

Unlocking The Growth Potential of Kenya's E-Mobility Sector



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The Electric Mobility Association of Kenya (EMAK) is an association that brings together experts, entrepreneurs, innovators, policy makers, enthusiasts and change drivers who believe in the shaping of a sustainable future through the uptake of e-mobility.

EMAK aims to revolutionize the Kenyan transport system through the uptake of e-mobility. EMAK's vision is the creation of a holistic e-mobility ecosystem that positively impacts urban planning, energy consumption, and overall quality of life.

We do this through advocacy, education, networking and collaboration, creating a supportive environment that empowers informed choices, and drive infrastructure development and research.

Acknowledgement



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We are grateful for the support of the Electric Mobility Association of Kenya (EMAK) as an invaluable partner in this effort. EMAK’s collaboration in shaping survey questions and providing access to their network of members, ensures alignment with the needs of the e-mobility landscape, enhancing the survey’s effectiveness.

A heartfelt thank you goes out to all the participants from e-mobility companies in Kenya who generously shared their experiences, knowledge, and insights. Their invaluable input was essential in gaining a comprehensive understanding of the current state of the Kenyan e-mobility sector.

We are confident that the findings presented in this report will not only illuminate the current state of e-mobility in Kenya but also offer stakeholders valuable insights to unlock opportunities within the sector, propelling its future growth. This report will serve as a valuable resource for regulators and policymakers in Kenya as they continue to develop and implement effective strategies to promote and accelerate the adoption of e-mobility solutions within the country.

Acronyms & Definitions

Acronym	Definition
2W	Two-wheeler vehicles e.g. electric bicycles or bikes
3W	Three-wheeler vehicles e.g. tuk tuks
4W	Four-wheeler vehicles e.g. cars, buses, trucks
AI	Artificial intelligence
BAU	Business as usual
BMS	Battery management systems
CO ²	Carbon dioxide
EBITDA	Earning before interest, tax, depreciation and amortization
EMAK	Electric Mobility Association of Kenya
E-MOBILITY	Electric mobility
EPRA	Energy and Petroleum Regulatory Authority
ESG	Environmental, Social and Governance
EV	Electric vehicles
GHG	Greenhouse gas
ICE	Internal combustion engine
IoT	Internet of things
KES	Kenyan Shillings
MAAS	Mobility as a service – it is a transportation model that integrates various forms of transport services, such as public transit, ride-sharing, bike-sharing, and car rentals, into a single accessible on-demand service
ML	Machine learning
MtCO ₂ eq	Million tonnes of carbon dioxide emissions equivalent
NGO	Non-governmental organization
NTSA	National Transport and Safety Authority
PAYG	Pay as you go
PE	Private equity
PPP	Public private partnership
R&D	Research and development
USD	United States Dollar
TVET	Technical and vocational education training
VC	Venture capital

1.

Executive Summary



1.2 Key Findings



Kenya's e-mobility sector is experiencing rapid growth, driven by supportive government policies, improved charging infrastructure, and incentives like green number plates and tax exemptions. The sector faces challenges such as reliance on imported EV components, high costs, regulatory hurdles, and the need for local manufacturing. Despite these, the economic outlook is positive with companies expecting significant revenue growth and profitability within five years. Employment trends are favorable with increases in female and youth participation

Economic and Business Outlook

The sector shows optimism with positive economic projections and strong confidence in business prospects. In 2023, 67% of companies reported improved business situations compared to the previous year, and 88% are confident in future growth. Current competition is seen as moderate, promoting innovation.

Employment Trends

Employment growth is evident, with 72% of companies reporting an increase in total employees from 2022 to 2023. Significant increases in female and youth employment were noted. For 2024, 93% of companies anticipate further employment growth.

Financial Performance and Outlook

Companies reported revenue growth in 2023, with 74% generating revenue and 70% expecting higher revenue compared to 2022. In 2024, many companies anticipate substantial revenue increases, reflecting positive sector performance.

Financing	Equity financing is the most common, followed by internal cash flows, debt, and grants. For 2024, 58% of companies are seeking to raise less than USD 1 million, with 26% seeking financing in the range of USD 1 million to 5 million. Early-stage companies typically seek less than USD 1 million, while growth-stage companies prefer larger brackets between USD 250k and 5 million. The funds are primarily targeted towards sales and marketing (72%), research and development (70%), production and manufacturing (63%), and services (56%).
Carbon Financing	Familiarity with carbon financing is high among companies, with 98% having some degree of knowledge, though only 30% have working knowledge or direct experience. Carbon financing is becoming an important aspect, providing companies with opportunities to secure additional funds by participating in carbon credit programs, thereby supporting their transition to more sustainable practices and contributing to their overall financing strategies.
Supply Chain	Key challenges include financing, high inflation, currency devaluation, and import restrictions. Local production capacity, logistics, and labor sourcing for maintenance are significant issues.
Policies and Regulation	Government policies have positively impacted the sector, with 77% of companies acknowledging this. The March 2024 EV policy changes have had a positive influence in the sector. However, concerns arose with the Finance Bill 2024, which proposed taxes and levies that could harm the sector. Fortunately, this bill has been recently rescinded by the President.
Emerging Technologies	Companies are investing in technology advancements like battery technology, AI, and charging infrastructure. They are focusing on staying ahead through R&D and partnerships with startups and research institutions.
Partnerships and Collaborations	Forming partnerships with financial institutions, other e-mobility companies, and research institutions were seen as crucial for accelerating the adoption of electric vehicles (EVs) in Kenya by the respondents. These collaborations can facilitate knowledge transfer, provide financial support, and foster innovation, driving the sector forward.
Training and Coaching	Skills development in technical areas, carbon financing, and project management are prioritized. Challenges include the cost of training, upskilling existing workers, and retaining talent. Various organizations are enhancing training programs to build capacity.
Impact and Inclusivity	Companies aim to create jobs, generate income, and provide environmental benefits like reduced carbon emissions and improved air quality. There is concern about the equitable distribution of e-mobility benefits across urban and rural areas. Barriers for lower-income groups include high upfront costs, limited infrastructure, and lack of public awareness. Measures to improve inclusivity include subsidies, financial support, targeted infrastructure development, and educational campaigns.

1.3 Recommendations

The recommendations below are derived from the survey.

Policy Development

Regulatory framework: Streamline and clarify regulations for EVs, including permits and approvals. Establish a dedicated, long-term support system to reduce investor uncertainty.

Policy incentives: Introduce a dedicated long term support system including direct subsidies, tax exemptions, and rebates for EV purchases. Mandate a percentage of new vehicle sales to be zero-emission, supported by financial incentives for manufacturers.

Emissions and waste management: Develop and enforce standards for emissions and waste management for EVs. Implement monitoring and enforcement mechanisms to ensure compliance.

Financing and Investment

Access to capital: Form public-private partnerships (PPPs) and leverage government funds, development finance institutions, and private investors to facilitate capital access. Establish blended finance funds with clear criteria and risk-sharing mechanisms.

Targeted grants and loans: Create a government fund for grants and low-interest loans to support e-mobility startups and businesses.

Green bonds & carbon financing: Raise capital for large-scale projects via green bonds and develop local carbon financing programs that generate tradable credits for emission reductions. employment growth.

Technology and Innovation

Promote R&D investment: Promote investment in battery technology, AI, and data management through grants, tax incentives, and collaborations with universities.

Partnerships: Encourage partnerships with companies that have cutting-edge technologies and establish dedicated research centers for e-mobility.

Collaborations and Partnerships

Foster international partnerships: Establish bilateral agreements to transfer technology and best practices from advanced EV markets.

Establish innovation hubs: Create EV innovation hubs for startups, providing resources, mentorship, and funding

Training and Capacity Building

Develop EV-based curriculums: Develop specialized engineering curricula for electric vehicles to offer an in-depth understanding of electric mobility components.

Skills development programs: Design and deliver training programs on technical skills, project management, and carbon financing, accessible to women and youth through scholarships. Collaborate with TVETs to offer these.

Apprenticeships & internships: Establish programs offering hands-on experience, with incentives for companies providing training and mentorship.

Inclusivity and Gender Equity

Gender and youth inclusion: Develop initiatives to attract women and young people to the e-mobility sector through networking events, partnerships, recruitment campaigns, and job placement agencies.

Market Development and Consumer Adoption

Consumer insights: Implement feedback loops to adapt and improve products based on market needs. Use insights to guide product development and marketing strategies.

Marketing campaigns: Create impactful campaigns emphasizing cost savings and environmental benefits. Utilize various media channels to increase adoption, highlighting success stories and testimonials.

Public awareness and education: Government agencies, industry associations, and e-mobility companies should partner with influencers and celebrities to create engaging content that promotes EVs. Launch social media challenges and interactive campaigns to engage the public and increase awareness.

Infrastructure and Charging Expansion

Develop widespread charging infrastructure: Invest in developing widespread charging infrastructure, particularly in underserved urban and rural areas, to alleviate range anxiety and promote EV adoption.

Smart grid integration: Invest in smart grid technology to efficiently manage the increased load from EV charging and ensure reliable electricity supply. Develop pilot projects to test and demonstrate smart grid solutions.

Local Manufacturing Supply Chain

Promote local production: Implement a production-linked incentive (PLI) scheme to boost local manufacturing of EV components and batteries, following successful models from other countries.



2

Introduction

2.1 Background



Representing one-sixth of global emissions, the transport sector is a major contributor to climate change¹. In Kenya, as elsewhere, this sector is experiencing a crucial shift: the rapid adoption of electric vehicles (EVs).

While EVs promise a climate-friendly future, the benefits extend far beyond the environment. This shift can create local jobs in manufacturing through the localization of supply chains, reduce reliance on imported fuel, provide energy security, lower business running costs, and attract green investment.

This report serves as a tool to unlock e-mobility's full potential. By analysing the current landscape and identifying areas of development, the study supports stakeholders to make informed decisions, develop effective strategies, and collectively drive a cleaner and sustainable future for Kenya.

Kenya's Ministry of Energy through its Nationally Determined Contributions (NDC), has committed to a 32% reduction in Greenhouse Gas (GHG) emissions by 2030, compared to the Business as Usual (BAU) scenario of 143 MtCO₂eq. and to achieve Net Zero by 2050.¹

Transport currently accounts for over 11% of all Kenyan GHG emissions (2022). Mitigation measures in the transport sector could contribute with a reduction of 4.7 MtCo₂eq. Kenya was one of the 26 countries that committed to phase-out ICE vehicles by 2035 by signing the "COP26 declaration on accelerating the transition to 100% zero emission cars and vans."²

As of Dec 2023, there were 3,753 electric vehicles (EVs) representing less than 2% of the registered vehicles in Kenya (compared to the total of over 2 million vehicles on the road). There was a strong 467% growth in registered EVs as compared to Dec 2022 (EPRA).

2.2 Government E-Mobility Policy

Recognizing this potential, the Kenyan government has taken a proactive stance in fostering e-mobility growth. President William Ruto has set ambitious targets, aiming for 5% of all registered vehicles to be electric by 2030. Since 2020, a series of policy initiatives have been rolled out to support this vision. The Kenya National Energy Efficiency and Conservation Strategy (launched in 2020) first introduced the concept of mainstreaming EVs, and the recently drafted National E-Mobility Policy (March 2024) outlines a comprehensive strategy to promote local EV production, infrastructure development, technical capacity building, and a smooth transition from internal combustion engine (ICE) vehicles to a fully electric transportation ecosystem in Kenya.



2.3 Opportunity for Sector Development

Kenya's e-mobility sector is undergoing a dynamic transformation which is evident in the influx of startups and the establishment of industry bodies like the Electric Mobility Association of Kenya (EMAK).

Beyond the environmental benefits, Kenya's embrace of e-mobility offers a path towards economic growth. The sector can create local jobs in manufacturing and supply chains as electric vehicle (EV) assembly and supporting industries emerge. By reducing reliance on imported fuel, e-mobility can lead to foreign exchange savings and increased energy security. Businesses that switch to electric fleets can benefit from lower running costs. Kenya's commitment to e-mobility can position it as a leader in sustainable transportation, attracting green investment.

However, despite these positive developments, widespread consumer adoption of EVs remains a challenge. Bridging the gap between promising policies and widespread adoption requires a deeper understanding of the sector's current state.



2.4 Purpose of Research



This baseline of the e-mobility sector in Kenya, aims to provide a comprehensive understanding of the current state of the industry and identify key areas for development. Through a survey of key stakeholders and analysis of existing data, the study established a foundational understanding of the e-mobility landscape in Kenya.

This study aims to serve several purposes:

Empower e-mobility companies: This report equips e-mobility companies with valuable data and insights to navigate this dynamic sector. Companies can leverage this information to identify market opportunities, develop competitive products and services, prioritize skills development for their workforce, and secure investment.

Strategic recommendations and guidance for stakeholders: The findings offer strategic recommendations designed to foster sustainable growth and innovation in the e-mobility landscape. Targeted at industry players, investors, ecosystem associations, donors, and funders, these recommendations provide actionable insights for scaling the sector. By addressing industry dynamics and identifying consumer concerns, stakeholders can direct their resources and programs towards areas with the greatest impact, fostering collaboration and driving sectoral development.

Inform policy development: The data and insights presented can inform policymakers in developing effective policies and regulations that promote the growth and sustainability of the Kenyan e-mobility sector, ensuring a supportive environment for long-term success.

Direct future research: By identifying critical knowledge gaps, the study will guide future research endeavours within the Kenyan e-mobility sector. This will ensure research efforts are focused on areas with the greatest potential to accelerate progress and advancement within the sector.



3

Key Findings

3.1 Sector Overview

The e-mobility sector in Kenya is experiencing rapid growth, driven by supportive government policies, improved charging infrastructure, and incentives such as green number plates and tax exemptions.

However, the sector faces challenges, including a reliance on imported EV components, highlighting the need for local manufacturing capabilities. The economic outlook for the sector is positive, with strong confidence in future growth supported by government targets for EV adoption by 2025. Employment trends are also favourable, with notable increases in female and youth participation. Despite these positive indicators, the sector contends with high business costs, regulatory hurdles, and limited local production capacity. Financially, the sector is on an upward trajectory, with many companies anticipating significant revenue growth and a profitable business in the next 5 years



Surge in sector activity: The Kenyan e-mobility sector is experiencing significant growth, with a notable increase in startup activity. 69% of companies were founded between 2020 and 2023, indicating rapid sector development.

There is a **diverse range of products and services offered**, particularly in sub-sectors like mobility as a service (MaaS) and charging infrastructure.

Despite the growth, there is a critical need for developing local manufacturing capabilities as **most inputs for EVs are imported**.

Government support: The introduction of the e-mobility draft policy, enhancements in charging infrastructure, and government incentives like green number plates and tax exemptions have significantly boosted sector activity.

3.2 Economic and Business Outlook



Positive economic projections:

The e-mobility sector remains broadly optimistic about Kenya's economic prospects over the next 12 months.



Perception of sector growth in 2023:

: There is unanimous consensus among respondents that the sector has grown in the last 12 months, with 51% witnessing steady growth and 30% witnessing rapid growth. This growth is attributed to supportive government incentives, infrastructure development, and increasing market demand.



Positive business sentiment in 2024:

67% of companies reported a good to excellent business situation compared to the previous year. While some companies experienced stable performance or decline, the overall sentiment is positive, reflecting confidence in the sector's expansion. The varied individual company experiences may be attributed to factors such as access to capital, management team experience, regional infrastructure disparities, and competition levels.



High confidence in future growth:

Companies are very to extremely confident about their business prospects and the sector's future, with no company scoring "less confident" or "not confident". A majority (88%) of respondents are confident that the e-mobility sector in Kenya will grow in the next 12 months, driven by the government's plan to reach 5% of all new vehicle sales to be electric by 2025.



Current level of competition:

Most respondents (44%) perceive the current level of competition in the sector as moderate, indicating a balanced market with several active companies fostering steady innovation and competition. However, perceptions vary significantly, reflecting the sector's infancy and differences in regional market conditions, company size, and levels of market penetration.

3.3 Employment Trends

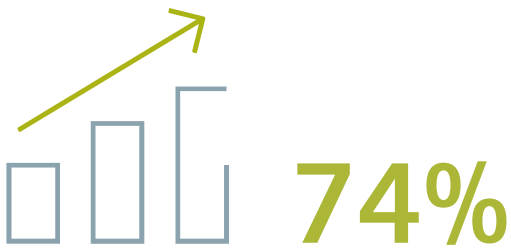


Employment growth in 2023 vs. 2022: 72% of respondents reported an increase in the total number of employees between 2022 and 2023, indicating sector expansion. The growth in employment is balanced, with significant increases in female and youth employment.

Gender and youth employment: The sector is male-dominated, but there is significant representation of youth employees, with 46% under the age of 25.

Employment growth forecast for 2024: 93% of companies anticipate an increase in total employees in 2024, reflecting strong confidence in sector growth. This includes expected growth in female and youth employment, showcasing the sector's potential to enhance inclusivity and diversity.

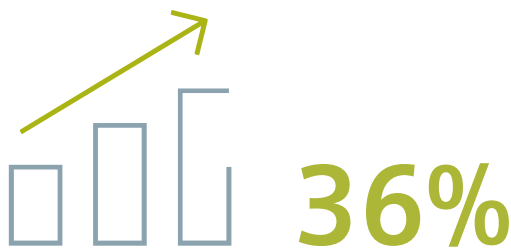
3.4 Financial Performance and Outlook



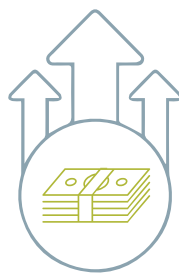
Revenue in 2023: 74% of companies are currently generating revenue, with 70% reporting higher revenue growth in 2023 compared to 2022. This reflects positive sector performance despite individual variations.



Expected revenue distribution in 2024: There is a significant increase in the number of companies expecting to generate revenue between USD 50k and 100k, and more companies are expecting to generate revenue of more than USD 1 million in 2024 compared to 2023.



Revenue growth in 2024: 36% of companies expect moderate revenue growth (6% to 20%), 28% expect strong growth (21% to 50%), and nearly one-third anticipate exceptional growth exceeding 50% in 2024.



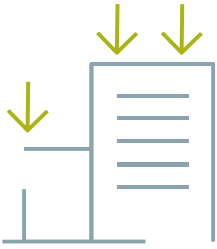
29%

Gross profit: 29% of respondents were generating a gross profit in 2023, with 71% anticipating achieving profitability in the next five years.



EBITDA: 17% of respondents were EBITDA positive in 2023. Most companies plan to achieve positive EBITDA within the next five years.

3.5 External and Internal Factors Affecting Growth



External domestic factors affecting company growth: Key factors include the high cost of doing business, financing constraints, regulatory issues, exchange rate volatility, inflation, and increased taxation.



Internal factors affecting company growth: Important factors include technological innovation, product design, effective risk management, and securing additional financing.



Factors affecting sector growth and e-mobility adoption: Major barriers include high purchase prices, lack of charging infrastructure, limited government support, regulatory barriers, and lack of public awareness.



3.6 Financing

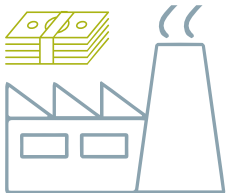
Types of financing adopted: 1 Equity financing is the most common, followed by internal cash flows, debt, and grants.



58%

Expected financing needs in 2024: 58% of companies are seeking to raise less than USD 1 million in 2024, with 26% seeking financing in the region of USD 1 million to 5 million.

- Early-stage companies typically seek less than USD 1 million, while growth-stage companies prefer larger brackets between USD 1m and 5 million.
- Sectors such as financial services, battery manufacturing, and body/chassis assembly have the greatest financing needs, followed by production of charging points, stamping, and welding



98%

Familiarity with carbon financing: 98% of respondents had some degree of familiarity with carbon financing, though only 30% had working knowledge or direct experience.



Areas of planned investment in 2024: Companies plan to invest in sales and marketing (72%), research and development (70%), production and manufacturing (63%), and services (56%).



Sources of financing to be raised in 2024: Government grants and other grants are the most preferred sources of financing, followed by equity from venture capital/private equity/impact investors and company cashflow.

3.7 Supply Chain



Supply chain challenges: The primary concerns are access to suitable financing, high inflation, currency devaluation, supplier reliability, and import restrictions.



Key factors affecting supply chain: Issues such as limited domestic manufacturing capacity, disruptions in global logistics, and difficulties in sourcing labour for e-mobility repair and maintenance are significant challenges.

3.8 Policies and Regulation



77%

Impact of existing government policies and regulations on the e-mobility sector: 77% of respondents agreed that existing government policies positively impacted the e-mobility sector.



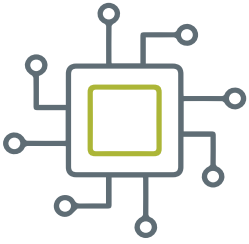
70%

Impact of recent policy changes on the company: 70% of respondents indicated that recent policy changes had a positive impact on their company's strategy and operations.



Government policies that are barriers to the company: Barriers include limited access to financing, lack of clear regulations, high import duties, absence of tax breaks, and inadequate charging infrastructure.

3.9 Emerging Technologies



Technology advancement / R&D - areas of interest: Key areas include battery technology, charging infrastructure, AI and data management, EV adoption and mobility, recycling, and alternative energy.



Approach to innovation to stay ahead of the curve: 7 Companies are focusing on customer centricity, collaboration with startups and research institutions, internal innovation through R&D, and talent management to stay ahead in the e-mobility landscape.



79%

Planned increase in technology advancement / R&D: 79% of respondents planned to increase their investment in technology advancement/R&D in the next 12 months, focusing on areas such as battery technology, AI, data management, charging infrastructure, and vehicle design.

3.10 Partnerships and Collaborations



Partnerships & collaboration:

Partnerships, especially with financial institutions, other e-mobility companies, and technology/research institutions, are crucial for accelerating the EV transition in Kenya.



Perception of who is the most

valuable partner: Financial institutions and investors are considered the most valuable partners, followed by other e-mobility companies and technology companies/research institutions.

3.11 Training and Coaching



77%

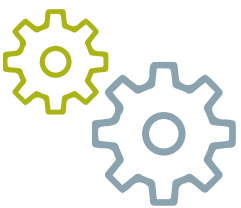
Training and coaching needs:

Technical skills development, carbon financing training, and project management training are the most sought-after training areas. Other important areas include human/customer-centric product design and marketing and sales training.



70%

Existing training programs in the sector: Various organizations in Kenya are enhancing skills through training programs. Initiatives by the Electric Mobility Association of Kenya (EMAK), GIZ, and Siemens Stiftung and others are actively focusing on research, coaching, and networking to build capacity.

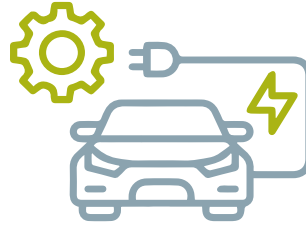


Key challenges in bridging the skills gap: The main challenges include the cost of training and development programs, upskilling the existing workforce, managing knowledge transfer, attracting skilled staff, and the cost of hiring and retaining them.

3.12 Impact and Inclusion



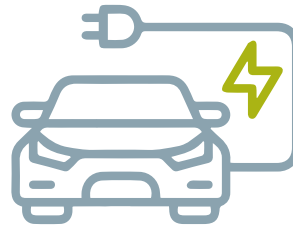
Companies' impact goals: Job creation is the top goal (95%), followed by income generation for customers and riders (88%), environmental benefits such as reduced carbon emissions and improved air quality (81%) and gender equality (77%).



Factors affecting uptake of e-mobility solutions by the lower income: The most significant barriers are the high upfront cost of EVs, limited charging infrastructure, lack of government incentives, and public awareness about the benefits of e-mobility solutions.



Geographic disparity of e-mobility's impact: Companies are focusing on customer centricity, collaboration with startups and research institutions, internal innovation through R&D, and talent management to stay ahead in the e-mobility landscape.



Measures to improve e-mobility inclusivity: The most effective measures include subsidies or financial support for low-income individuals, targeted infrastructure development in underserved areas, PAYG business models, educational campaigns on e-mobility benefits, government incentives, and reducing the cost of electricity.



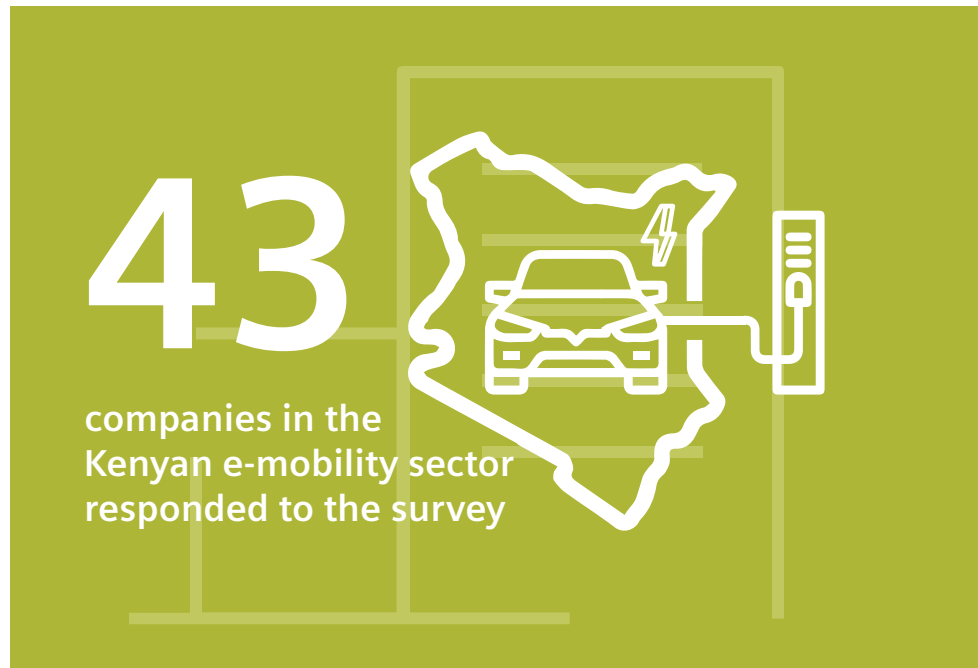
4

Insight from Survey

4.1 Respondents

The Kenyan e-mobility sector has seen healthy growth over the years in areas ranging from the number of startups operating in the sector, widening range of products and services offered, increasing employment, including more youth and females. However, the geographic spread is concentrated in urban areas.

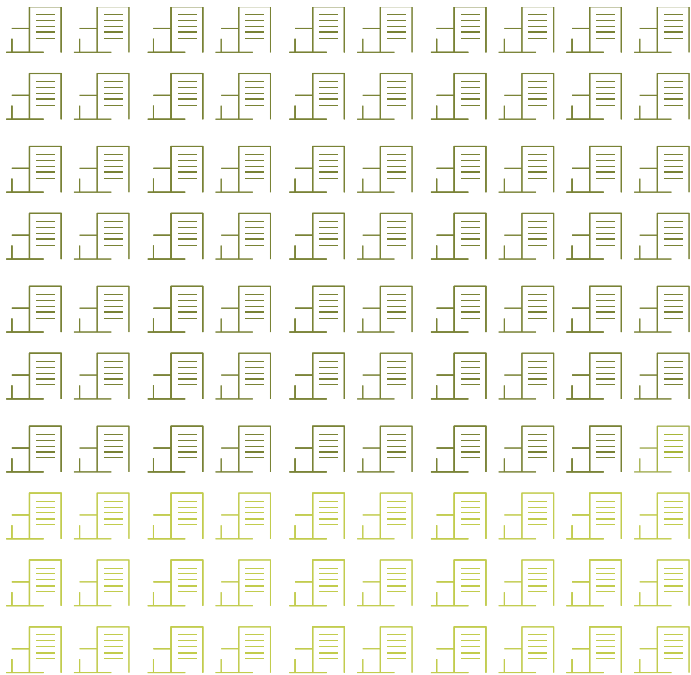
The survey targeted C-suite executives within the e-mobility sector, receiving responses from 43 companies between April and May 2024. This represents a significant portion of the companies active in the sector (African Business).



