

Carbon Footprint Scope 3 emissions of an Agrifood Research Institute



Núria Martínez Soler

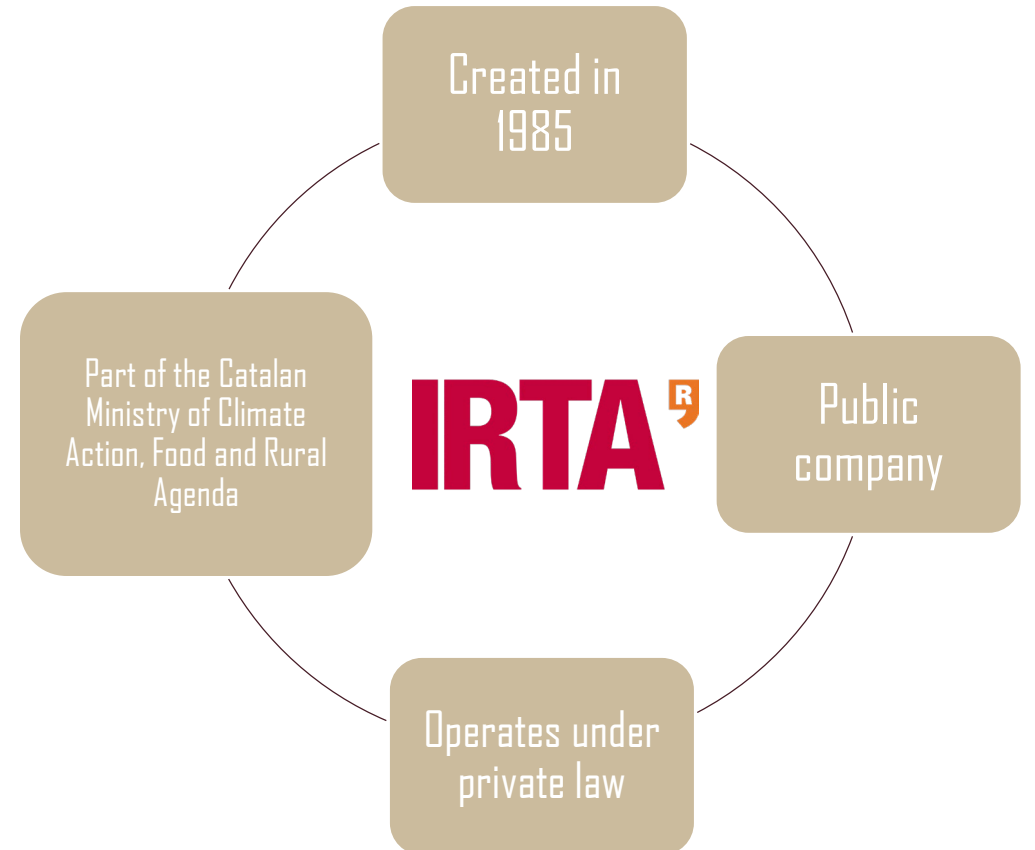
7 June 2023 – ETH Zentrum campus (Zurich)



