



Fully charged

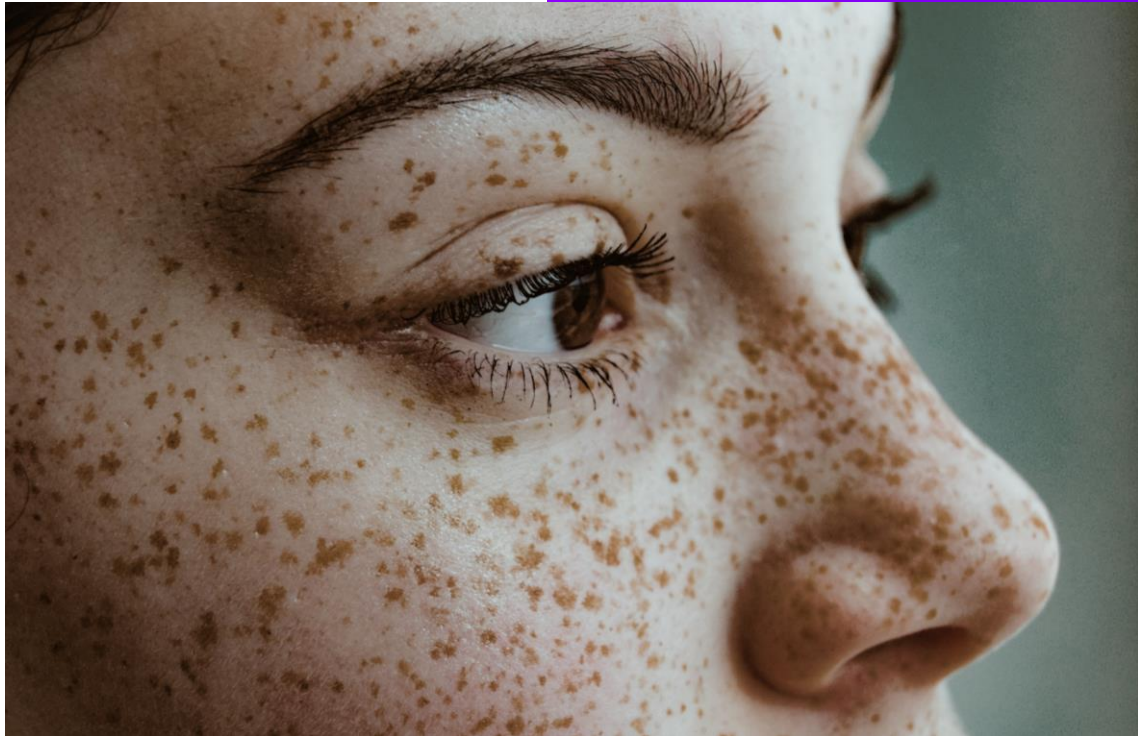
EV charging platform
assessment 3.0



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Accenture conducted its 3rd EV charging platform vendor assessment



Accenture led an Electric Vehicle (EV) charging platform vendor assessment in 2022, covering the global EV market, roaming platforms, aggregators and virtual power plants.

Given the speed of change in the industry and the offerings available, Accenture updated the assessment (during the summer on 2023) **EV charging platform vendor assessment V3.0**, to cover vendors with dedicated white-label platform SaaS for EV charging.

The assessment not only focuses on the technical capabilities of vendor platforms, but also how they meet the needs of the business. For example, it focuses on the dashboard capabilities of the platforms, and how they can be used to support business-related decisions and prepare for scale.

The assessed vendors are open for integration and have multiple successful implementations.

As the global push towards decarbonization gains momentum, transportation electrification emerges as a pivotal aspect of the energy transition

The eMobility landscape is undergoing a transformative shift, with electric vehicles projected to constitute more than 60% of vehicles sold globally by 2030, requiring more chargers installed.^[1]

With the transport sector contributing to a quarter of global carbon emissions, there's a growing imperative to transition fleets from internal combustion engines to battery electric vehicles (BEVs). Governments globally are intensifying efforts to electrify public transport, yet the real transformative impact lies in electrifying fleets, which are responsible for a third of transportation emissions. Organizations are strategically moving toward fleet electrification, driven by regulatory pressures, sustainability goals and competitive positioning.

