



Winning automotive circularity: a strategic path forward

Unlocking resilience and value
in a circular future

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Contents

1

Circularity emerges as a strategic imperative **4**

4

Industry scenarios indicate four possible outcomes of automotive circularity by 2040 **16**

2

Circularity involves integrated strategies across multiple action fields **8**

5

Strategic implications: industry players need to act now **20**

3

Circular economy adoption requires overcoming industry-wide barriers **12**

Authors and your key contacts for automotive circularity strategy **23**

Sources **23**

Preface

The circular economy has moved to the center of strategic decision-making within the European automotive industry. What initially emerged as a regulatory obligation is now increasingly recognized as a source of competitive advantage. Circularity offers access to new profit pools, greater resilience in volatile supply chains and a pathway to securing critical materials in an environment of growing scarcity. In the decade ahead, it will not merely support competitiveness – it will help define it.

Becoming truly circular requires a fundamental shift in how the industry designs, produces and monetizes vehicles and components. Products should be conceived from the outset for multiple lifecycles, with materials that can be recovered, reused and reintegrated at scale. Remanufacturing and recycling need to move from peripheral activities to strategic priorities. At the same time, it is crucial that companies rethink traditional one-time sales models and increasingly embrace usage-based and lifecycle-oriented approaches that keep vehicles and components in high-value loops for as long as possible.

This transformation has already begun. Across the industry, players are investing in circular innovations, building initial operational capabilities and forming early partnerships. Yet, despite this momentum, most circular initiatives remain fragmented, limited in scale or not yet commercially proven. The gap between circular ambition and operational reality remains substantial.

One reason for this is clear: circularity cannot be achieved in isolation. No single company controls the full lifecycle of a vehicle or its materials. True circularity depends on coordinated action across an extended ecosystem – from dismantlers and logistics providers to material suppliers, technology partners and original equipment manufacturers (OEMs) themselves. Without collaboration, material loops remain open, value is lost and circular business models struggle to reach economic viability.

This perspective is informed by our work with automotive players along the value chain, supporting efforts to translate circular visions into actionable strategy and execution. We assist OEMs and suppliers in defining their strategy, setting up their circularity organization and processes, and developing closed-loop business models for recycled materials and remanufacturing. We accomplish this through modeling business cases, designing target operating models and creating circular ecosystem and partnership strategies.

Against this backdrop, we have a holistic view on the circular economy in the European automotive sector. This article outlines the strategic rationale for circularity, highlights the key action fields and examines the challenges companies face as they move from pilots to scaled implementation. Looking ahead, it explores four scenarios for how the circular automotive landscape in Europe could evolve by 2040 – and what these futures would mean for industry players today.

Across all scenarios, one insight stands out: collaboration will be decisive. Joint action is not only a prerequisite for environmental impact, but a strategic necessity for securing material flows, building resilient circular value chains and unlocking the full economic potential of circularity. For the European automotive industry – and for every individual player within it – making circular collaboration a top priority will be critical to sustaining growth and competitiveness in the years ahead.



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Circularity emerges as a strategic imperative



The advancement of a circular economy stands as a fundamental pillar of sustainability and environmental stewardship, positioning it as a critical dimension of corporate responsibility. Beyond this, circularity is driven by three core rationales that collectively elevate it as an entrepreneurial strategic priority: regulation, profit and supply chain resilience. While regulation dominated the agenda for a long time, new profit opportunities and the need for secure material supply have become powerful additional drivers, giving circularity augmented momentum. Hence, European automotive players increasingly view circularity as more than a mere requirement for compliance, but rather as a strategic business model that enhances competitiveness, builds resilience and creates long-term value.

Ensuring regulatory compliance

Historically, regulatory requirements have been the primary catalyst for circularity in the automotive industry, driven by demanding net-zero emission targets and an expanding range of circular economy requirements.

Decarbonization continues to be one of the industry’s most binding commitments – especially in Europe, where climate policy continues to advance regardless of shifting political signals in other regions. The European Union stays firmly aligned with the Paris Agreement and remains committed to its CO₂ reduction targets for new passenger cars and vans for 2035.ⁱ While electrification and low-carbon energy deliver significant emissions reductions, materials production

still generates considerable residual emissions. By 2040, materials alone may account for 60% of total lifecycle emissions, shifting the abatement focus upstream. Circular innovations such as high-quality recycling, reuse and life-cycle-extending measures are powerful enablers of automotive decarbonization and crucial to closing this gap.ⁱⁱ

FIGURE 1 Regulatory recycled materials requirements

Percentage share of weight per material		Recyclate (consisting of PrC ¹ + PoC ²)	PoC ²	Of which PoC closed-loop
ELV Regulation³	Plastics	/	25% (15%) ³	20% ³
	Steel	/	Currently under feasibility study Industry proposal: 30%-40% ⁴	
	Aluminum	/	Currently under feasibility study	
Battery Regulation⁴	Battery materials	Lithium	12% (6%) ⁵	/
		Nickel	15% (6%) ⁵	
		Cobalt	16% (16%) ⁵	
		Lead	/	

● Enacted
 ● Provisional agreement
 ● Expected (currently no target quota)

Source

1 PrC: Pre-consumer material

2 PoC: Post-consumer material

3 Expected entry into force in 2026 with recyclate quota applicable from 2036 (from 2032)

4 European Federation for Transport and Environment, Setting recycled-content targets for steel under the ELV Regulation, 2025

