



September 20th-22nd, 2022  
MTEch Users Conference





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Padmini Persaud, PhD

# What does it take to count your Carbon?



# Carbon Emissions

- Domestic and International initiatives for carbon neutral and net zero practices
- Verifying bodies and government programs allow accountability and transparency
- US Goal is to reduce carbon to pre-2005 levels by 2030



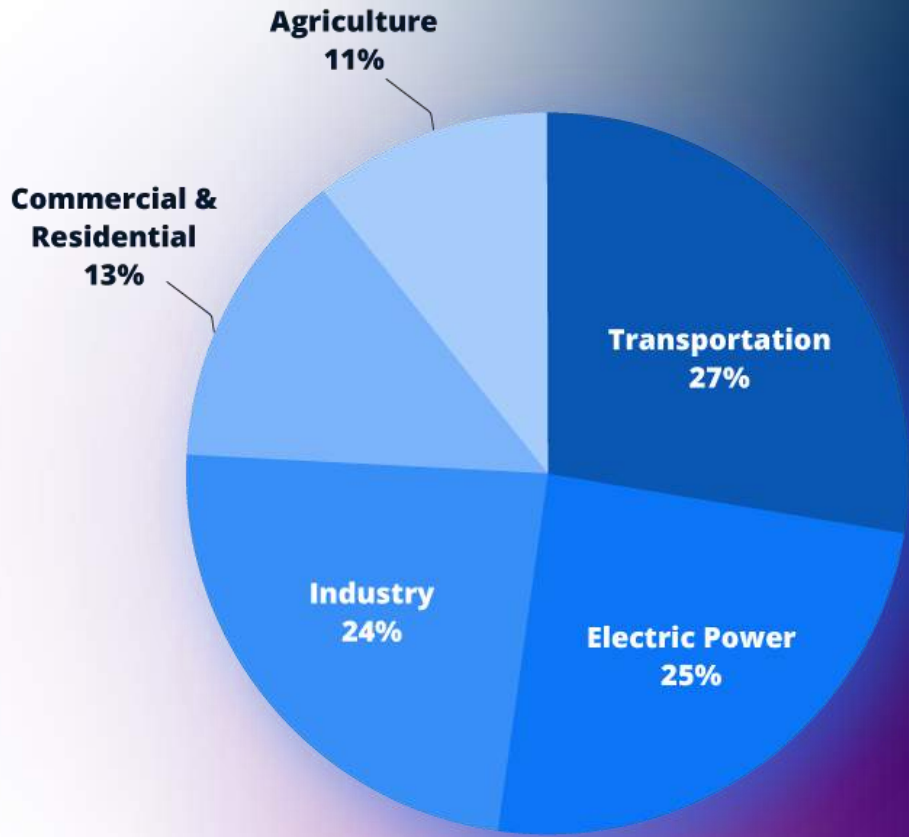
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# Carbon Emissions

- Agriculture accounts for 11% of Greenhouse Gas emissions
- Poultry contributes to other emission sectors
- Emissions come from utilities, usage, transportation, and waste