Regulatory mandates, such as the EU's Fit for 55 package, set ambitious targets for reducing carbon emissions from new cars and vans, aiming for a 55% reduction by 2030.^[2]

The impending inclusion of road transport emissions in the European Union Emissions Trading System (EU ETS) by 2027 further emphasizes the need for comprehensive electrification solutions.^[3]

But it's not only vehicles. The alternative fuels infrastructure regulation (AFIR) and Energy Performance of Buildings Directive (EPBD) are setting clear goals and expectations for both public and private charging infrastructure development.^[4]

[1] IEA, [Technology and innovation pathways for zero-carbon-ready buildings by 2030](#), 2022.

[2] European Commission, [Fit for 55: Delivering on the proposals](#).

[3] European Commission, [EU Emissions Trading System \(EU ETS\)](#).

[4] European Commission, [Revision of the Energy Performance of Buildings Directive](#).





Beyond physical charging stations, eMobility charging platforms have become crucial for managing the complexities of a growing EV ecosystem

In this dynamic landscape, the need for robust EV charging infrastructure becomes evident. eMobility charging platforms are essential for managing the complexities of a growing EV ecosystem. These platforms play a pivotal role in providing a unified and seamless customer experience, aligning with the ongoing convergence of the utilities, energy and automotive industries.

As industry convergence and integrated offers become the norm, the software underpinning EV charging platforms becomes the cornerstone, facilitating cohesive solutions that cater to the diverse needs of eMobility stakeholders.

This research delves into the intricacies of these platforms, exploring their significance in shaping the future of eMobility and contributing to a sustainable and electrified transport sector.



Assessment methodology

Accenture conducted an in-depth assessment of the most relevant EV charging platform providers



8 key platform vendors

identified and interviewed regarding a range of capabilities within the topics of fleet charging enablement, managed EV charging, EV charging technical advisory and EV platform services.



1.5-hour interview

including an end-to-end demo, plus a series of questions (~200) based on the capabilities defined in our pre-established functional architecture. Before the interview, the vendors also shared the technical documentation regarding their platforms.









In-depth questions

to assess and rank vendor capabilities, resulting in comprehensive documentation that provide standalone capability ratings and comparisons to other vendors, including a heatmap representation.

EV charging platforms offer the core capabilities required by companies trying to support the following use cases. During the assessment, we rated the different vendors based on their coverage of:



-  **Business-to-Consumer (B2C) home chargers**, enabling the connection of **single home chargers** and linkage to an EV driver account. The system offers easy charger installation and sign-up for the EV driver via a customer portal.
-  **Business-to-Business (B2B) office chargers** enable the connection of **multiple office chargers** and linkage to a B2B account. The system offers a facility managers' portal, which supports the implementation of flexible tariffs and load management capabilities.
-  **B2C and B2B semi-public charging** offers the ability to **change a charger's mode from private to public** (i.e., enable roaming). The system supports easy set-up of technical roaming connections.
-  **Business-to-Government (B2G) public charging** allows **municipalities and public charging CPOs** to operate chargers in the public domain where chargers have their own grid connection. Operational excellence is key. Direct payment is supported.
-  **B2B direct current (DC) fast charging** offers specific **monitoring and insights regarding grid usage** needed in the operation of DC fast chargers. The platform is integrated with an external payment terminal provider.
-  **B2C and B2B public charging cards** offer **tokens for public charging** and **related subscriptions** with access to the charge point operator (CPO) network by peer-to-peer roaming connection or via roaming hub integrations.



Resulting in two main deliverables per vendor

Company & platform one-pager summary

Contains insights that came directly from the vendor from answering pre-meeting questions, follow-up questions and the in-meeting questionnaire, plus additional desk research performed by the Accenture team to complement the general company information.

Platform capability heatmap

Depicts the score for each technical capability of the vendor's platform. The scoring is:

- Accenture's interpretation of the input received during the demo sessions and questionnaire.
- Relative scoring is benchmarked against other vendors. Therefore, a capability with a low scoring does not mean it is poorly developed/ performing, but rather that it is less developed/performing compared to the same capability of other analyzed platforms.

