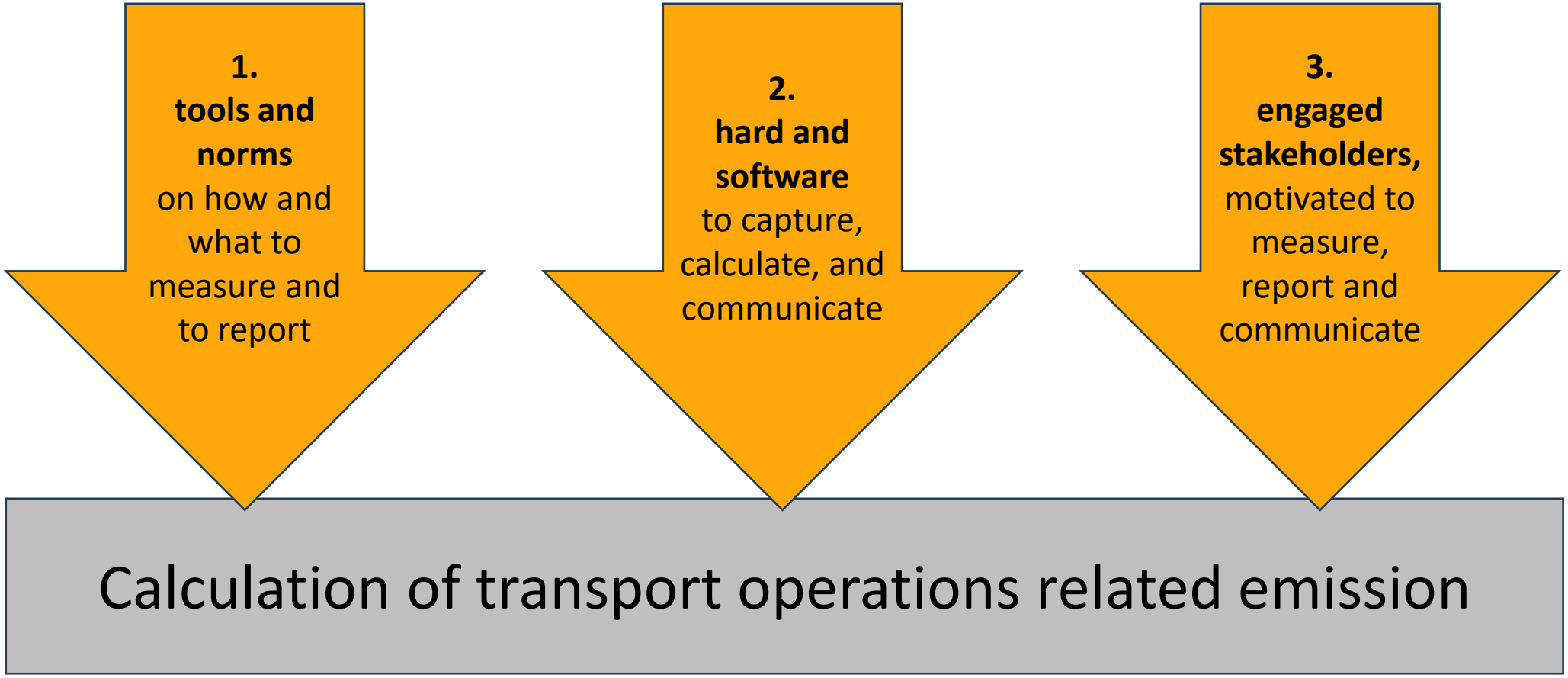

51581@pixabay.com

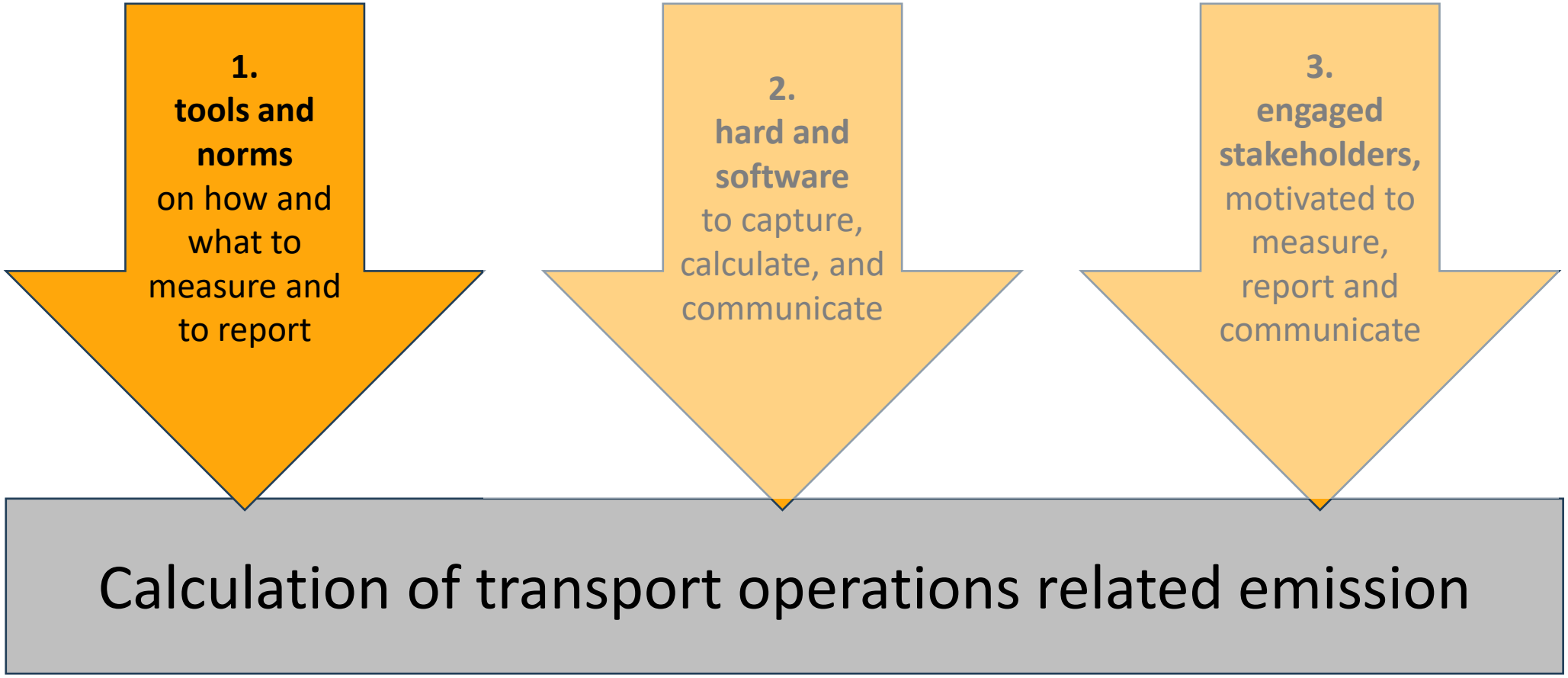
# Gaps in Data Collection

**Dr.-Ing. Verena Ehrler**
**Prof of International Supply Chain Management,**
**Paris, 26.04.2024**

# Reaching Climate Targets is the Goal - Measuring Emissions is