Carsten Gröger
Doctoral Student, Chair of Business and Tax Law
University of Ulm | carsten.groeger@uni-ulm.de

ulm university universität uulm

Taxation of Cross-Border Digital Business Models in the Automotive Industry under Current and Future Law

- **Digital technologies**, esp. data analytics and artificial intelligence, internet of things and cloud computing, lead to a **fundamental disruption of the automotive industry**
- Focus on the following **digital business model innovations** being incremental (a) or revolutionary (b):
  - **a) Connected services**: Smart services through car-to-x-communication, e.g. real-time navigation
    ⇨ **Connected car business model**
  - **b) Mobility services**: New forms of temporary and shared use of automobiles
    ⇨ **Free-floating car sharing** and **ride-hailing business model**
- **Example: Connected car business model**
  - Digitalised traditional business model of car manufacturers (OEM)
  - High relevance of intangibles, esp. data and software, and network effects
  - Complex integrated cross-border value chain

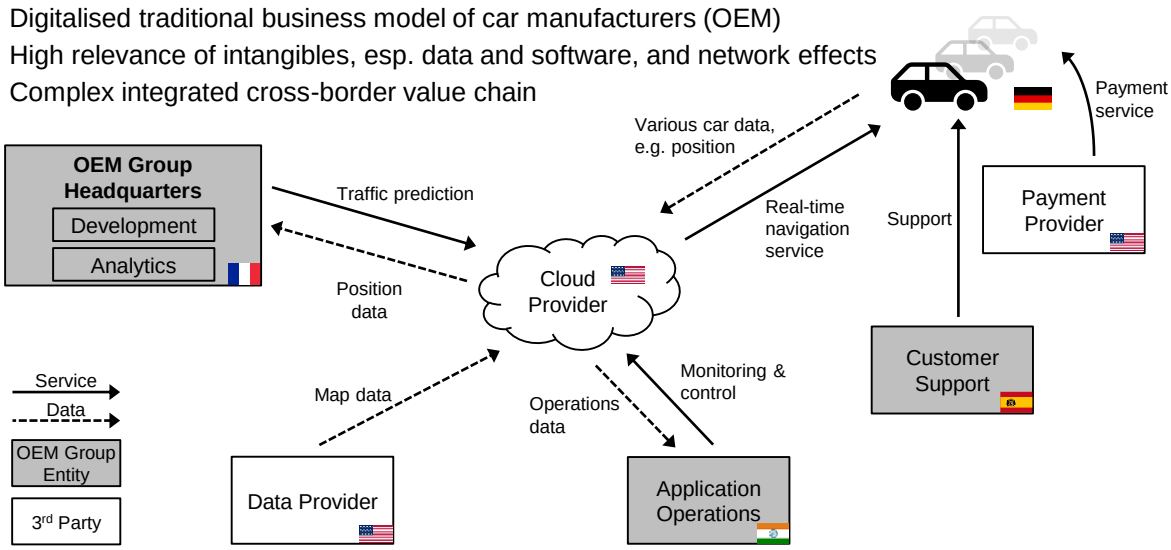

Figure: Example value chain of the connected car business model with a focus on real-time navigation services

Investigation of Current Law: Domestic Law of Germany and OECD Model Tax Convention '17

- **Right of taxation:** Which countries have the right to tax profits within the development and the operation of the digital business model? The focus is on direct business and the creation of a permanent establishment (PE).
- **Profit allocation:** How are the profits distributed between the countries in the value chain in the case of intercompany transactions (entrepreneurial vs. routine entities)?
- **Evaluation:** Are the profits of the digital business model distributed to the parties according to their proportional value-added contribution?

Investigation of Future Law

- Examined **reform proposals**:
  - **Fundamental reforms:** Formulary apportionment (CCCTB), taxation in the location of immobile factors
  - **Reforms of the PE concept:** OECD Pillar 1 unified approach, significant digital presence
  - **PE-independent reforms:** Digital service tax, withholding tax
- **Impact analysis** of the reform proposals on the taxation of the digital business models
- **Discussion:** Do the reform proposals realign taxation of the parties in the value chain with their proportional value-added contribution?