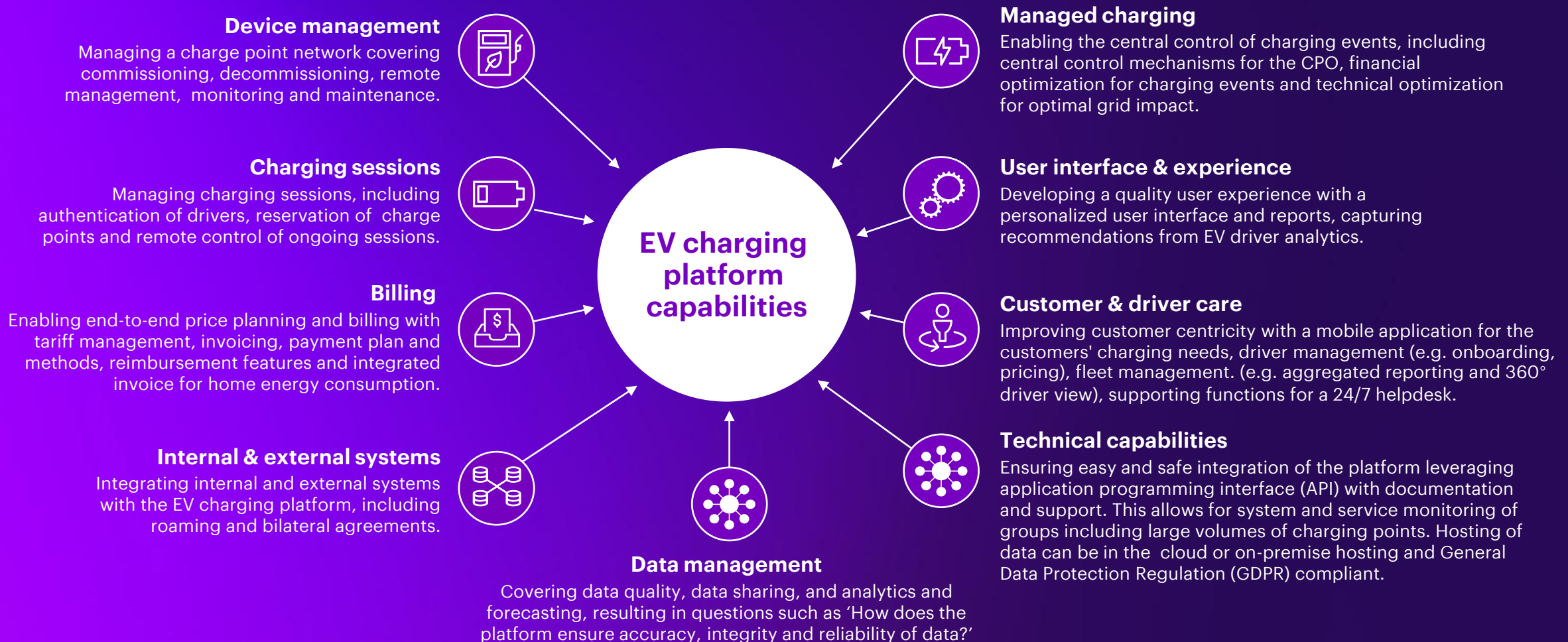




Core capabilities and architecture

EV charging platforms

The capabilities offered by charging platforms can be grouped in 9 large domains



Accenture created a functional architecture overview, highlighting the key components of EV charging platforms





Vendor assessment

Findings and key takeaways

Based on this year's assessment, we observed **6 major EV platform trends** impacting the eMobility industry



In this scattered market, **consolidation** is a trend we observed. Various players, including oil and gas majors and global entrants, acquire platform players. The trend extends beyond traditional industries, contributing to market evolution.



Attracting substantial capital, **fleet electrification** drives investment. EV platform capabilities, such as fleet-specific portals and invoicing schemes, are vital. Maturity levels vary among market players based on strategic focus and target customer segments.



Platforms offering **integrated solutions** gain popularity. These include end-to-end SaaS solutions with white-label services, modular building blocks and extensions into the technical installer domain. Scaling and profitability remain challenging in this competitive environment.



User interface (UI)/User experience (UX), especially for mobile applications, varies extensively among market players. The ease of use, customer-friendliness and interaction options with EV drivers serve as main differentiators. Enhancing these aspects is crucial for vendors to stand out in the market.



Comprehensive **API integrations** with up-to-date, well-managed and publicly available documentation are deemed crucial for market players. Lack of such integrations affects scalability and vendors without this feature generally do not emerge as market leaders.



Advanced managed charging and pricing integration are expanding, especially in markets like the Nordics. However, vehicle-to-everything (V2X) functionalities and electric motor systems (EMS) integrations are in early phases, with limited platform support. The landscape varies across regions and regulatory environments.

We have assessed what **the best of the best** *capabilities looked like in 2023

Managed charging > Financial optimization

Direct integration with energy (spot) markets, support for behind-the-meter optimization, insight in dynamic prices and EV driver can select smart charging preferences. Covering every use case: home, B2B and public alternating current (AC) and direct current (DC).