Total U.S Greenhouse Gas Emissions  
by Economic Sector in 2020



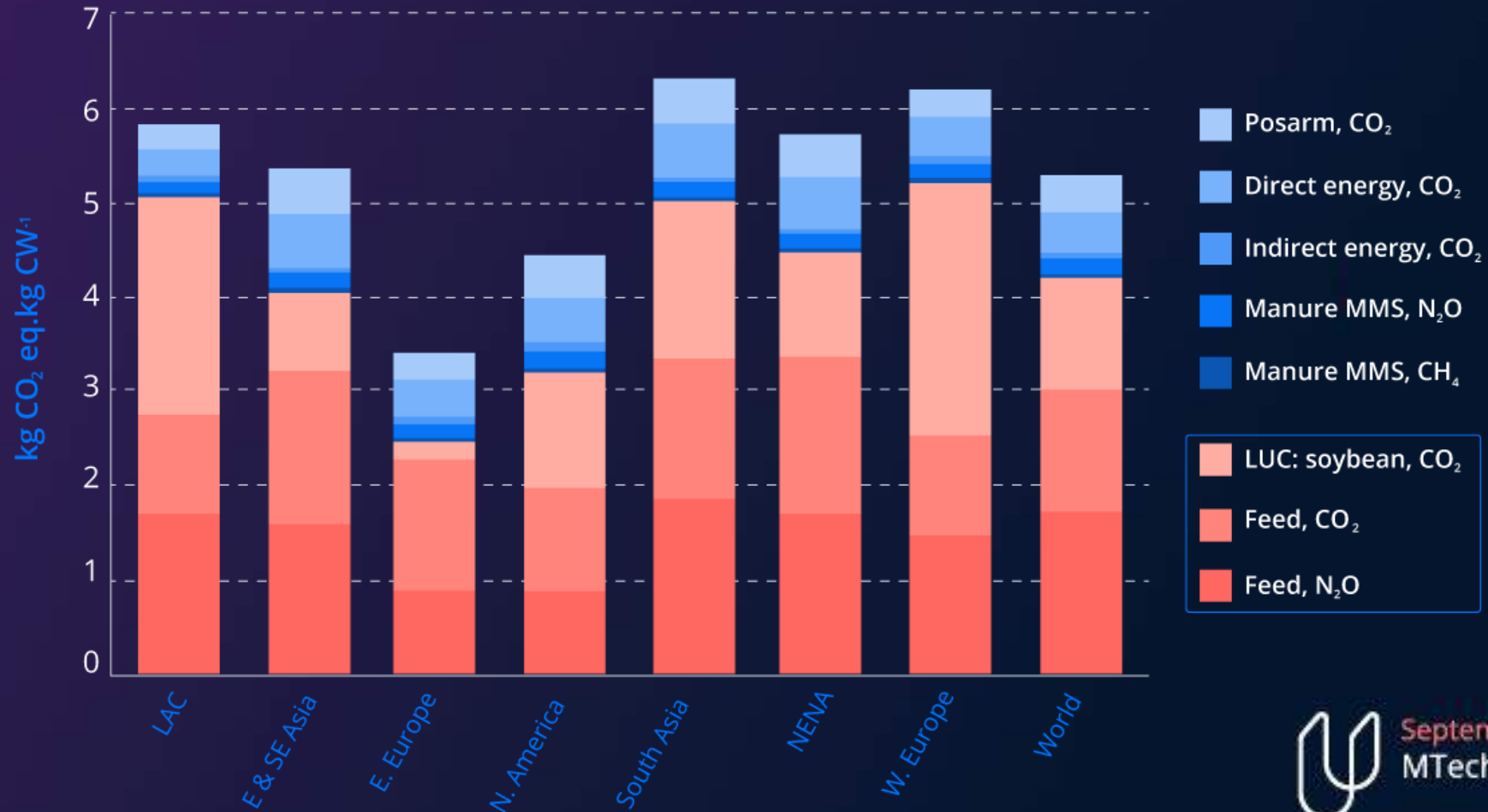
(EPA 2020)



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# Average Broiler Emission Intensity:

Regions with less than 2% of broiler production are omitted



(FAO, 2013)