the Tool



# Reaching Climate Targets is the Goal - Measuring Emissions is the Tool

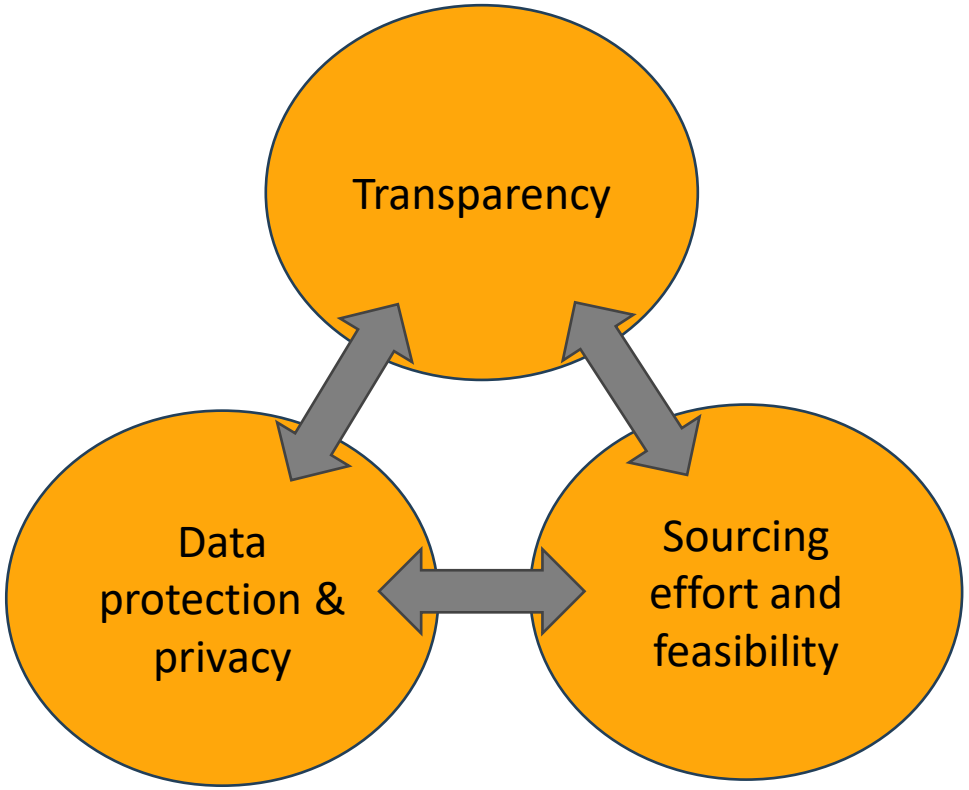


# ISO 14083 – a norm built on existing tools

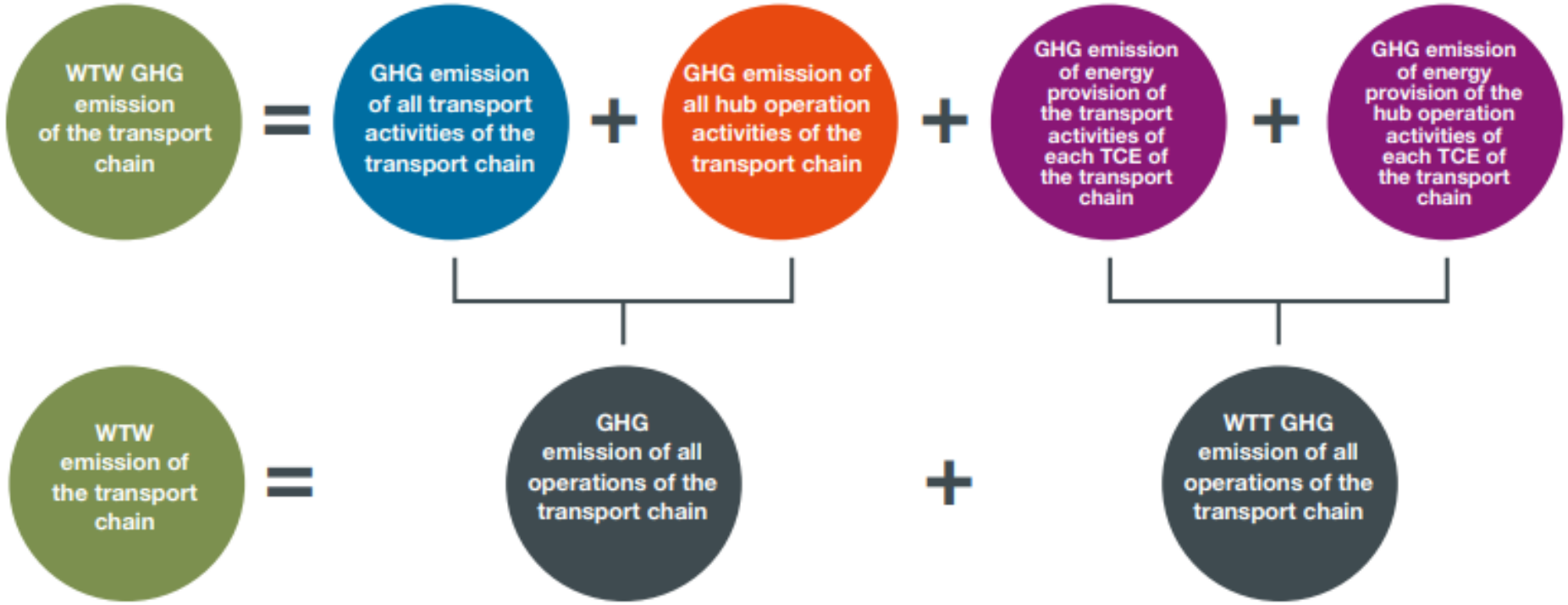
# Data quality is decisive for emission calculation quality

Requirements

- **high quality** of calculation output requires high quality of **data input**
- data sourcing needs to be in line with **specified requirements**
- data needs to be **correct**
- data needs to be **complete**, e.g. include empty transports & returns
- data-transmission needs to be **timely**