Data management > analytics & AI

Ability to support AI capabilities for optimization and forecasting (e.g., use-case: predicting charge point network energy consumption and buying the required volume of energy on the day ahead market).

Charging sessions > remote control of charging sessions

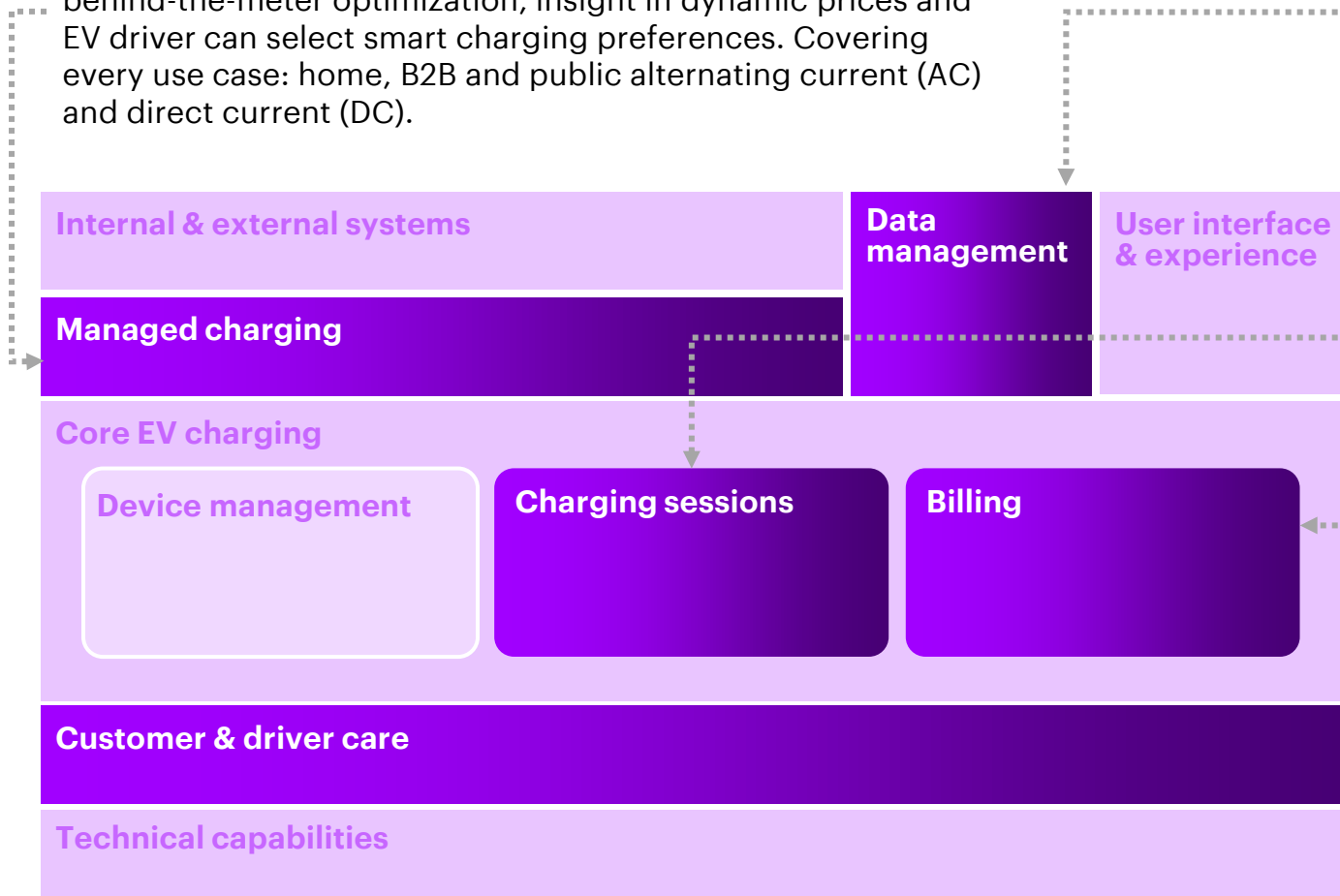
Self-service commands in the end-user portal, including mobile control of charge sessions, further supporting an outstanding UX (i.e., minimal number of clicks, etc.),

Billing > monetization of private charge points

Ability to publish private charge points as public for a certain time interval (e.g., weekend) to monetize private charge points.

Customer & driver care > charge point order fulfilment

Charge point specific workflow order management tooling, KPI dashboarding based on SLA agreements, location design functionality or services, integration with installer systems and client communication tooling.