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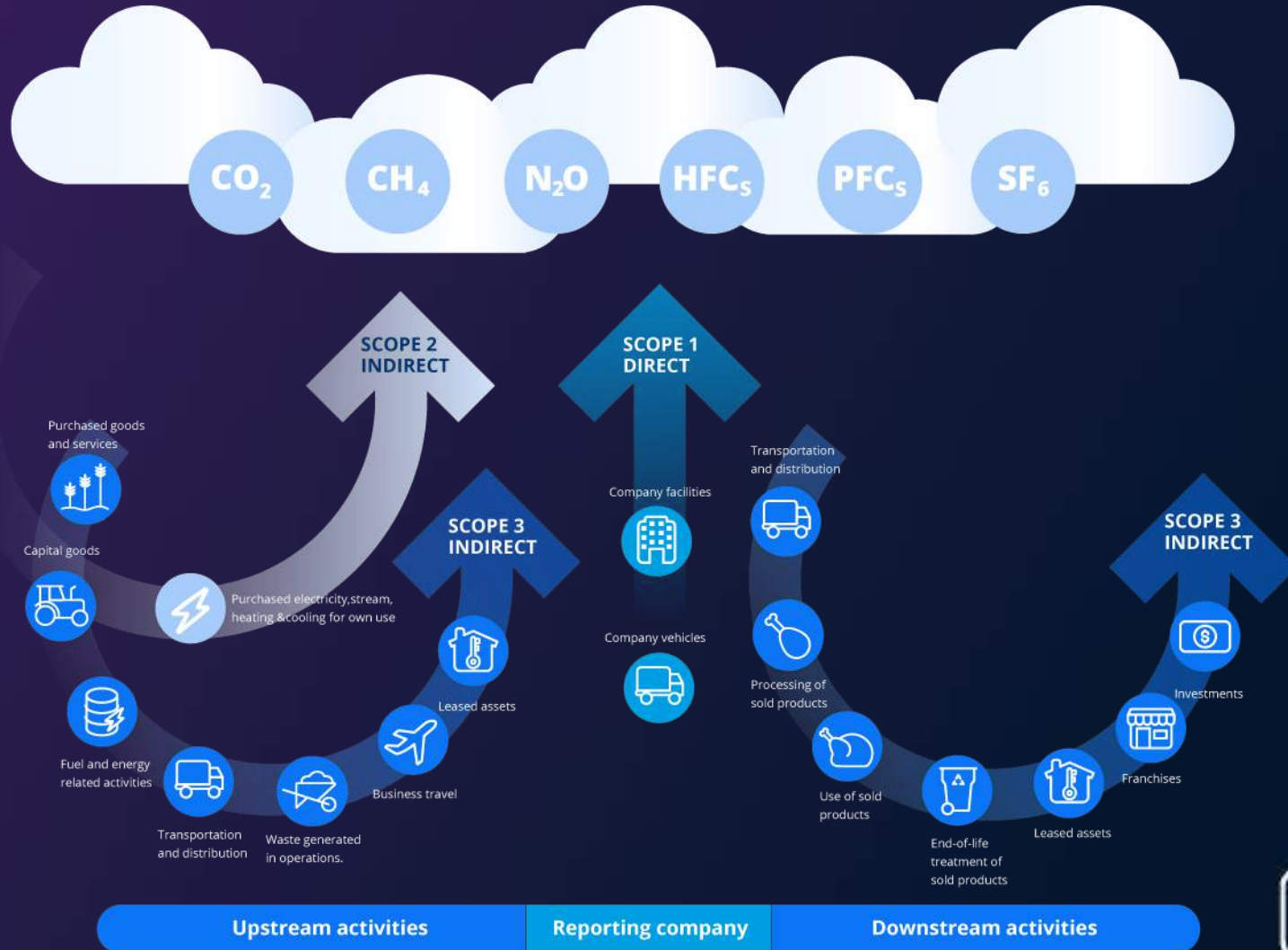
# Emission Calculation

- Calculation requires activity data, emission factors, global warming potentials, and unit conversions
- Emissions Factors (EF) are location specific whenever possible and modeled when data is insufficient

$$\text{Emission} \times \text{EF} \times \text{GWP} \times \text{Unit Conversion} = \text{CO}_2\text{e}$$