The survey targeted leadership within companies, with a strong representation from c-suite executives including Chief Executive Officers (CEOs) and Chief Operating Officers (COOs), Founders/Co-founders, Managing Directors, Sales Directors, Country Directors, and those leading specific areas like Public Affairs, Product Support, Project Management, and Technical Development.

The e-mobility sector is experiencing a surge in new entrants. Our survey highlights this trend, with participating companies ranging from established players founded in 2011 (operating for over 13 years) to fledgling startups launched just last year (2023). This wide range in company age underscores the dynamic and rapidly growing nature of the e-mobility landscape. Charging Transport support the same finding and adds that, most of the focus is on electric two-wheelers (E2W) largely driven by private companies.

4.2 E-Mobility Sub-Sectors

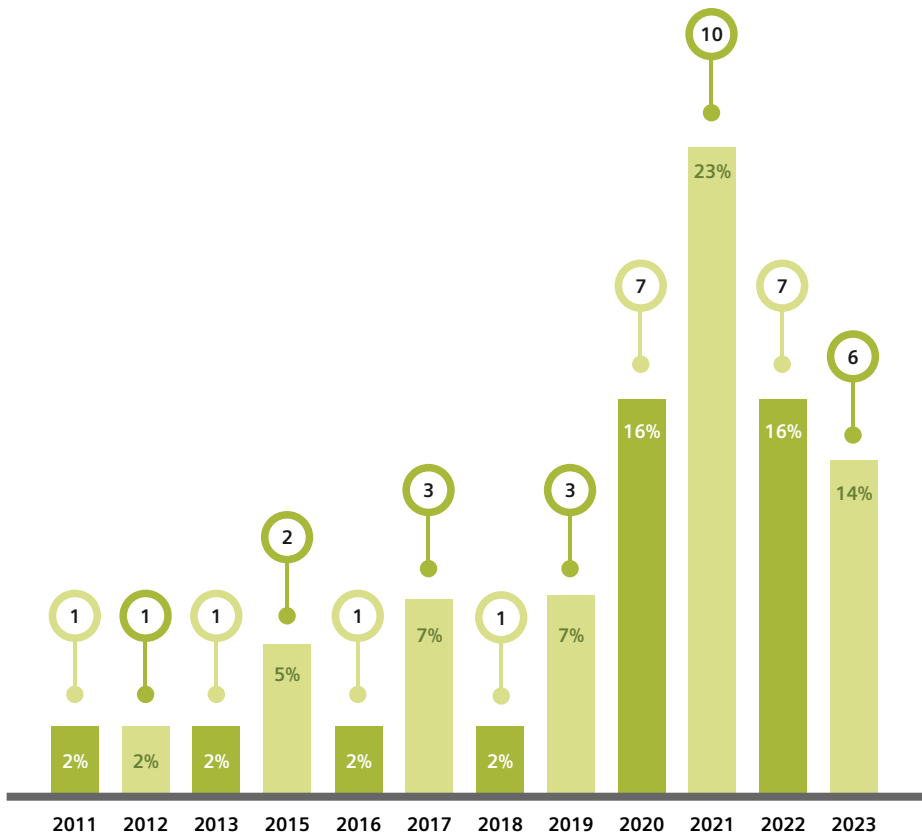


69%

of the companies are **less than 5** years old and began operations between **2020 and 2023**



Figure 1: Companies by Founding Years



These findings align with reports from The Exchange Africa, which highlight a significant rise in e-mobility startups in Africa, driven by the increasing demand for electric vehicles as a response to the urgent climate change crisis.

4.3 Level of Maturity

E2Ws and E3Ws are the most dominant type of electric vehicles in Kenya. They account for more than 85% of EVs in the country (The Star). Kenya's e-mobility sector has seen various innovations and uptake in the number of products and service offerings. It is demonstrably active across a diverse range of sub-sectors.

Mobility as a Service (MaaS) is a leading sub-sector (42% of companies active) due to its integration of transport services like ride-sharing, carpooling, peer-to-peer car sharing, bike rentals, and public transport into a single on-demand service, easing urban travel. This reduces private car ownership, traffic congestion, and emissions, making it attractive in urban areas. In Kenya, MaaS is rapidly growing, driven by technological advancements and the demand for sustainable transport. The Business Daily noted that "using shared mobility might soon become as simple and common as streaming music," highlighting the transformative potential of MaaS in everyday urban commuting.

Sales and installation of charging infrastructure is also a very active sub-sector (40% of companies active). As the adoption of EVs grow, so does the demand for charging stations, battery swapping and related services. This is critical to addressing range anxiety and ensuring the convenience and reliability of EV usage.

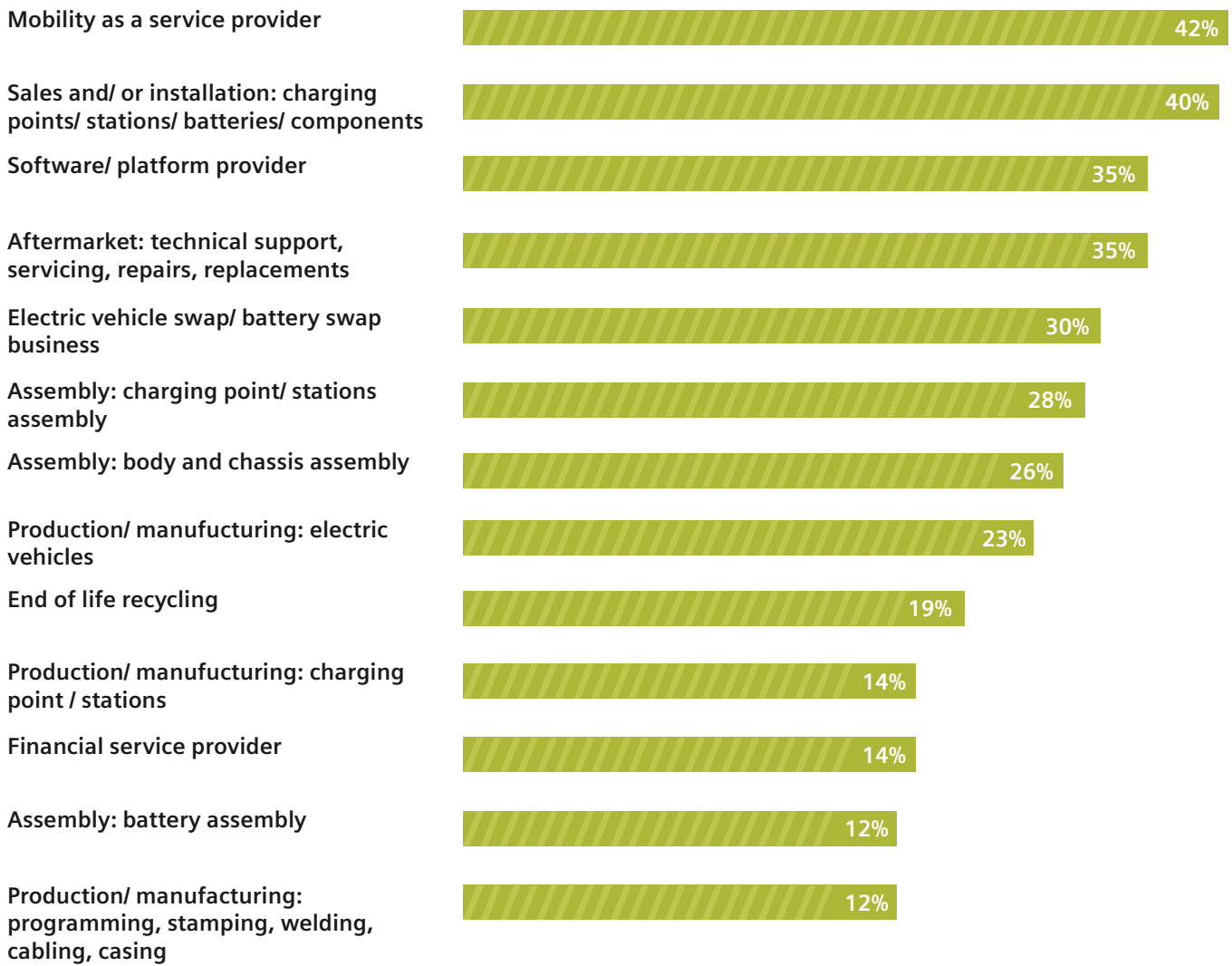
Companies offering **software/platform providers solutions** (35%) and **aftermarket technical support, servicing, repairs and replacement** (35%), highlight the growing importance of e-mobility service models and technology solutions in the Kenyan market.

However, there are no **input suppliers**. This means that all or almost all inputs for EVs are imported.

The presence of companies across the diverse spectrum, from EV swap/battery swap businesses (30%) to assembly of body and chassis (26%), underscores the emerging capabilities, diversification and growing sophistication of the Kenyan e-mobility sector.



Figure 2: Companies in Different Sub-Sectors

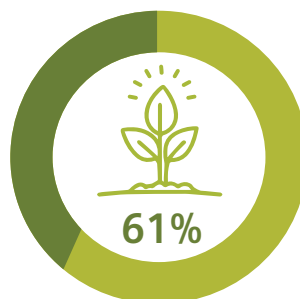


4.3 Level of Maturity

The EV sector can be broadly categorized as early stage (seed/pre-seed), growth stage and late stage.

60% of the companies fell under the growth stage while 40 % were early stage. Most of the companies had a minimum viable product or product market fit achieved (>74%).

No late-stage companies replied to the survey.

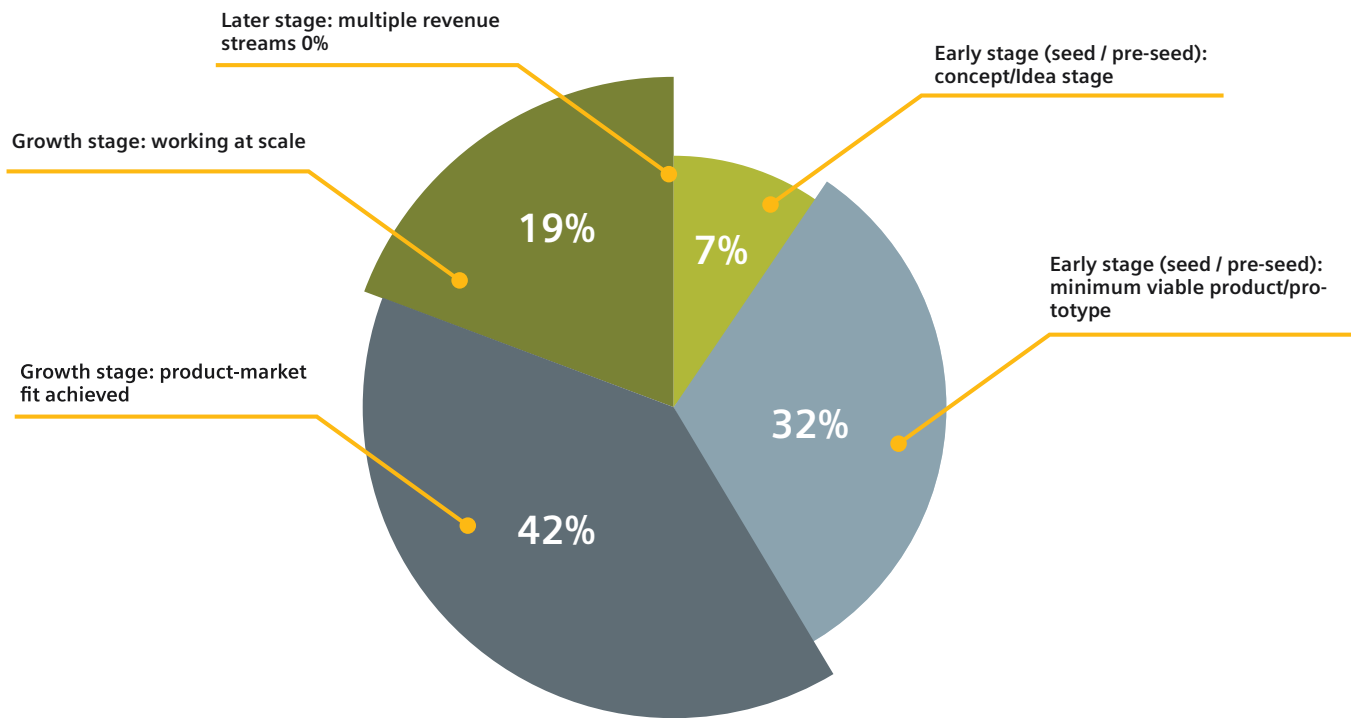


of the startups are in the **growth stage**: product-market fit achieved or working at scale



of the startups are in the **early stage** (seed / pre-seed): concept or minimum viable product

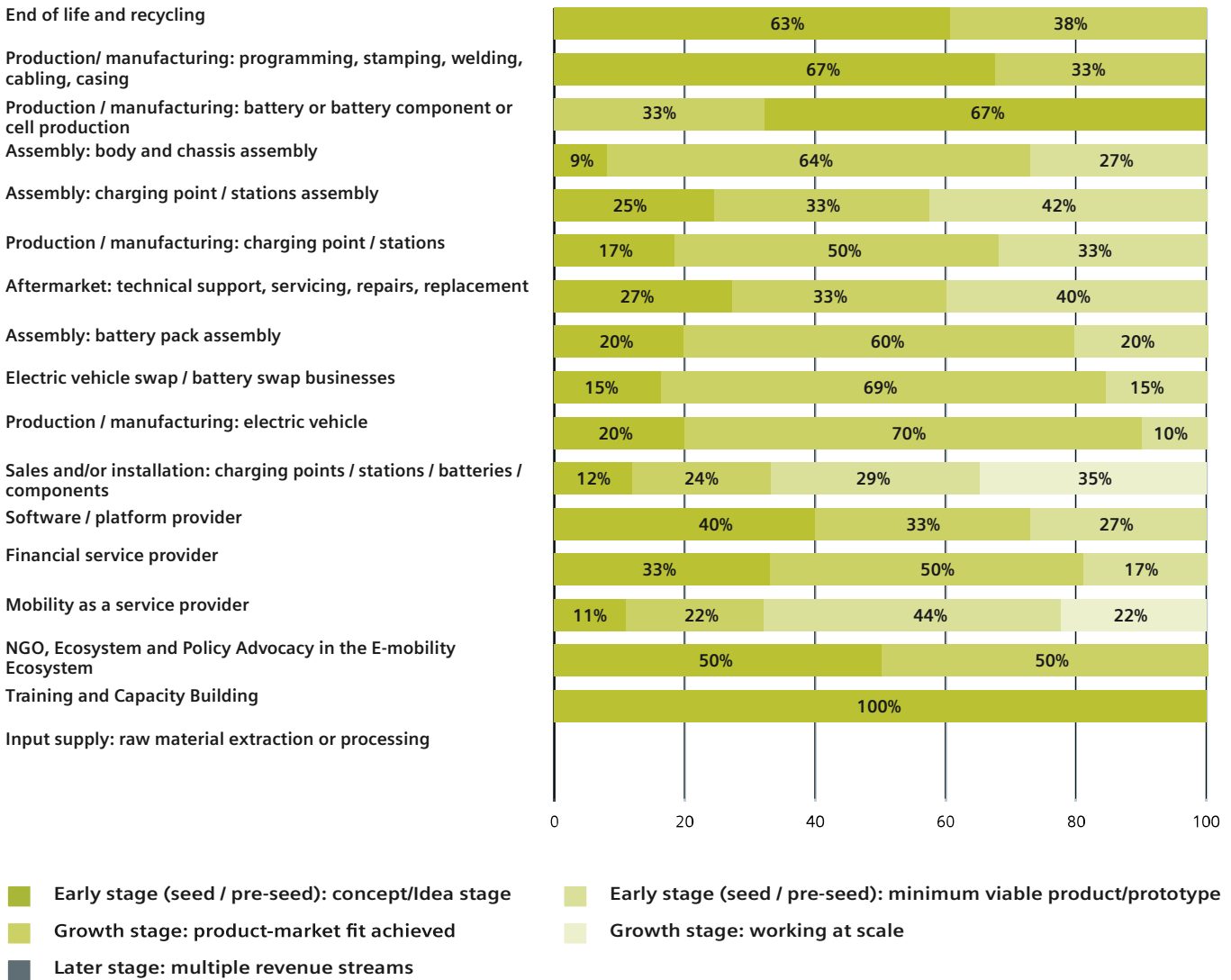
Figure 3: Level of Maturity of The Companies



Growth Stage (Working at Scale): Production/manufacturing: battery or battery component or cell production (67%), Assembly: charging point / stations (42%), Aftermarket: technical support, servicing, repairs, replacement (40%), End of life and recycling (38%), and Sales and/or installation: charging points / stations / batteries / components (35%) are key sub-sectors with the highest proportion of companies working at scale.

There is a significant focus on various aspects of production, assembly and end of life recycling, suggesting these areas are critical for growth of the sector.

Figure 4: Maturity Levels Across Sub-Sectors



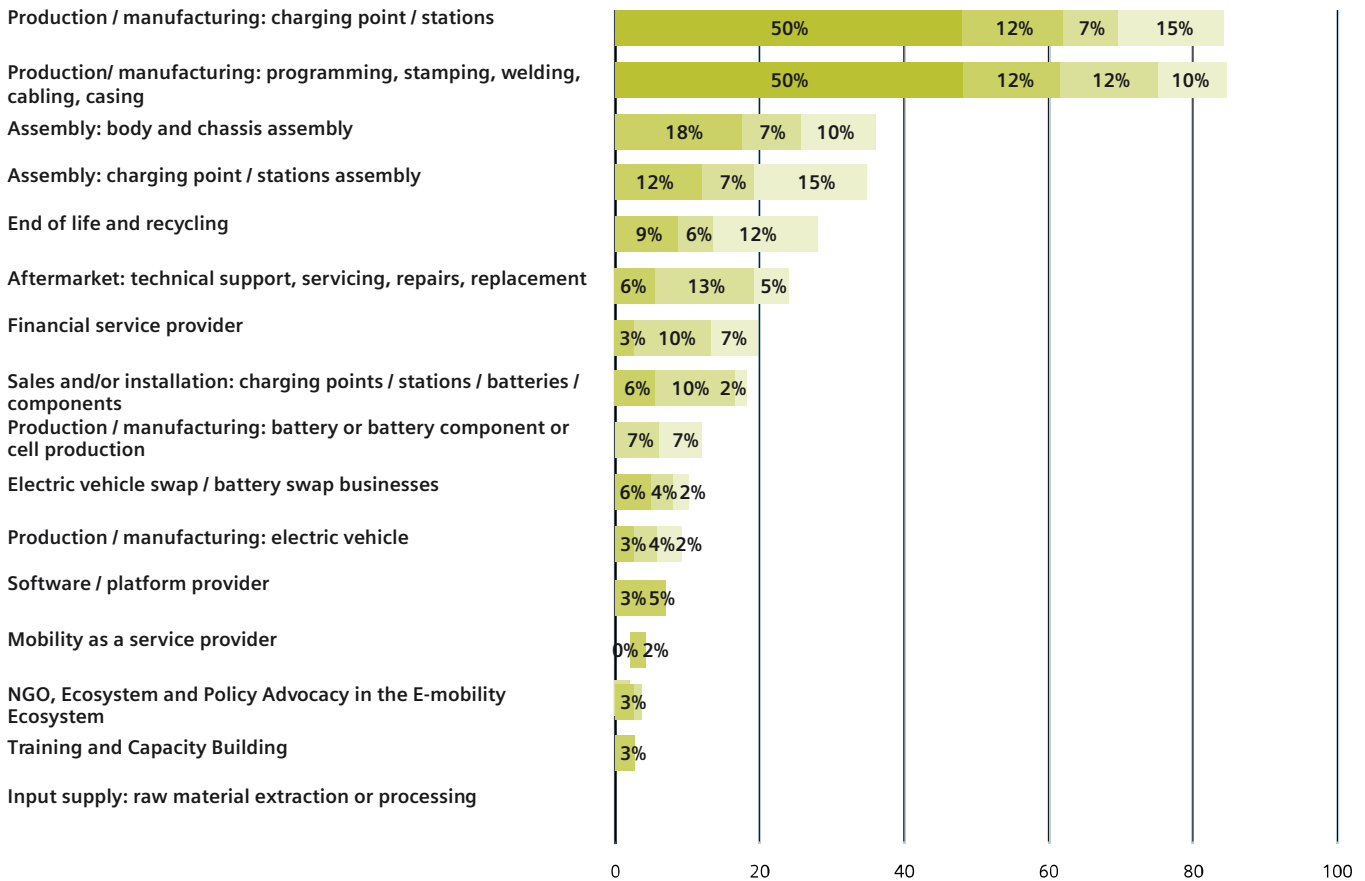
The early stage (seed/pre-seed): concept/idea stage Production and manufacturing of charging points and stations, as well as programming, stamping, welding, cabling and casing, have the majority of companies accounting for 50 % of those in that stage.

The assembly of battery packs under the Early stage (seed/pre-seed): minimum viable product/prototype has the highest number of companies accounting for 18%.

End of life sector has the highest number of growth-stage companies that have achieved the market fit category accounting for 13 % of those in that stage.

15% of companies in both the production and manufacture of charge point sector and those in the assembly of body and chassis have the highest number of companies under the growth stage who are working to scale

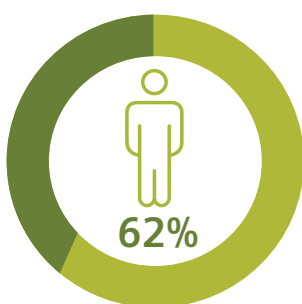
Figure 5: Sector Vs. Percentage of Maturity Level



- Early stage (seed / pre-seed): concept/Idea stage
- Early stage (seed / pre-seed): minimum viable product/prototype
- Growth stage: product-market fit achieved
- Growth stage: working at scale
- Later stage: multiple revenue streams

4.4 Employees

The sector is male dominated, with 62% male employees across the responding companies. However, there was a relatively strong representation of youth employees (those under the age of 25), which is not surprising given the young nature of the sector.



Male employees



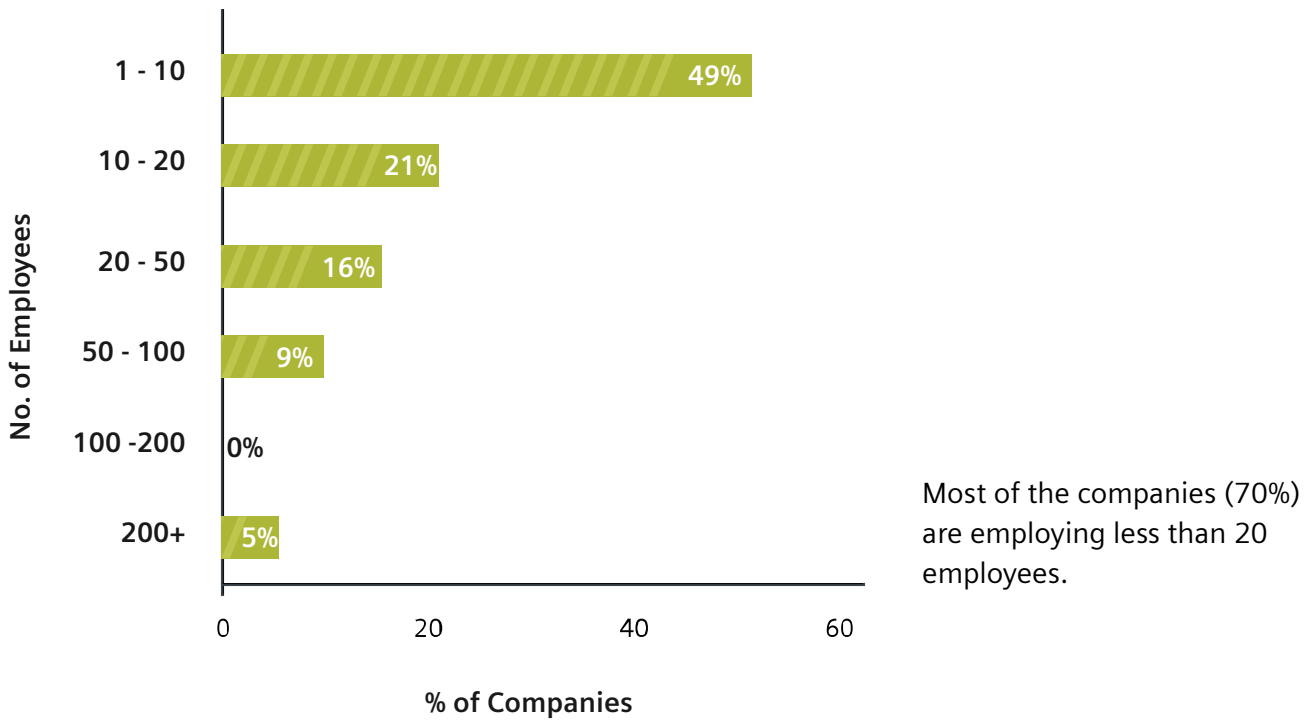
Female employees



Youth employees

Majority of the employees are working in growth stage companies (91%). The average number of employees is 32 per company and the median is 10.