We have assessed what **the best of the best** *capabilities looked like in 2023

Management charging > integrations

Ability to integrate with smart charging algorithms, energy markets, virtual power plants and smart meters via EMS systems or via direct integrations.

Managed charging > EMS functionalities

Integrate with an EMS, optimize charging based on the behaviors of various decentralized energy resources (e.g., PV, storage, wind). In addition, the platform supports a wide variety of (local) EMS hardware.

Customer & driver care > fleet management

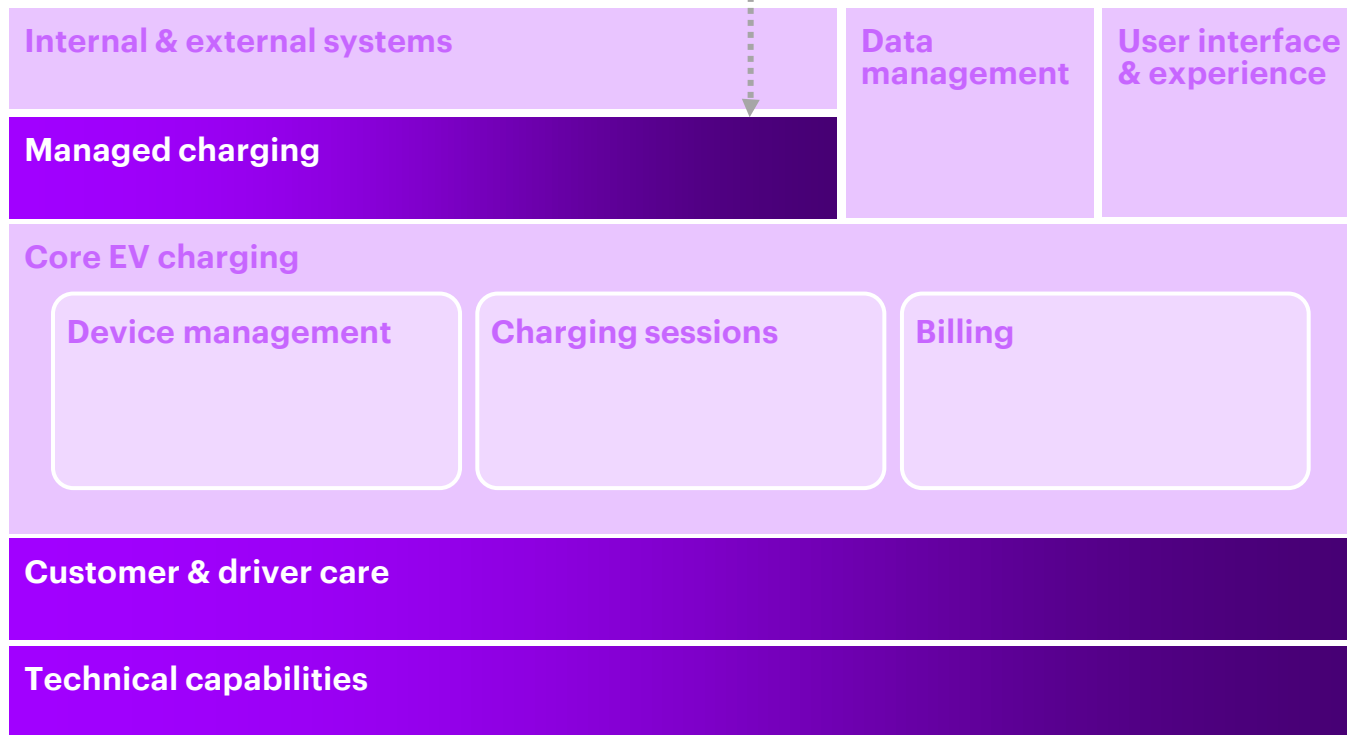
Fleet management integration, portals and dashboarding. original equipment manufacturers (OEMs) for cars.

Customer & driver care > supporting functionalities for helpdesk

Automatic ticketing and CP diagnostics, advanced functionality (e.g., history of issues for CP, app customer feedback, status reporting of roaming connections), automatic resolution suggestion based on initial customer query.

Technical capabilities > API integration

Complete set of public API's, up-to-date and well-managed, including self-explanatory publically available API documentation.





What Accenture can offer

Our dedicated offering

Accenture supports clients with an end-to-end offering adapted to the maturity of their eMobility business

1. Helping the clients develop their unique EV business and go-to-market strategy as well as Mergers and acquisitions (M&A) process advisory.