# ISO 14083 specifies data collection and reporting requirements




GLEC Framework v 3.0

# ISO 14083 offers comprehensive inclusion


**ISO 14083:2023**

- **all IPCC** greenhouse gases and climate pollutants
- **well-to-woke** energy consumption and emissions
- **methane slip**
- **loaded and empty** runs
- construction and dismantling of **energy infrastructure**
- **start-up and idling** of vehicles, pipelines, transshipment and (de)boarding equipment;
- **cleaning/flushing** operations for pipelines
- **combustion and/or leakage** of energy carriers at vehicle or hub equipment level
- **mass of the packaging** provided by the consignor

# ISO 14083 uses SFD or GCD for distances….

## Shortest Feasible Distance SFD

- “shortest practical route between two places taking into account the real operating conditions”
- distance usually applied in route planning software

## Great Circle Distance GCD

- currently usually focused on air transport
- shortest distance between two points by “crow-line”, including the curving of the earth

# … and primary and secondary data as sources

## Primary Data

"quantified value of a process or an activity from a direct measurement or a calculation based on direct measurements."

## Secondary Data

**modelled data**

established using a model "that takes into account primary data and/or GHG emission relevant parameters of a transport operation or hub operation"

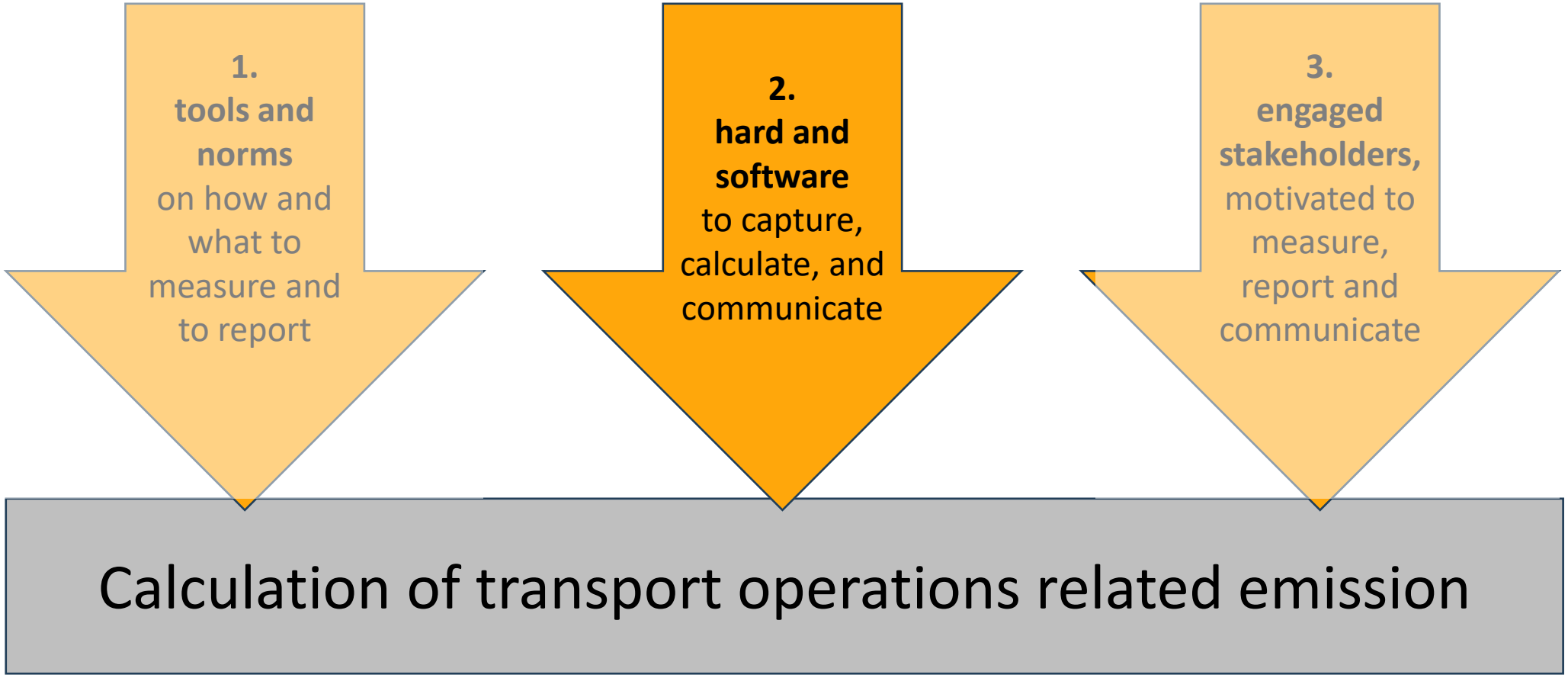
**default data**

a representative of average industry operating practices.