Figure 6: Total Employees by Category



- Early stage (seed / pre-seed): concept/idea stage
- Early stage (seed / pre-seed): minimum viable product/prototype
- Growth stage: product-market fit achieved
- Growth stage: working at scale
- Later stage: multiple revenue streams

Figure 7: Total Female and Youth Employees by Maturity

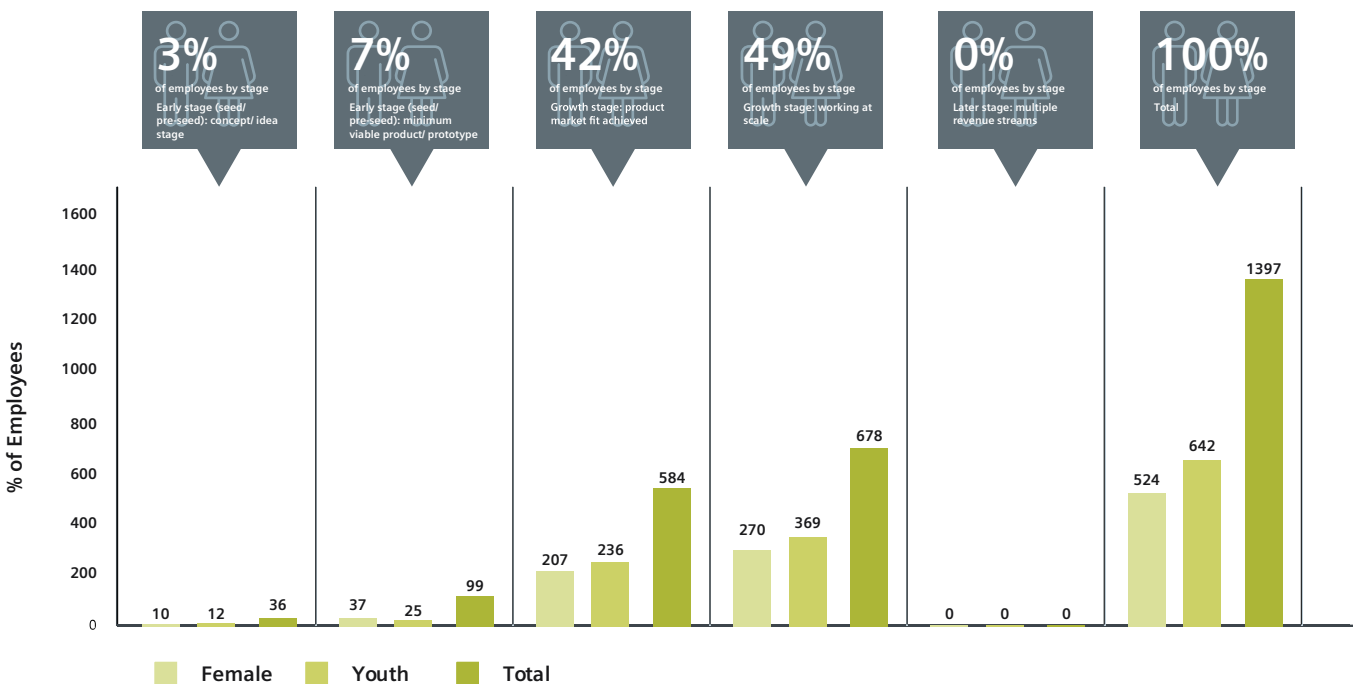
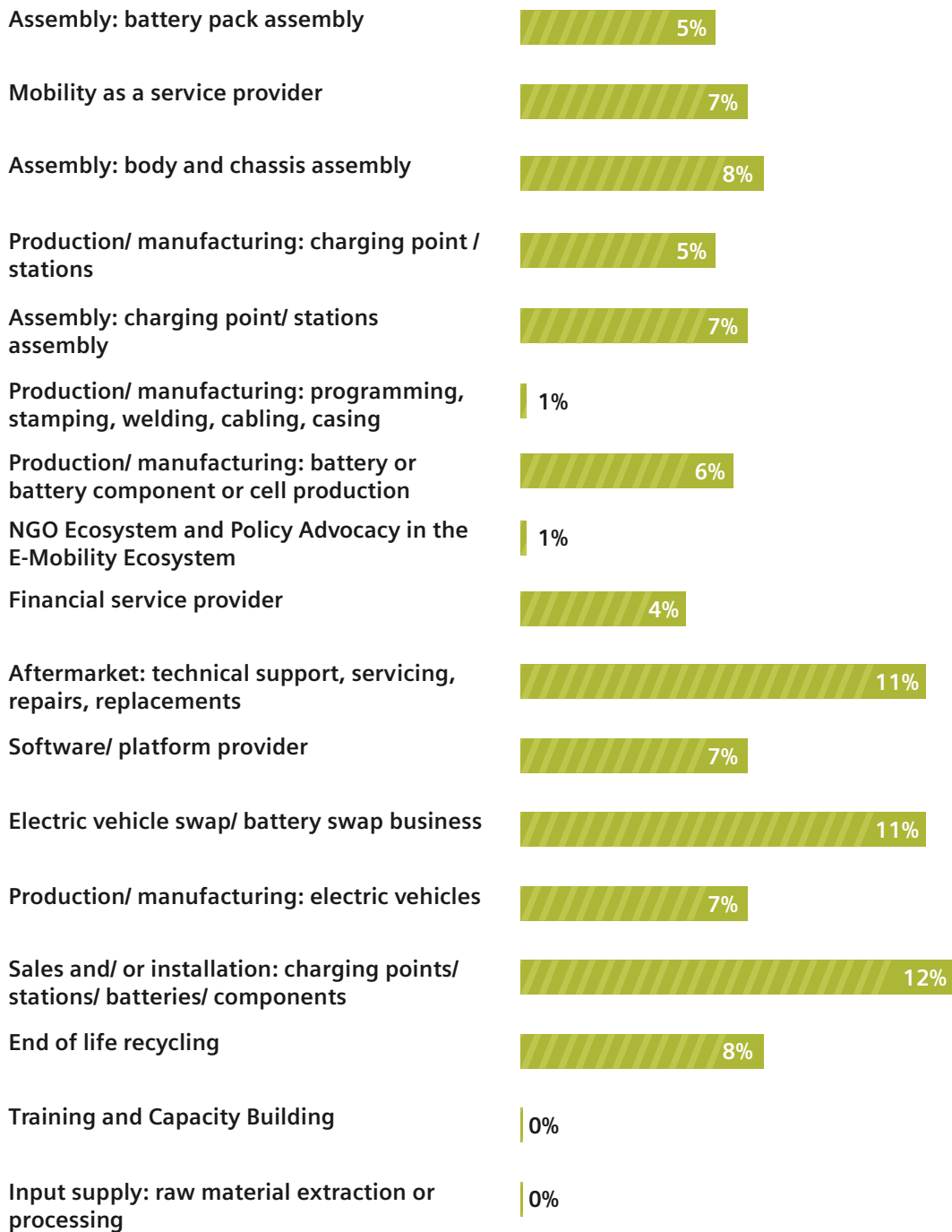
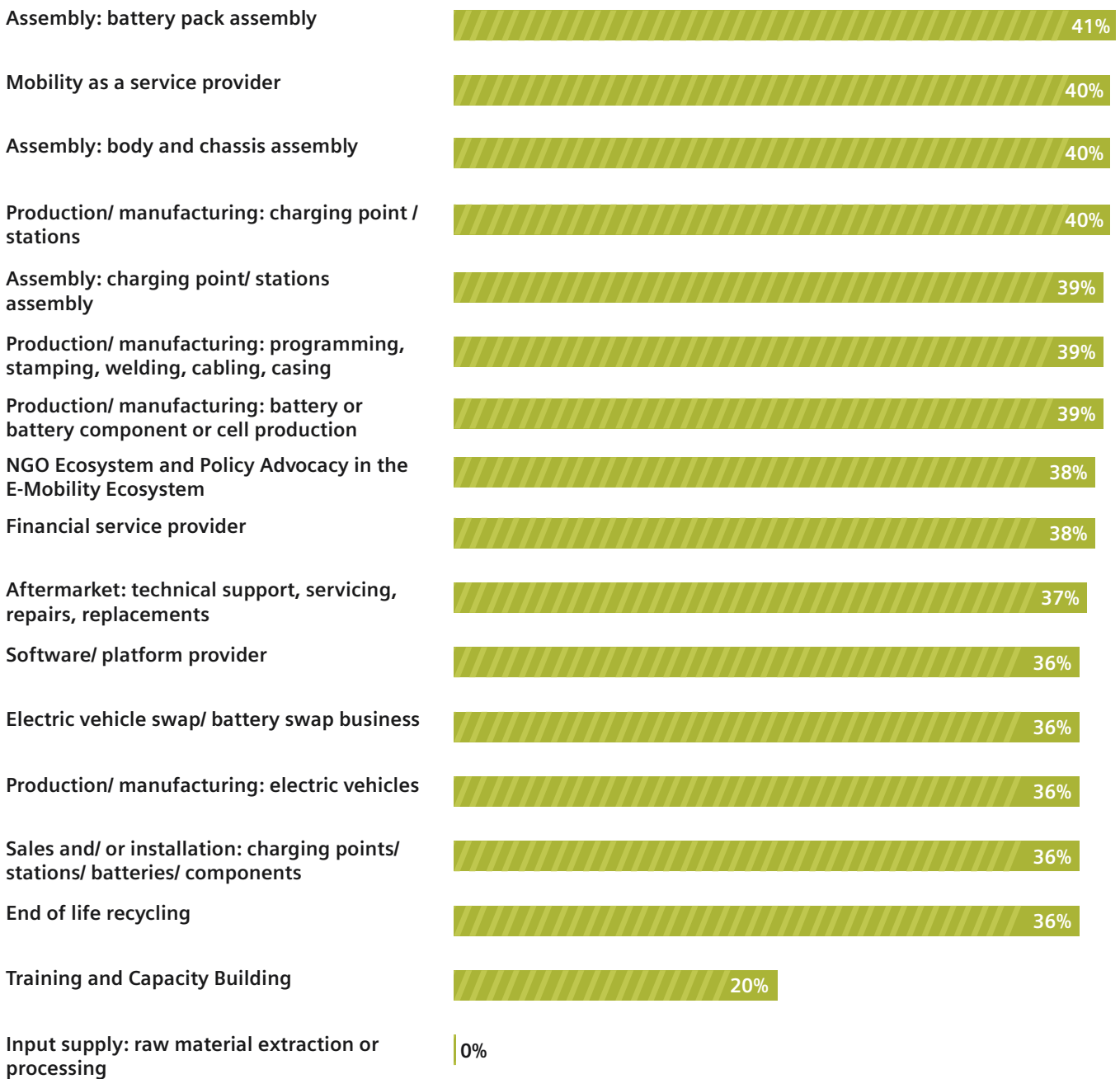


Figure 8: Percentage of Employees by Sector



The sectors with the highest percentage of employees are sales and/or installation (12%) and aftermarket (11%). These sectors involve direct interaction with customers and essential support services, indicating robust employment opportunities in customer-facing and technical support roles. EV / battery swap sector also has a high representation (11%), highlighting the importance of battery management and swapping services in the e-mobility ecosystem.

Figure 9: Percentage of Female Employees by Sector

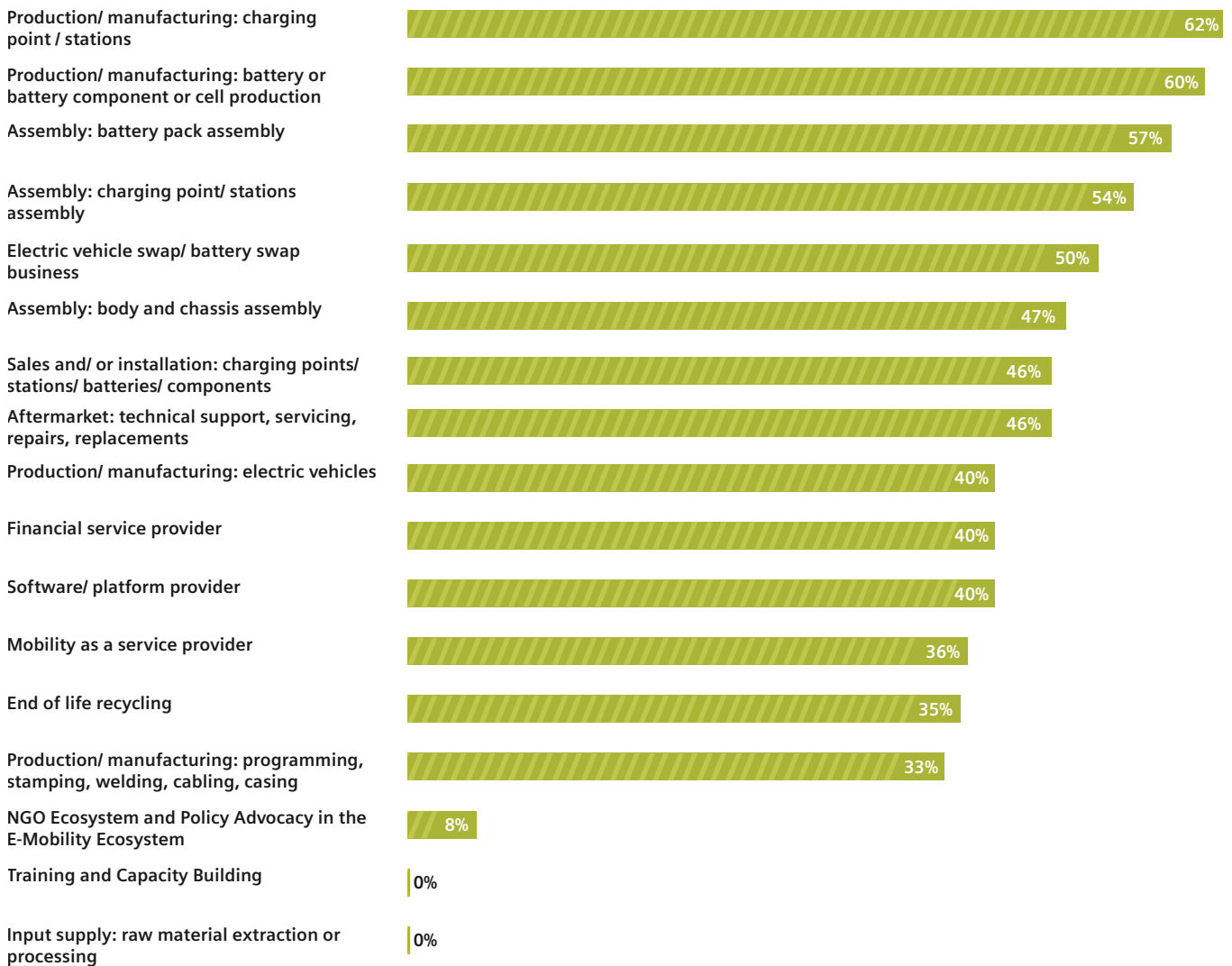


While there is substantial female representation in many sectors within the e-mobility industry, there are still significant gaps, particularly in the sector of training and capacity building.

To promote gender diversity and inclusivity, targeted initiatives and policies are needed to attract and retain more women in underrepresented sectors. This includes providing training opportunities, creating a supportive work environment, and addressing any barriers to entry that women may face in these roles.



Figure 10: Percentage of Youth Employees by Sector



Production, assembly and EV / battery swapping sectors have a strong youth representation, likely due to the technical and innovative nature of the work involved, which may appeal to the younger generation seeking hands-on experience in emerging technologies. However, there are notable gaps in youth representation in more specialized, policy, and foundational supply chain roles. Addressing these gaps through targeted recruitment, training programs, and youth engagement initiatives will be crucial for building a sustainable and inclusive workforce.



4.5 Geographical Presence

The presence of e-mobility companies in Kenya is notably concentrated in urban counties. There are seven counties with a wider presence of e-mobility companies:

Nairobi City is the most represented county, with 93% of the e-mobility companies active in the county. This is primarily due to the city's status as the economic and transport hub of Kenya, facilitating significant movement of people and goods.

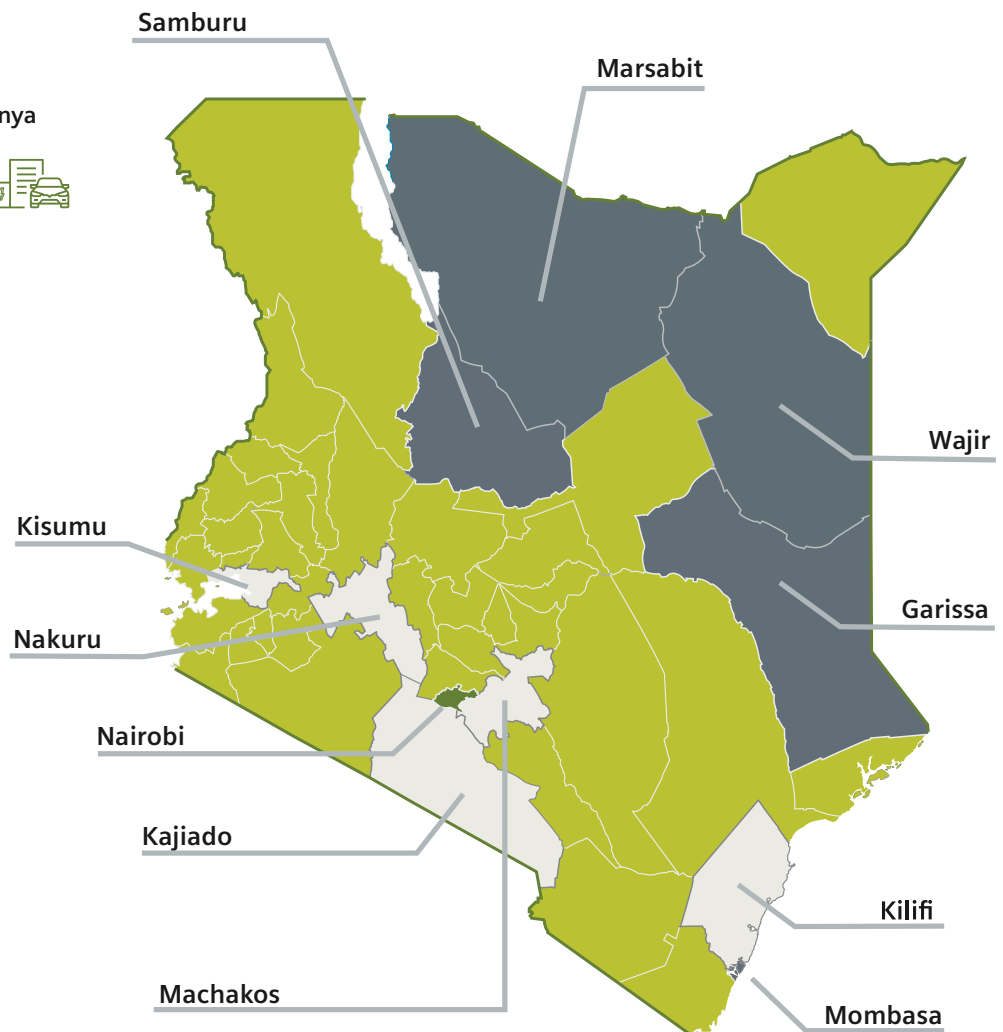
Mombasa county followed with 47% representation likely due to its strategic importance as a major port city.

The other towns, included Machakos, Nakuru, Kilifi, Kisumu and Kajiado (with a 33% - 40% representation). This can be attributed to the heavy movement of people and goods in and out of these main counties, better infrastructure, and higher economic activities that support the growth and operations of e-mobility companies.

The North and North Eastern counties of Wajir, Samburu, Marsabit, Mandera, Garissa had low representation of companies present in these areas.

The data shows the wide disparity of urban vs rural presence of the e-mobility companies. Urban areas generally have higher income levels, making residents more likely to afford the relatively higher upfront costs of EVs. In contrast, rural areas with lower population densities and less economic activity do not present the same immediate need or market opportunity for e-mobility companies.

E-Mobility Companies Presence in Kenya





5

Economic and Business

5.1 Perception of Sector Growth Vs. Prior Year

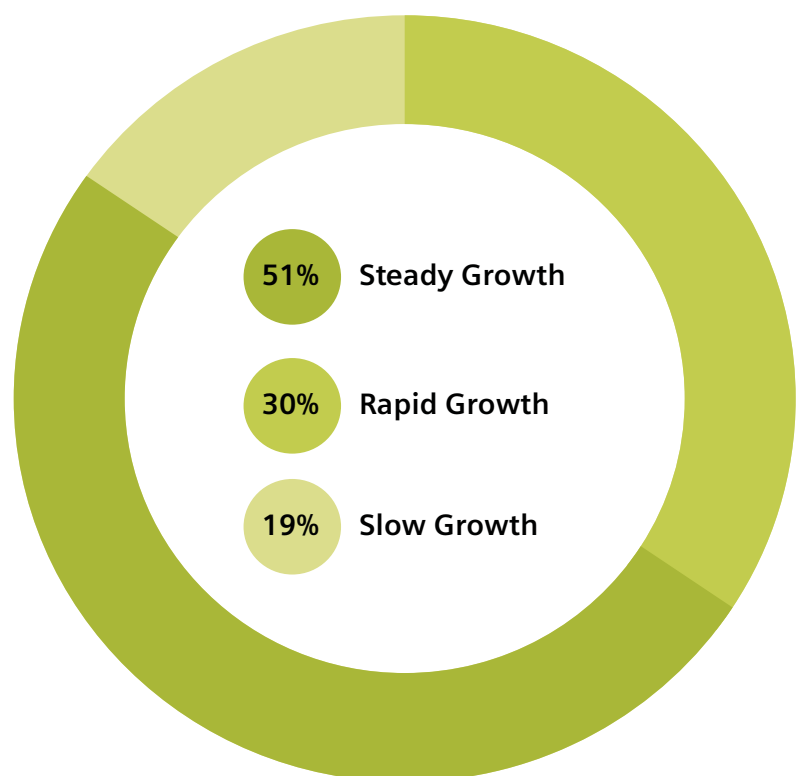
The Kenyan e-mobility sector is experiencing a surge in activity with a promising growth trajectory. Over the past year, the sector has undergone significant changes, impacting the overall landscape and the operations of individual companies. Key developments include the introduction of the e-Mobility Draft Policy, enhancements in charging infrastructure, government incentives like green number plates and tax exemptions, a focus on local manufacturing, and initiatives for increased public awareness and inclusivity.

This evolving environment presents exciting opportunities and challenges, as evidenced by the confidence of e-mobility companies in their own growth, the sector's expansion, and a robust hiring outlook for 2024.

There was unanimous consensus among respondents that the sector has grown in the last 12 months. A majority (51%) saw steady growth, while 30% witnessed rapid growth. Data from the Energy and Petroleum Regulatory Authority (EPRA) shows that the National Transport and Safety Authority (NTSA) registered a fivefold increase in EV registrations in 2023 compared to the previous year.

This growth is attributed to supportive government incentives, infrastructure development, private sector and investor involvement, and increasing market demand.

Figure 12: Perception of Growth in 2023 Vs. 2022

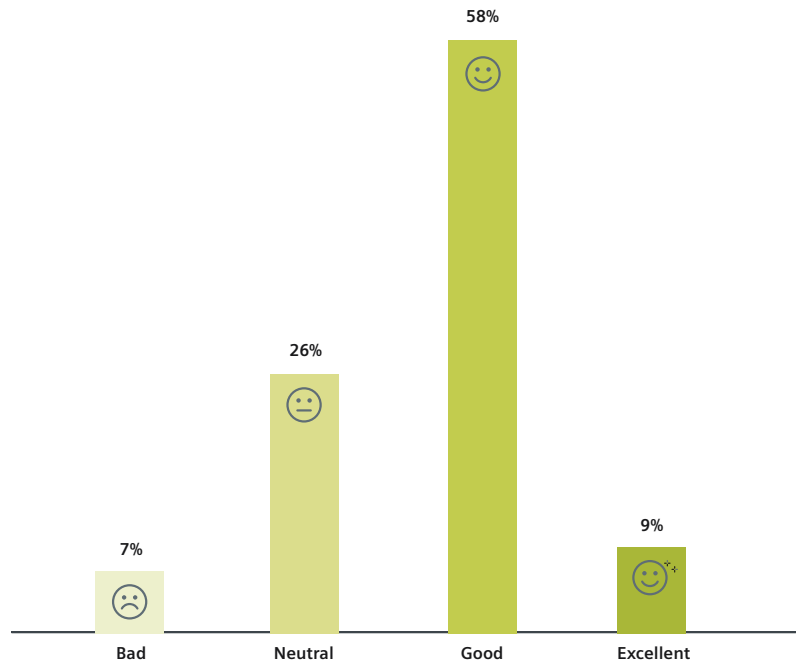


This positive sentiment is reflected at the company level, with a strong majority (67%) reporting a good to excellent business situation compared to the previous year.

5.2 Company's Current Business Situation Vs. Prior Year

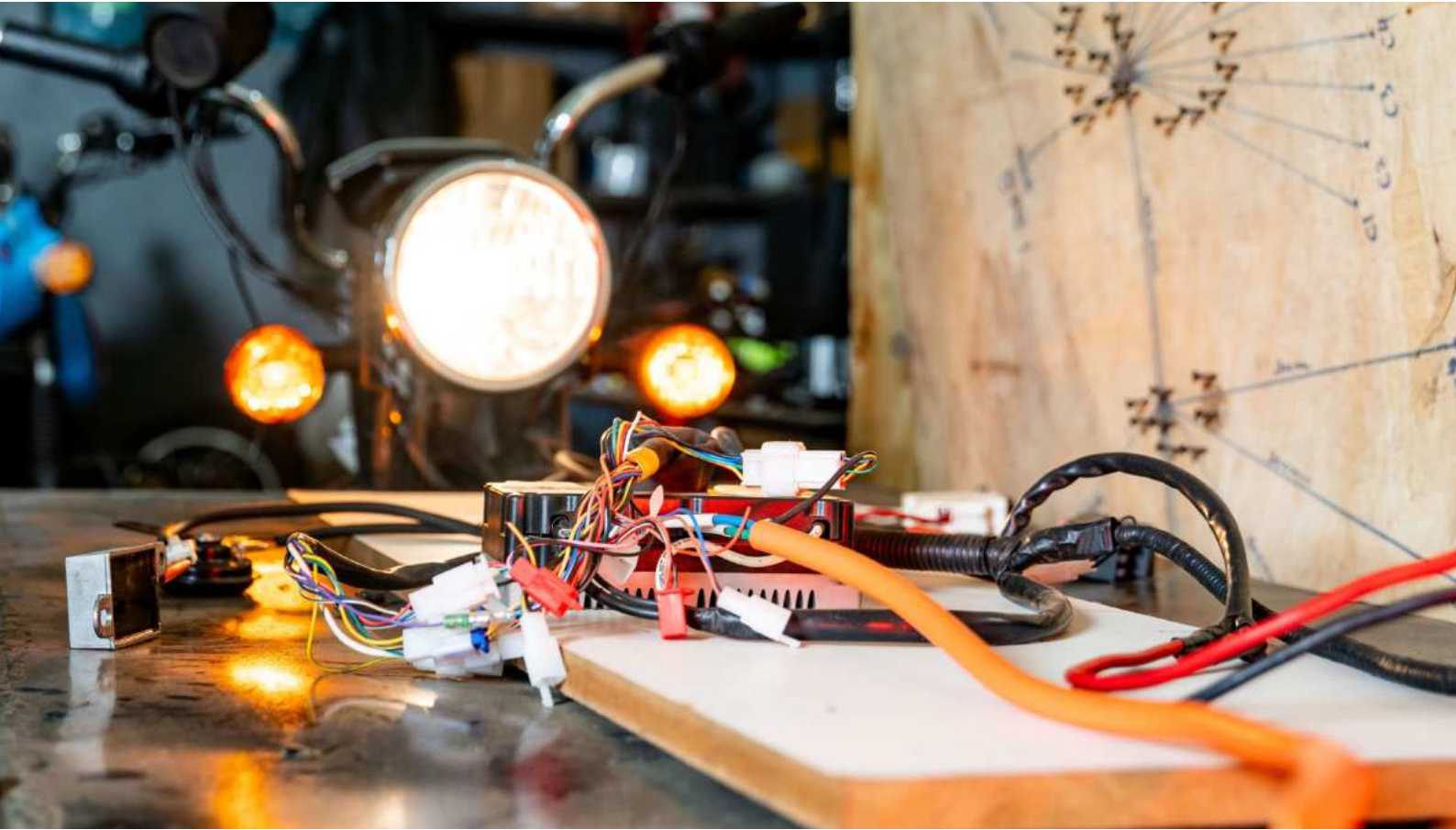


Figure 13: Perception of Company's Business Situation



While some companies (26%) experienced stable performance, a smaller group (7%) reported a decline. This indicates that the e-mobility sector is thriving overall, but individual company experiences may vary. Factors such as access to capital, management team experience, regional infrastructure disparities, and competition levels can influence the success of individual companies.