Italian Multi-Utility

3. (Semi-) Public charging infrastructure planning and deployment, and efficient integration of all EV charging infrastructure into the grid.

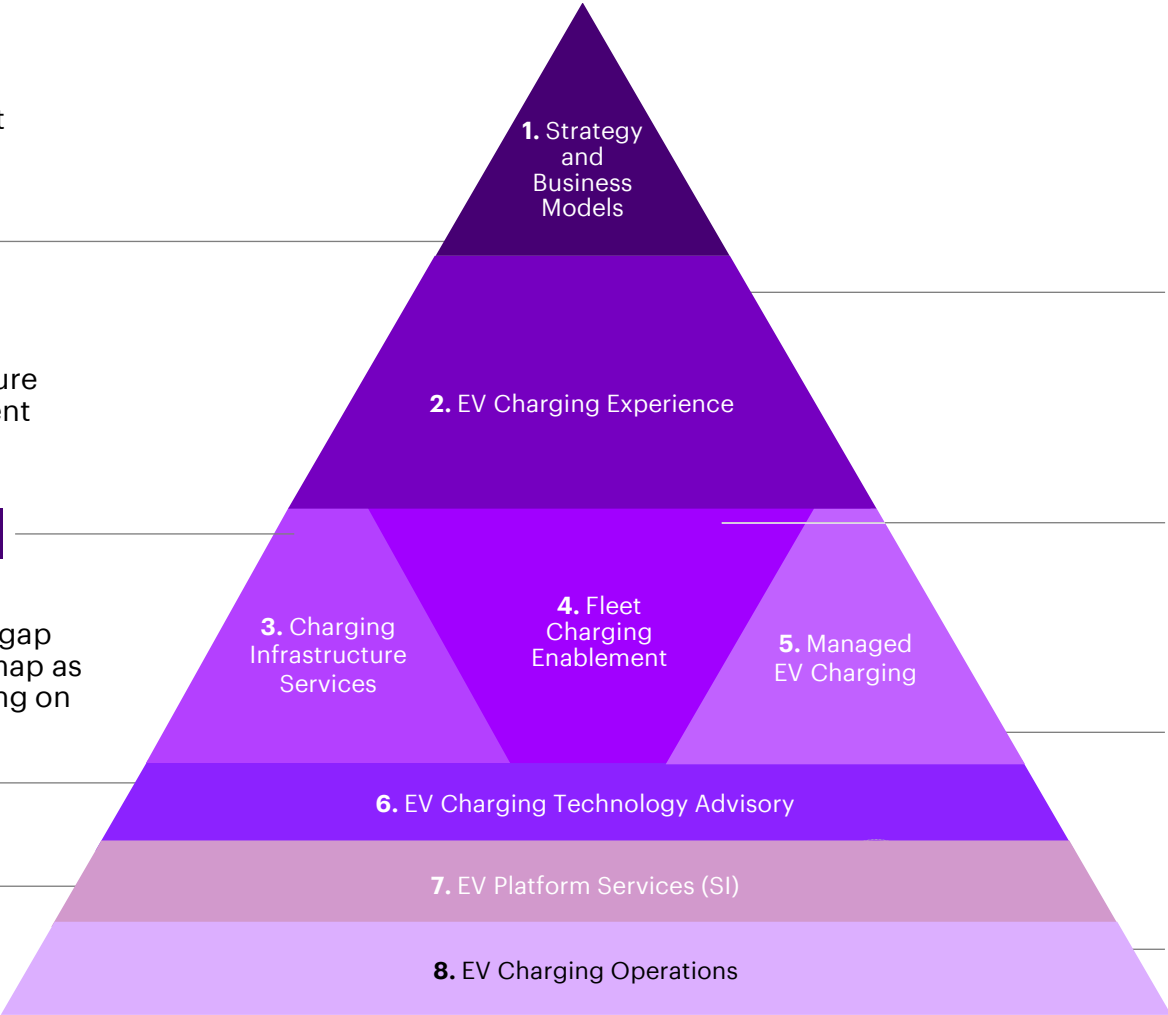
Spanish & US Utility, EV Charging Manufacturer

6. EV charging platform selection, fit gap analysis and IT implementation roadmap as well as, supporting customers deciding on a platform make vs buy approach.

