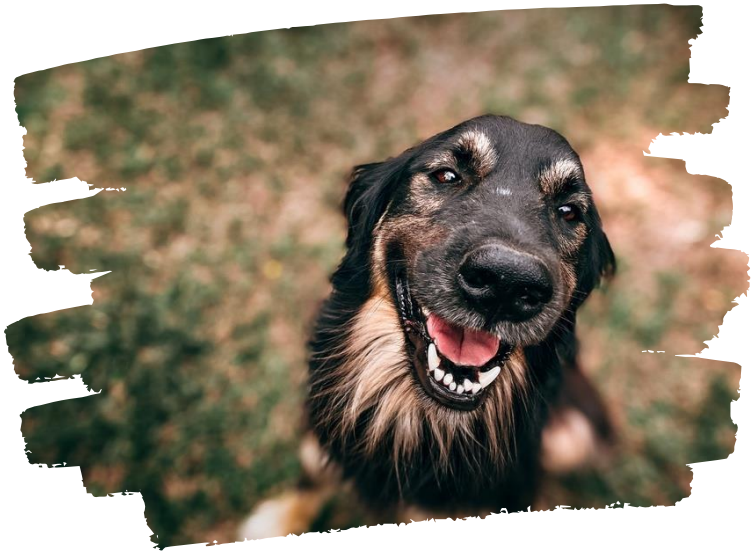
Functional unit (110 x BW0.75)

Daily energy requirement of an adult dog with 10kg of body weight (2.59 MJ/day)

Reference flux

Amount of food (g/day) considering ME of each diet

- **HM** 463.6
- **SP** 160.9
- **P** 181.4



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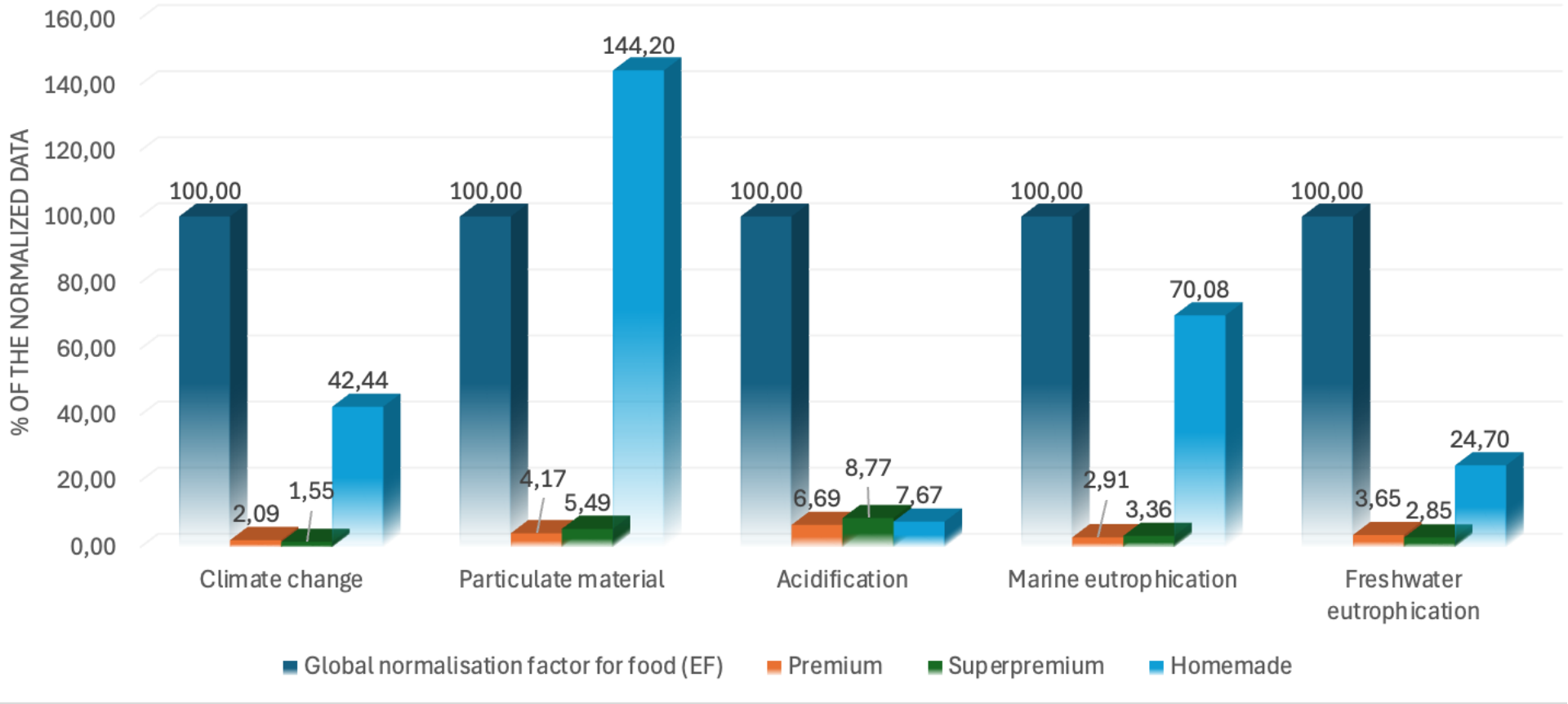
Normalized data by EU-27



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Fatores a considerar

- Indicação de uso das dietas

	Alimento Extrusado	Dieta caseira
Pegada ambiental (formulação)		
Pegada ambiental (uso)		
Indicadores nutricionais	Variável	Variável
Segurança do alimento		
Vida de prateleira		

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Muito Obrigado

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