Index

1. Object
2. Methodology
3. Results

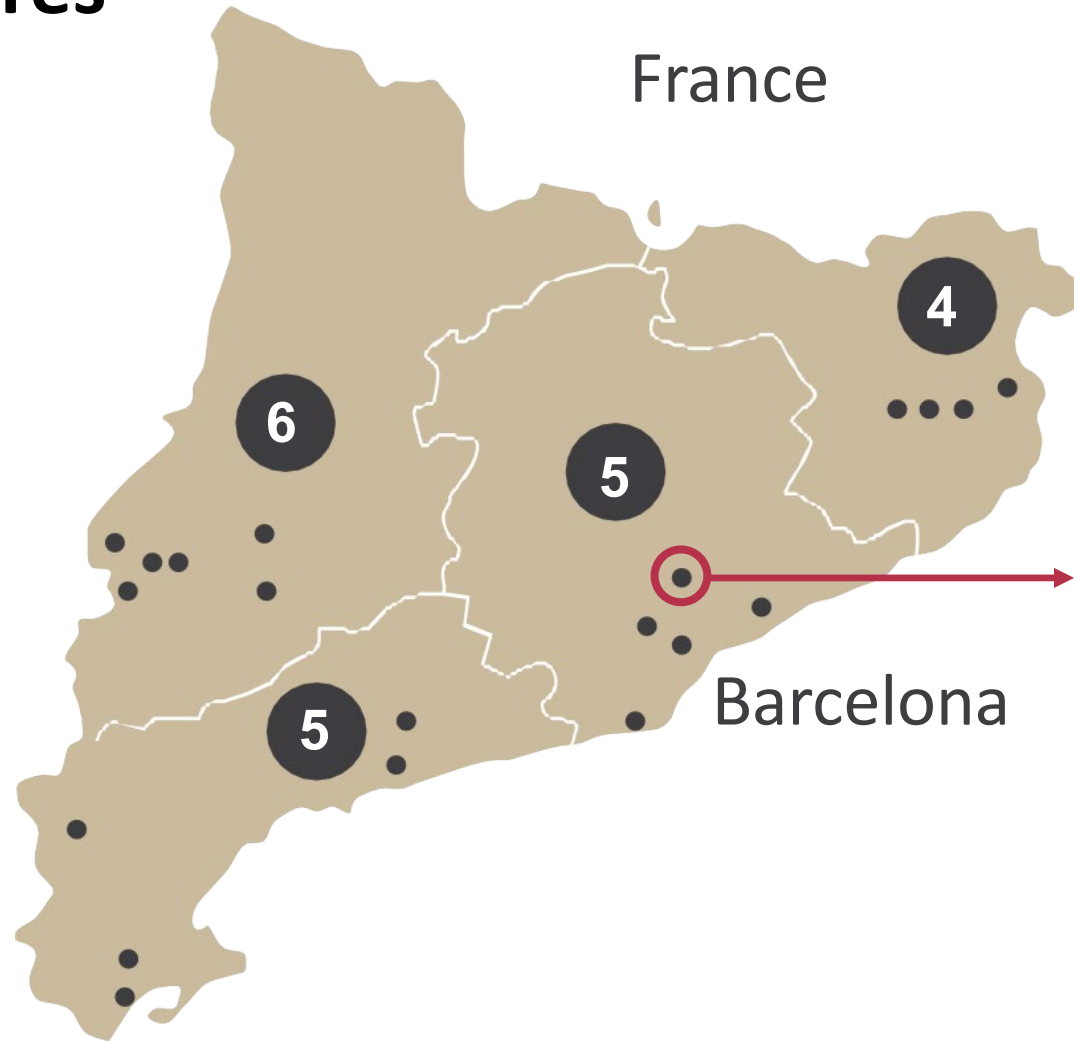
Institute of Agrifood Research and Technology (IRTA)



IRTA centres

20

Locations



Fields



Agronomic research



Laboratories



Terrestrial animal farms

Methodology

Organizational Life Cycle Assessment

Functional unit: Operation Torre Marimon Centre during 1 year
Reference year: 2019