Nordic Energy Company

7. Systems integration and EV charging platform configuration.

Large Portuguese Utility Company



2. Helping the clients bring eMobility offerings to the market at scale.

Free2Move eSolutions

4. Helping the clients with fleet conversion and fleet charging enablement services.

European Telco, UK Parcel provider

5. Applying retail energy management and trading capabilities to unlock value from flexibility.

EU Energy Major, Spanish Utility

8. Business support services (e.g., customer care, field force orchestration).

Global Utility



We have conducted a wide range of EV charging platform projects, from internal assessment or selection to platform migration

Guidance & support to platform buyers

- Helping clients understand which **platform capabilities** they require, based on product and service offerings per customer segment and their **go-to-market strategy**.
- Supporting clients in their **platform selection** by facilitating the **tendering process**.
- Definition of the **implementation roadmap**.

Collaboration with platform providers

- Acting as **integrator** of the platform vendor, writing the integration **user stories**, developing adaptations or new **API services** in the client's back-end systems, designing and running **end-to-end (E2E) tests**.
- Setting the right **business configuration** in the platform.
- Performing the **E2E platform migration**.

Services to platform providers

- Providing **development support** to the platform vendor to speed up roadmap implementation.
- EV charging SaaS **due diligence**.
- Platform **roadmap revision** and proposition of changes.

Building a platform for clients

- **Building an eMobility platform from scratch** in close collaboration with the client/partner.
- **Building as accelerator upon existing elements** of the client/partner with Accenture's eMobility platform and other digital tools.

Successfully performed a product due diligence of two EV charging platforms

Client context

- A large international payment service provider, headquartered in France, has the ambition to enter the EV charging market.
- To realize this ambition, the client aims to acquire an EV charging platform player.
- The client requested a product due diligence for the EV charging platforms of two target companies, analyzing their product strategy and functional capabilities and benchmarking them individually to market standards (i.e., comparing them to other key players in the market) and comparing the target companies to one another.

Outcomes

- **Summarizing product comparison** – An executive summary that benchmarks the two EV charging platforms of the two target companies to the rest of the market and each other on different key aspects such as the product offering, financials and operational structure.
- **Deal input** – A comprehensive deliverable of the potential acquisition upsides and attention points per target company to support the final decision-making process for the client's potential deal.
- **Comprehensive documentation** – In-depth analyses from each of the elements in the section 'how Accenture helped' for every target company, including related reflections of these outputs on 'what it means' for the client.

How Accenture helped

- **Product portfolio analysis** – Assessing the existing value proposition and the functional capabilities of the platform such as the managed charging features and turnkey capabilities through in-depth questionnaires and demo sessions. Further, examining their capability to cover different types of EV charging use cases and scoring the platform based on a comparison with other key EV players in the market.
- **Market analysis** – Providing insights in the latest market trends and innovations.
- **Product-market fit evaluation** – Analyzing the customer expectations and coverage of customer use cases in line with the client's strategy, in addition to an overview of the competitive landscape and a competitor analysis.
- **Operating capabilities and financial assessment** – Investigating the target company's workforce, organizational setup and financial structure, including their current state and future aspirations.
- **Product roadmap evaluation** – Assessing the product roadmap and identifying potential gaps, the strategic importance of these gaps and the development maturity of competitors regarding the missing feature(s).
- **Post-close considerations** – Fit-gap analysis between the target companies and client in terms of product strategy, capabilities, use case coverage and IT infrastructure, including a high-level cost estimation to close certain gaps.



EV charging platform functional assessment market benchmark and cost estimation

Client context

- A large European utilities player, with a focus in the eMobility market, shifted from growing as fast as possible to achieving profitable growth. IT development expenses related to their own EV charging platform were one of the client's largest cost component.
- Consequently, the client wanted to validate if continuous investment in their own, custom-built EV charging platform was still effective, factoring in financial and non-financial considerations.
- The client requested a product assessment to analyze their product strategy and functional capabilities benchmarked to market standards (i.e., comparing them to other key players in the market).

Outcomes

- **Summarizing product comparison** – An executive summary that benchmarks their EV charging platform to (1) their own strategy and (2) the SaaS in the market.
- **Make vs. buy input** – A comprehensive deliverable of the potential upsides and attention points to further invest in their own platform vs. buying SaaS.
- **Comprehensive documentation** – In-depth functional analyses of the platform, including related reflections of these outputs on 'what it means' for the client.

How Accenture helped

- **Product analysis** – Evaluating the client vision, strategy, planned products and services, IT roadmap and target geographies.
- **Market scan** – Performing a market scan regarding cost elements and creating a SaaS pricing model framework.
- **Product-market fit evaluation** – Analyzing the coverage of customer use cases in line with the client's strategy.
- **Considerations** - Establish pros and cons for consideration on reaching the future target state for the discussion: internal system vs. white label SaaS.