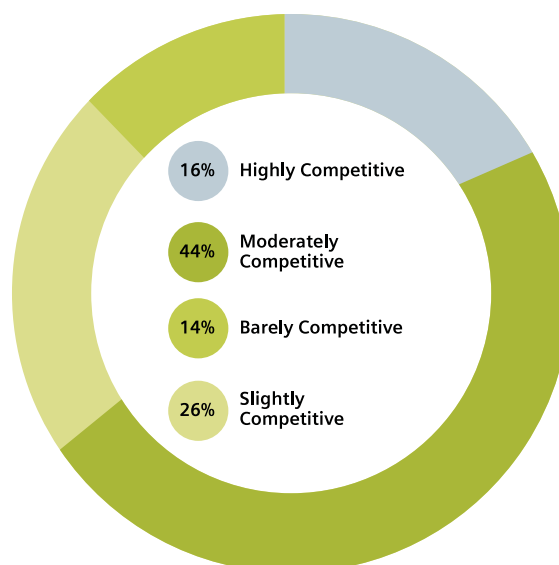
5.3 Current Level of Competition



Most respondents (44%) perceive the current level of competition in the sector as moderate, indicating a balanced market with several active companies, each holding a significant market share, fostering steady innovation and competition.

However, perceptions vary significantly, with some viewing the sector as highly competitive and others as barely competitive. This diversity likely reflects the sector's infancy, influenced by differences in regional market conditions, company size and resources, and varying levels of market penetration and infrastructure development.

Figure 14: Perception of Competition in The Sector



5.4

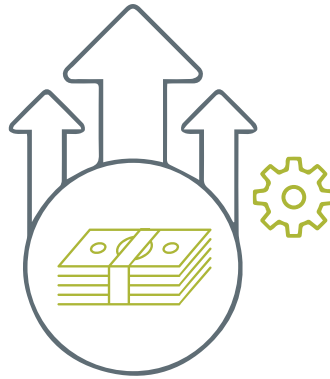
Confidence in Kenya's Economy in The Next 12 Months

Kenya's economy is projected to grow by 5.0% - 5.3% between 2024 and 2026 driven by supportive government initiatives, infrastructure development, private sector growth, agriculture rebound and diversification to high value manufacturing and service sectors (IMF).

2023 has been economically volatile for Kenya due to high inflation driven by rising fuel prices and the Ukraine-Russia war, global supply chain disruptions, alongside the significant devaluation of the Kenya Shilling (KES). The recent 2024 Gen Z protests against the proposed Finance Bill have further exacerbated this economic instability.

These factors have created substantial economic challenges, strained household incomes and increased the cost of living.

The e-mobility sector, like other sectors, faced increased importation and production costs due to global macro volatility. As a growing sector, its success depends on several factors including robust economic development, supportive regulatory policies such as incentives for local manufacturing and investment, and stable infrastructure. Despite these challenges, companies remain broadly optimistic about Kenya's economic prospects over the next 12 months, expecting that government initiatives will support the sector's expansion and sustainability.



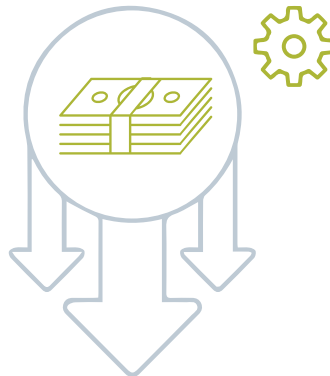
53%

expect a **higher** level of economic development



40%

expect a **Same** level of economic development



7%

expect a **lower** level of economic development

5.5 Growth Outlook of The Sector in the next 12 Months



Figure 15: Growth Outlook Sector in The Next 12 Months



Most respondents (44%) perceive the current level of competition in the sector as moderate, indicating a balanced market with several active companies, each holding a significant market share, fostering steady innovation and competition.

However, perceptions vary significantly, with some viewing the sector as highly competitive and others as barely competitive. This diversity likely reflects the sector's infancy, influenced by differences in regional market conditions, company size and resources, and varying levels of market penetration and infrastructure development.

5.6 Employment Growth in 2023 Vs. 2024

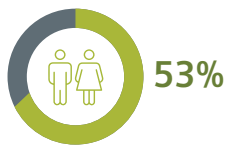
72% of respondents said that the total number of employees grew between 2022 and 2023, **indicating a growing sector**. The **growth is balanced** with an increase in female and youth employees in the sector. 65% stated that the number of female employees increased, whilst 56% agreed that the number of youth increased.

While the majority experienced growth, a smaller proportion of companies faced stable performance or decline, pointing to **varied individual company experiences**, as seen in 4.2 above.

Overall, the positive trend reflects the sector's expansion and its potential for creating diverse job opportunities. However, **ongoing support and strategic actions are essential to sustain and further enhance these gains** in employment growth within the e-mobility sector.

Higher

Total Employees



65% Female



56% Youth



Lower

Total Employees



14% Female

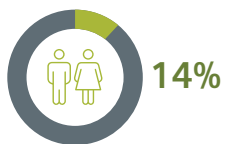


7% Youth



Same

Total Employees



12% Female

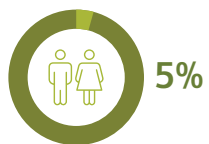


56% Youth



Not Answered

Total Employees



9% Female



9% Youth



5.7 Employment Growth Forecast For 2024

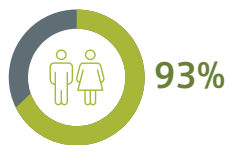
The e-mobility sector strong employment growth in 2023, is expected to continue into 2024, indicating sustained positive momentum. A vast majority (93%) of companies **expect an increase in total employees, reflecting strong confidence in sector growth.**

Additionally, 88% foresee growth in female employment, highlighting efforts to promote gender diversity. Similarly, 93% anticipate growth in youth employment, showcasing the **sector's potential to engage younger workers and enhance inclusivity and diversity.**

Despite economic challenges, the sector's resilience is evident from the substantial growth figures.

Higher

Total Employees



88% Female



93% Youth



Lower

Total Employees



2% Female

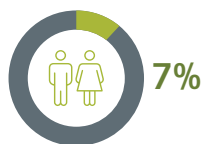


0% Youth



Same

Total Employees



7% Female



5% Youth



Not Answered

Total Employees



2% Female



2% Youth



5.8 Business Confidence and Outlook

In order to assess the business confidence level, a weighted scale was developed. This scale incorporates key metrics such as employee growth projections, revenue growth expectations, and the sector's current trajectory compared to the previous year. It also includes assessments of the current business outlook, level of competition, and expectations for economic and sector-specific development over the next 12 months.

Each metric is equally weighted. Companies' total scores across all metrics are summed and translated into a confidence rating based on the percentage score. Scores above 80% are rated as "extremely confident," 56% to 80% as "very confident," 45% to 55% as "confident," 20% to 44% as "less confident," and below 20% as "not confident."

This scale provides a nuanced reflection of business sentiment and sector health, serving as a strategic tool for stakeholders to gauge the confidence levels of companies.

The data indicates that the vast majority of companies are very to extremely confident about their business prospects and the e-mobility sector in Kenya. Notably, no company scored "less confident" or "not confident".

The high confidence levels indicate strong optimism about the sector's future in Kenya. The absence of lower confidence ratings underscores the sector's resilience and the effectiveness of the measures supporting its development.



28%
Extremely Confident



70%
Very Confident

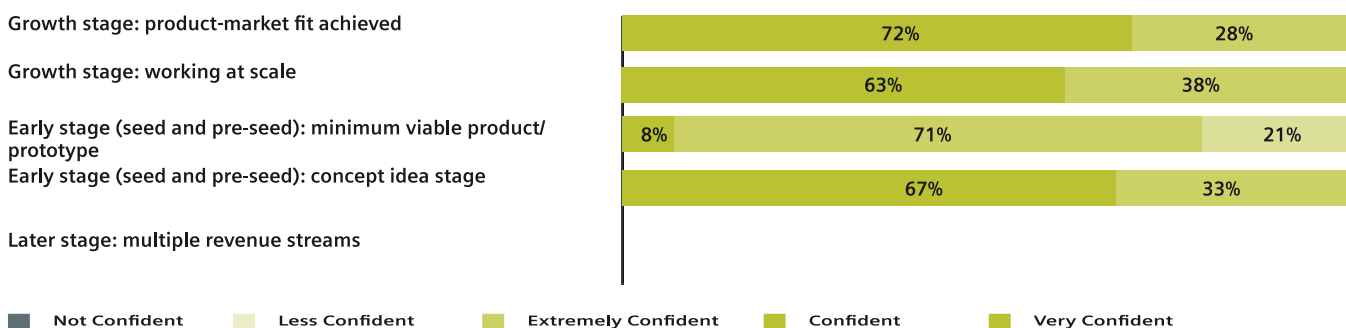


2%
Confident





Figure 16: Business Confidence Level by Maturity

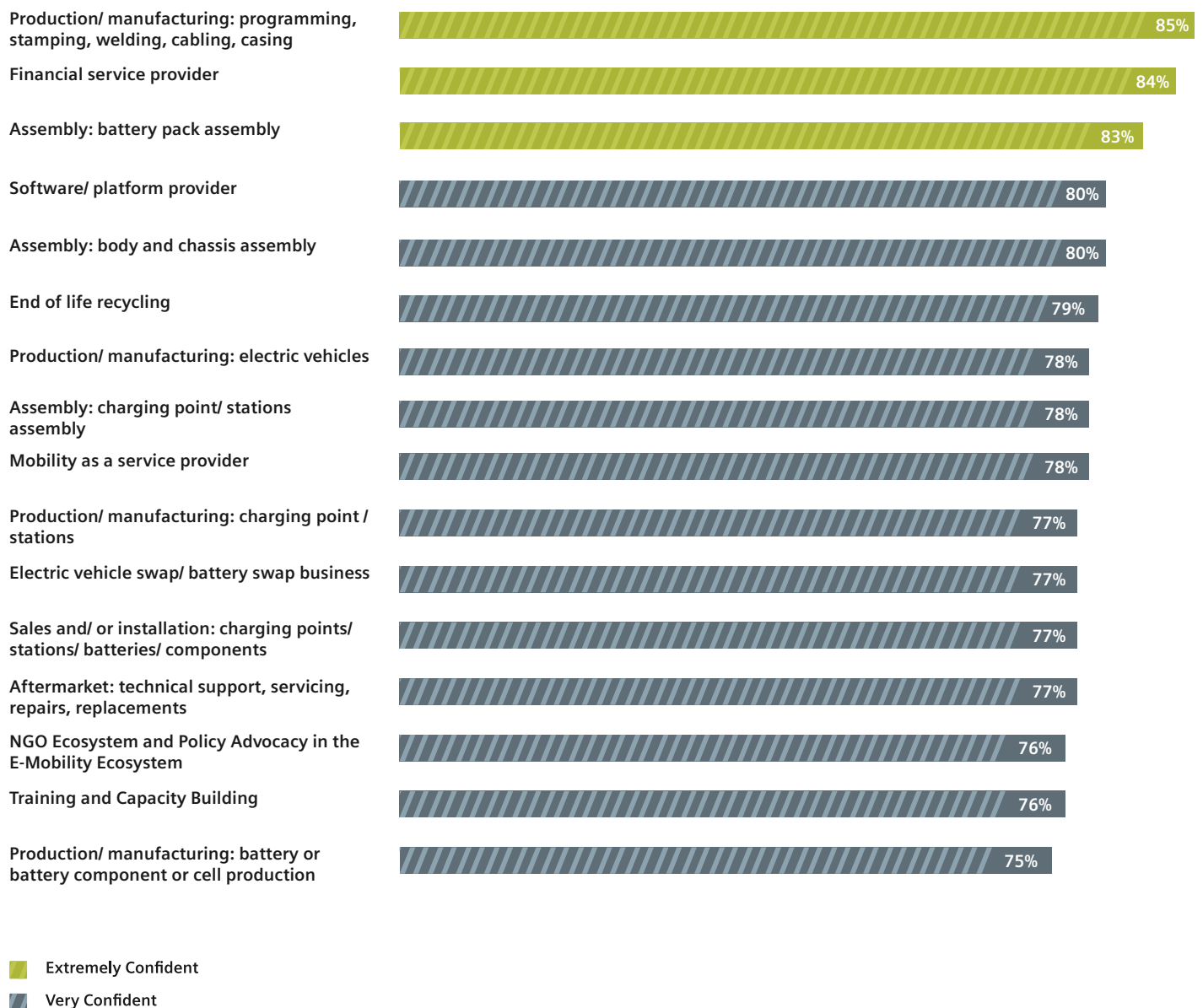


The data indicates that companies in the Kenyan e-mobility sector maintain high levels of confidence regardless of their maturity stage.

This suggests a strong belief in the sector's potential for growth and success.

This robust confidence is crucial for attracting further investments, fostering innovation, and sustaining the sector's expansion.

Figure 17: Business Confidence Level by Sub-Sector



There is high levels of confidence across all sub-sectors. Production: programming, stamping, welding, cabling, casing, financial service providers and battery assembly have the highest levels of confidence.



6

Financial Performance

6.1 Revenue in 2023

A strong financial performance by the e-mobility companies is critical for the sector to thrive. It will build investor confidence, create jobs and contribute positive to development and sustainability goals.

The findings reveal a promising landscape with the majority of companies already generating revenue, underlining the industry's viability. While a significant portion (40%) are in the early stages with revenue under \$10,000, a notable 10% have surpassed \$1 million, showcasing the potential for substantial growth. This positive outlook is bolstered by the high growth projections of the companies, with a combined 65% anticipating moderate to exceptional revenue increases in 2024.

Additionally, a good majority (71%) expect to achieve profitability in the coming years, with nearly half aiming for positive gross profit by 2024 and a similar proportion to be EBITDA positive by 2025.



The revenue landscape within the Kenyan e-mobility sector reveals a mix of established and emerging players.

Three-quarters (74%) of companies are currently generating revenue, highlighting the viability of this growing industry.



- Yes
- No, not yet
- There is no intention to generate revenue

Nearly a quarter (23%) of companies project to generate revenue in the future, suggesting a healthy pipeline of companies on the path to commercialization.

The remaining 2% of companies represent non-profit organizations.

Figure 18: Revenue in 2023 Vs. 2022



70% of companies reported higher revenue growth in 2023 compared to 2022, while 9% experienced lower revenues. This indicates a growing sector overall, although individual companies are experiencing different growth trajectories.

Figure 19: Revenue Generating in 2023 by Maturity

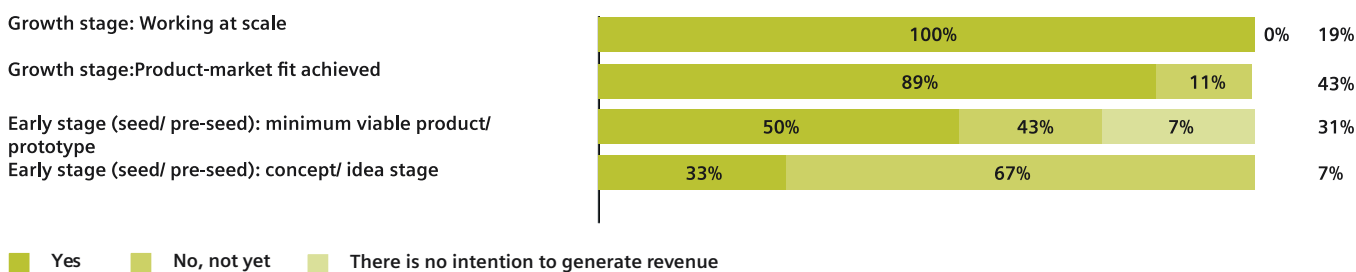
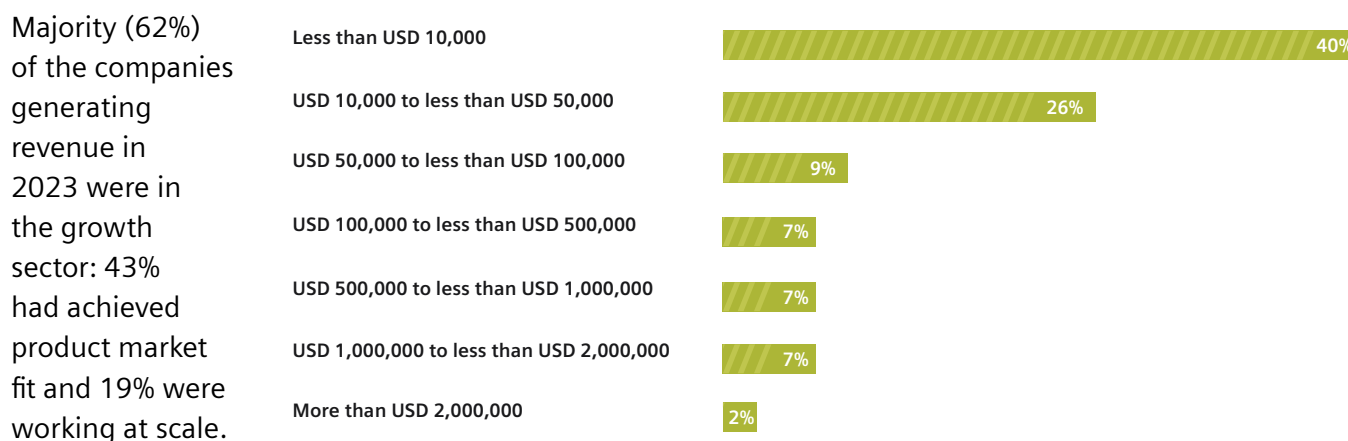
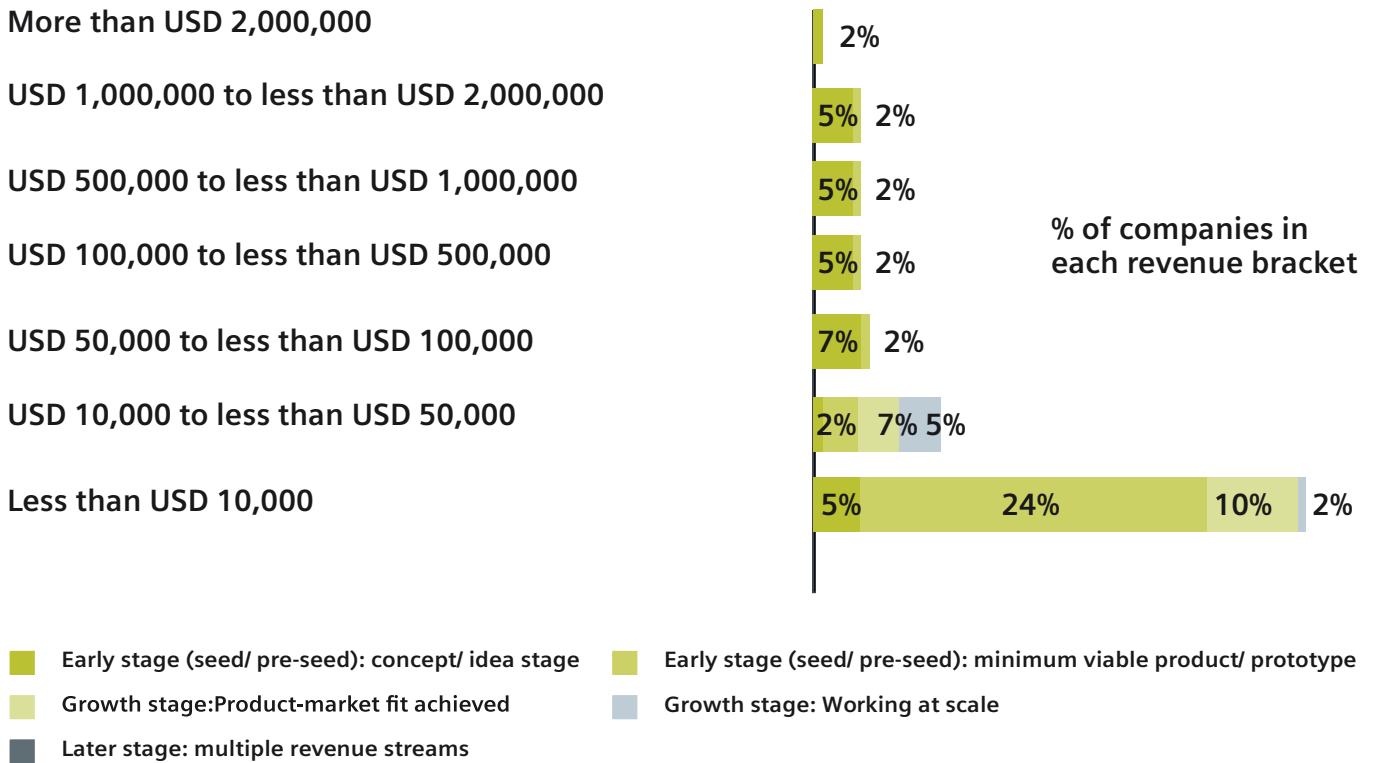


Figure 20: Revenue Distribution in 2023



40% of the companies are generating less than USD 10k of revenue. 81% are generating less than USD 100k of revenue, indicating the early-stage nature of the sector, and underscoring the need for continued growth and market maturity. 9% of the companies are generating more than USD 1m in revenue, demonstrating the potential for significant growth within the sector. Unsurprisingly companies that were in the early stage (39% of total companies) had less than USD 50k of revenue and those earning higher revenues were in the growth stage.

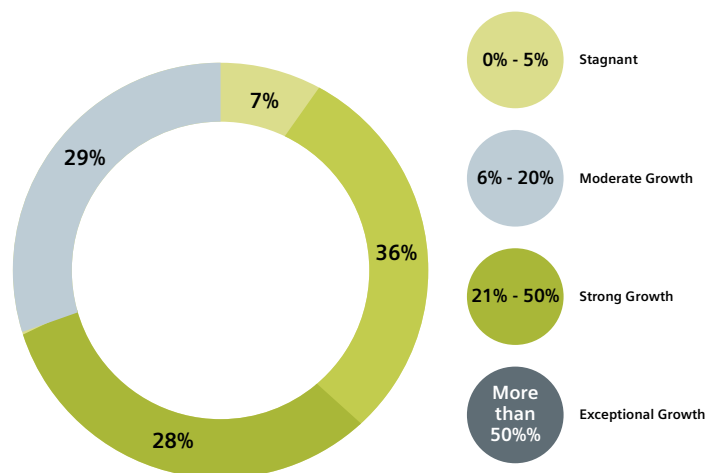
Figure 21: Revenue Distribution in 2023 by Maturity



6.2 Revenue in 2024

E-mobility companies in Kenya are exhibiting strong optimism regarding their future revenue growth. A significant portion (36%) expects moderate growth of 6% to 20% in 2024, indicating a steady and sustainable expansion plan. 28% expects strong growth between 21 – 50%. This is further bolstered by the nearly one-third (29%) anticipating exceptional growth exceeding 50%, showcasing the immense potential within the sector.

Figure 22: Revenue Growth Expectations in the Next 12 Months



Companies in both the early and growth stage are confident of revenue growth in 2024, with growth expectations well distributed across the different brackets.

Figure 23: Revenue Growth Rate in 2024 by Maturity Stage

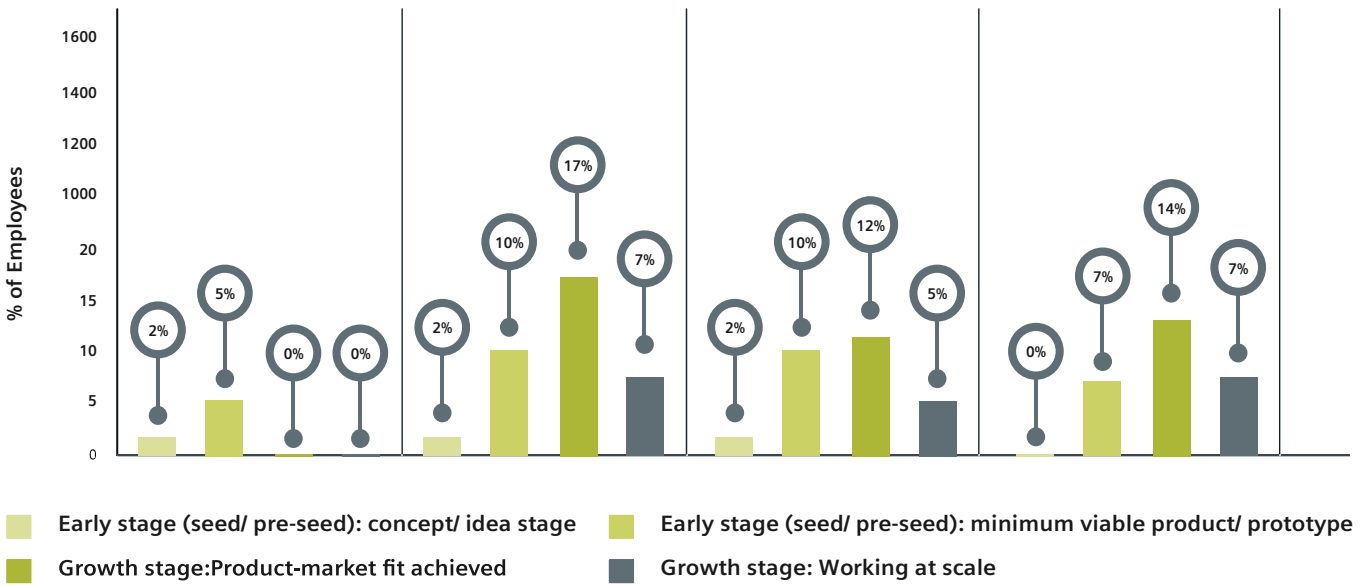
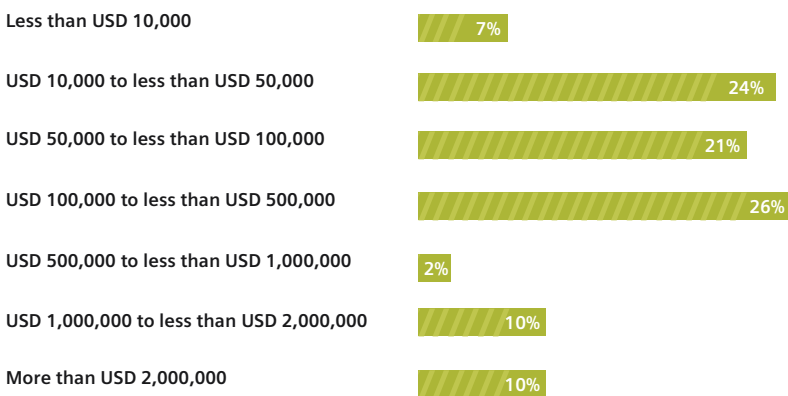


Figure 23: Expected Revenue Distribution in 2024



In comparison to 2023, only 7% of companies are expecting to generating revenue less than USD 10k in 2024 (vs. 40% in 2023). There is a significant increase in the number of companies expecting to generate revenue between USD 50k and 100k (47% vs. 16% in 2023). Similarly more companies are expecting to generate revenue of more than USD 1m (20% vs. 9% in 2023).