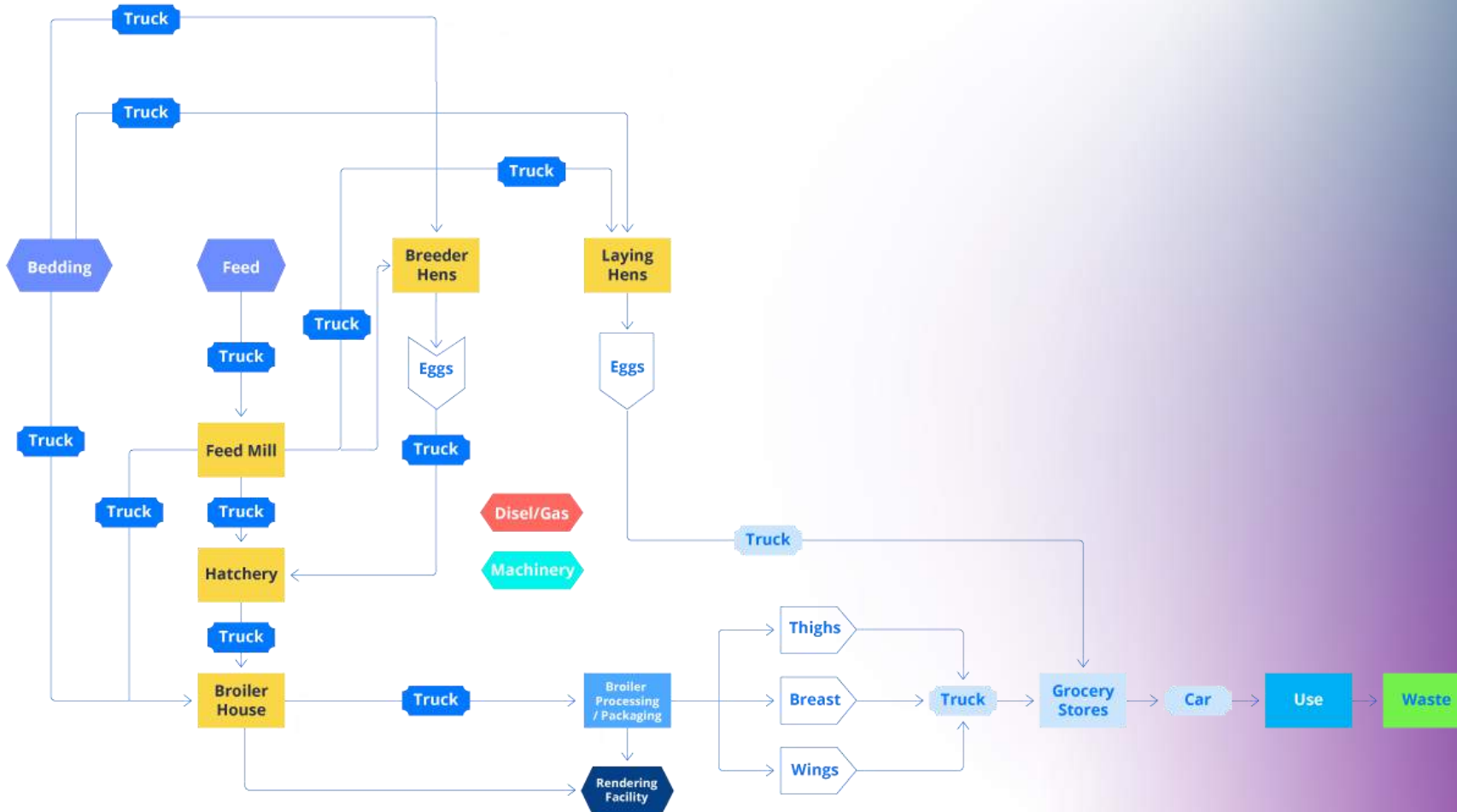


# Scope and Category





# Poultry Value Chain



## LEGEND

### Ownership



### Product Type



### Scope 3 Categories

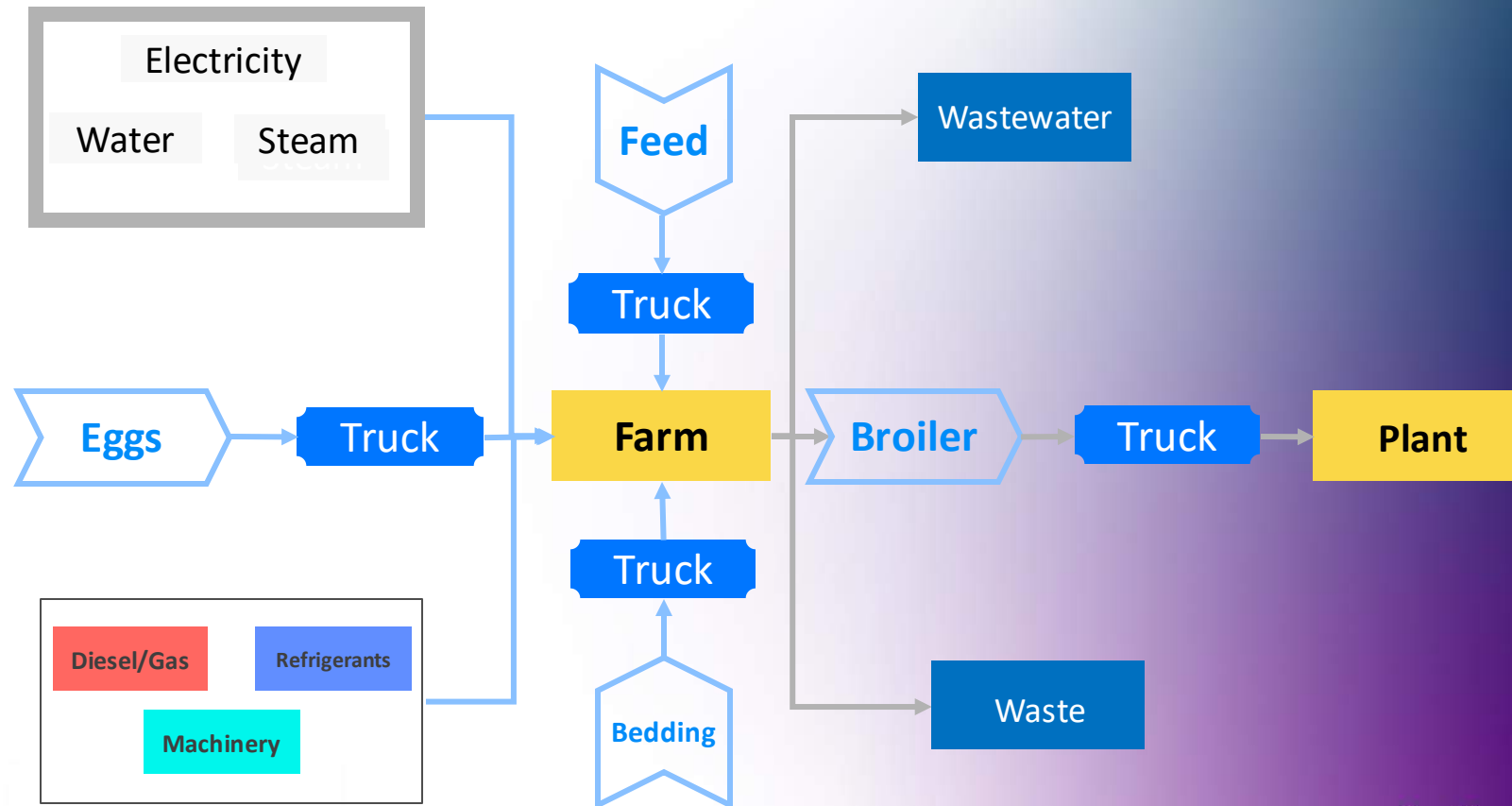
- Category 1: Purchased Goods & Services
- Category 2: Capital Goods
- Category 3: Fuel and Energy Related Activities
- Category 4: Upstream Transport & Distribution
- Category 5: Waste Generated in Operations
- Category 6: Business Travel
- Category 7: Employee Commuting
- Category 8: Upstream Leased Assets
- Category 9: Downstream Transport & Distribution
- Category 10: Processing of Sold Products
- Category 11: Use of Sold Products
- Category 12: End-of-life Treatment of Sold Products
- Category 13: Downstream Leased Assets
- Category 14: Franchises
- Category 15: Investments
- SCOPE 1 and SCOPE 2