ISO 14040, ISO 14044, ISO 14064



OEF: Organisation Environmental Footprint



GHG protocol

SímaPro **Tool:** Simapro 9.3.0.3, Pré Sustainability



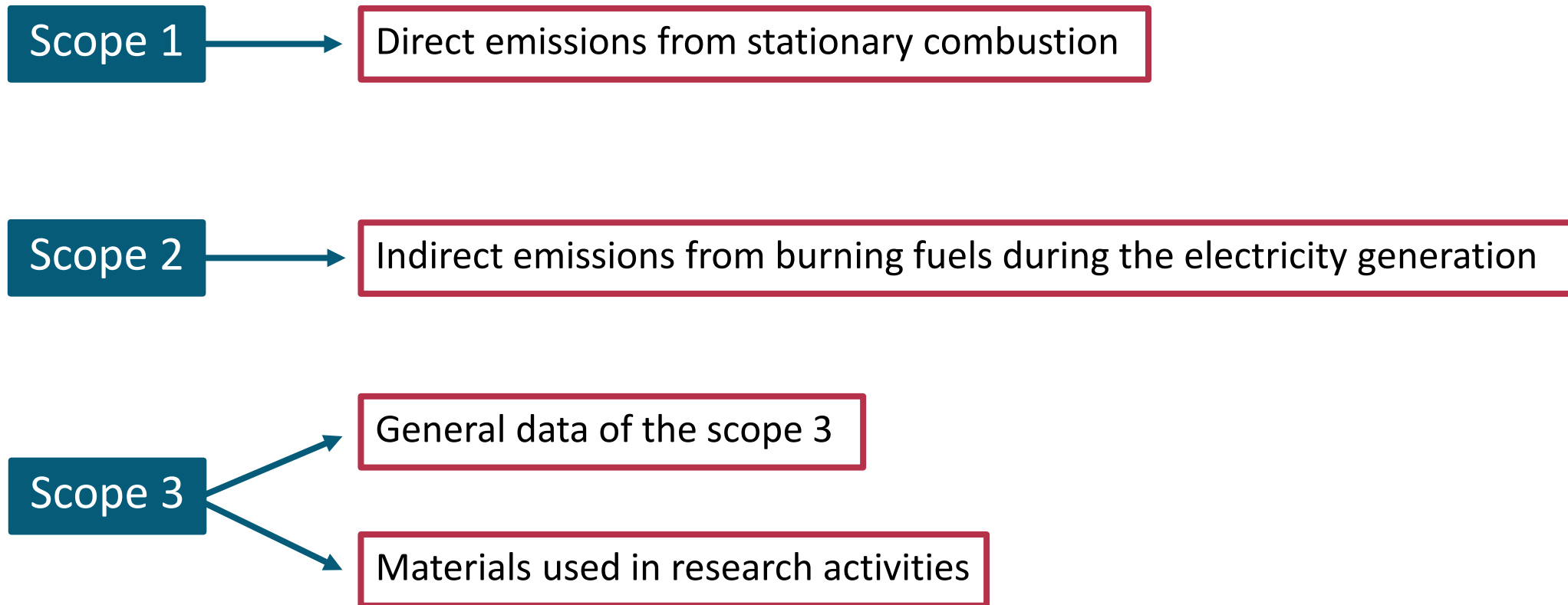
Database: Ecoinvent 3.8 and Agribalyse 3



Goals of the study

- Assess the direct and indirect impact on Climate Change
- Create a reference to compare between years
- Identify the weak environmental points of the organization
- Create an own strategy to assess the Carbon Footprint
- Make IRTA staff aware of the importance of environmental impact

Inventory



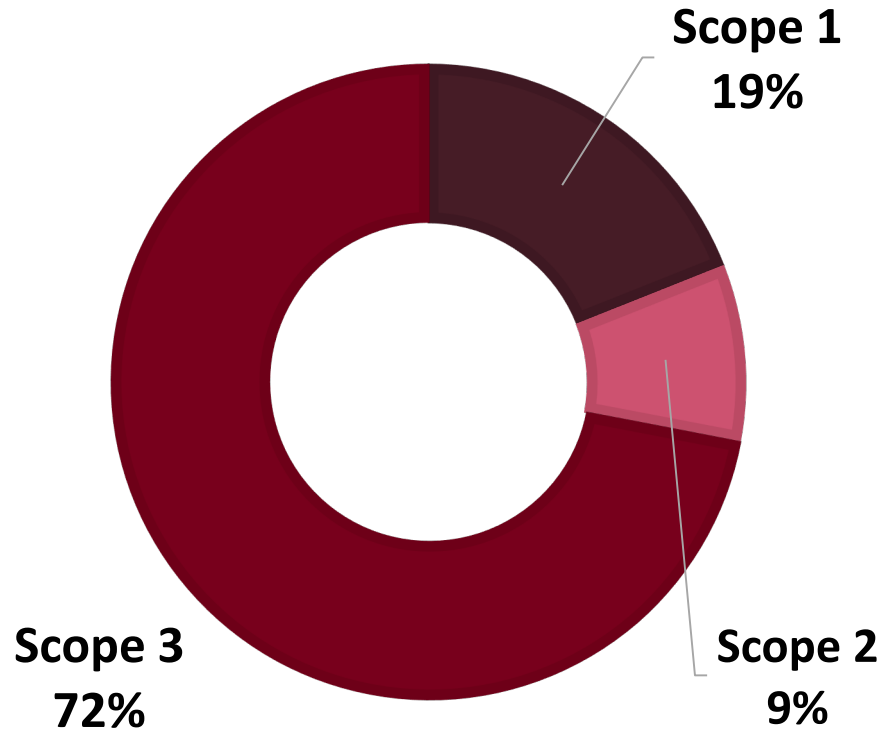
Inventory – Scope 3

General data	Origin of the data
Tap water	Invoices
Worker's transport	Survey workers and reports of the centre
Waste	Consultations with the municipal waste collection service
Equipment	Invoices and reports of the centre
Services	Survey workers and invoices