Figure 24: Expected Revenue Distribution in 2024 by Maturity

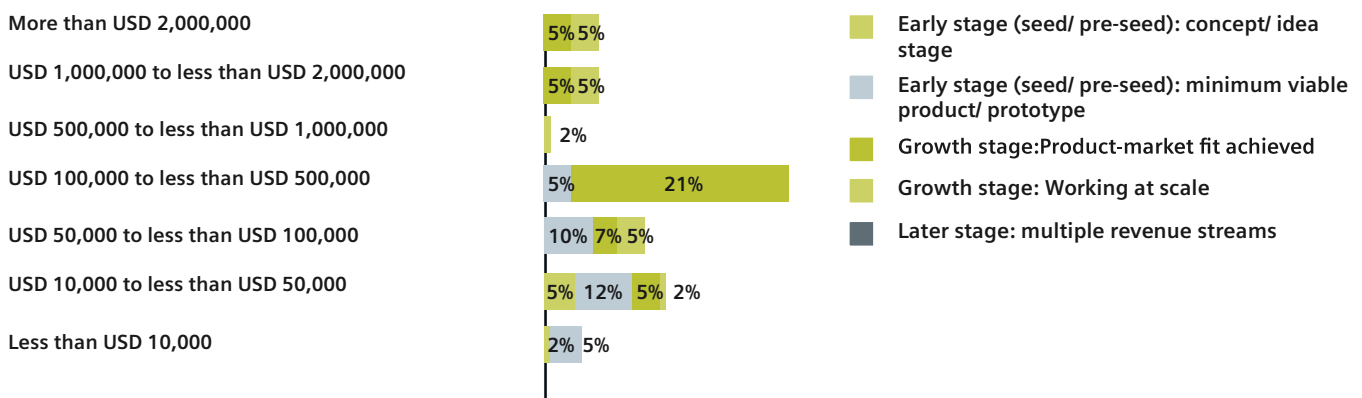
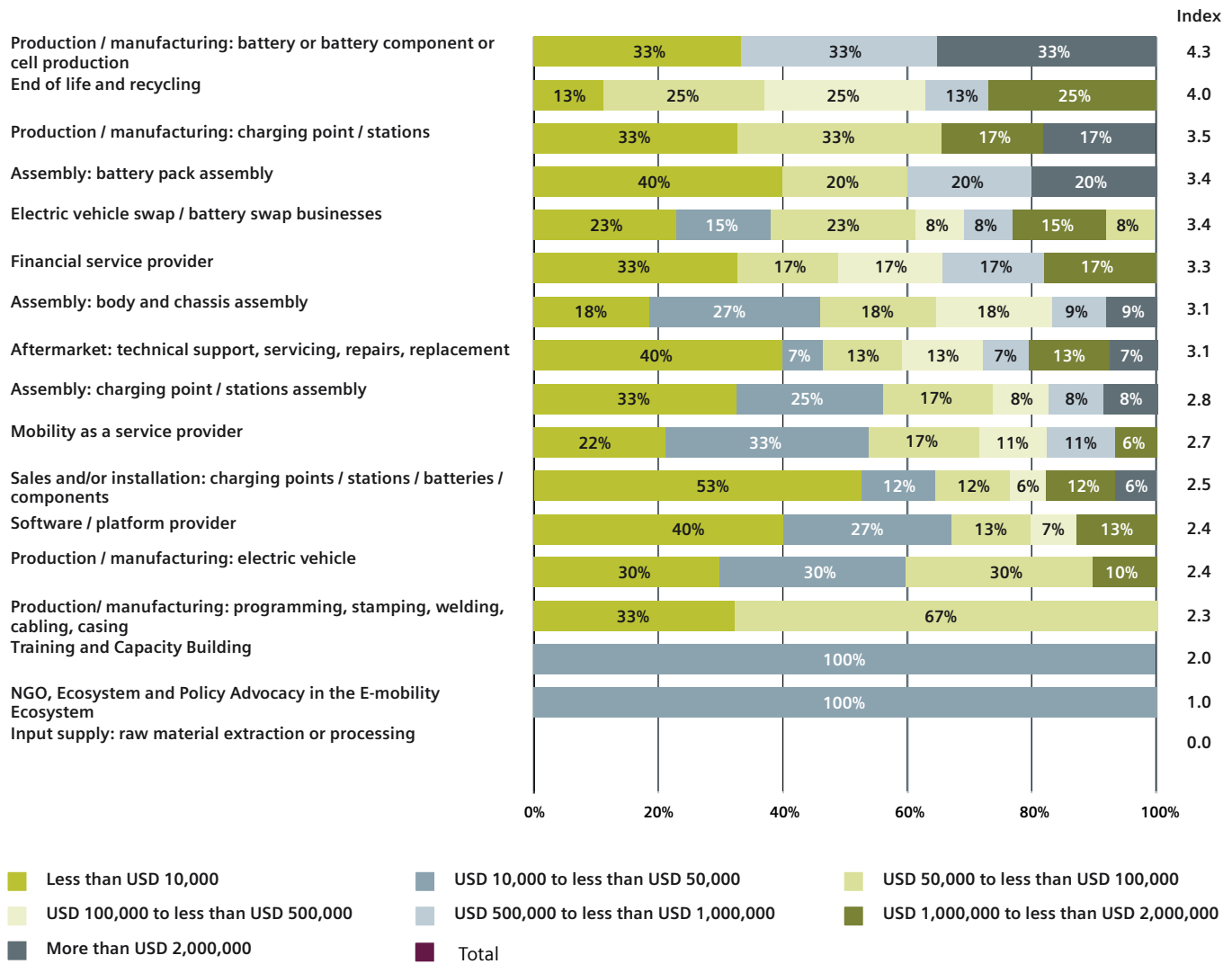


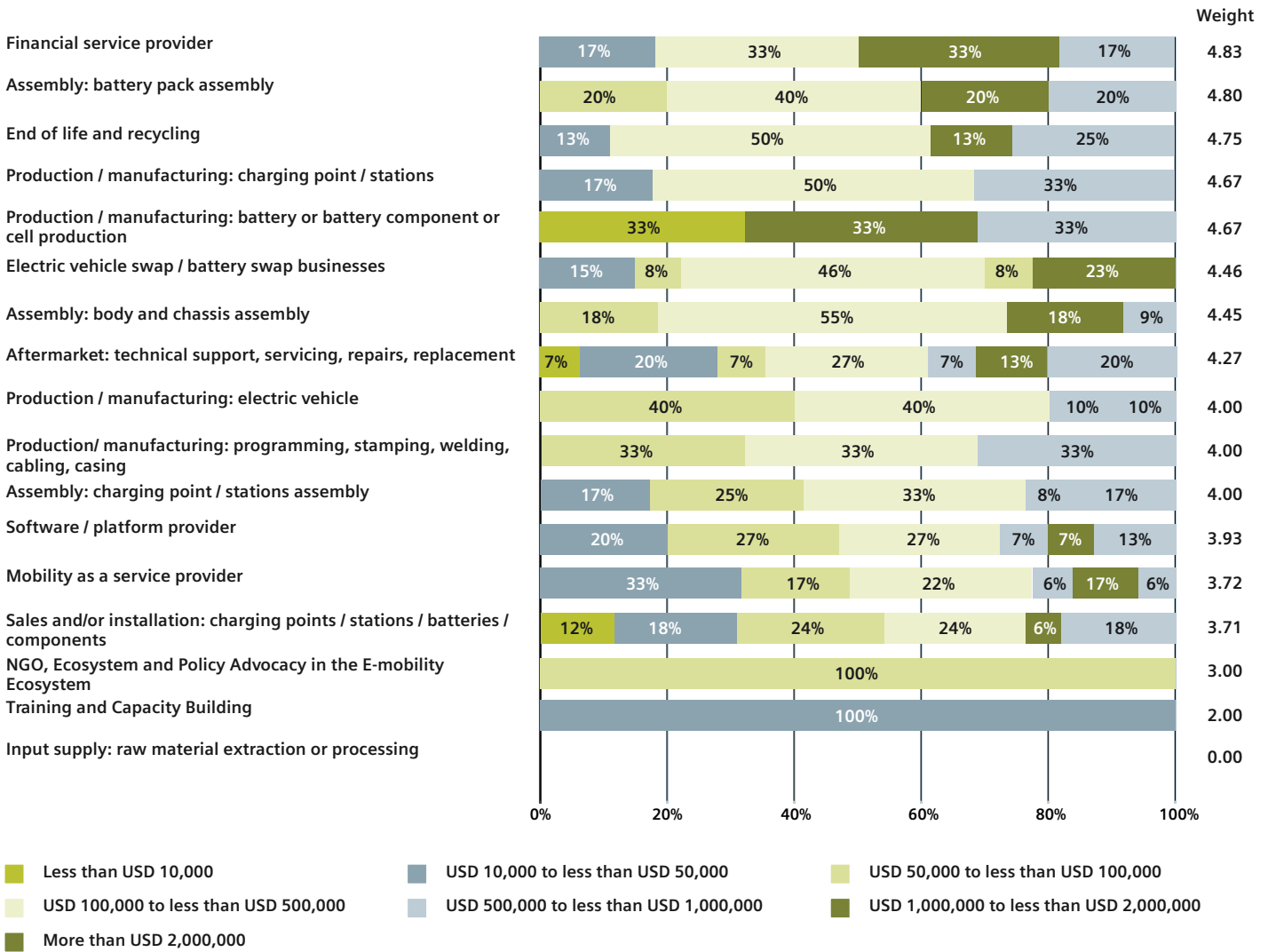
Figure 25: Revenue Distribution in 2023 by Sub-Sector



In 2023, producers and manufacturers of batteries and battery components achieved the highest revenue generation, with a weighted average of 4.3 (62%). End-of-life recycling businesses followed closely, with a weighted average of 4.0 (57%). Producers and manufacturers of charging points and charging stations also performed well, with a weighted average of 3.5 (50%).

Other sectors with significant revenue generation included battery pack assemblers, electric vehicle/battery swap services, financial service providers, body and chassis assemblers, and aftermarket service providers. Their weighted averages were 3.4 (49%), 3.4 (48%), 3.3 (48%), 3.1 (44%), and 3.1 (44%), respectively.

Figure 26: Expected Revenue Distribution in 2024 by Sub-Sector



Different sub-sectors within the e-mobility industry have varied revenue expectations for 2024.

Companies in the financial services, battery assembly, end of life recycling, had high revenue expectations in 2024. This reflects more mature companies in these sectors, and the critical roles these sectors play in the e-mobility ecosystem.

Companies in the production of charging points or stations, production of battery or battery components, EV or battery swap had mid-level revenue expectations in 2024, reflecting more early-stage companies in these sectors.

Service based companies in the NGO and ecosystem / policy advocacy and training and capacity building were expecting the lowest level of revenue in 2024.



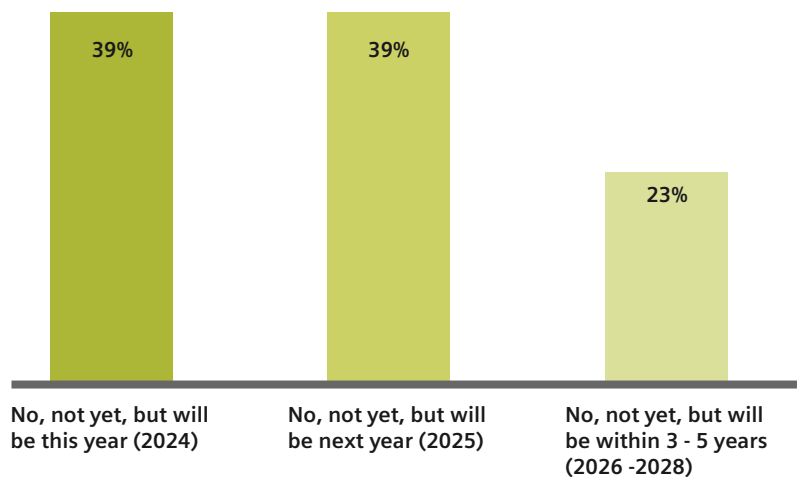
6.3 Gross Profit



Whilst only 29% of respondents were generating a gross profit, a significant portion (71%) anticipates achieving profitability in the coming 5 years. These results can be attributed to the young nature of most of the companies (53% are less than 3 years old) and early-stage nature of the sector (81% had revenues less than USD 100k in 2023).

Of those not yet gross profit positive, nearly two-fifths (39%) expect to reach positive gross profit by 2024, indicating a focus on near-term unit economics. Another 39% projects profitability within the next two years (by 2025), suggesting a strong belief in the sector's growth potential. The remaining 21% anticipate achieving profitability within the next 3-5 years (between 2026 and 2029), highlighting a longer-term vision for some companies.

Figure 27: Analysis of Those Who Were Not Generating a Gross Profit in 2023



6.4 EBITDA

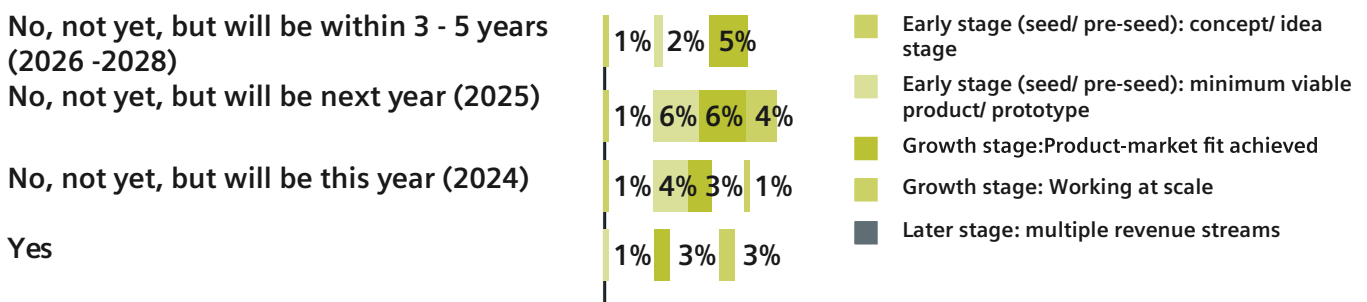


17% of respondents were Earning Before Interest, Tax, Depreciation and Amortization (EBITDA) positive, implying that more than half of those generating a gross profit were EBITDA positive. This indicates that some companies are achieving profitability while still investing in growth.

86% of the companies that are EBITDA positive in 2023 are in the growth stage. This synergy between profitability and growth highlights the sector's potential for long-term financial sustainability.

Most companies currently not EBITDA positive plan to achieve positive EBITDA within the next five years. This reflects their increasing operational scale and a sector-wide focus on optimizing operations and ensuring sustainable financial performance, highlighting a positive growth outlook for Kenya's e-mobility sector.

Figure 28: Expected EBITDA Profitability by Stage and Years





7 Growth and Expansion

7.1 External Domestic Factors Affecting Company Growth

External domestic factors and internal company factors have a critical influence on the growth of e-mobility companies and the sector. This underscores the need for a multi-pronged approach to fostering a more supportive environment. The business environment and the high cost of doing business in Kenya, as well as limited access to financing are the primary external domestic concerns affecting growth of companies.

Internally, innovation and R&D of new products, product design rank highly as key factors affecting company growth. This is closely followed by strong risk and financial management and access to cheap financing.

High purchase price and installation expenses, coupled with lack of, or minimal, charging infrastructure are the key hindrances to the adoption and growth of the e-mobility sector.

External economic, business, regulatory, fiscal factors in Kenya have a strong influence on the company's growth.

The primary concern is the **business environment and high cost of doing business in Kenya** with 4.6 weighted average score. **Constraints in business financing** (4.6) is another significant challenge. This could be due to limited access to loans or high interest rates for e-mobility companies.

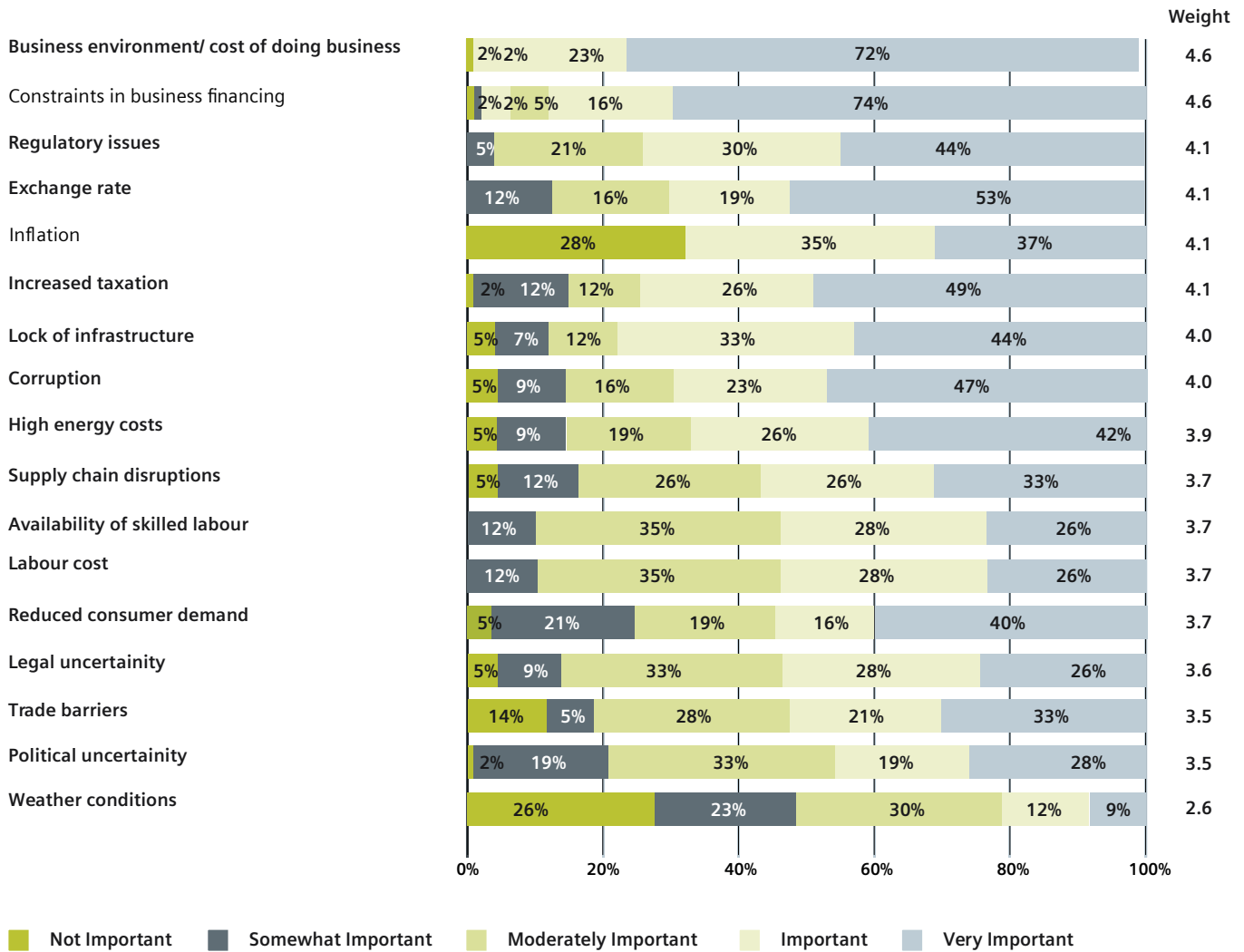
Regulatory issues (4.1) was another significant factor. Unclear or unstable regulations can make it difficult to plan for the future and invest in new technologies.

Equally important were macro-economic factors such as **fluctuating and devaluing exchange rate** (4.1) and high inflation (4.1). These two factors impair the importation of quality products and also raises the selling price of the components and parts such as batteries rendering them unaffordable for the Kenyan consumers.

A devaluing Kenyan Shilling compounded with the lack of USD makes it expensive to import e-mobility vehicles and parts, impacting business stability and pricing strategies. A high and unstable inflation environment drives up the cost of raw materials and components needed to manufacture or assemble EVs, batteries and charging infrastructure. Operating costs like employee salaries, maintenance, and logistics also rise due to inflation. This can squeeze profit margins for e-mobility companies and potentially lead to price increases for consumers. As inflation erodes consumer purchasing power, electric vehicles, which are often more expensive upfront than internal combustion engine (ICE) vehicle, may become less attractive options. Other key factors include **increased taxation** (4.1%), **lack of charging infrastructure** (4.0), corruption (4.0), **high energy costs** (3.9).

These findings are supported by Oraro, who add that "the existing regulations and policies do not adequately address the unique characteristics of EVs, such as their charging infrastructure and battery management," leading to uncertainty for investors and manufacturers.

Figure 29: External Domestic Factors Affecting Company Growth



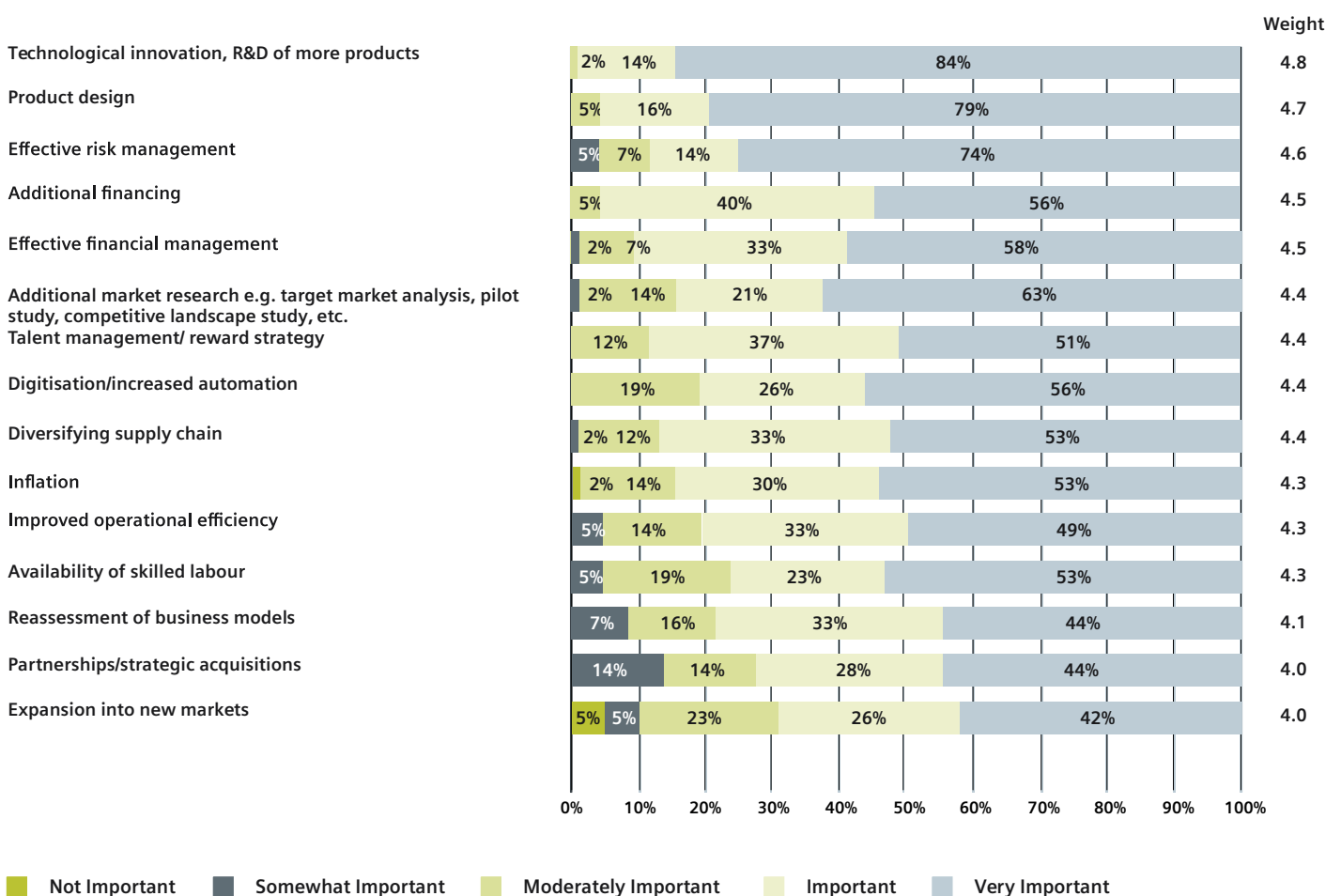
7.2 Internal Factors Affecting Company Growth

Equally important for the company's growth are internal factors. Internal factors can be classified into company-specific elements, market dynamics, human resources, and management / operational capabilities.

Innovation is a high priority, with respondents rating technological innovation and R&D of new products (4.8). Product design (4.7) is also a very important internal factor for company's growth. This suggests a strong emphasis on developing new and improved EV technologies to stay competitive. According to a research done on Korean e-mobility companies, Kim, Song and Shim concluded that "the company's own R&D investment as a technological capability makes a positive contribution to both the company's growth and profitability" (Sciencedirect).

Risk and financial management were also important (4.5), including securing additional finances for the company. This highlights the needs for companies to manage their risk given the fluctuating economic environment and coupled with limited and expensive financing options. The availability and retention of skilled workforce is also a key concern. Company's may need to invest in training programs or partnerships to address this gap.

Figure 30: Internal Factors Affecting Company Growth



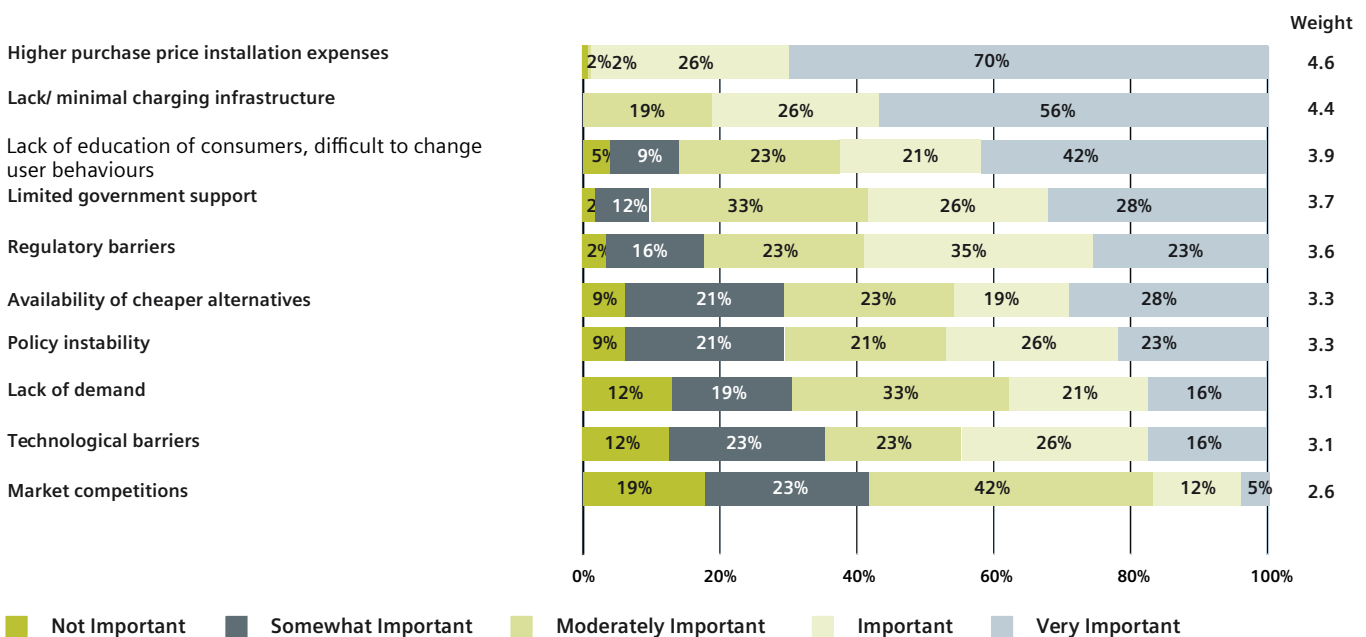
7.3 Factors Affecting Sector Growth and E-Mobility Adoption

The top barriers to the growth of Kenya's e-mobility sector are the **high purchase and installation costs of EVs**. This is a significant deterrent for consumers with budget constraints, as highlighted by various reports from KIPPRA, and KPLC. These high upfront costs are a major challenge affecting the sector's expansion.