5 Recyclate quota applicable from 2036 (from 2031)

Simultaneously, an emerging circular economy regulation is evolving into a comprehensive and increasingly demanding policy framework. The European Union's latest regulatory wave for the automotive sector – including Extended Producer Responsibility (EPR) schemes, the Ecodesign for Sustainable Products Regulation (ESPR), the EU Battery Regulation and the Corporate Sustainability Reporting Directive (CSRD) – makes circularity a must-have capability. Particularly, the End-of-Life Vehicles (ELV) Regulation recently evolved to mandate that in a decade, a minimum of 25% of plastics in new vehicles must come from post-consumer recycled sources, with 20% specifically from post-consumer automotive sources. Additional quotas for aluminum and steel are expected to be set by the European Commission following the completion of feasibility studies.ⁱⁱⁱ Recycling quotas will be pertinent to homologation, necessitating compliance for vehicle sales approval. This obligation becomes even more pressing given the expected shortage of recycled materials due to an increasing demand from the automotive and other industries.

Unlocking profit potential

As circular capabilities mature, leading players are increasingly recognizing that the same measures required to meet regulation can unlock substantial economic value. Circularity is beginning to transition from a cost of compliance into a source of profit by providing opportunities to participate in the growing materials recycling and remanufacturing businesses as well as usage-based vehicle sales models.

The automotive circular economy in Europe is projected to grow by 12.7% annually from roughly €26 billion in 2024 to €87 billion by 2034^{iv}, driven largely by recycled materials and the used parts business as regulation and OEM commitments scale demand. Several market studies support this positive trend, indicating that the circular materials and circular parts (remanufacturing, refurbishment, repair) markets will grow by 7% to 10% annually over the same period.^v For OEMs and related automotive players, these are attractive markets to participate in by establishing their own operations or partnering with specialized End-of-Life (EoL) market players. The circular parts business is particularly appealing, as independent aftermarket (IAM) players are already realizing significant profit margins in this market.

In addition, circular sales models such as leasing and subscriptions increase utilization and extend lifetime monetization, thereby generating diversified and recurring revenue streams. According to EY-Parthenon's automotive market forecasts, 45% of all new cars registered in EU5 countries will be distributed through leasing and 16% through subscription models by 2034. This represents an increase from their current market shares, which stand at 39% for leasing and 6% for subscriptions.^{vi}

Building supply chain resilience

Beyond profitability, circularity is also emerging as a crucial lever for enhancing supply chain resilience. This is especially relevant for the automotive value chain, which remains highly global and complex, involving thousands of suppliers across multiple regions.

Circular business models help to mitigate risks associated with reliance on globally traded virgin materials, fundamentally reshaping their supply chains for greater stability. This approach aligns directly with the European Union's ambition to strengthen strategic autonomy and resource sovereignty, as reflected in policy initiatives such as the Circular Economy Act or the Critical Raw Materials Act.

Recent developments show a growing need for supply chain resilience, especially as global supply chains face a period of heightened risk exposure. Geopolitical tensions, resource scarcity and increasingly unpredictable shock events are disrupting long-established sourcing patterns across global industries. Material availability is becoming less reliable, price volatility more frequent and the risk of sudden supply interruptions more pronounced. Expert sentiment underscores a clear deterioration in global stability. According to the *Global Risk Report 2026*, 50% of surveyed experts expect turbulent or even stormy global conditions in the next two years, rising to 57% over the coming decade^{vii} – a level of collective uncertainty signaling that the environment for securing critical materials will remain volatile.

“

By embedding closed-loop systems for metals, plastics and batteries, automotive players build supply chains that are less vulnerable to geopolitical shocks, more cost predictable and better aligned with long-term strategic autonomy.



