



## BMW Group

The BMW Group is the world's leading manufacturer of premium cars and motorcycles and a provider of premium financial and mobility services.

Employees: >150.000

Industry: Automotive

## ORGANIZATION DESCRIPTION

The BMW Group, established in 1916, stands at the forefront of the global automotive industry, housing renowned brands such as BMW, MINI, Rolls-Royce, and BMW Motorrad. With a legacy of over a century, we have evolved into the world's leading provider of premium cars and motorcycles, thanks to our relentless pursuit of innovation, sustainability, and customer-centric design. Our products are tailored to meet the diverse needs of our global customer base, continually enhanced with cutting-edge technology and a deep commitment to conserving resources.

In 2023, we delivered 2.55 million vehicles and generated €155.5 billion in revenue, operating across 140 markets with more than 150,000 employees from over 100 nations. This global presence underscores our commitment to driving technological transformation and developing innovative solutions for personal mobility.

## ORGANIZATIONAL VISION

As the world transitions to a more sustainable future, the BMW Group embraces the challenge of contributing to this transformation. Our strategy is anchored in two key megatrends: digitalization and sustainability. We are pioneering research in next-generation drive technologies, with a particular focus on electric mobility. The upcoming launch of the Neue Klasse in 2025 will symbolize our commitment to sustainable innovation, integrating state-of-the-art electric vehicle technology with the highest standards of digital and environmental performance.

Sustainability is at the core of our operations. Our vision for a circular economy is reflected in our ongoing efforts to increase the use of recycled materials in our vehicles, reduce CO2 emissions, and optimize resource efficiency throughout our supply chain. We are investing heavily in this transition, with a goal to be CO2 neutral across our entire value-added chain by 2050. Our approach is holistic, ensuring that our innovations not only deliver premium driving experiences but also foster a sustainable and inclusive ecosystem that benefits both our customers and the global community.

### Looking Ahead

The BMW Group is not just designing the cars of the future; we are redefining what mobility means in a digital, sustainable world. Our investments in digitalization, electric mobility, and circular economy principles are setting new benchmarks in the automotive industry. As we move forward, our mission remains clear: to deliver unparalleled driving experiences while leading the charge towards a more sustainable, connected, and inclusive future for all.

# PROBLEM STATEMENT

## Description of the problem and formulation of the question

The world is rapidly urbanizing, with the United Nations estimating that by 2050, about 68 % of the global population will live in cities. This rapid urban growth poses significant challenges for city planning, transportation management, and environmental protection, particularly as urban areas strive to accommodate an influx of residents. However, emerging technologies, such as connected vehicles, present new opportunities to address these issues and drive smart city innovation

Connected vehicles, enabled by vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), and vehicle-to-everything (V2X) communication protocols, can provide a wealth of real-time data, including location, speed, traffic patterns, emissions, and road conditions. This data has the potential to be leveraged by cities to improve various aspects of urban planning and service delivery, from transportation and mobility to environmental sustainability and public safety. Moreover, integrating AI-driven analytics with connected vehicle data could revolutionize traffic management, predictive maintenance, and urban planning, paving the way for truly smart cities.

However, the integration of connected vehicle data into a city's data infrastructure poses several challenges. Questions around data privacy, security, and efficient data management must be addressed to ensure the responsible and effective use of this information.

Additionally, the ability to extract valuable insights from the data, such as forecasting traffic volumes, optimizing parking and signalization management, and reducing emissions, will be crucial in developing smart, sustainable cities.

We want to explore the role that future technologies, especially artificial intelligence, and connected vehicle data can play in promoting sustainable urban development. When referring to sustainability, it is essential to clarify that it encompasses ecological sustainability, particularly in the context of reducing environmental impact.

Key areas of interest include:

- What types of data should be collected from connected vehicles, and how can this data be securely and efficiently integrated into a city's data infrastructure?
- What challenges, e.g., regarding data privacy, security measures, and technical constraints, have to be considered while enabling the effective use of connected vehicle data?
- How can the collected data be utilized for the common good, specifically in terms of climate and environmental protection?
- What sustainable business models can the automotive industry adopt to leverage connected vehicle data and drive innovation in smart city development?

As cities continue to evolve, it is imperative to develop innovative solutions that harness the potential of connected vehicles while safeguarding privacy and security. By addressing these challenges collaboratively, we can unlock the full potential of connected vehicle data to create smarter, safer, and more sustainable urban environments.



## JOKERFRAGE

How can cities, automotive manufacturers, and technology providers work together to ensure seamless interoperability and effective collaboration in the development of smart, sustainable urban solutions?