# Further aligned approaches are needed !

- inclusion of **black carbon** calculation as normative element
- inclusion of **ICT-related emissions** of transport as normative element
- standardisation of **default databases sourcing and maintenance**
- inclusion of **radiative forcing** and impact of high altitudes (aviation)
- inclusion of **infrastructure from a lifecycle perspective**
- inclusion of **maintenance operations** of transport operations infrastructure
- Inclusion of **vehicle manufacturing and scrappage from lifecycle perspective**
- alignment of emission allocation for **belly freight** in air transport
- alignment of **detailed methodology for temperature-controlled** transports and operations
- **improved visibility of rail transport data** in comparison to other transport modes

# Reaching Climate Targets is the Goal - Measuring Emissions is the Tool



# Tools for easy engagement of all players of transport chains are needed

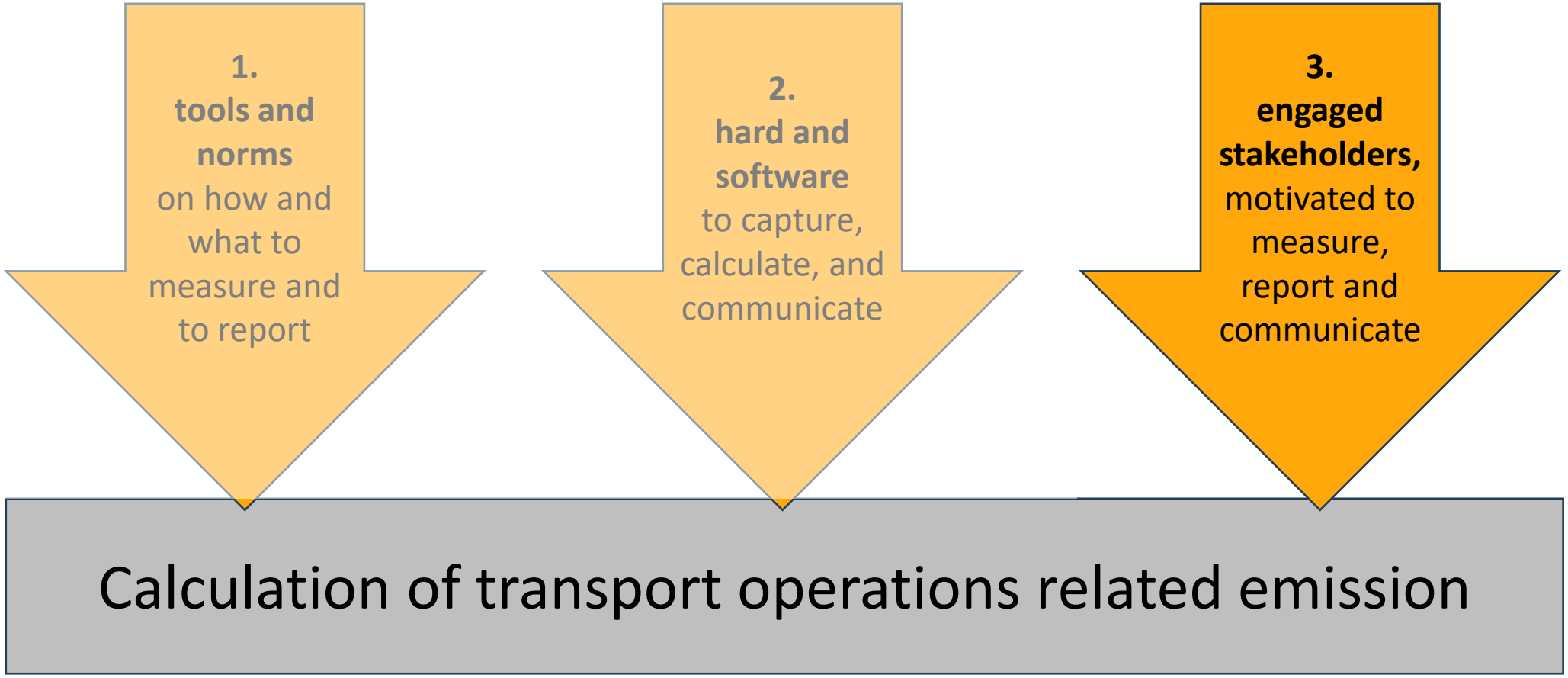
- Excellent tools for emission calculation exist and are used already

Needed are

- **easily accessible tools for capturing** transport activity and energy consumption
- **easily accessible tools for communicating** data, whilst protecting ownership of primary data owner
- easily accessible **training and motivation of all** stakeholder groups