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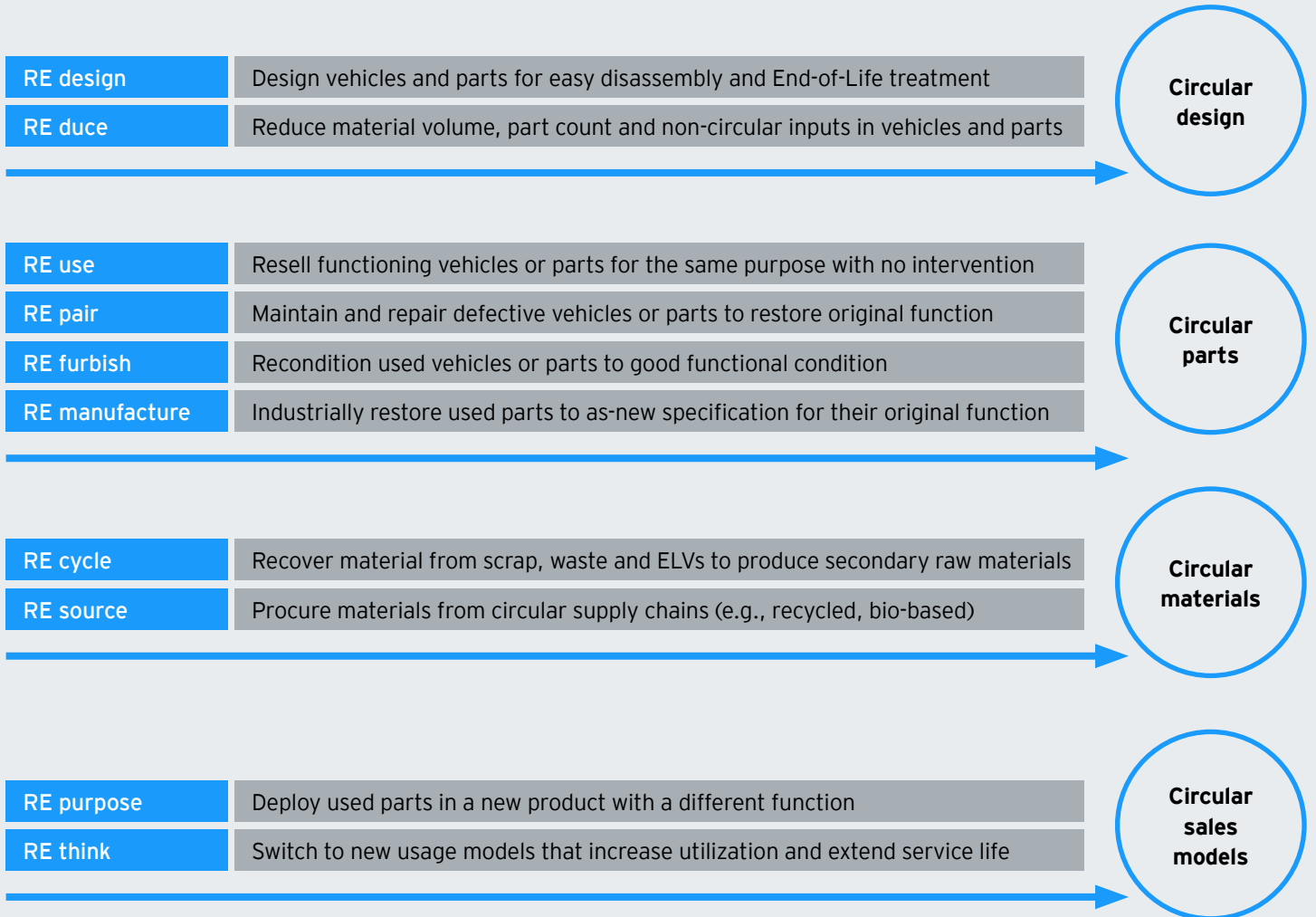
Circularity involves integrated strategies across multiple action fields



FIGURE 2 Circularity action fields

R-strategies

Action fields



Source
Adjusted based on European Commission, *Categorisation System for the Circular Economy*, 2020

To achieve circularity in the automotive industry, a coordinated, end-to-end approach across the full vehicle lifecycle is needed – from product design and material sourcing to usage, aftersales, and EoL recovery. The R-strategies categorized by the European Commission provide a universal framework describing various measures for increasing circularity.^{viii} Based on this framework, we identified four key action fields for the automotive industry with automotive-specific measures, requirements and impacts: circular design, circular parts, circular materials and circular sales models.



Circular design

Circular design embeds lifecycle-thinking into platforms and components from day one. It encourages automotive engineers to rethink how components are developed, built and recovered, considering aspects from the sourcing of materials to EoL pathways. At its core, circular design prioritizes modularity, durability, reparability and recyclability, laying the foundation for efficient disassembly, component harvesting and high-quality recycling.

There are a variety of strategies for enforcing circularity. Designing components for disassembly (e.g., modular architectures, standard fasteners) enables efficiencies at EoL for reuse, remanufacturing or recycling. Reducing the volume of

integrated materials helps lower overall material demand. Utilizing mono-materials simplifies recycling operations and enhances the effectiveness of material recovery rates. Furthermore, initiatives toward material IDs and digital twins help enhance traceability and transparency throughout EoL and recycling processes.

These practices not only support regulatory compliance but also help companies capture indirect cost benefits through reduced material input and shorter dismantling times. Optimizing dismantling yields and producing higher-grade recycle that meets OEM specifications further helps reduce dependency on virgin materials and builds resilience into supply chains by lowering exposure to price volatility and resource scarcity.

Circular parts

Second-life strategies allow used parts and components to be kept in high-value use for as long as possible. In terms of circularity benefits, they represent higher-value approaches that significantly reduce the need for materials and therefore, should be prioritized over lower-value operations such as recycling. There are several strategies for extending the life of used parts, each requiring a different degree of treatment:

- Reuse
- Repair
- Refurbishment
- Remanufacturing

Remanufacturing in particular is experiencing a renewed interest among OEMs. The remanufactured parts business has the potential to unlock strong aftermarket revenue streams with attractive margins, especially in categories where customers value cost-effective, OEM-certified components that are currently captured by the IAM to a significant degree. In addition, the use of remanufactured parts offers a meaningful cost-reduction lever in warranty cases.

Successful remanufacturing at scale requires reliable access to cores delivered via established collection systems and reverse logistics, triage capabilities for assessment as well as established partnerships with component remanufacturers. To ensure successful value capture – especially for OEMs – sales channel optimization is key to maximizing aftermarket revenue potential.

circular

Circular materials

The use of circular materials refers to increasing recycled materials content in vehicles and components. This directly decreases the use of virgin materials and is a prerequisite for meeting recycling quotas and supporting decarbonization targets. Each material – whether plastics, aluminum, steel, battery raw materials or others – comes with its own specific requirements, objectives and challenges.