Lack of, or minimal, charging infrastructure emerges as a substantial barrier (4.4) to the progression of e-mobility, emphasizing the imperative for broader infrastructure development. Prospective EV buyers express significant apprehension regarding "range anxiety," driven by the absence of a comprehensive charging network, heightening concerns about potential power depletion and the associated risk of being stranded without access to recharge facilities. Despite the Energy and Petroleum Regulatory Authority (EPRA) announcing intentions in September 2023 (Nation). to establish public charging stations approximately every 25km along major highways, this initiative remains pending implementation. Presently, data from Electromaps, a geo-location company, reveals a total of 18 charging stations for electric vehicles in Kenya as of May 2024. Among these, 11 are situated in Nairobi (an increase from 6 in July 2023), with 3 in Nakuru, and 1 each in Kiambu, Laikipia, Kisumu, and Mombasa.

Moderately important factors were: **consumer awareness and resistance to change** (3.9), **limited government support** (3.7), **regulatory barriers** (3.6), **availability of cheaper alternatives** (3.3), **policy instability** (3.3), **lack of demand** (3.1), **technological barriers** (3.1). Many consumers may not fully understand the benefits of EVs, such as environmental advantages, lower running costs. Educational campaigns and promoting the ease-of-use of EVs can help overcome this barrier. There are also limited tax credits and rebates from the government, which could otherwise reduce the upfront cost of EVs, making them more attractive to buyers.

Figure 31: Factors Affecting Growth of The E-Mobility Sector





8.1 Financing of E-Mobility Companies

Sustainable finance, with a focus on environmental, social, and governance (ESG), has become a key priority for investors and businesses.

This trend is particularly well-aligned with the e-mobility sector, which actively contributes to reducing carbon emissions. Emerging areas such as carbon finance and green bonds further support the sector's growth by providing innovative financing solutions.

The findings highlight the reliance on equity financing, particularly from self, and early-stage investors such as friends & family, angel investors and VC / PE investors. However, debt financing has been limited, which may be due to the early-stage nature of the companies. Most companies are seeking to raise less than \$1m, with the primary planned areas of investment being sales and marketing and R&D to support growth. Very few have secured carbon financing. Increasing awareness, training and access to carbon financing can provide additional financing solutions.

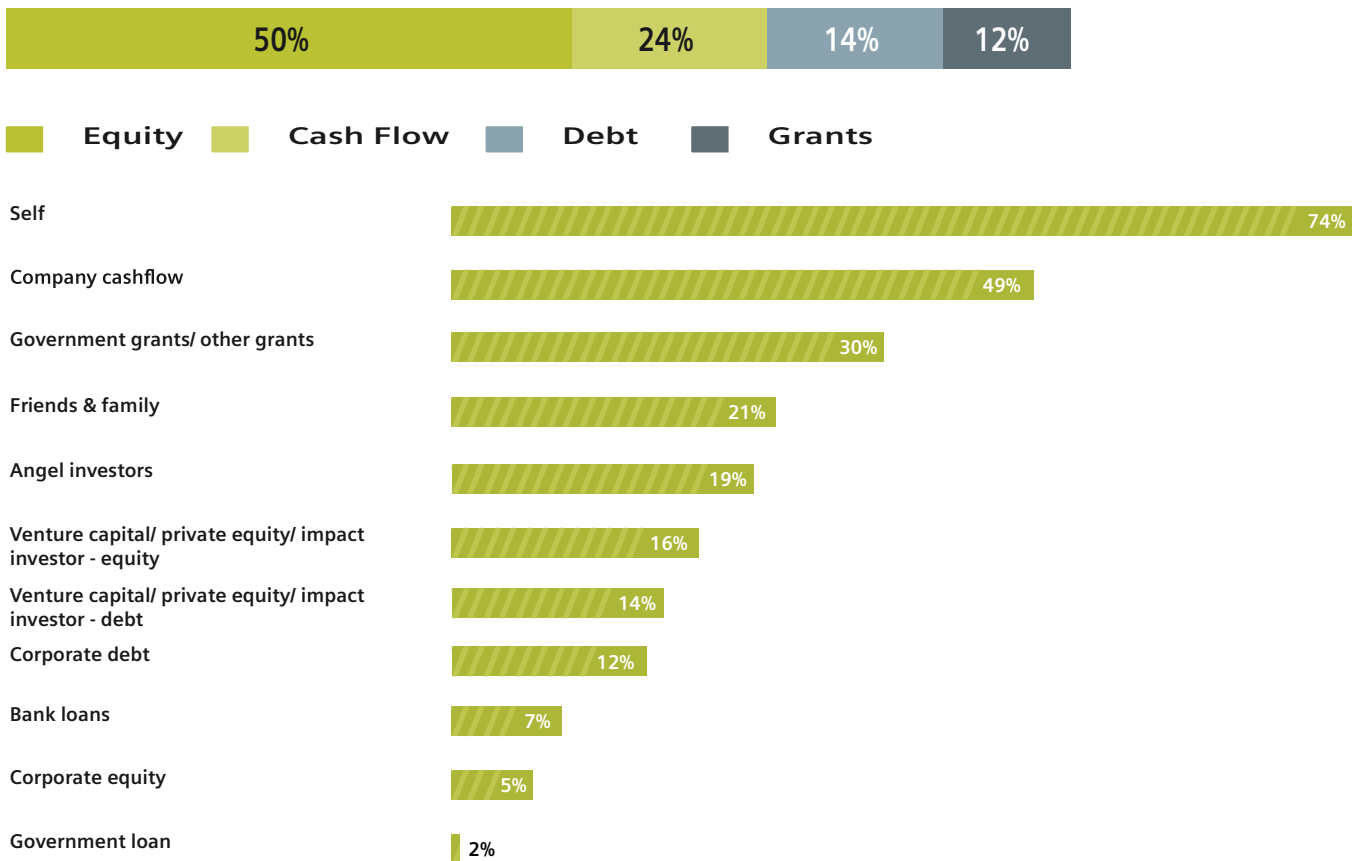
The most common type of financing used by the companies to finance growth is **equity** (54%) followed by **internal cash flows** (20%). Debt and grant funding forms a relatively low proportion of the funding avenues.

Within equity funding, the key channels are **self funding** (74% of the respondents self funded their businesses), venture capital (VC) / private equity (PE) funds, friends and family and angel investors. **This is due to the early-stage nature of the companies.**

Debt financing accounts for a smaller proportion, at a combined 20%. This may be because these companies can be **considered high-risk by traditional lenders, they may not have the assets to secure the loan, or credit terms may be unfavourable.** [Siemens Stiftung](#) have found obstacles in funding as a key factor limiting growth of the sector.



Figure 32: Types of Financing Adopted

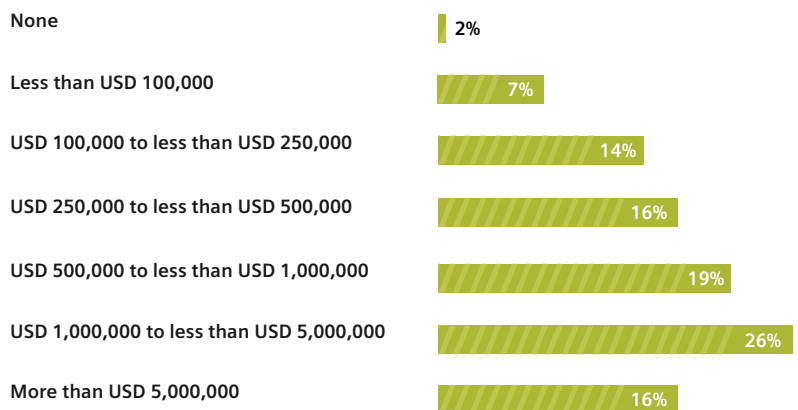


8.2 Expected Financing needs in 2024

Majority of the companies (58%) are seeking to raise less than USD 1m in funding in 2024.

26% of the companies are anticipating to seek financing in the region of USD 1m - 5m in 2024, whilst 16% are seeking more than USD 5m.

Figure 32: Amount of External Financing Being Sought in 2024



8.3

Expected Financing Needs in 2024 by Maturity Stage



Early-stage startups require financing to develop and test their products while growth-stage startups often need financing to help them gain traction and scale their products and services, hence a shift in financing needs.

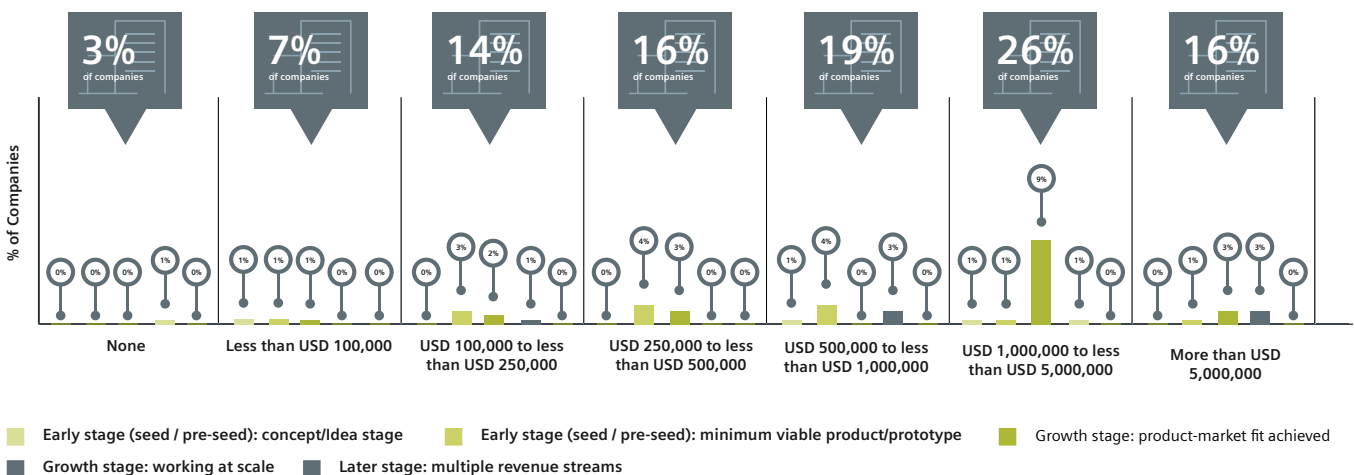
3 companies are at growth stage: working at scale seeking more than USD 5m of financing in 2024.

12 companies are in the growth stage: product market fit achieved that are seeking more than USD 1m of financing in 2024, with 3 companies seeking more than USD 5m, and 9 companies seeking between USD 1 – 5m.

82% of the early-stage companies are seeking less than USD 1m.

As expected, it can be noted that early-stage companies require a financing of between USD 100k and 500k while growth stage companies prefer a bigger bracket of between USD 250k and USD 5m

Figure 34: Expected Financing Needs in 2024 by Maturity



8.4 Expected Financing Needs in 2024 by Age

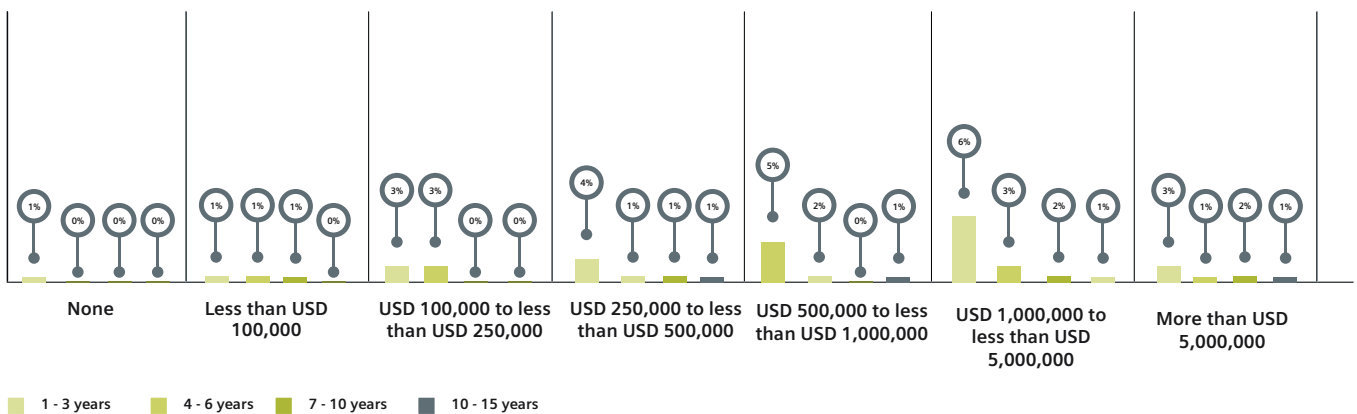


The data shows that there is **no clear trend** between the amount of financing required and the age of the company.

There are companies who are more than 10 years old that are seeking to raise financing of USD 250k – 500k as well as more than USD 5m.

Similarly, there are companies who are less than 3 years old that are seeking to raise financing in each bracket.

Figure 35: Expected Financing Needs in 2024 by Age



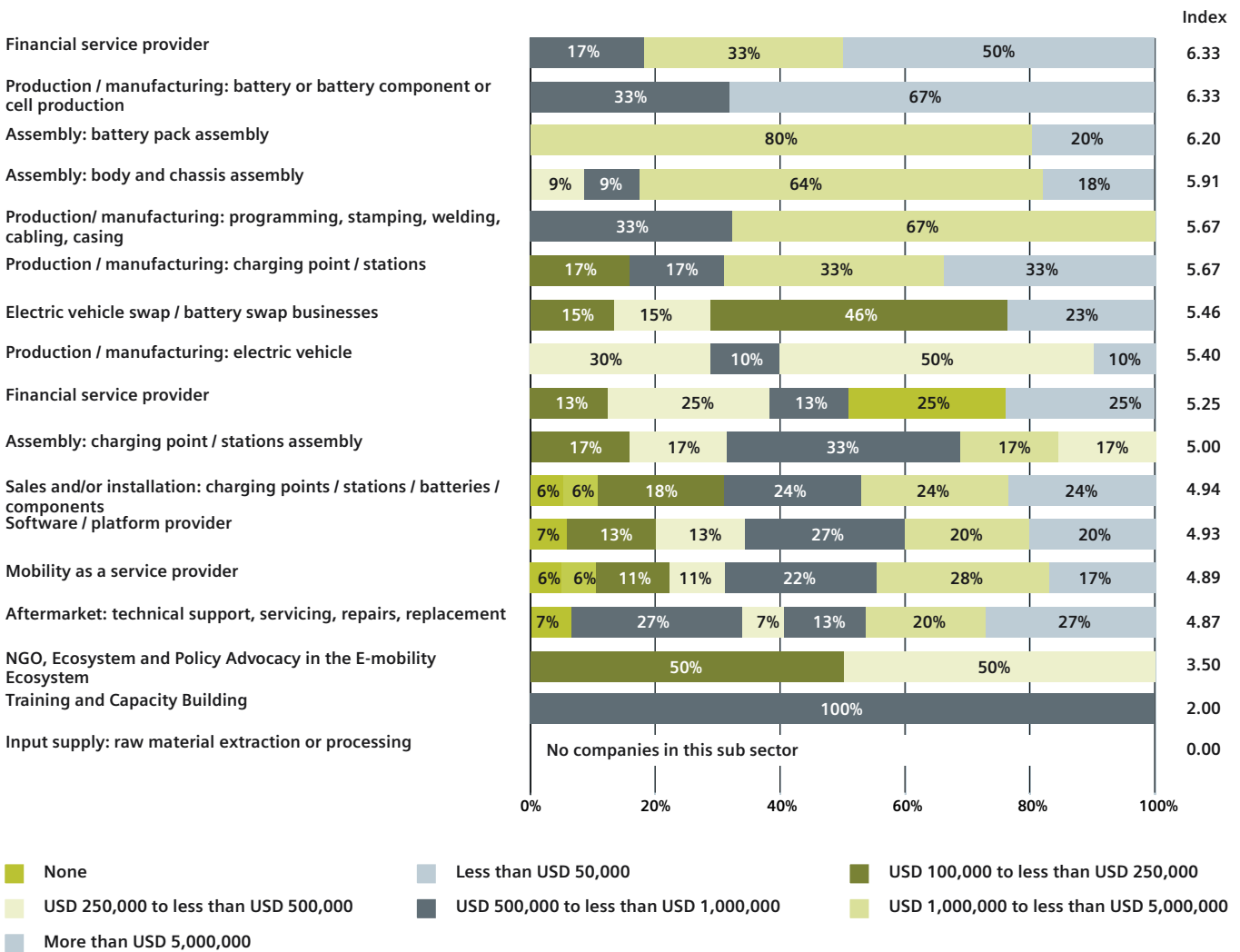
8.5

Expected Financing Needs in 2024 by Maturity Stage

The companies providing financial services, manufacturing battery or battery components and assembly of battery packs or body / chassis had the greatest financing need. They were followed closely by other production areas such as programming, stamping, welding, cabling, casing and charging points / stations. All these areas require heavy capital expenditure.



Figure 36: Financing Need Per Sector



8.6 Areas of Planned Investment in 2024

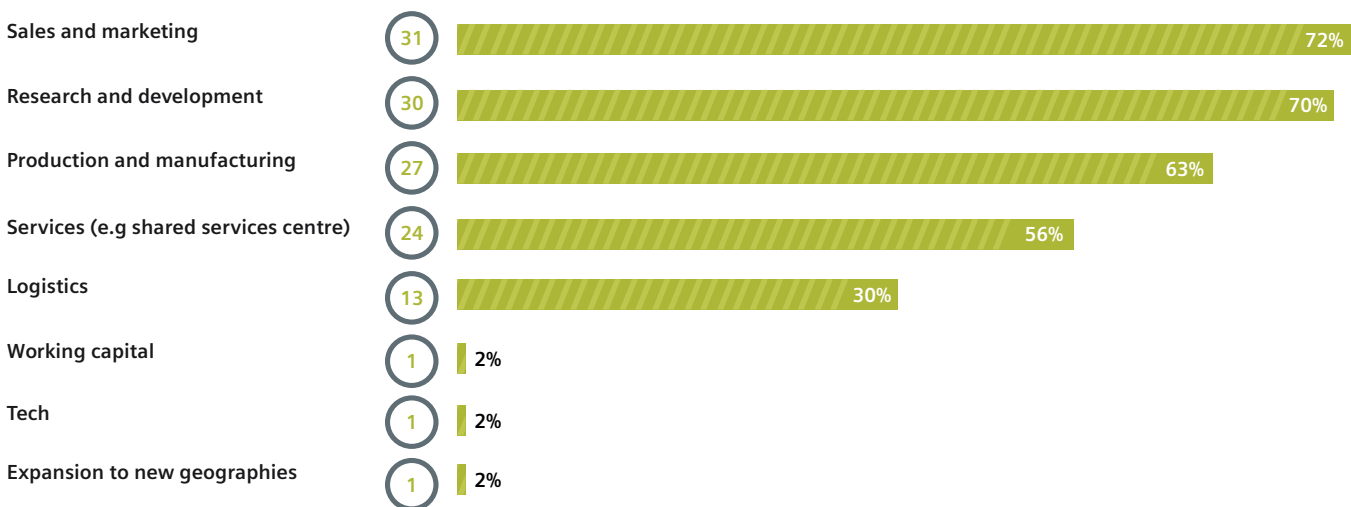
Sales and marketing and R&D are the priority planned areas of investment in 2024. More than 70% of the companies plan to invest in these two areas. This focus likely reflects the sector's need to expand market reach and improve product offerings to stay competitive and meet growing consumer demand.

This is followed by investment in production and manufacturing and services (operations), which indicates an effort to scale up operations and increase production capacity to meet expected demand.

Some companies also plan to invest in services, logistics and supply chain, highlighting the need for efficient operations and support services to streamline business processes and distribution.



Figure 37: Areas of Planned Investment in 2024



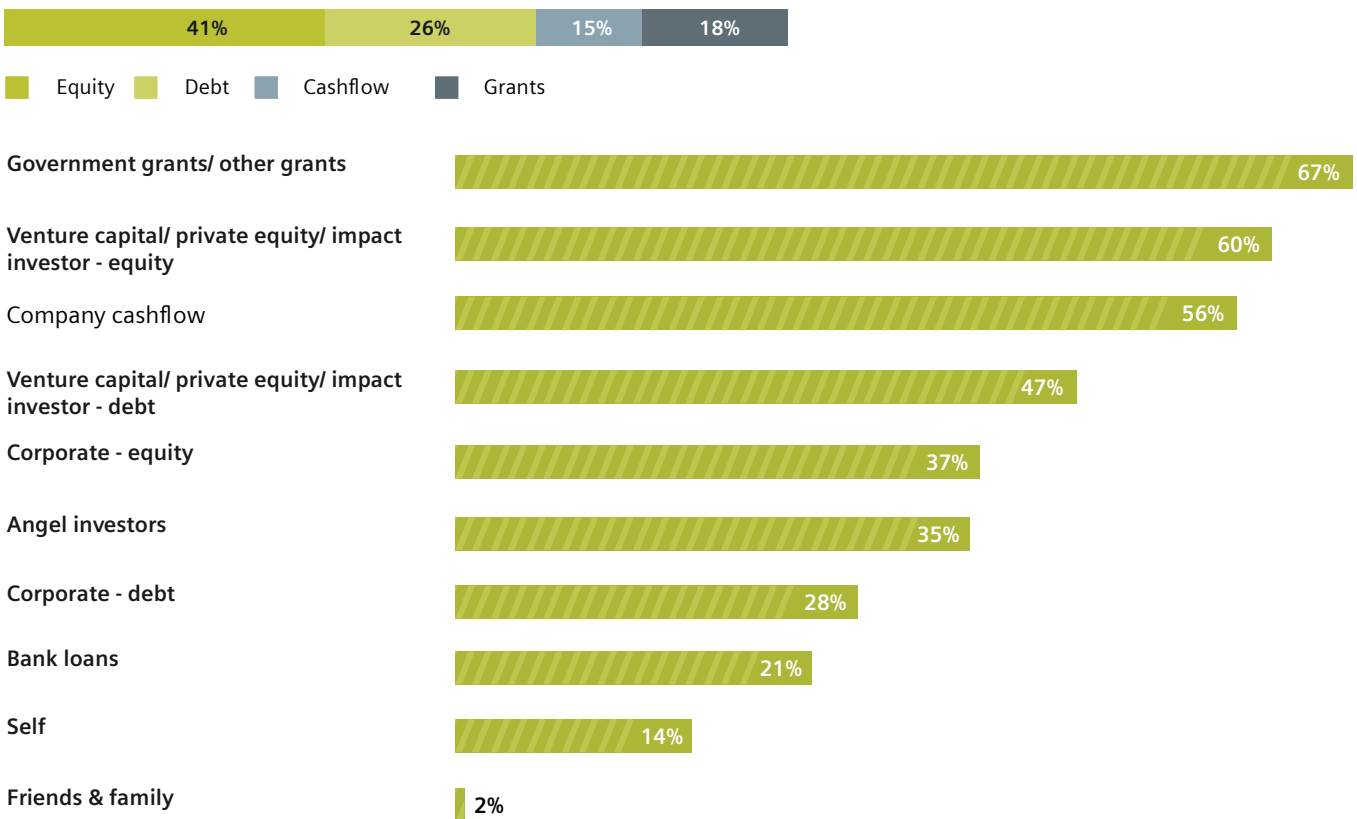
8.7 Sources of Financing to be Raised in 2024



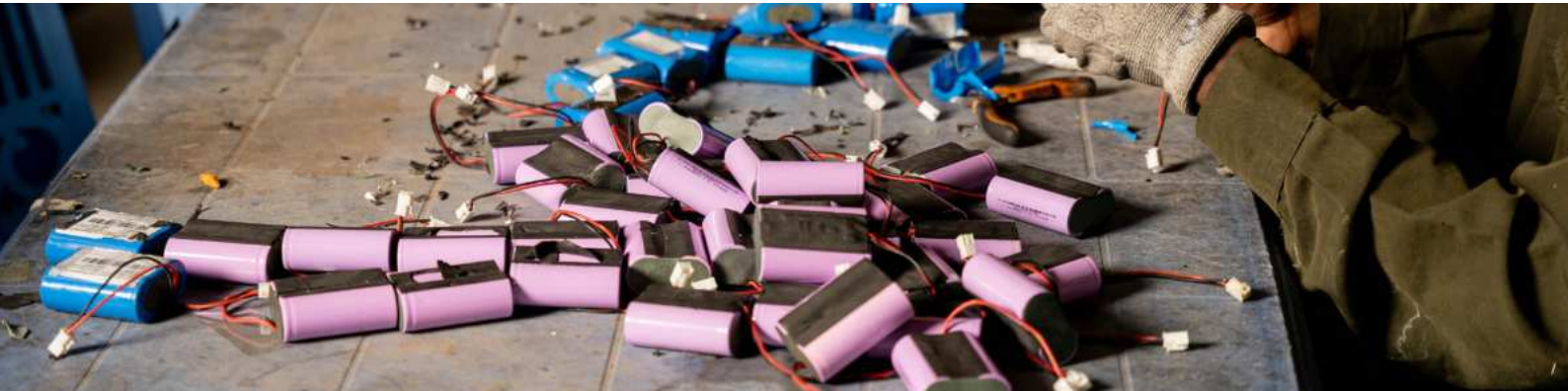
Overall, **equity** (41%) is the most anticipated form of financing, followed by **debt** (26%).

On a more granular level, **Government grants** and other grants topped the list with 67% of the respondents saying this was their most preferred source of financing. Raising equity from venture capital /private equity/impact investors was next (60%), followed closely by company cashflow (56%). Debt ranked lower (like the trend in existing financing), with debt from venture capital /private equity/impact investors preferred over corporate debt and bank loans.

Figure 38: Forms of Financing Sought in 2024



8.8 Familiarity with Carbon Financing



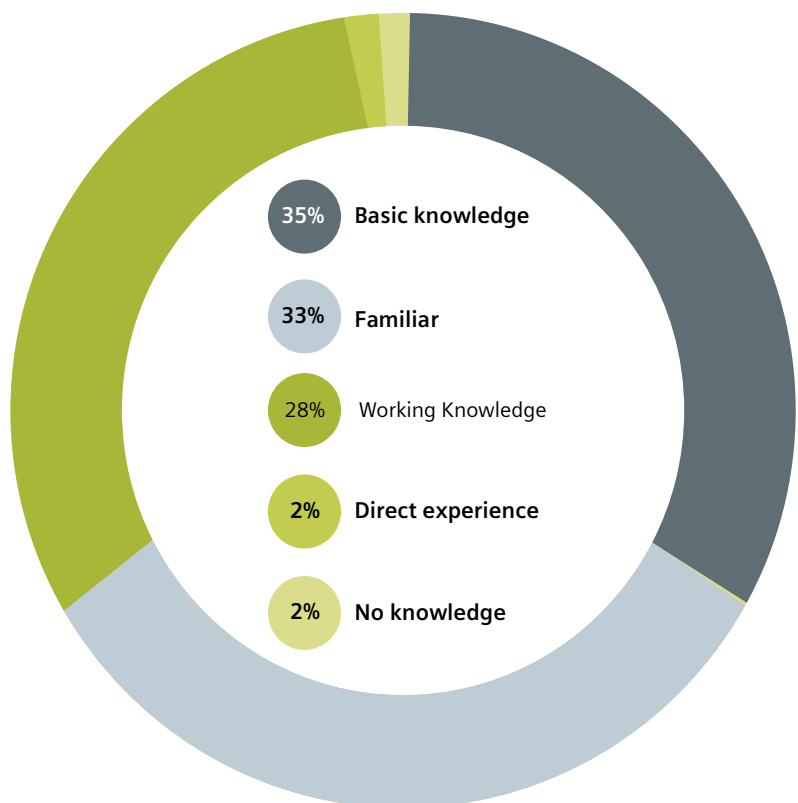
98% of the respondents had some degree of familiarity with carbon financing. However, only 30% had a working knowledge or direct experience with carbon financing, with 2% having raised carbon financing.