Large utility preparing for international scaling

Client context

- The client is a large utility company (retail, grid and generation), already present in multiple countries with an eMobility offering for B2C and B2B.
- Enabling growth with a new EV charging platform and eMobility architecture.
- The client was running non-scalable and different EV charging IT solutions over multiple countries. A new SaaS EV charging platform was selected and needs to be implemented. New customer app and portals will be built, back-end systems and operations to be harmonized.

Outcomes

- Effective teaming: Local client-familiar Accenture Strategy & Consulting team + international subject matter experts (SMEs) of the EV Center of Excellence (CoE).
- Accenture's industry expertise and benchmark capabilities provided the client improvement directions for its offerings and customer segments.
- EV charging platform knowledge allowed for effective collaboration with EV charging platform vendor.
- Project output allows client to rapidly transition into the 1st implementation phase and positioned Accenture as go-to implementation support partner (PMO, design, testing, back-end system customizations, etc.) for the > 1.5-year roadmap.

How Accenture helped

- The client presented its use-cases (offerings and customer segments), which were thereafter analyzed, challenged and complemented with potential improvements, differentiations, market/competitor trends, etc.
- Based on existing documentation and workshops with business and IT teams, an understanding of the as-is architecture and processes was built. Scenarios regarding to-be architecture for different components (payments, invoicing, charging platform, etc.) were described and presented to the client for decision making.
- A phased roadmap was created on how to evolve to the target architecture landscape. Work packages were defined, containing the customizations, configurations, integrations and migrations to be done.



EV aggregation platform assessment and make vs buy analysis

Client context

- A vendor benchmark assessment was performed for a global utilities and automotive group that wanted to enter the EV aggregation market. During this project, process requirements needed to be identified and prioritized to facilitate the platform solution analysis. Further, a benchmark study and market research regarding EV aggregation and eMobility players was conducted to get a comprehensive overview of the market opportunities for the client. Later, a high-level comparison for a subset of key technical capabilities of the benchmarked vendors was created and a decision framework and a make vs. buy analysis was performed.

Outcomes

- Make versus buy analysis.
- Capability heatmap for the different options.
- For the make analysis, high level architecture design, preliminary timeline and costs estimation.

How Accenture helped

- Understanding the business model and requirements for the aggregation platform.
- Gathering general information, technical platform capabilities and key insights.





EV charging as a service

Client context

- A small German start-up that partnered with Accenture in launching an EV customer experience journey to become a full E2E EV charging energy supplier.
- The set-up of an EV charging E2E customer roadmap and integrated EV charging service platform ready for the EV future of tomorrow.

Outcomes

- Accenture and its practices, EV charging CoE, Salesforce.com (SFDC) and Song, played a pivotal role in the end-to-end delivery of the B2C/B2B2E EV product offers and helping the client to become a fully integrated B2C/B2B2E player that provides EV charging as a service.
- Via the further optimization and scaling process of the B2C and B2B2E MVP offers in an agile parallel way of working, the client will be ready to boost its future growth and continue to help their customers and business partners providing EV as a service.

How Accenture helped

- Together, Accenture and the client selected the most relevant capabilities to support their future growth in the EV space. Supporting the product definition both for B2C (i.e. home charging) and business-to-business to-employee (B2B2E) market (i.e., home/office/public charging), Accenture co-created with the client the design of the core competencies and provided the IT integration of its EV charging services in an agile manner.

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About Accenture

Accenture is a leading global professional services company that helps the world's leading businesses, governments and other organizations build their digital core, optimize their operations, accelerate revenue growth and enhance citizen services—creating tangible value at speed and scale. We are a talent- and innovation-led company with approximately 750,000 people serving clients in more than 120 countries. Technology is at the core of change today, and we are one of the world's leaders in helping drive that change, with strong ecosystem relationships. We combine our strength in technology and leadership in cloud, data and AI with unmatched industry experience, functional expertise and global delivery capability. We are uniquely able to deliver tangible outcomes because of our broad range of services, solutions and assets across Strategy & Consulting, Technology, Operations, Industry X and Song. These capabilities, together with our culture of shared success and commitment to creating 360° value, enable us to help our clients reinvent and build trusted, lasting relationships. We measure our success by the 360° value we create for our clients, each other, our shareholders, partners and communities. Visit us at www.accenture.com.





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