Automotive players have two primary pathways to secure access to recycled materials: either by purchasing materials or by investing in their own (or partner-based) operations to generate automotive-grade recycled materials. As of today, the automotive industry relies largely on virgin materials. Securing reliable and competitively priced access to recycled materials is a major challenge, as several automotive-grade post-consumer recycled materials markets are still in the early stages of development compared to anticipated future demands.

Taking plastics as an example, we anticipate supply shortages in the European automotive industry, which may make it difficult for OEMs to meet expected recycled content quotas under the upcoming ELV Regulation. Therefore, further progress and technological innovation are needed – particularly in ensuring high-quality input streams, expanding recycling capacities and advancing post-shredder technologies.



Circular sales models

Circular sales models shift value capture from one-off product transactions to service-oriented, usage-based offers such as product-as-a-service, leasing, subscriptions and pay-per-use models. From a circularity point of view, these sales models can increase asset utilization as well as asset lifetime through steered maintenance and upgrade plans. In addition, circular sales models provide an answer to one of the key challenges of circularity: access to EoL vehicles.

When executed well, circular sales models increase profitability by maximizing lifetime value per vehicle through longer utilization, higher attachment to services, commercialization of usage data and multiple monetization moments across first, second and third lives. These models also indirectly support compliance and resilience by channeling products back into controlled loops, improving ELV capture rates and securing access to recyclable materials.

action

Across the European automotive industry, circularity has moved decisively from concept to action. Most OEMs have responded to regulation and sustainability commitments by setting ambitious secondary materials content targets and further circularity goals. In addition, industry players have been actively pursuing a range of initiatives to advance circularity. These efforts span from smaller pilot projects and partnerships focused on research and development to larger undertakings aimed at building and expanding the ELV business.

However, the widespread operationalization, commercialization and scaling of circular business models remain a challenge for the future transformation. This is due to three fundamental barriers that need to be overcome for circular initiatives to realize their maximum economic potential: the complex and fragmented ecosystem, the challenging economic viability, and the reluctance for strategic prioritization and long-term commitment.

Complex and fragmented ecosystem

One major reason for the difficulty of implementing circular strategies in the automotive sector is the high complexity of the circular economy value chain. Numerous players are engaged in the collection, dismantling, recycling and sales of circular parts and recycled materials. As of today, the value chain is dominated by a distinct EoL industry, while automotive OEMs and component suppliers have limited stakes in it.

Scaling automotive circularity demands close collaboration and coordinated action across all these players, as well as the development of critical capabilities for each of them. This is further complicated as the automotive circular value chain does not operate in isolation but is interconnected with other sectors such as the packaging or construction industry that also compete for feedstock and recycled materials.

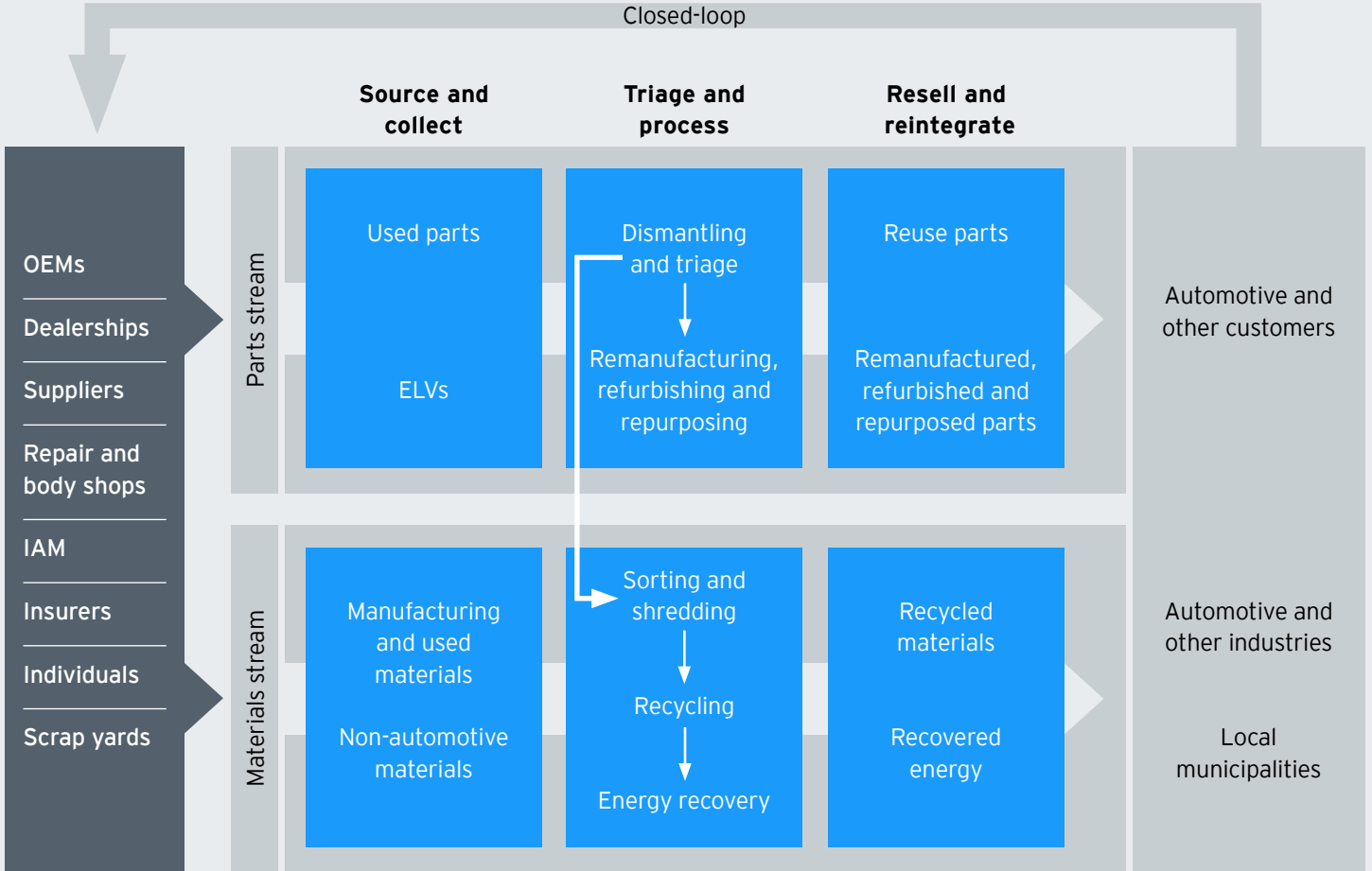
In the circular value chain, we differentiate between the two value streams – parts and materials – each of which passes through three main sections. The process begins with the sourcing and collecting of input (feedstock) from various sources for further circular processes.