The broad awareness suggests there is already a supportive environment for carbon financing policies and initiatives.

Understanding carbon financing and incentives is crucial for e-mobility companies to leverage this important area of financing for their growth.

There is a significant opportunity for education and professional development to enhance skills in carbon financing. Increasing knowledge can boost participation and support, while stakeholder engagement fosters collaboration and innovation in the area. Targeted education and policy support are essential to build a knowledgeable and skilled community, which is crucial for advancing this new and developing area.

Figure 39: Familiarity with Carbon Financing





9.1 Supply Chain Challenges



A well-functioning supply chain is essential to wider e-mobility accessibility, affordability and adoption in Kenya.

The survey analysis reveals that access to suitable financing coupled with a high inflation and local currency devaluation are driving up prices and hindering affordability and accessibility.

This is further exacerbated due to limited domestic manufacturing of e-mobility vehicles, parts and components and related infrastructure.

The primary concern impacting the supply chain of e-mobility products and services was **access to suitable financing (83%)** and macroeconomic factors including **high inflation and a depreciating local currency (KES)**.

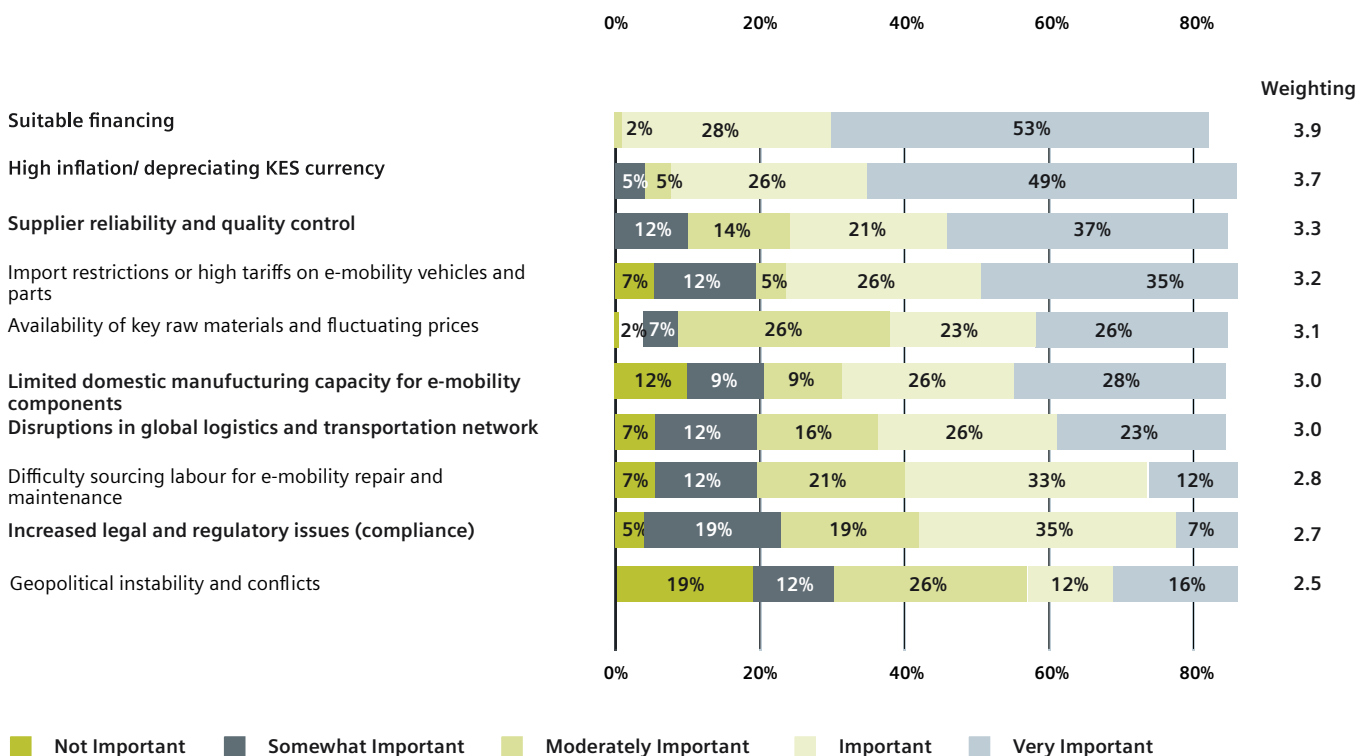
Other highly ranked factors were the **reliability of suppliers** and **quality control of parts**, as well as **import restrictions and high import tariffs**. This underlies that fact that the sector has **limited domestic manufacturing capacity for e-mobility components** with most of the EVs, charging infrastructure and their respective components and parts being imported.

In comparison, legal and regulatory issues of the e-mobility sector, and geopolitical instability and conflicts were less of a concern.

These findings are supported by various sources. [Greenbiz](#) emphasizes the need for local manufacturing to make EVs more affordable and accessible. Similarly, Kenya's draft [e-Mobility Policy](#) outlines the necessity of local manufacturing and assembly to stimulate economic growth and job creation. [Siemens Stiftung](#) highlights that high investment requirements and unfavourable credit conditions limit the growth of e-mobility projects, stressing the need for blended finance to mobilize private sector investment. Additionally, various reports, including those by [Oraro & Company Advocates](#), mention that economic instability caused by high inflation and currency depreciation significantly affects the supply chain.



Figure 40: Key Factors Affecting Supply Chain





10 Policies and Regulations

10.1

Impact of Recent Policy Changes on the Company



A significant majority (70%) of the respondents have said that the recent policy changes have had a **positive impact** on their company's strategy and operations.

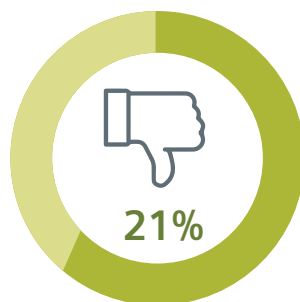
The Kenyan e-mobility sector has undergone various policy changes in the recent quarter. At the heart of this transformation is a robust policy framework that is designed to encompass all aspects of the EV value chain, ensuring comprehensive coverage of activities and stakeholders within the sector.

The survey results indicate that the companies are positive about the impact that Government policies and regulations have had on themselves and the sector.

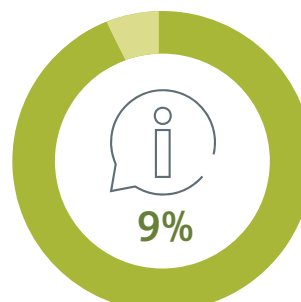
The key areas of concern that needs further refinement are provision of access to finance, fiscal reforms such as subsidies and / or incentives (e.g. tax rebates) for e-mobility purchases and for charging infrastructure development., clear standards for registration/ emissions/safety and increasing public awareness for increased consumer adoption.



Positively



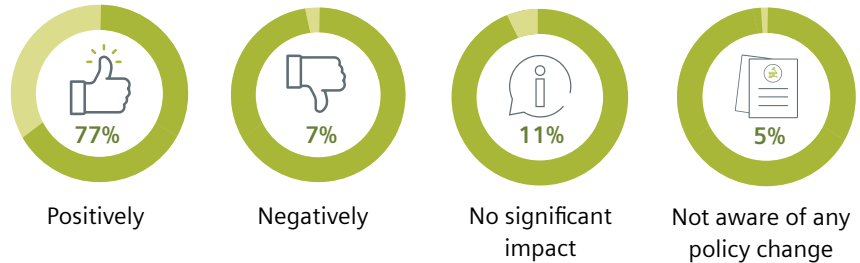
Negatively



No significant impact

10.2 Impact of Existing Government Policies and Regulations on the E-Mobility Sector

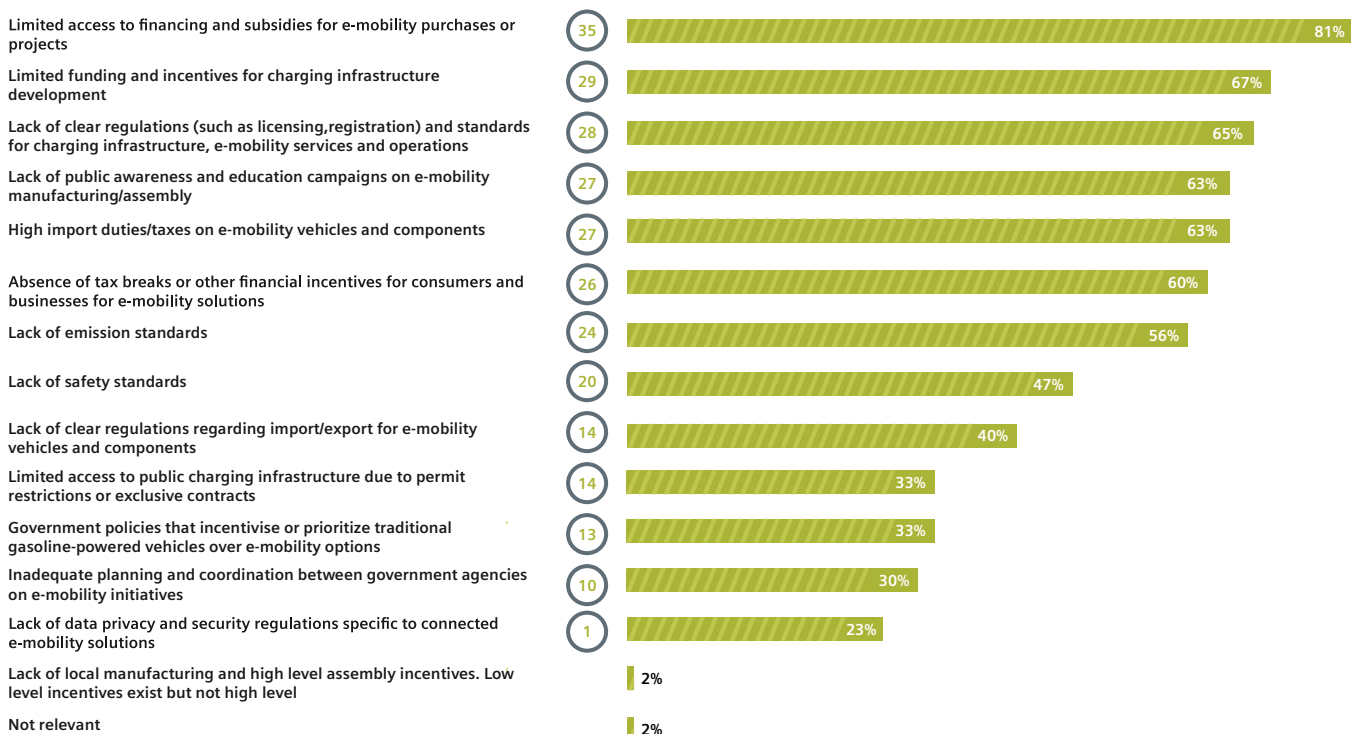
Similarly, a high proportion (77%) of the respondents agreed that the existing government policies and regulations have positively impacted the e-mobility sector.

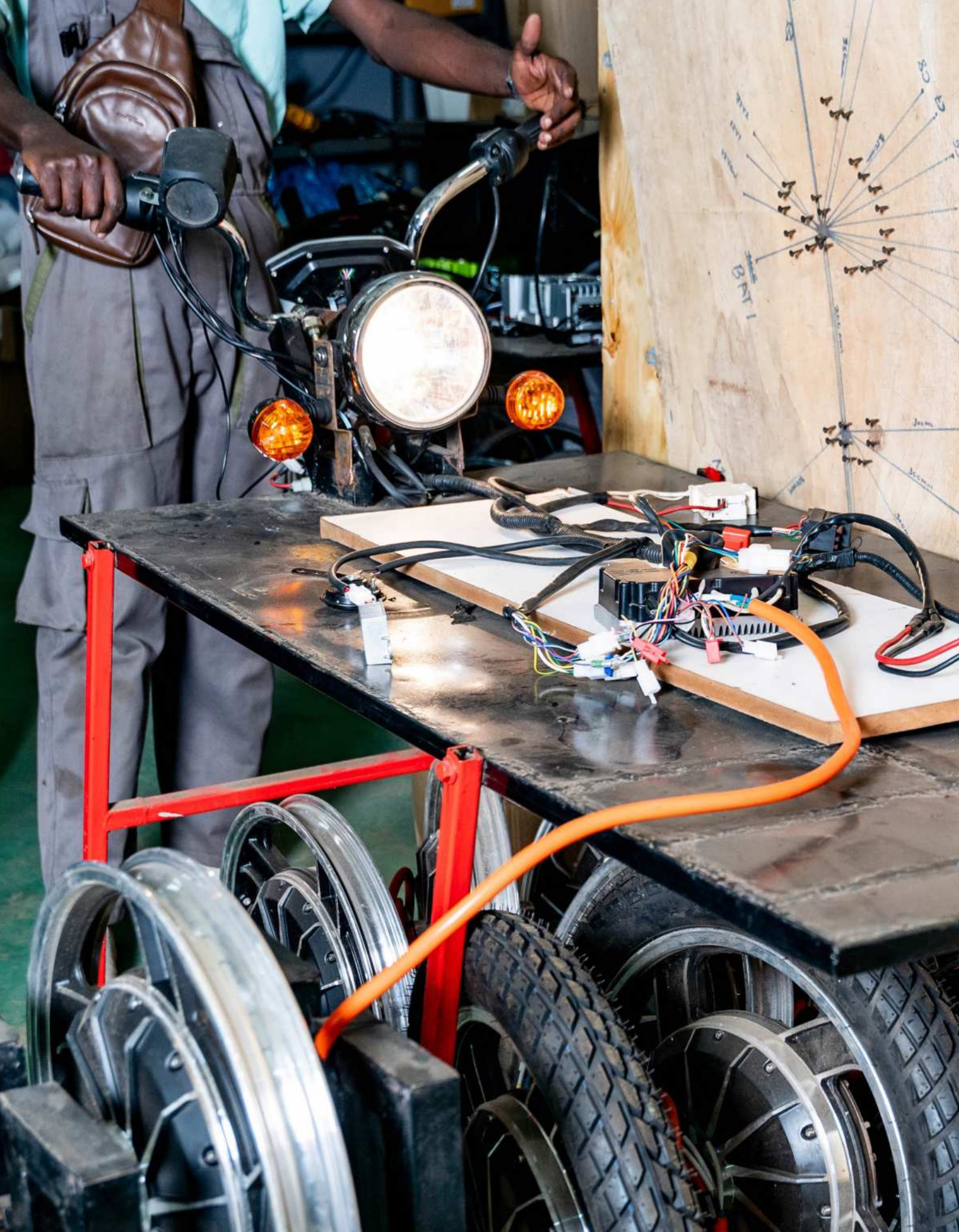


10.3 Government Policies that are Barriers to the Company

Limited access to financing and fiscal reforms such as subsidies or incentives for the sector were the key issues that are limiting growth for the sector. Despite the recent reforms by the Kenyan government to introduce incentives such as tax exemptions for manufacturers and importers, there is still more that needs to be done as the study suggests. Other important areas that need addressing by the Government are setting of clear regulation and standards for EVs and charging infrastructure, increasing public awareness and education on the benefits of e-mobility.

Figure 41: Government Policies that are Barriers to the Company's Growth





11 Emerging Technologies

11.1

Technology Advancement/ R&D - Areas of Interest

Emerging technologies have a critical role to play in unlocking the full potential of e-mobility in Kenya.

The findings highlight a strong focus on battery technology advancements as a key area for research and development (R&D). This is unsurprising, given the goal of increasing range, lifespan, performance and reducing costs to address range anxiety and make EVs more affordable.

Another key area is improving charging infrastructure. This includes exploring faster charging technologies, expanding charging facilities and stations, and creating a more open charging ecosystem.

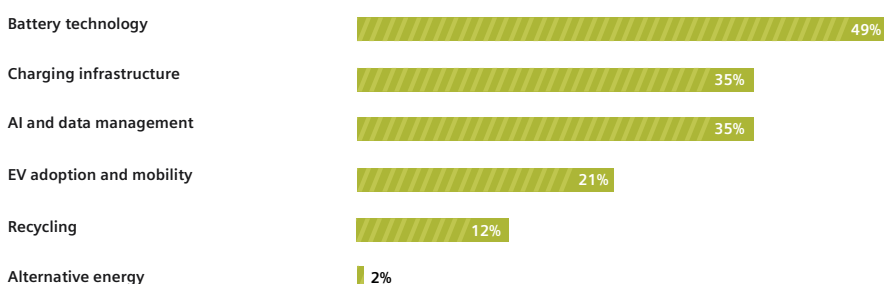
Data management and artificial intelligence (AI) are also prominent areas of interest (35%), with the potential to optimize charging, predict maintenance needs and improve overall efficiency in EV ownership and fleet management.

Respondents expressed strong interest in emerging technologies with the potential to revolutionize e-mobility. The data revealed a clear industry focus on battery technology advancements (49%) and improvements to charging infrastructure (35%). These advancements directly address key challenges like range anxiety and cost, which affect EV adoption (21%).

The data also revealed a broader interest in data management and AI (35%), highlighting their potential to optimize e-mobility through improved charging strategies, fleet management.

There was also interest in recycling and a circular economy for battery materials, promoting long-term sustainability. And in the exploration of alternative energy sources like solar and hydrogen alongside grid integration strategies, suggesting a diversified approach to e-mobility.

Figure 41: Technology Advancement/ R&D - Areas of Investment

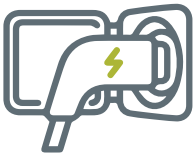




1. Battery technology

Key areas of interest here were:

- Increased range (higher capacity, efficiency)
- Reduced cost
- Faster charging
- Better thermal dissipation
- Improved safety
- Smaller size and weight
- Improved lifecycles
- Standardization / interoperability



2. Charging infrastructure

Key areas of interest here were:

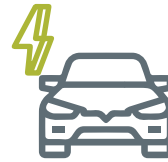
- Fast charging
- Smart charging
- Expansion of facilities / charging stations / battery swapping stations
- Open charging ecosystem infrastructure
- Connector standardisation



3. AI and data management

Key areas of interest here were:

- Use of AI, ML, IoT, blockchain
- Fleet management
- Battery management systems (BMS)
- Energy management
- Real time data collection and analytics
- Telematics
- Data security and privacy



4. EV adoption & mobility

Key areas of interest here were:

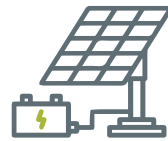
- Up-front cost of EVs
- Cost of batteries
- Cost of charging
- Availability and accessibility of charging infrastructure
- Payment mechanisms e.g. PAYGO micro-payments



5. Recycling

Key areas of interest here were:

- Increased range (higher End of life recycling)
- Urban mining
- Second life application



6. Alternative energy

Key areas of interest here were:

- Hydrogen
- Solar charging

11.2 Planned Increase in Technology Advancement/ R&D



A significant majority (79%) of the respondents planned to increase their investment in technology advancement / R&D in the next 12 months.



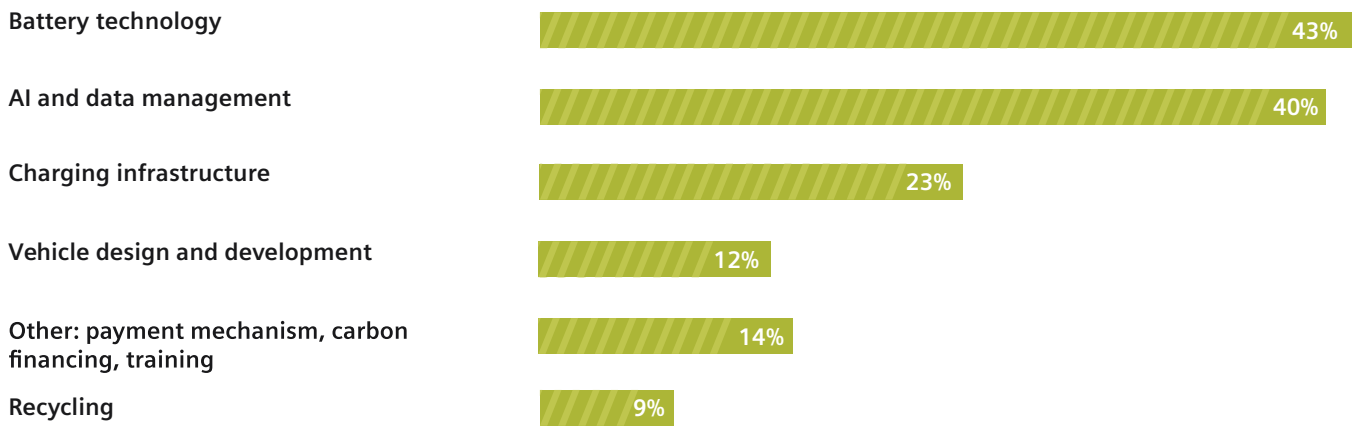
79%



21%

The areas of planned increase are similar to the areas of interest with battery technology leading the charge (44%). AI and data management (40%), which includes IoT, fleet management, energy efficient management systems, software integration is also an important area for increased investment. Charging infrastructure (23%) is another key area, with a need for expansion, faster charging stations, and standardized connectors. Vehicle design improvements (12%) targeting durability, better battery integration, and advancements in software and hardware. There is planned increase in recycling (9%) with a focus on lithium battery recycling and repair, exploring second-life applications for used batteries. Other areas (14%) include exploring payment mechanisms, carbon financing and technical support training.

Figure 43: Planned Increase in Technology Advancement/ R&D



11.3 Approach to Innovation to Stay Ahead of the Curve

Companies are approaching innovation to stay ahead in the e-mobility landscape using a multi-pronged approach:



Customer centricity (77%): The most prominent focus area is continuously monitoring and adapting to evolving customer needs and preferences (22%). This highlights the importance of understanding customer requirements and tailoring products and services accordingly. variations.



Internal innovation (72%): Investing in (R&D of new e-mobility technologies (72%) and implementing agile business practices (63%) are both ways companies can develop their own innovative solutions internally.



74%

Collaboration (74%): Collaboration is another key strategy, with two approaches mentioned:

- Partnering with startups, other innovative players emphasizes staying at the forefront by working with agile and disruptive companies and institutions.
- Working with universities suggests a smaller emphasis on academic partnerships for innovation.



56%

Talent management (56%): Attracting and retaining top talent with expertise in e-mobility (16%) highlights the importance of building a skilled workforce for innovation years.



Figure 44: Approach to Innovation to Stay Ahead of the Curve

Continuously monitoring and adapting to evolving customer needs and preferences



Collaborating with startups and other innovative players in the industry



Investing in research and development of new e-mobility technologies



Implementing agile business practices and responding quickly to market shifts



Attracting and retaining top talent with expertise in e-mobility







12 Partnerships

12.1 Partnerships and Collaborations

Partnerships in the e-mobility sector, especially in public and private sectors is critical in accelerating the EV transition in Kenya and has a far-reaching and varied impact.

The respondents of the survey are optimistic about the expansion of the industry through various partnerships and collaborations, with a variety of stakeholders. With the aim of creating a stronger and more unified e-mobility ecosystem in Kenya.

The three most valued partnerships for the respondents were financial institutions and investors, other e-mobility companies and technology and research institutions. These were ranked as important and very important by at least 84% of the companies.

As the e-mobility companies are in early stages of growth, there is a need for significant capital for R&D, setting up manufacturing facilities or scaling existing ones, expanding operations and building distribution networks. Companies are seeking financiers that can offer them competitive financing options for these growth plans.

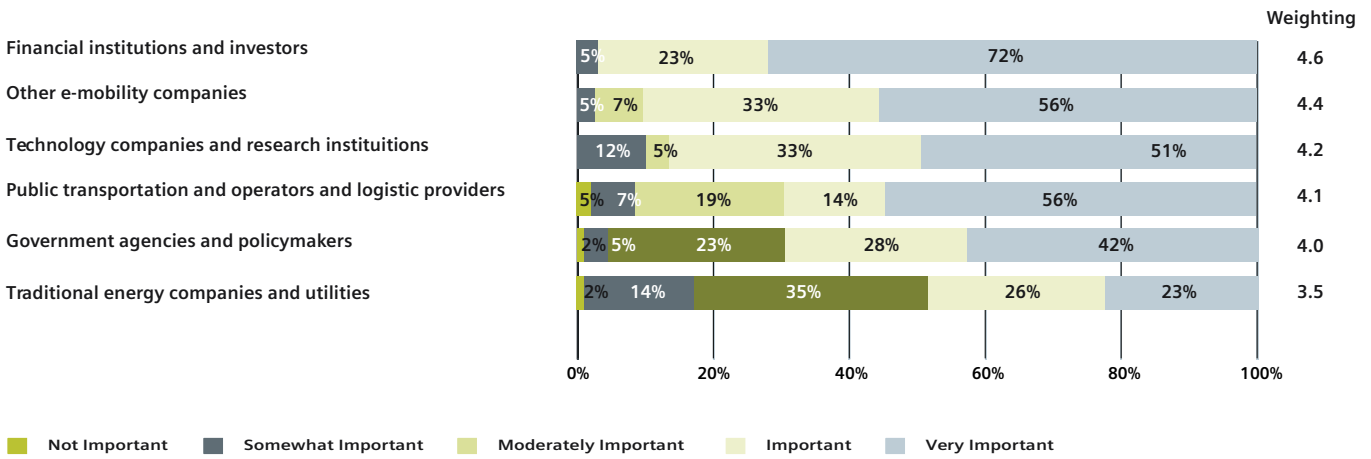
By collaborating with other e-mobility companies and technology and research institutions, companies can share knowledge and expertise in areas like battery technology, charging infrastructure, and vehicle design. Joint ventures can be formed to develop new technologies or products. Collaboration can help achieve economies of scale when it comes to manufacturing and procurement.

E-mobility is a rapidly evolving field, and collaboration with research institutions allows for access to cutting-edge technology and research findings, development of new and innovative e-mobility solutions and training and skills development for the e-mobility workforce.

These findings are supported by various sources. [Siemens Stiftung](#) highlights that financial institutions and investors are the most valued partners due to high investment requirements and unfavourable credit conditions, emphasizing the need for competitive financing options for growth plans in the e-mobility sector. [CleanTechnica](#) describes the significance of partnerships between established vehicle assembly firms and new e-mobility startups, exemplified by the collaboration between Mobius Motors, Stima, and One Electric, which aims to leverage local manufacturing expertise to scale up deployment and reduce costs. [P4G](#) supports the involvement of technology companies and research institutions, showing how such collaborations can advance research and provide training for the e-mobility workforce. Additionally, the draft [e-Mobility policy](#) in Kenya underscores the importance of engaging with government agencies to create a supportive regulatory environment for e-mobility adoption.



Figure 45: Perception of Who is the Most Valuable Partner





13 Training and Coaching

13.1 Training and Coaching Needs

Kenya's e-mobility sector is poised for significant growth, however, unlocking its full potential hinges on cultivating a skilled workforce. Investing in training programs from technical institutions (such as TVETs) that address the identified needs is crucial to bridge this skills gap.