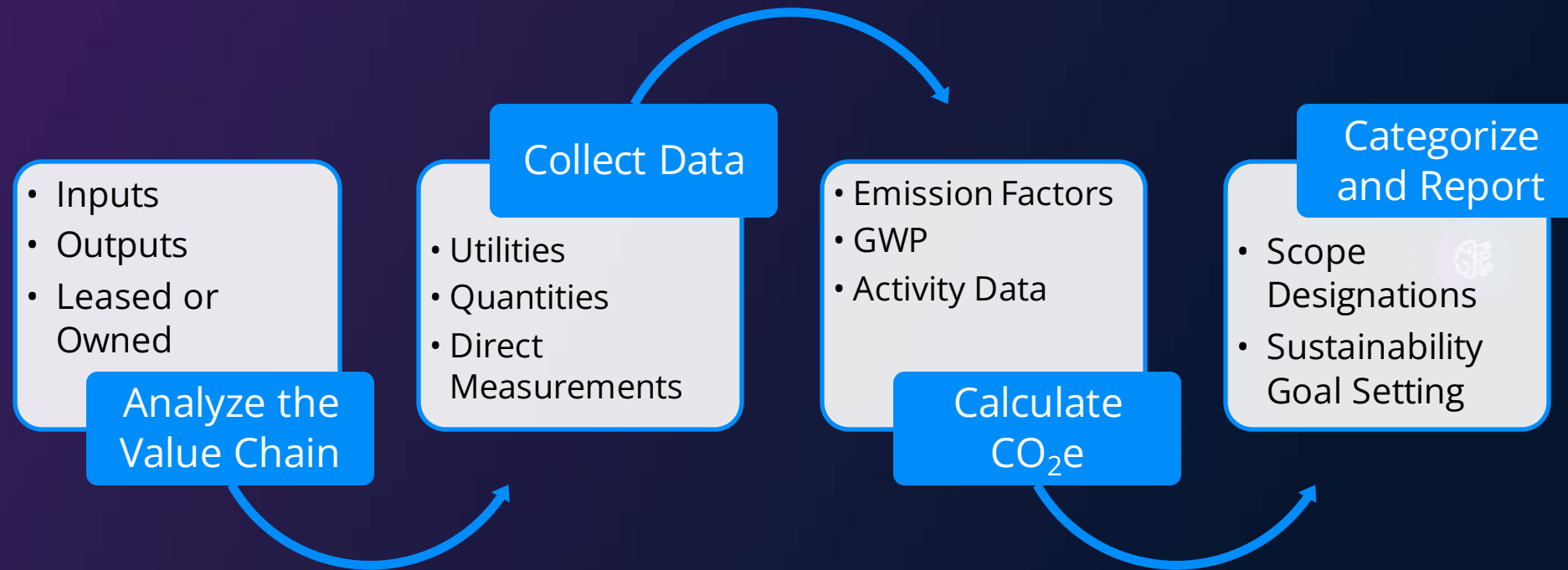
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# Poultry Value Chain: Farm



# How can I start?





# We need your help

## Questions:

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## User Interviews:

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Thanks

Gracias

謝謝

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Danke

Спасибо

ありがとう

Obrigado

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