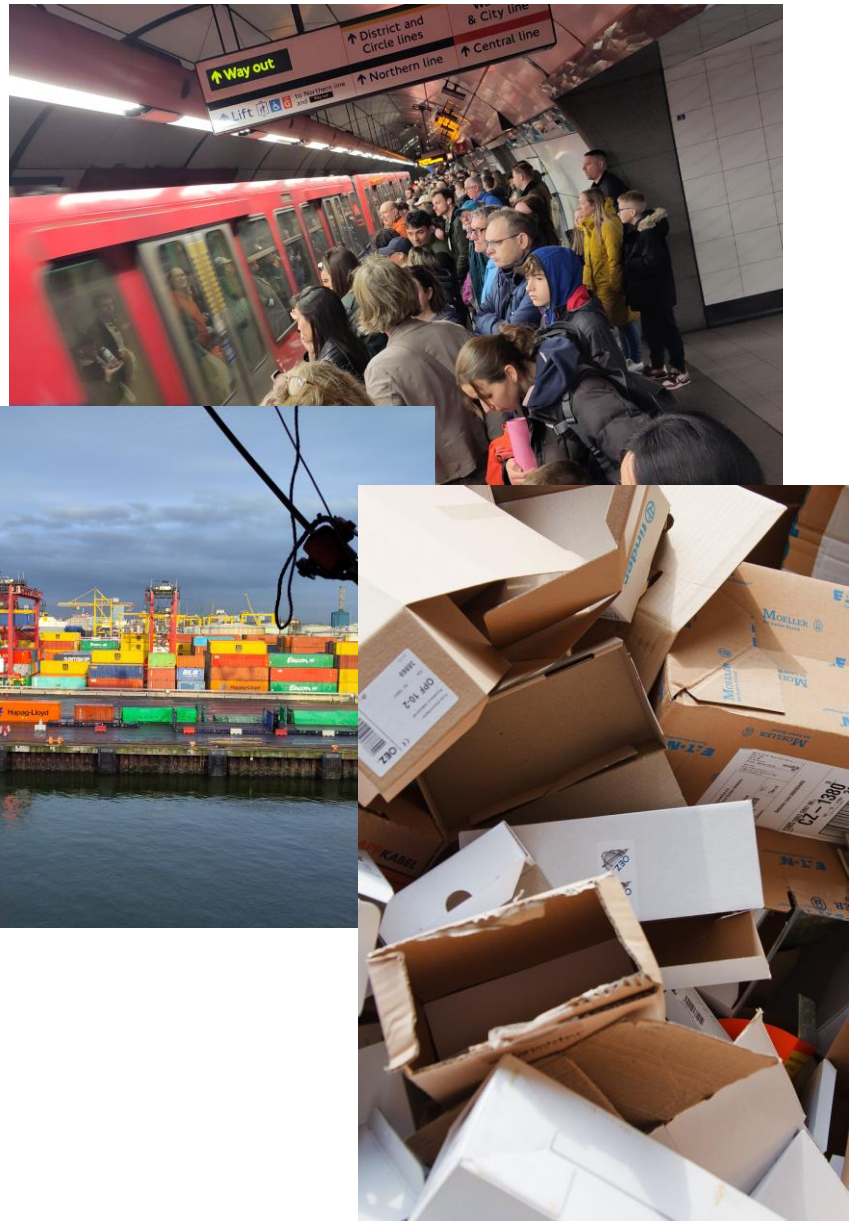

jeshhoots@pixabay.com

# Reaching Climate Targets is the Goal - Measuring Emissions is the Tool



# High number of individual actors and activities

- passenger transport
- freight transport
- mixed transports
- return transports and reverse logistics
- all transport modes
- temperature controlled and ambient
- …..