The survey reveals technical skills development as the top training need for the companies. This reflects the rapid advancements in e-mobility technology, demanding a workforce capable of designing, building, and maintaining these new solutions.

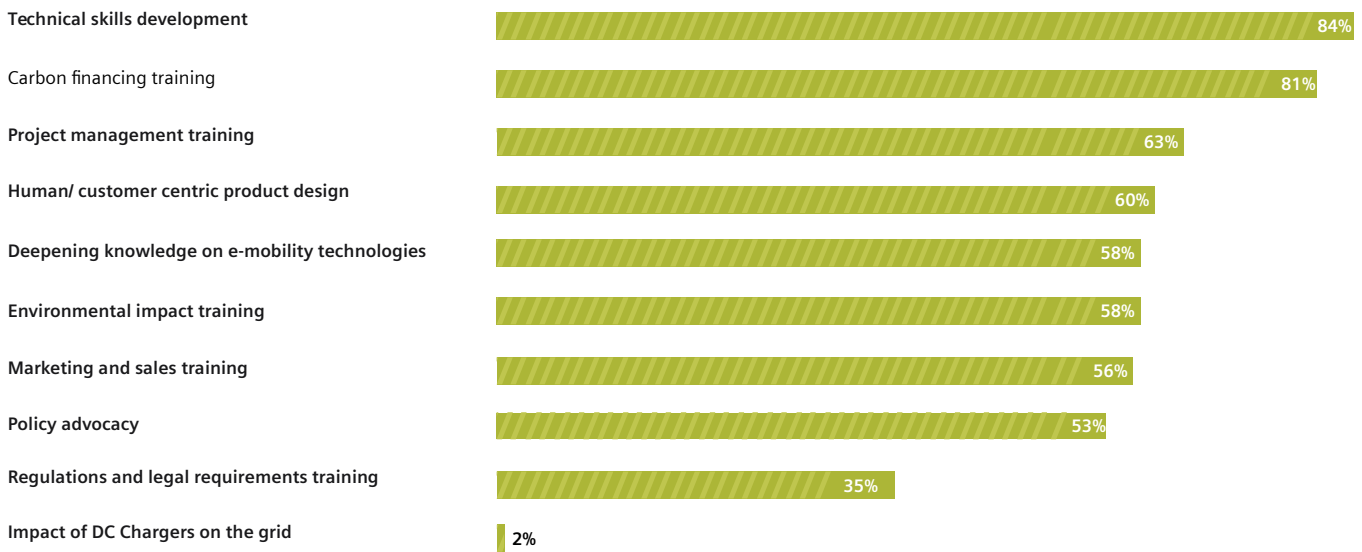
However, as the market matures, companies are placing increasing focus on human-centric product design and marketing & sales training. Understanding and catering to customer needs will be critical for driving e-mobility adoption in Kenya. Additionally, the emphasis on training in project management, carbon financing, and environmental impact underscores the sector's commitment to sustainable practices.

Technical skills development is the most sought-after training area, with 84% of the respondents favouring it. This is closely followed by **carbon financing training** (81%) and **project management training** (63%).

Skills such as human/ customer centric product design (60%) and marketing and sales training (56%), were also in high demand indicating the importance of understanding and meeting customer needs within the e-mobility market.

Scores for policy advocacy (53%) and regulations & legal requirements training (35%) and highlight the importance of understanding and influencing regulations.

Figure 46: Training and Coaching Needs to Enhance E-Mobility Products and Services Development



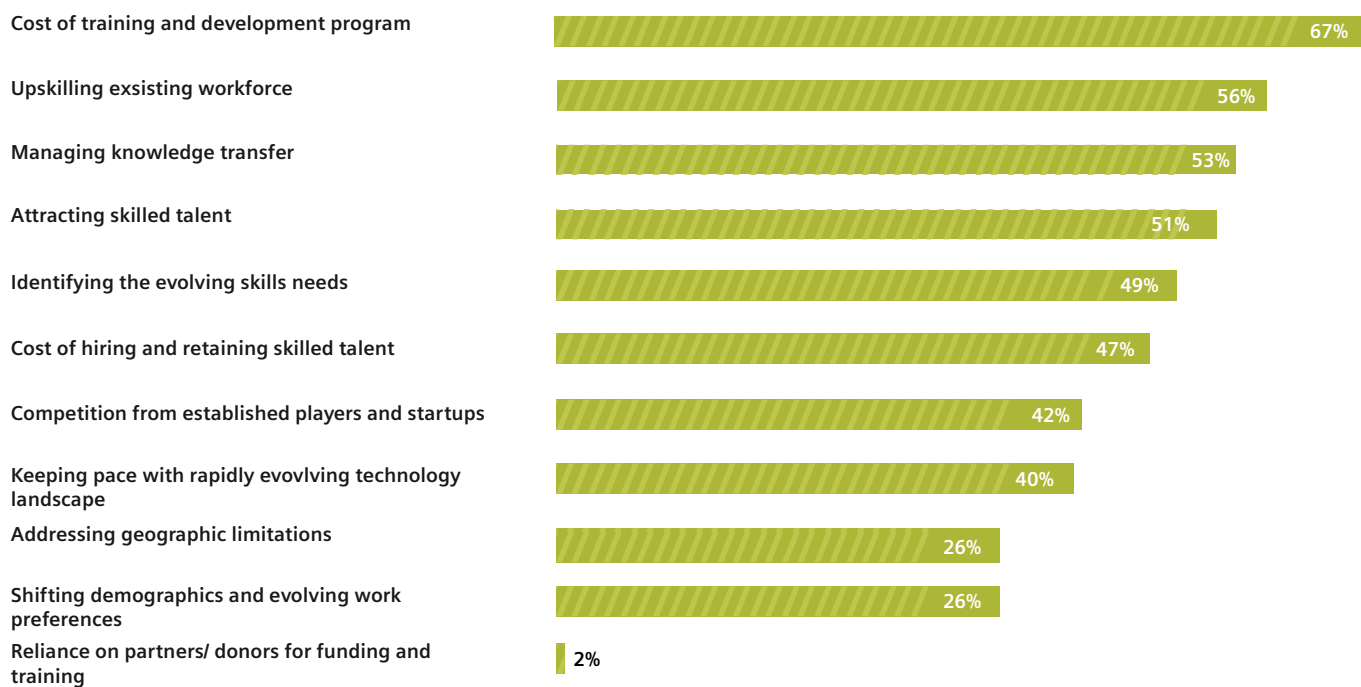
13.2 Key Challenges in Bridging the Skills Gap

According to the e-mobility companies, the cost of training and development programs (67% of the respondents), upskilling of the existing workforce (56%) and managing knowledge transfer (53%) have been the three major challenges they face when trying to close the skills gap.

Talent management: attracting skilled staff, and the cost of hiring and retaining them and identifying skills gap within the company are also important factors.

The companies are less worried about geographical limitations and working preferences of the skilled workers.

Figure 47: Key Challenges in Bridging the Skills Gap



13.3

Existing Training Programs in the Sector



Recognizing the need for training and development in the e-mobility sector, several organizations in Kenya are actively enhancing skills through various programs. The Electric Mobility Association of Kenya ([EMAK](#)) offers webinars, workshops, and informative articles focusing on advocacy, education, and innovation. [GIZ](#) and [Siemens Stiftung](#) have initiated programs for research, coaching, and networking, including Technical and Vocational Education Training (TVET) to build capacity. Additionally, the Kenyan government prioritizes R&D initiatives for electric vehicles and infrastructure, mandating user training to boost public awareness and adoption ([Techpoint Africa](#)).



14.1 Companies' Impact Goals

Kenya's e-mobility sector presents exciting opportunities for a cleaner, more inclusive and equitable future.

The results reveal a strong focus on creating jobs and generating income for customers and employees. Environmental benefits are also a priority, with reduced emissions and improved air quality ranking highly. However, there are concerns about equitable distribution of these benefits both geographically between urban and rural areas, as well as within different income groups. The high upfront cost of EVs and limited charging infrastructure are seen as the biggest barriers. Lack of government incentives and public awareness are additional hurdles.

Addressing affordability concerns through subsidies, infrastructure development, and innovative financing models will be crucial for widespread adoption.

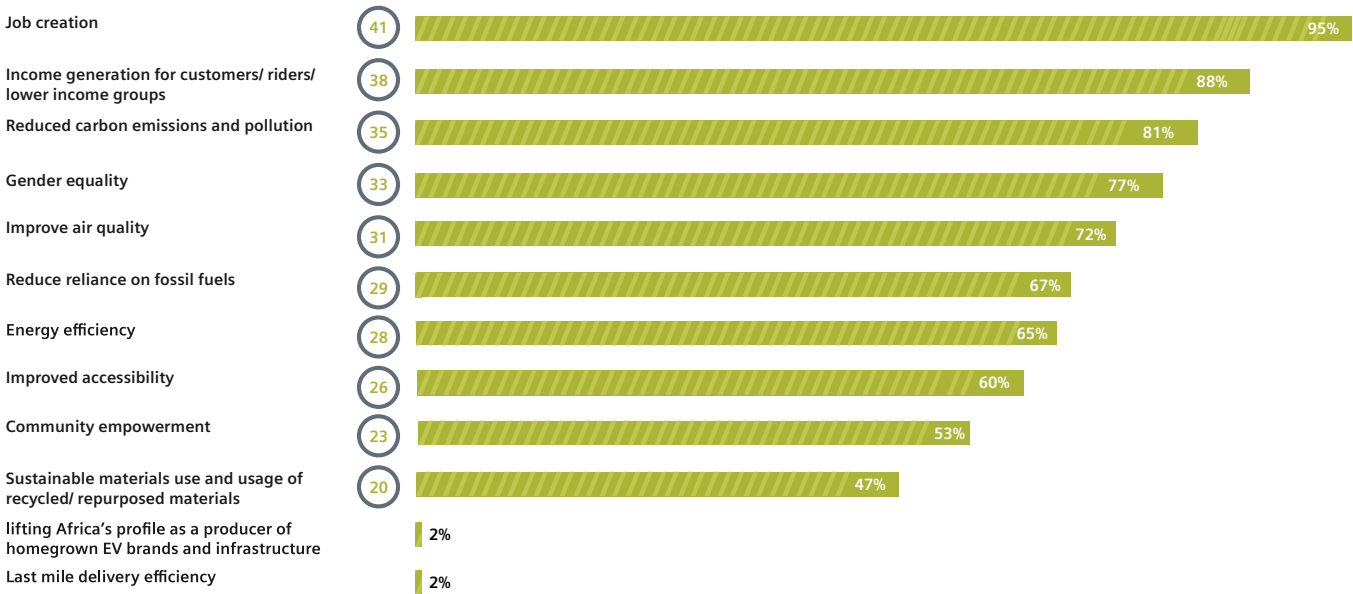
Job creation is the top goal for 95% of the respondents and a key driver of business impact for companies in this sector.

Income generation for customers and riders ranks second with 88%, highlighting the focus on economic empowerment. This indicates that companies have a wider focus on improving the livelihoods of their customers and riders.

Environmental benefits are a major priority with both **reduced carbon emissions** and **improved air quality** scoring 81% and 72% respectively. This demonstrates a strong focus on environmental sustainability within the businesses as the reduction of Kenya's carbon footprint.



Figure 48: Impact of objectives of E-Mobility Companies



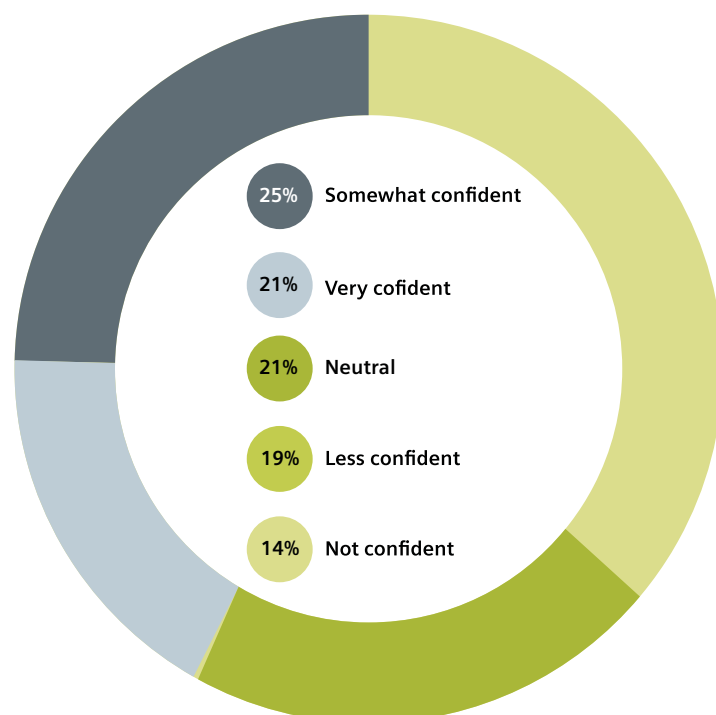
14.2 Geographic Disparity of E-Mobility's Impact

The survey responses indicate a **mixed level of confidence regarding the equitable distribution** of e-mobility benefits between urban and rural areas in Kenya.

A plurality of respondents (46%) are confident that the benefits will be fairly distributed. This suggests a cautious optimism among stakeholders.

However, the fact that 19% are less confident and 14% are not confident highlights significant **skepticism and concern about potential disparities in benefit distribution.**

Figure 49: Perception of Distribution of E-Mobility Benefits in Rural Vs. Urban Areas



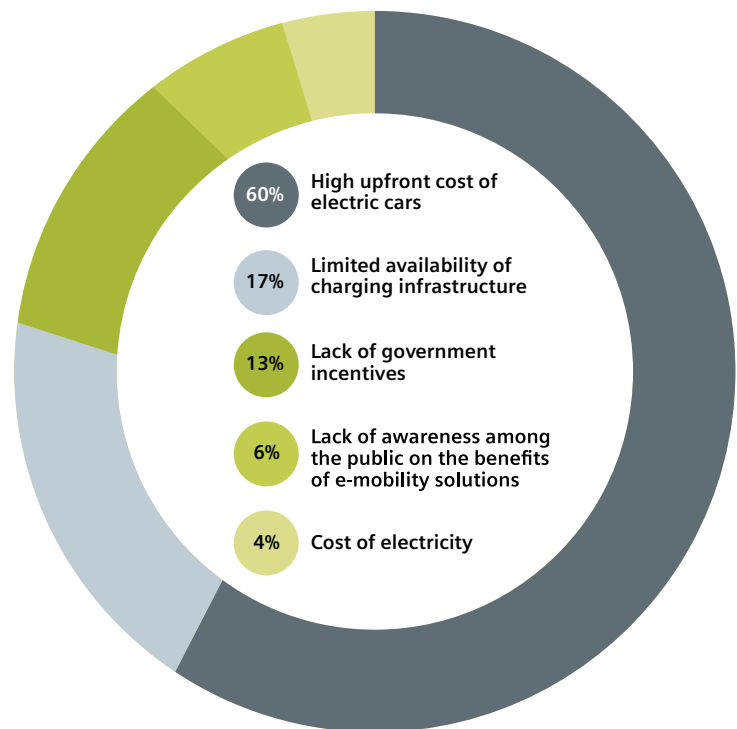
14.3 Factors Affecting Uptake of E-Mobility Solutions by the Lower Income



The most significant barrier to e-mobility affordability is the **high upfront cost**, identified by 60% of respondents, followed by **limited charging infrastructure availability** at 17%.

14% of respondents identified the **lack of government incentives** as a barrier, while 7% pointed to a **lack of public awareness about the benefits of e-mobility solutions**. 5% cited cost of electricity.

Figure 50: Factors Affecting Affordability of E-Mobility Solutions for the Lower Income



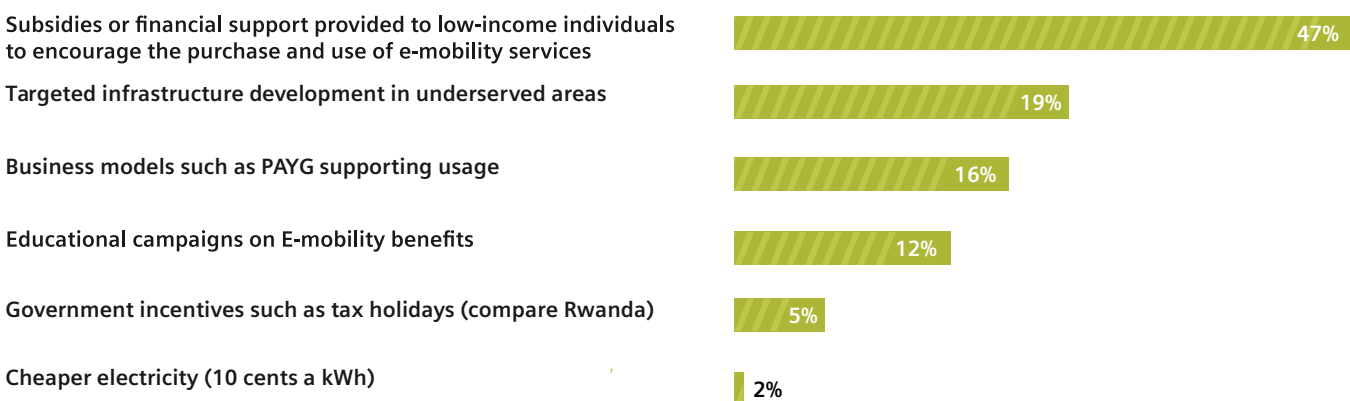
14.4 Measures to Improve E-Mobility Inclusivity



For many companies (47%), **subsidies or financial support provided to low-income individuals** to encourage the purchase and use of e-mobility services was the **most effective measure**, followed by **targeted infrastructure development in underserved areas** at 16%,

Business models such pay as you go (PAYGO), educational campaigns on e-mobility benefits, Government fiscal incentives such as tax holidays, and lastly cost of electricity are other measures to improve inclusivity in location and income levels. To encourage adoption of EVs, effective from April 1, 2023, the Govt set tariff incentives for the sector at 8 KES per kWh during off-peak and 16 KES per kWh during peak.

Figure 51: Impact of objectives of E-Mobility Companies





15 Recommendations

15.1 Policy Development

The recommendations based on the respondent's answers aim to support a sustainable e-mobility sector in Kenya. They are addressing policy, financing, technology, collaboration, training, inclusivity, and market development.

Financing strategies include public-private partnerships and green bonds to support scaling and infrastructure. Investment in R&D and smart grid technology will drive innovation. International partnerships and innovation hubs will facilitate knowledge transfer. Training programs will close the skills gap, with a focus on inclusivity for women and youth. Market strategies involve consumer feedback and impactful marketing to boost adoption and growth. Together, these recommendations provide a roadmap for a thriving e-mobility ecosystem in Kenya.

Regulatory issues were identified as significant barriers, with a weighted average of 4.1 out of 5, highlighting the need for clear and stable regulations to facilitate investment.

1. Enhance regulatory framework: Streamline and clarify existing regulations to address the unique characteristics of EVs, such as charging infrastructure and battery management. Set up a one-stop shop for EV-related permits and approvals

77% of companies acknowledged the positive impact of government policies and emphasized the importance of expanded incentives.

2. Expand policy incentives: Develop a comprehensive policy framework that includes direct subsidies for EV purchases, tax exemptions, and rebates. Mandate a certain percentage of new vehicle sales to be zero-emission vehicles, supported by financial incentives for manufacturers.

Environmental sustainability was a key driver for e-mobility adoption, with 88% of companies expressing confidence in future growth due to stricter environmental standards.

3. Emissions and waste management: Develop and enforce standards for emissions and waste management for EVs. Implement monitoring and enforcement mechanisms to ensure compliance.

15.2 Financing and Investment

All the companies surveyed are seeking to raise capital in 2024. A majority 58% of companies are seeking to raise less than USD 1 million in 2024, emphasizing the need for smaller, flexible and patient capital.

4. Provide targeted grants and low-interest loans: Create a government fund to provide targeted grants and low-interest loans to e-mobility startups, collaborating with financial institutions to ensure favourable loan terms and access to necessary capital.

5. Facilitate access to capital: Financiers to form public-private partnerships (PPPs) that leverage government funds, development finance institutions like the European Investment Bank and the World Bank and attract private investors. Establish blended finance funds with clear investment criteria and risk-sharing mechanisms.

While 98% of companies are familiar with carbon financing, only 30% have working knowledge, indicating a gap that can be addressed to unlock additional funding sources.

6. Green bonds & carbon financing: Raise capital for large-scale projects (such as building the charging infrastructure across the country) via green bonds. Develop local carbon financing programs that generate tradable credits for emission reductions, that the EV companies can benefit from.

15.3 Technology and Innovation

Companies plan to increase their R&D investment, focusing on battery technology, AI, and data management to stay competitive.

7. Promote R&D investment: Promote investment in R&D for battery technology, AI, and data management to drive innovation and improve product offerings. Collaborate with universities and research institutions.

15.4 Collaboration and Partnerships

Partnerships with financial institutions, other e-mobility companies, and research institutions are crucial for accelerating EV adoption.

8. Foster international partnerships: Learn best practices and transfer technology from countries with advanced EV sectors, such as China and Norway. Establish bilateral agreements and partnerships with such countries. Organize exchange programs and joint ventures to facilitate technology transfer and knowledge sharing.

The establishment of innovation hubs will support the diverse needs of startups, from funding to mentorship

9. Establish EV innovation hubs: Foster startup growth and innovation in the EV sector by creating dedicated innovation hubs that provide resources, mentorship, and funding. Partner with universities and industry leaders to offer incubation and acceleration programs.

Environmental sustainability was a key driver for e-mobility adoption, with 88% of companies expressing confidence in future growth due to stricter environmental standards.

3. Emissions and waste management: Develop and enforce standards for emissions and waste management for EVs. Implement monitoring and enforcement mechanisms to ensure compliance.



15.5 Training and Capacity Building

Addressing the skills gap identified by companies, enhancing training programs will build capacity in the sector.

10. Develop EV-based curriculums: Develop specialized engineering curricula for electric vehicles to offer an in-depth understanding of electric mobility components. Prioritizing inclusivity in training programs will support employment growth and diversity, as noted by the increase in female and youth participation.

11. Skills development programs: Collaborate with educational institutions and industry experts to design and deliver training programs focused on technical skills, project management, and carbon financing. Ensure these programs are accessible to women and youth by providing scholarships and financial assistance.

12. Develop dedicated research centres: Kenyan universities and Technical Vocational Education and Training (TVET) Institutions can form dedicated research centres for e-mobility and sustainable transport in close cooperation with the private sector to ensure company-based learning.

Hands-on training programs will address the practical experience gap for new entrants into the sector.

13. Apprenticeships & internships: Partner with educational institutions to establish apprenticeship and internship programs, offering hands-on experience for new entrants. Provide incentives for companies.

15.6 Inclusivity and Gender Equity

The survey data shows the e-mobility sector in Kenya is male-dominated with 62% male employees, while 38% are female. Youth representation is strong, with 46% of employees under 25.

14. Promote gender and youth inclusion: Promote investment in R&D for battery technology, AI, and data management to drive innovation and improve product offerings. Collaborate with universities and research institutions.

15.7

Market Development and Consumer Adoption

The survey results underscore the necessity of customer-centric approaches, with 77% of respondents emphasizing the importance of understanding and adapting to evolving customer needs and preferences.

15. Implement feedback loops: E-mobility companies should implement consumer feedback loops to continuously adapt and improve products and services based on market needs, drawing inspiration from agile development approaches used in tech startups.

The establishment of innovation hubs will support the diverse needs of startups, from funding to mentorship

16. Focus on feedback collection: E-mobility companies should focus on regularly collecting and analysing consumer feedback to guide product development and marketing strategies.

Effective marketing strategies are crucial for boosting consumer adoption, as indicated by the importance of public awareness highlighted in the survey.

17. Marketing campaigns: Collaborate with marketing experts to create impactful campaigns that emphasize the long-term cost savings and environmental benefits of EVs. Utilize various media channels to increase adoption

The survey indicates the importance of public awareness campaigns, with respondents highlighting the need for better marketing and education strategies to boost EV adoption

18. Public awareness and education: Government agencies, industry associations, and e-mobility companies can partner with influencers and celebrities to create engaging content that promotes EVs. Launch social media challenges and interactive campaigns to engage the public and increase awareness.

15.8 Infrastructure and Charging Expansion

The lack of charging infrastructure was identified as a significant barrier, with 17% of respondents indicating it as a challenge to affordability.

19. Develop widespread charging infrastructure: particularly in underserved urban and rural areas, to alleviate range anxiety and promote EV adoption.

Companies highlighted the importance of infrastructure development, and smart grids can ensure the reliability and efficiency of the charging network.

20. Smart grid integration: Invest in smart grid technology to efficiently manage the increased load from EV charging and ensure reliable electricity supply. Develop pilot projects to test and demonstrate smart grid solution.

15.9 Local Manufacturing Supply Chain Development

Reliance on imported components and high costs were significant barriers identified, indicating the need for local manufacturing to reduce costs and enhance supply chain resilience.

21. Promote local production: Implement a production-linked incentive (PLI) scheme to boost local manufacturing of EV components and batteries, following successful models from other countries.





16 Methodology

16.1 Survey Design

To gain comprehensive insights into e-mobility experiences across Africa, we employed a structured survey instrument capturing both quantitative and qualitative data. This approach allowed for in-depth exploration of key factors influencing e-mobility development in the region.

The survey was targeted to C-suite executives in e-mobility companies in Kenya.

The survey was designed by Siemens Stiftung and Maitri Capital, with inputs from EMAK.

In order to gain insights into the current landscape (baseline) of e-mobility in Kenya, we have employed a mixed method approach combining both quantitative and qualitative research methods.

This approach allows for a comprehensive exploration of the multi-faceted nature of the electric mobility sector in Kenya.

16.2 Data Collection



Primary data was gathered through an online questionnaire, chosen for its accessibility and ease of participation.

The survey gathered feedback from a total of 43 e-mobility companies ensuring valuable insight across the various e-mobility sub-sectors in Kenya.

Rigorous data cleaning was carried out to ensure accuracy and reliability of the presented information.

16.3 Data Analysis

The data was then subject to both qualitative and quantitative analysis. The data collected from the questionnaire was analyzed using a mixed-method approach.

Quantitative data was analyzed using descriptive statistics while the qualitative data was analyzed using a thematic approach that involved categorizing and interpreting of open-ended responses, identifying recurring themes, and extracting meaningful insights.

The data was presented in charts, graphs and tables.



16.4 Literature Review



We reviewed existing literature and research studies to contextualize our findings and identify the key themes, trends, insights and knowledge gaps in Kenya's e-mobility sector.

This has granted us a bearing by ensuring that our study not only capitalizes on the strengths of previous research works but also innovates and contributes to the existing pool of knowledge.

16.5 Key Findings

The key findings are reported in written text, tables, graphs, charts and other illustrations to enhance understanding and interpretation.

Our survey uncovers pivotal insights into Kenya's e-mobility sector. It highlights the shape, size, growth, diversity, funding needs, challenges, and potential of Kenya's e-mobility sector.

We aim to support stakeholders in making informed decisions and developing strategies that will drive the growth of this sector.

The findings from our survey will be shared with industry leaders, policymakers, and other relevant stakeholders to facilitate collaboration and drive positive change in the e-mobility space in Africa.

16.6 Research Limitations



While significant efforts were made to ensure the quality of the data collected, there were certain limitations.

One notable limitation was the potential for self-reporting bias, where respondents might have provided socially desirable answers or misrepresented their true experiences and opinions.

Additionally, the generalizability of the findings was limited, as the sample might not fully represent the broader population.

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