In this stage, ELVs and automotive parts usually only represent a small share compared to non-automotive materials. This step is followed by the actual triaging and processing. Here, circular parts are dismantled and assessed, then enter remanufacturing and refurbishing operations. Meanwhile materials (from ELVs and parts) are sorted, shredded, and ultimately recycled. The value chain concludes with the reselling and reintegrating of circular parts and recycled materials to both automotive and non-automotive customers. The so called “automotive closed-loop” is realized when the reintegrated parts and materials are reintroduced into this system upon reaching their EoL again.

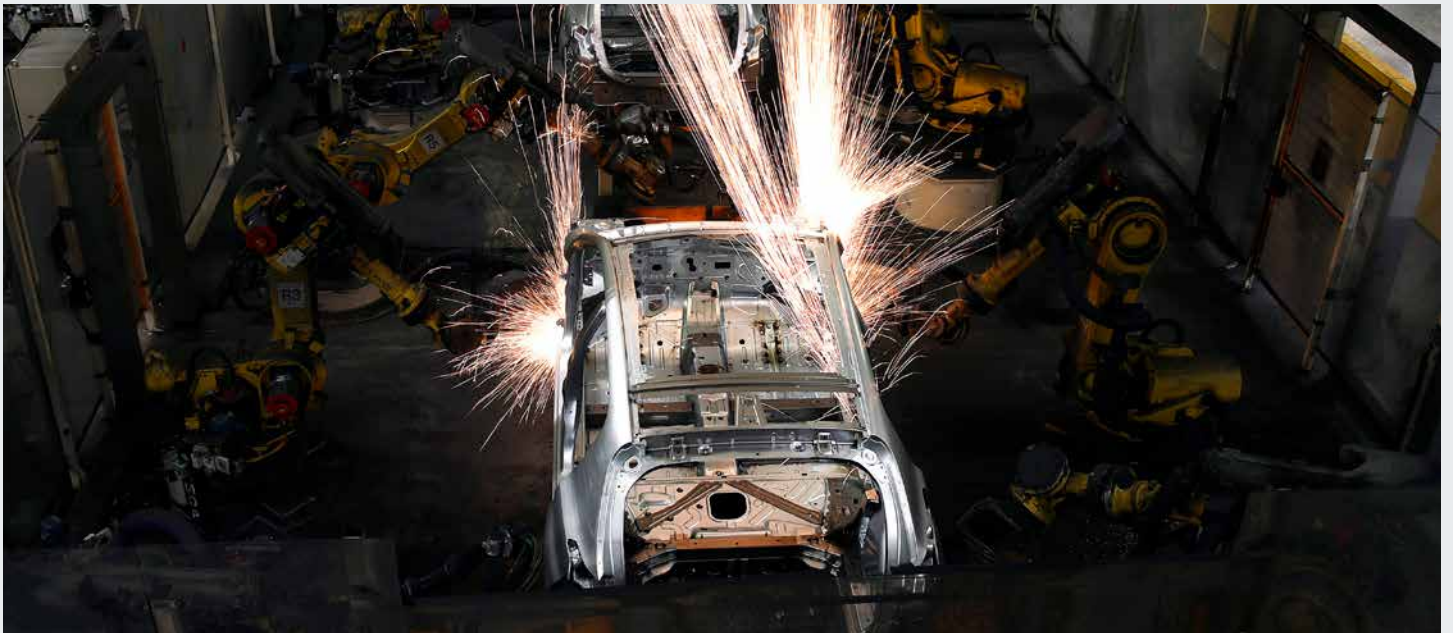
In the absence of robust coordination mechanisms and shared value, the circular value chain fails to deliver its full potential. For the circular transition to succeed, it is essential to find solutions that incentivize players to invest in circular capabilities. This entails enabling key actors like Authorized Treatment Facilities (ATFs) – which are currently not equipped for large-scale, automated dismantling – as well as finding innovative logistics solutions, as logistic costs are one important profitability driver.

ecosystem

FIGURE 3 Automotive circular value chain



Simplified view



Challenging economic viability

Another major barrier to scaling circular business models – particularly in ELV recycling and circular parts manufacturing – is the necessity to demonstrate sustained economic viability. A number of operational challenges, which are shared among all players, continue to hinder industry-wide, long-term commercialization and should be addressed to enable further scaling.