own & publicdomainpictures@pixabay.com

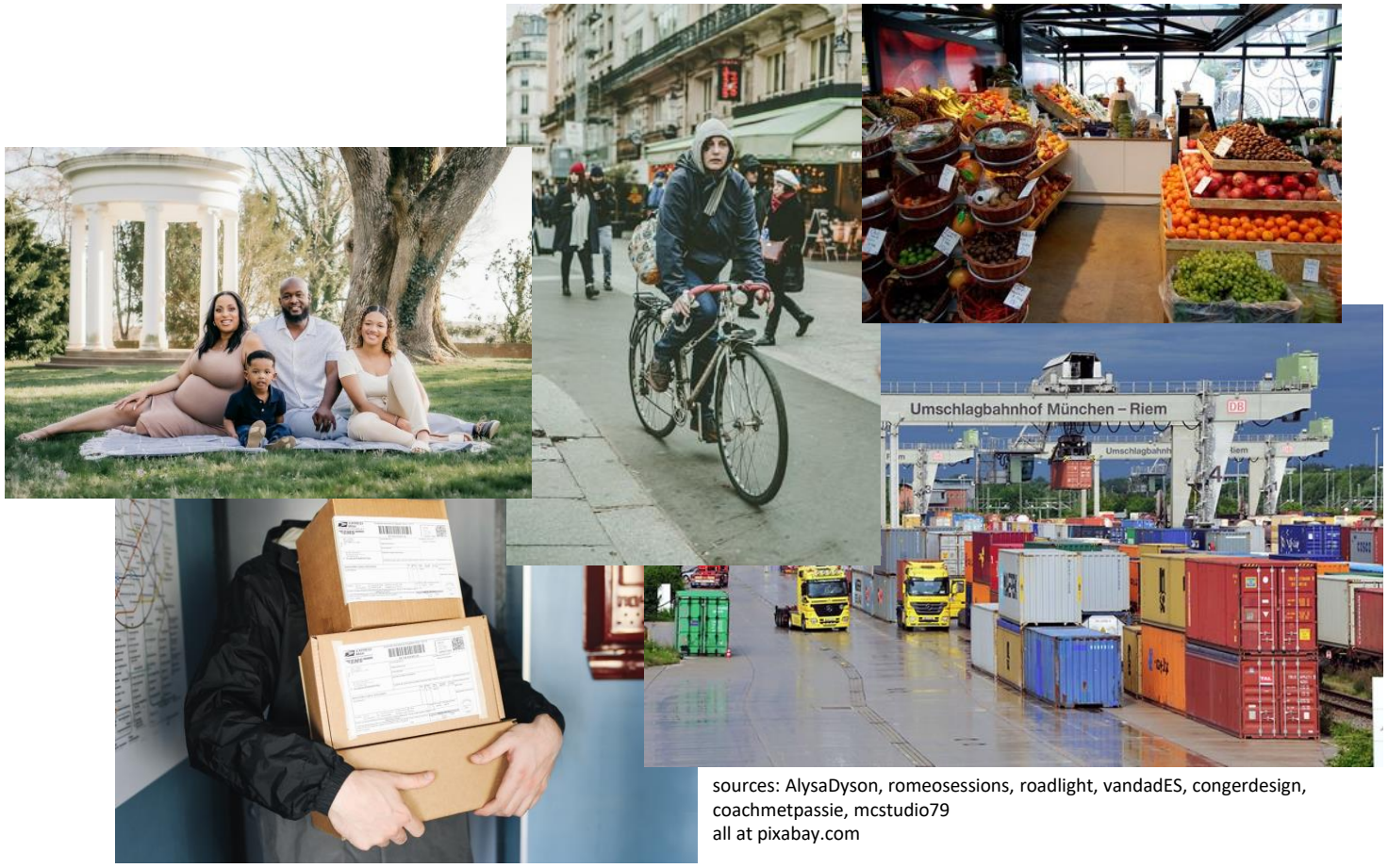
# Different perspectives, interests & concerns

