

PERSONAL MOBILITY INTELLIGENCE CENTER

PRODUCT INTRODUCTION

November 2023

Why it exists: There is more to personal mobility than electrification ...

• Look at origins of trends, not just the consequences What will my business look like in Big picture view and zoom in on factors most relevant for your business Kline's Mobility Intelligence Center 10 years? Understand and track triggers behind threats and opportunities has been developed to connect all Diversify strategically • key personal mobility facets in a systemic way When situation is uncertain, understanding the drivers and probabilities will help • What market scenarios should I prepare for any version of the future consider to get a dynamics view of Understand market archetypes to visualize how new markets will grow threats and opportunities? Support sensitivity analysis on possible outcomes • It does not just stop at trends analysis but links those trends to implications for your business Understand and anticipate where market participants are placing their short-, How do I stay competitive? medium-, and longer-term bets • See broader patterns (such as value chain diversification) beyond tactical moves If you want to anticipate, not Which partners / influencers / react, it is essential to look deeper • Understand how influences and dependencies evolve stakeholders / OEMs do I need to and broader - at population Determine which stakeholders will be essential to help business growth • engage to future-proof my trends, vehicle usage, digital Identify organic and inorganic growth opportunities business? environment, enablers (for example battery, charging • Connect the dots on individual events and developments within these big themes infrastructure, and regulations Can I de-mystify the mega-trends Track what forces and actions comprise complex mega-trends like sustainability among other factors) × and communicate the implications and digital => clarity drives action strategies with clarity to my team? • Zoom in on specifics relevant for your business and keep on top of changes

HOW KLINE'S MOBILITY INTELLIGENCE CENTER CAN SUPPORT

EXAMPLES OF BUSINESS QUESTIONS

Beyond the data capture – Every business is unique => Kline experts are at hand to help you interpret and distill the implications for your business

How can clients leverage insights from the Mobility Intelligence Center?

ECONOMIC BACKGROUND & MOBILITY



- Track macroeconomic indicators driving the demand for automobiles
- Analyze demographic shifts in urban and rural areas that are shaping the consumer market
- Monitor personal mobility density dynamics and development of public infrastructure
- Help understand the changes in vehicle ownership patterns

AUTO MARKET ANALYSIS



- Understand which OEMs shape the market by looking at sales and parc forecasts
- Understand future paths of EV adoption and alternative powertrain technologies
- Keep abreast of changing mobility models (for example shared mobility) and drivers / precursors that will shape the future of urban mobility



ECOSYSTEM ANALYSIS

- Monitor regulatory landscape for optimal planning of charging solutions
- Track technological advancements and identify new investment opportunities in the ecosystem
- Understand strategy of mobility participants to identify ideal collaboration opportunities and product roadmap

LUBRICANT MARKET ANALYSIS



- Demand impact scenarios driven off different EV penetration assumptions
- Value aspect: PCMO product and formulation evolution
- Demand evolution for MCO*
- Beyond PCMO rationalization: what opportunities will emerge/remain in EV Fluids

* Only for select markets

What does Mobility-as-a-Service business model mean for my business?

How does passenger vehicle demand pan out in the future with changing ownership patterns?

What are investment opportunities in EV infrastructure and new mobility solutions landscape?

Will the OEMs of the future be different from today? Is the grid ready for mass electrification?

What does the future hold for lubricant demand with the rise in electric vehicles and fuel economy standards?

KEY QUESTIONS EXPLORED: A CROSS-INDUSTRY COALITION BETWEEN MOBILITY AND ENERGY

What are the

fluids/products

such as coolants

and greases?

How will the two-wheeler parc grow*? How fast will it electrify in comparison with passenger cars?

* Only for select markets

What is the growth trajectory for EV adoption in key countries?

Are we moving beyond the product – if so, where?

Will the increasing opportunities in EV popularity of shared mobility solutions slow vehicle sales or reverse them?

Are we approaching or beyond peak lube demand?

eKline

The Intelligence Center allows an in-depth country view as well as comparison and contrasting different country markets.



COUNTRY LENS

The IC will allow users to delve deeper into different facets of the country to understand why personal mobility is changing: EXAMPLES

- How will passenger car sales grow? How will its composition evolve in terms of the powertrain and body type? What will be the emerging car parc as a result?
- Which OEMs lead the market? How is their position changing? Besides electrification, what are OEMs doing in areas of subscription services, ride hailing?
- How will economic development, population growth, and quality of public infrastructure drive personal mobility?
- What are the regulations in the country relevant to personal mobility? How do they help (or hinder) the growth in electrification and car sharing?
- How is the charging infrastructure growing? Who is driving its growth?
- What is the emerging demand for engine oils and other fluids?



Mobility Intelligence Center digitally enabled format is further enhancing the content

Digital Delivery Platform Powered by Domain Expertise

A cloud-based insights platform that serves as single point of access for strategic insights



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PROACTIVE, AGILE AND SCALABLE

- Moving from reactive reporting to pro-active insights
- Agile and scalable to include evolving intelligence needs → topics and countries

INSIGHTS AND INNOVATION

- Domain Expertise automotive to lubricants
- AI-enabled near real-time market monitoring
- Carefully curated contents by domain experts

ROI AND STRONG GOVERNANCE

- Strategic insights that facilitate design making to match the speed of disruption
- Strong governance framework that ensures right processes are in place to provide right insights at the right time in the right format





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COMPARE MARKETS



IC will also allow the ability to compare/contrast countries => hence, prioritize efforts and resources: EXAMPLES

- How does motorization level (car ownership per capita) compare?
- How do infrastructure readiness/regulatory pressure to decarbonize compare?
- How does the parc composition differ (e.g. SUV, sedans etc)?
- How much leverage will my OEM relationship provide across different markets?
- What/how many OEMs comprise 80% of sales in every key segment in my top 5 markets?
- Which OEMs are gaining/losing share, and how does it differ by market?
- What is the level of EV penetration across my key markets?
- What is the relative impact of electrification on PCMO demand in 5 of my key markets?



Our Vision and roll out plan for Mobility IC: Cover all key auto markets

More than 10 leading automotive markets covered in Year 1, with new markets in Year 2 and beyond*





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Kline is a worldwide consulting and research firm dedicated to providing the kind of insight and knowledge that helps companies find a clear path to success. The firm has served the management consulting and market research needs of organizations in the agrochemicals, chemicals, materials, energy, life sciences, and consumer products industries for over 60 years.



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