- **Limited access to ELVs and parts:** Reliable feedstock remains one of the biggest challenges. Millions of de-registered vehicles disappear through undocumented channels, exports or informal markets. High logistics costs and lack of platforms to address ELV owners further complicate access.
- **Low dismantling efficiency:** Dismantling remains slow, labor-intensive and highly manual. Fragmentation in the market and varying processing requirements underscore the need for automation, standardization and scalable operations.
- **Complex triage and value assessment:** Maximizing value from circular business models requires fast, automated and multi-brand assessment processes that can react to dynamic market prices – capabilities that are still underdeveloped in most settings.

- **Constraints in automotive-grade recycled materials supply:** Achieving the required recycling quality demands higher-purity streams and advancements in technologies such as post-shredder sorting and chemical recycling. Current capacities are limited, costly and may have emissions disadvantages.
- **Insufficient traceability of secondary raw materials:** A lack of industry-wide standards limits visibility across the value chain and leaves questions around how to demonstrate compliance with recycling quotas.

To secure profitable ELV recycling and remanufacturing, action and innovative solutions are required across all these challenges. Achieving this will demand substantial investment as well as close collaboration among all market players.

Reluctance for strategic prioritization and long-term commitment

As a consequence of the complexity of the circular ecosystem and the absence of a proven business case, many organizations currently demonstrate limited strategic prioritization and long-term commitment to circularity. Ambitions often remain vague or driven primarily by regulatory pressure and circularity is not yet firmly embedded

in strategic agendas. The result is scattered pilots and uneven accountability rather than holistic strategies. To fully engage in the transformation, it is vital that each player clearly recognizes the value circularity can deliver for them, prioritizes relevant initiatives and ensures fair value-sharing that supports long-term participation across the ecosystem.

Currently, however, the absence of decisive commitment by individual players paralyzes the entire ecosystem. As stakeholders hesitate to act without mutual assurance and trust, a self-perpetuating cycle is created that prevents meaningful progress across the sector. Therefore, strategic prioritization needs to extend beyond individual organizations to the industry as a whole. Circularity can only scale if a critical mass of companies aligns around shared ambitions, coordinated action and collective investment.

Regulatory commitment plays a decisive enabling role in this process. Without aligned legislation, antitrust clarity, financial incentives and common standards, stakeholders have to navigate fragmented regional requirements and inconsistent expectations. Clear long-term signals and harmonized regulatory frameworks across markets are required to reduce uncertainty and create the conditions for long-term capital allocation and consistent implementation.

Industry scenarios indicate four possible outcomes of automotive circularity by 2040

4

As of today, the future of automotive circularity remains uncertain. While momentum is growing, ambiguity exists around how strongly the underlying drivers for circularity will play out – and whether the European automotive industry will truly manage to overcome present barriers. To navigate this uncertainty and to derive meaningful strategic guidance for industry players, we adopt a forward-looking perspective and explore four alternative scenarios that illustrate how automotive circularity in Europe may evolve by 2040.

To develop these scenarios, we applied a proven scenario planning methodology. We began by identifying 60 driving forces spanning political, social, economic, environmental and technological dimensions, and then assessed their potential impact and future direction using AI-supported research and interviews with industry professionals. Through this process, two external uncertainties stood out as particularly decisive, forming the axes that structure our scenarios.