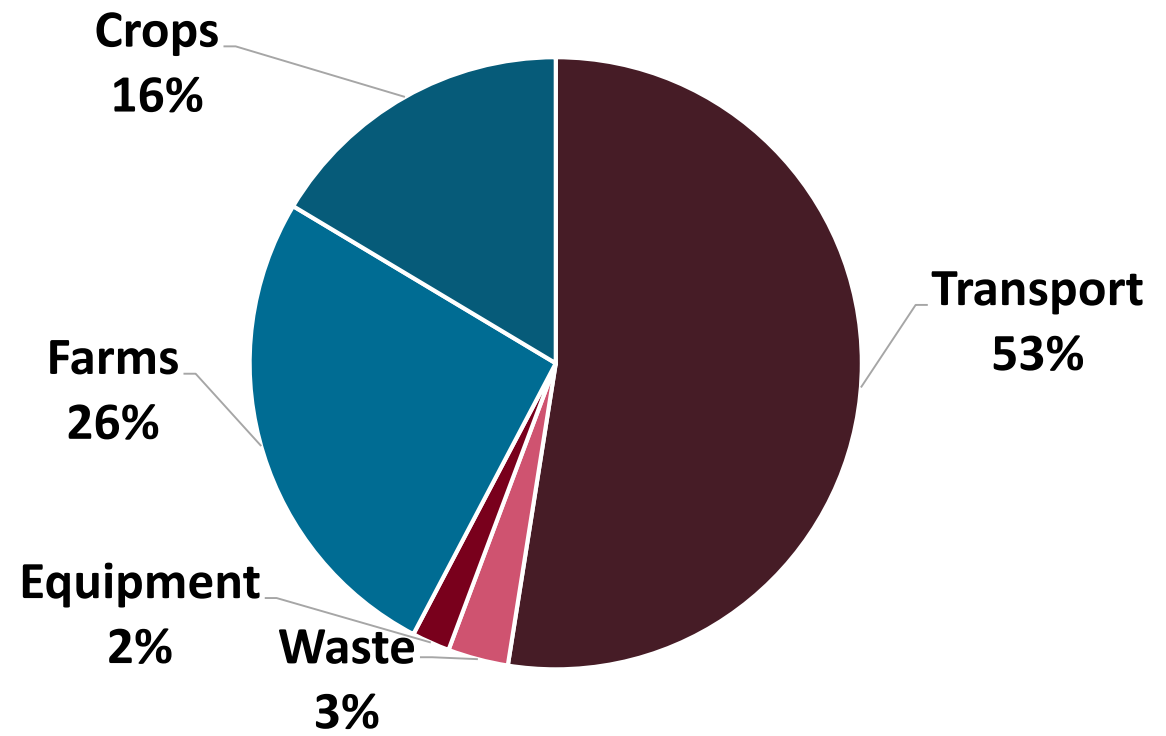
Materials activities	Origin of the data
Greenhouse crops	Staff interviews
Farms	
Fields	
Tree plantations	
Laboratory	