**Worries about**

- costs
- additional workload
- unwanted transparency
- data security breaches

**Desire to**

- reduce emissions
- energy consumption
- reach climate targets

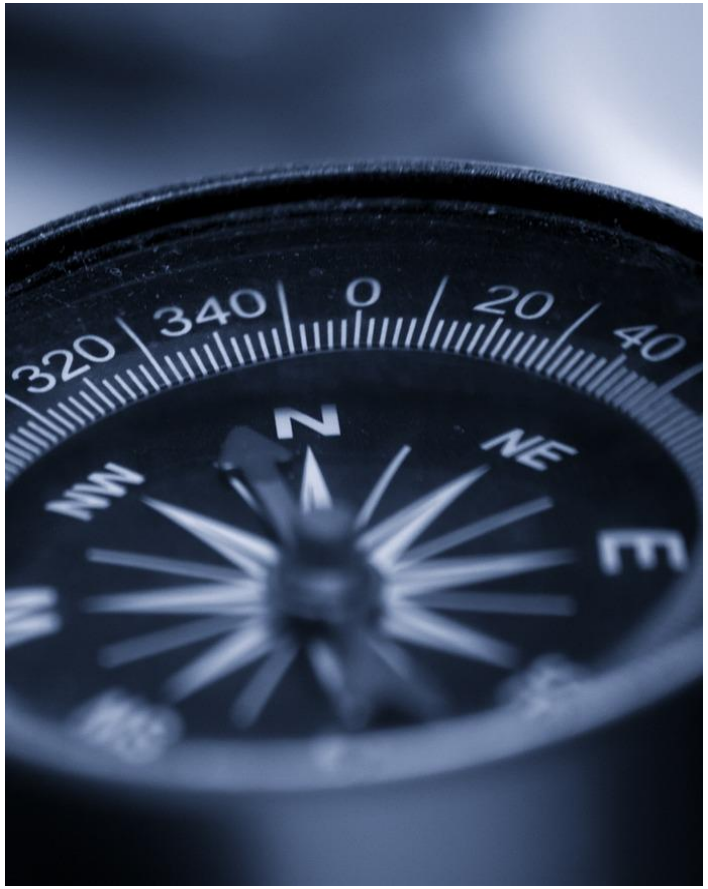



sources: AlysaDyson, romeosessions, roadlight, vandadES, congerdesign, coachmetpassie, mcstudio79
all at pixabay.com

# The social dimension as basis for good data quality

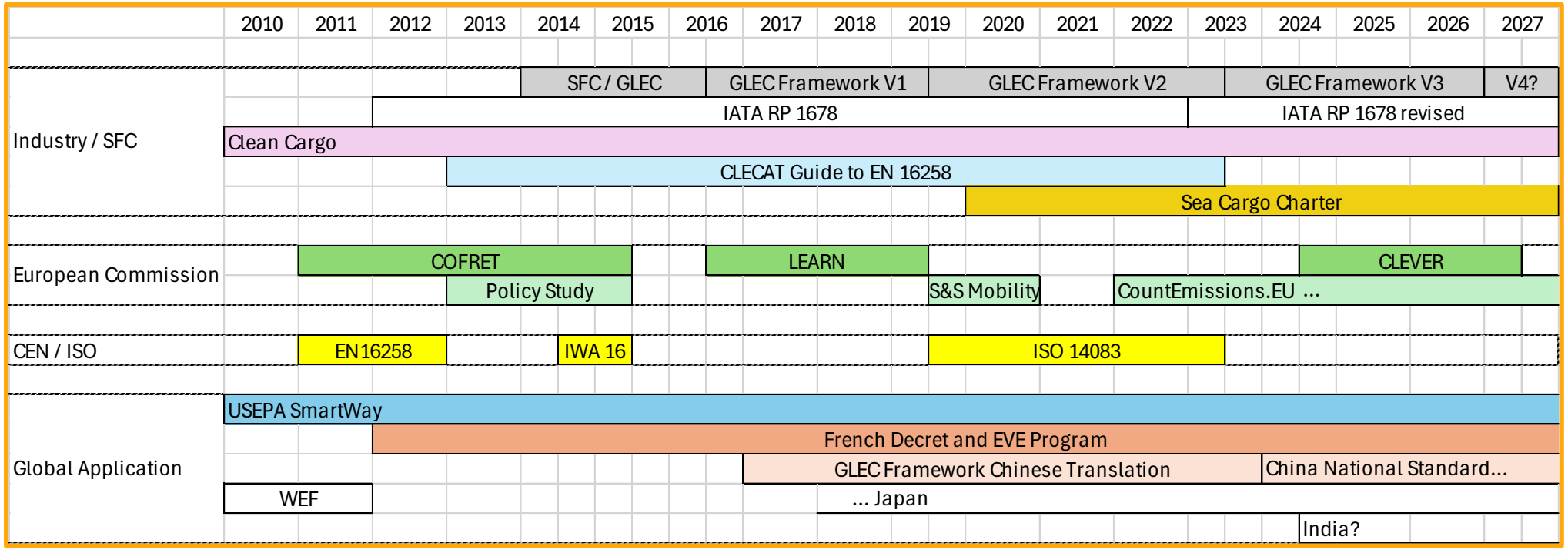
this requires

- **activation of all parties of the supply chain**
- addressing of **needs and worries of all parties**
- internalisation of external costs – **insetting on the level of national economics**
- **long-term commitment** from policy makers for targets and pathways
- **international alignment**




marandaP@pixabay.com

# The continued alignment and cooperation between industry, research & policy makers is key



# CONTACT


**Verena Ehrler**
**v.ehrler@ieseg.fr**


IÉSEG
SCHOOL OF MANAGEMENT

EMPOWERING CHANGEMAKERS FOR A BETTER SOCIETY