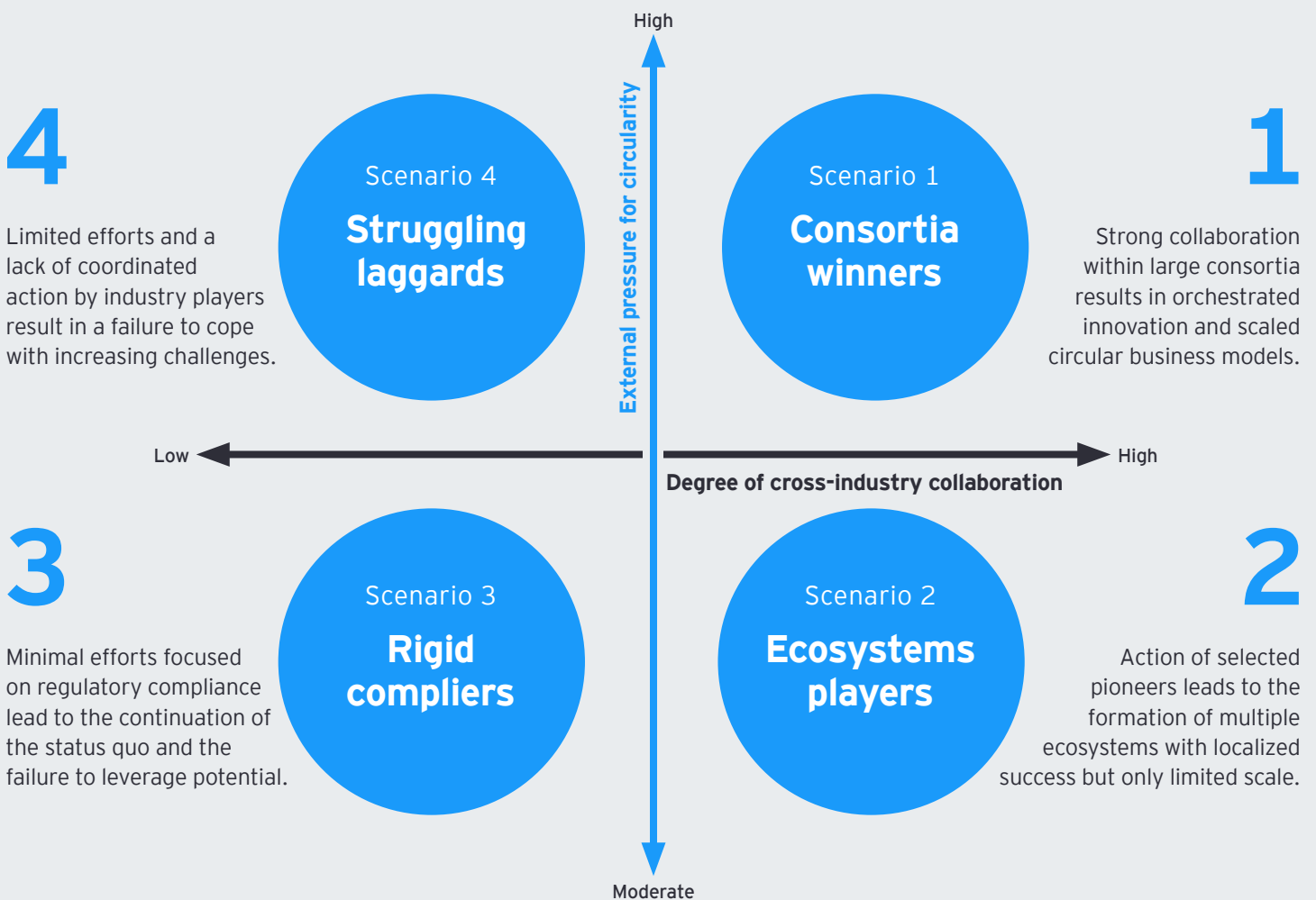
The first is the *external pressure for circularity*: the extent to which regulation,

supply chain risks and rising expectations from customers and investors will push the industry toward circular practices.

The second is the *degree of cross-industry collaboration*: the extent to which players across the value chain – from OEMs and suppliers to recyclers, dismantlers, and logistics providers – will work together with shared standards, partnerships and joint investments.

In the following section, we present these scenarios, describe what characterizes each one and outline what they might mean for the automotive industry.

FIGURE 4 Circularity industry scenarios



**Scenario 1
Consortia winners**

1

In this future, regulatory pressure, supply chain risks and customer expectations all intensify simultaneously. Faced with rising costs, material scarcity and ambitious circularity targets, the industry recognizes that isolated action is no longer viable. OEMs, suppliers, recyclers and technology companies therefore join forces in large, structured consortia that coordinate standards, align investments and share infrastructure.

Joint ELV collection networks and harmonized recycling standards become the norm. Large-scale ELV processing facilities achieve economies of scale, enabling high-purity material recovery and significant reductions in virgin material dependency. Digital platforms track parts and materials across multiple lifecycles, supporting highly efficient triage, remanufacturing and recycling processes. The industry also deploys shared research and development programs for next-generation technologies such as advanced sorting and automated dismantling.

As a result, circularity becomes a major profit pool. OEMs secure access to affordable recycled materials, aftermarket margins rise through coordinated parts flows and circular business models scale rapidly. Supply chains become highly resilient and the automotive industry successfully turns circularity into a competitive advantage.

Scenario outcome



**Scenario 2
Ecosystems players**

2

This scenario is characterized by less intense regulatory and market pressure. Yet, selected major industry players continue to recognize the strategic value of advancing circularity. Instead of forming large, centralized consortia, multiple regional and thematic ecosystems emerge, typically led by OEMs acting in an orchestrating role. These OEMs bring together suppliers, local recyclers, technology providers and logistics partners to collaborate on targeted circular initiatives.

Rather than pursuing a full system-wide transformation, these ecosystems focus on the most critical materials, such as battery materials and plastics, and selected high-margin circular parts. Localized take-back schemes operate efficiently within specific regions but lack the scale required for universal coverage. Partnerships enable shared investments in advanced recycling technologies, primarily at a regional level. Digital solutions support traceability within individual ecosystems, however, interoperability across ecosystems remains limited.

Overall, these efforts result in localized and focused progress in circularity. The scenario delivers meaningful improvements in supply chain resilience and moderate profit growth, while building crucial capabilities to respond to future pressures. However, due to limited scale and less coordinated action, the full potential of a unified circular system remains untapped.

Scenario outcome



future

Scenario 3
Rigid compliers

3

In this scenario, external drivers remain moderate to weak: regulatory pressures do not increase, raw materials stay broadly available and consumers show limited interest in circular offerings. Lacking strong incentives, companies invest only in what is necessary to remain compliant. Collaboration is minimal and most stakeholders continue to operate within their existing boundaries.