Results

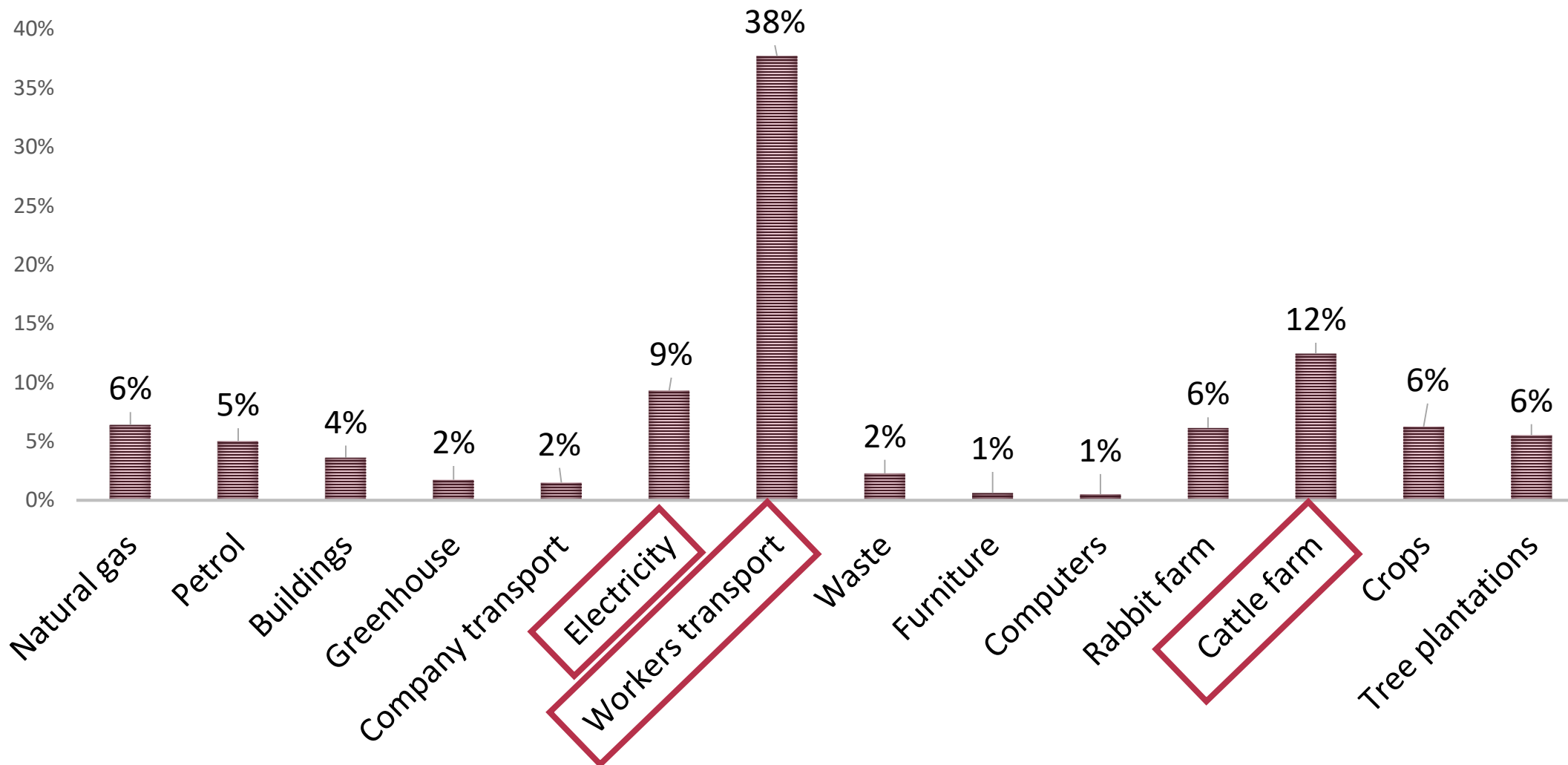
CARBON FOOTPRINT



SCOPE 3



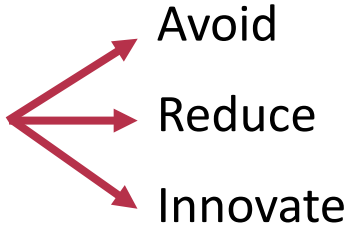
Results - Total contribution to the Carbon Footprint





Conclusions

What does this study allow us?

- Compare results within the organization
- Communication
- Improvement strategies 
 - Avoid
 - Reduce
 - Innovate

Weak points

- Transport
- Cattle farm emissions
- Electricity consumption



Closing remarks

- Difficulty obtaining data
- How do we analyse a multifunctional organization?
- Scope 3: where is the limit?
- Lack of specific methodology
- Is just calculating the Carbon Footprint enough?

Thank you for your attention

nuria.martinez@irta.cat



IRTA^R

Institut
de Recerca i Tecnologia
Agroalimentàries

www.irta.cat

