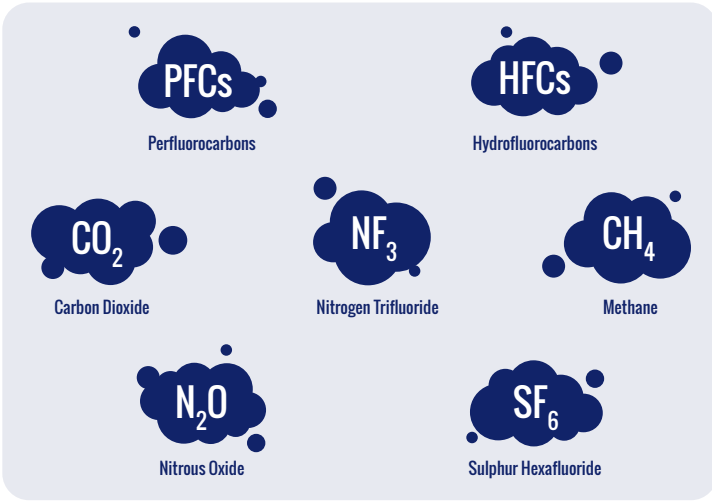


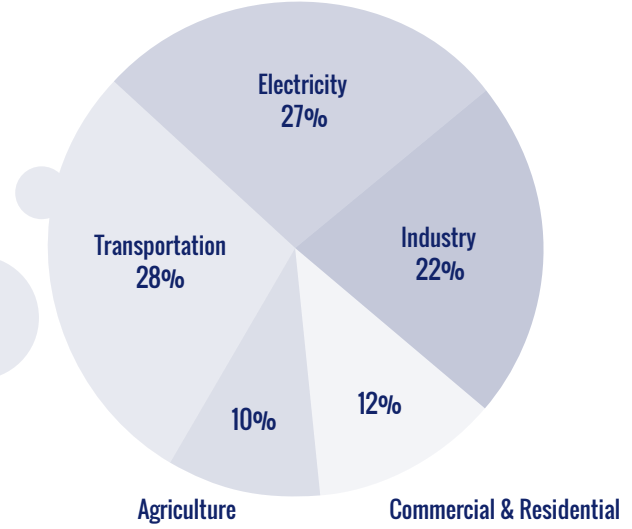


Transportation Green House Gas

Green House Gas From Logistics - More Than CO₂



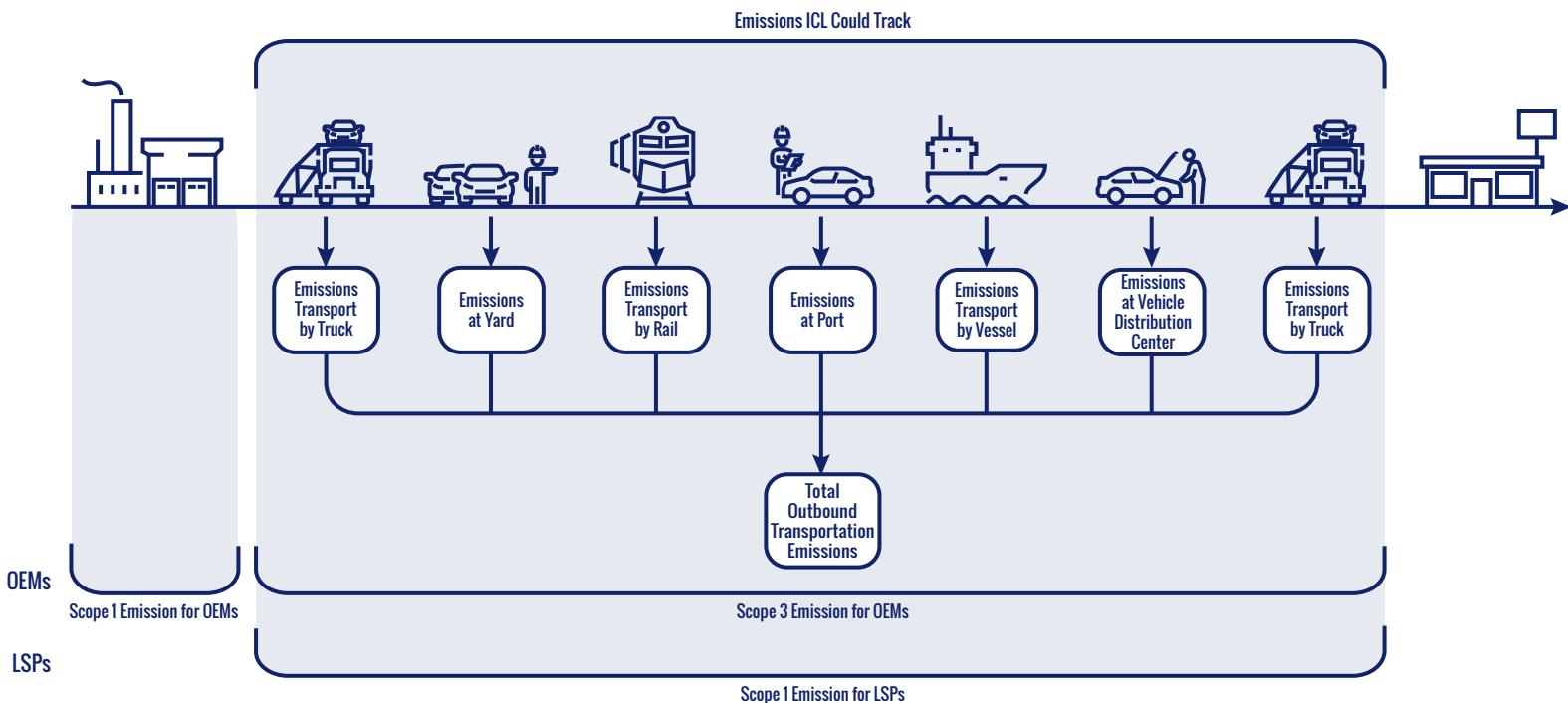
Transportation is the Largest Contributor to GHG