In a sense, this scenario represents the continuation of the status quo. Circularity action focuses on incremental improvements, such as basic design adjustments for recyclability, limited ELV take-back programs and modest enhancements in recycling efficiency. OEMs maintain traditional sales-focused business models with limited experimentation in leasing or circular parts portfolios. Recyclers and dismantlers continue operating in a fragmented landscape with significant manual work and low automation.

Although the industry might potentially be able to mitigate compliance risks, it also misses the economic potential of deeper circularity. Profit pools from remanufacturing, recycling innovation and service-based models remain largely unexploited. Supply chain resilience remains limited, leaving players exposed to sudden shocks or shifts in regulation down the road.

Scenario outcome



Scenario 4
Struggling laggards

4

In this future, external pressure dramatically increases due to stricter regulations, geopolitical instability and soaring demand for critical materials. However, the industry fails to coordinate and respond collectively. Stakeholders act independently, duplicating efforts and investing in incompatible technologies and standards.

The absence of collaboration leads to structural bottlenecks in ELV collection, materials recovery and remanufacturing. Recycling capacities remain insufficient, resulting in severe shortages of high-quality recycled materials. Costs rise as OEMs compete for scarce resources, while regulatory requirements become increasingly difficult to meet. Quality issues and inconsistent data tracking further erode the effectiveness of circular value chains.

These pressures produce fragile supply chains, high operational costs and declining competitiveness. Companies lose access to essential materials, vehicle production becomes more expensive and the industry struggles to maintain profitability. Running operations becomes a burden and the European automotive sector risks falling behind global competitors who have scaled circular business models more successfully.

Scenario outcome



scenarios

**Strategic implications:
industry players need to
act now**

5

Our scenarios on the future of automotive circularity outline four different potential outcomes. While it is not possible to predict which scenario will ultimately materialize, two key insights stand out for industry players.

First, scenarios characterized by stronger industry collaboration consistently deliver superior results in terms of competitiveness, resilience and value creation – making collaboration a defining success factor of the circular transformation.

Second, industry players need to act now to strategically position themselves for an emerging circularity-driven future. Early action is essential to build capabilities, secure competitive advantages and ensure long-term success. Below, we present three critical questions that industry players should address today to succeed in any future scenario.

Define your own ambition

Preparing for the future of the circular economy starts with defining an intentional circular ambition. Leading organizations do not merely respond to external pressures – they actively shape their position in the circular transformation. This begins with a clear, executive-level articulation of where the organization stands today and how it intends to move forward. Defining an ambition requires making deliberate choices about scope, pace and focus, and translating high-level intent into concrete, cross-functional roadmaps that span business units and functions. Strategic leadership means anticipating regulatory developments, setting bold yet credible targets and embedding circularity into corporate purpose, capital allocation and decision-making criteria. Only when ambition is defined proactively can circularity move beyond a compliance-driven response and become a sustained source of long-term value creation.

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Automotive circularity is an ecosystem challenge that no single player can solve alone. Only through clear ambition, well-defined roles and collective collaboration across the value chain can the industry build resilience and unlock its full value potential.



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Determine the role you want to play

Based on the ambition, companies should make conscious choices about the role they intend to assume within a future circular automotive ecosystem. Not every player needs to lead across all dimensions but every organization should be clear about where it seeks to differentiate and where it intends to follow. Roles may vary depending on the individual player's type (e.g., OEM, supplier, recycler), size and investment resources, as well as the ambition level defined. Some players may position themselves as orchestrators of circular ecosystems. Others may focus on achieving excellence in specific capabilities such as remanufacturing, materials processing or digital traceability. Clear role definition helps guide investment priorities, capability development and partnership choices, while reducing internal friction and misaligned expectations.

Build a deliberate partner and ecosystem strategy

Irrespective of the role a company chooses to play, automotive circularity is fundamentally an ecosystem challenge that requires collaboration among a wide range of players. To succeed, it is essential that companies build targeted partnerships with players across the value chain – including suppliers, recyclers, technology and logistics providers, and, in some cases, competitors. Active collaboration through joint investments and standard-setting enables access to critical resources, accelerates learning and reduces execution risk. A deliberate ecosystem strategy focuses on partnering where needed to complement internal strengths, close capability gaps or unlock scale. At the same time, players should clearly distinguish between areas of competitive differentiation and those better addressed collectively. This may also include partnerships with competitors, particularly in areas such as pre-competitive market standards and scaling of activities.

The urgency is real. Building circular capabilities takes time, capital and collective effort. Those who act early gain the opportunity to shape standards, secure access to materials and partners, and position themselves for future profit pools. Those who delay risk being locked into sub-scale solutions, higher costs and reduced strategic freedom in an increasingly circular automotive economy.

Ultimately, the topic of circularity within the automotive industry is just at the beginning, offering initial perspectives but leaving much ground to cover. As circularity is a complex and continually evolving field, new requirements and questions will inevitably arise in the future, and the industry needs to be prepared to address them as they emerge. This ongoing journey will demand continuous adaptation and proactive engagement from all stakeholders to ensure the industry keeps pace with changing demands and opportunities.

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The authors gratefully acknowledge the valued support of the following contributors to the development of this publication:

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EYG no. 002279-26Gb1

KKL 2604-1325
ED0426

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