Key Terms

- CO₂** - Carbon dioxide, the primary source of greenhouse gas emissions (~80%)
- Offset** - Actions to compensate for emissions, often called Carbon Offsets or Climate Offsets
- Net Zero** - Also called Climate Neutral, a state where emissions are reduced and/or offset so there is no overall climate impact
- Scope 1 Emissions** - Direct emissions originated by the reporting party. For example, GHG emitted by the OEM's manufacturing plant
- Scope 3 Emissions** - Indirect emissions originated by the reporting party. For example, GHG emitted by a contracted truck carrier delivering the order

Level of Reporting for Transportation Varies for OEMs and LSPs





Data Requirements for OEMs and LSPs for Accurate Calculations

External Data

Example Data Sources

- Mileage Calculator
- Database for Emissions Factor
- Fuel Efficiency Factor
- Fuel Emission Factor

LSP Data

Example Data Sources

- Transport Distance
- Load Capacity
- Utilization Factor
- Truck / Railcar / Vessel Type

OEM Data

Example Data Sources

- Model of Vehicle
- Fuel Type (EV, PHEV)
- Fuel Consumption Factor for Yard Speed

Open Questions

- How to factor in empty miles - road/rail/ocean
- How to calculate emissions for vehicles in storage yards - different than warehouse
- How to calculate emissions for vehicles moving through ports

Path to Net Zero

1 Define Challenges for FVL

- Lack of standards appropriate for Finished Vehicle Logistics
- Mostly a manual data collection, calculation, and reporting process
- Assumptions made to fill gaps

2 Implement Reporting Improvements

- Adopt industry standards, in collaboration with AIAG and ECG
- Certify reporting framework for FVL with global reporting standards
- Automate the data collection and calculation process

3 Implement Emissions-Reduction Strategies

- Network optimization
- Change in purchasing decision, prioritizing emissions
- Capital investments in green infrastructure by OEMs and LSPs

4 Form Foundation for Longer Term Goals

- Purchase offsets for emissions that cannot be reduced
- Budget for and accrue for future offset purchases
- Continue to optimize and re-optimize the network for further emissions reductions

What is ICL Doing to Help OEMs and LSPs?

For OEMs and LSPs working toward emission reduction and net-zero goals, ICL will provide software and services that:

- Calculate accurate logistics emissions
- Report emissions in the required framework
- Reduce emissions (optimization, investments)
- Budget to offset any remaining emissions



ICL is seeking OEM and LSP partners to participate in pilot projects. Interested? Get in touch!



sales@iclsystems.com

