



**Proud to be  
part of our  
suppliers'  
success**

**Strengthening sustainability through water resilience**

March 2026



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**Water in automotive supply chain and business risks**

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# Global water stress

Only **2-3%** of the Earth's water is freshwater and **<1%** is accessible for human use

**4 billion people** globally experience severe water scarcity for at least one month every year

**More than half** of the world's large lakes have declined since the 1990s

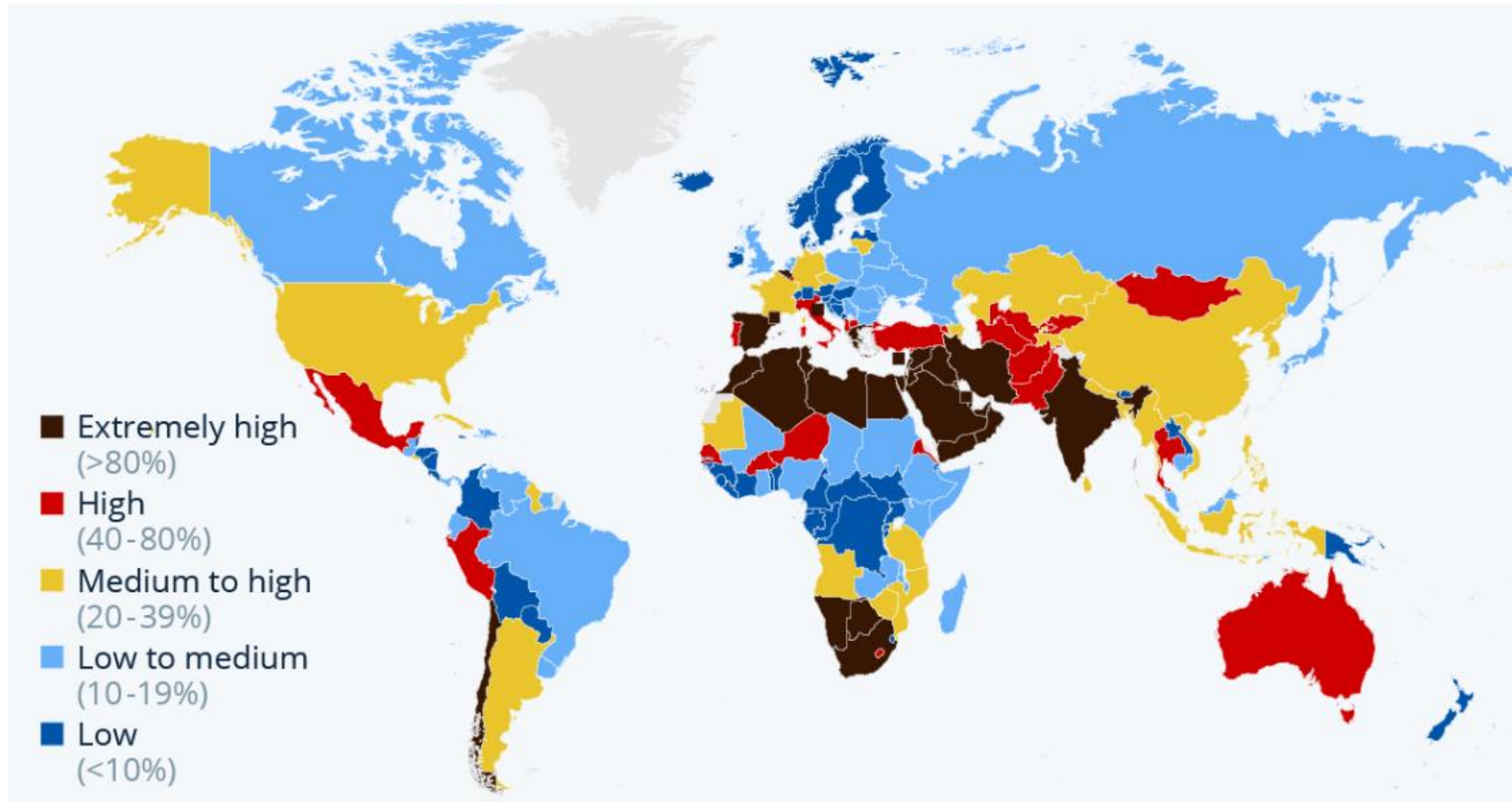
**2.1 billion** people lack safely managed drinking water

The world loses **324 billion cbm** of freshwater every year due to drought, poor management, and over-extraction

By 2050, global water demand is expected to increase by **20-30%**

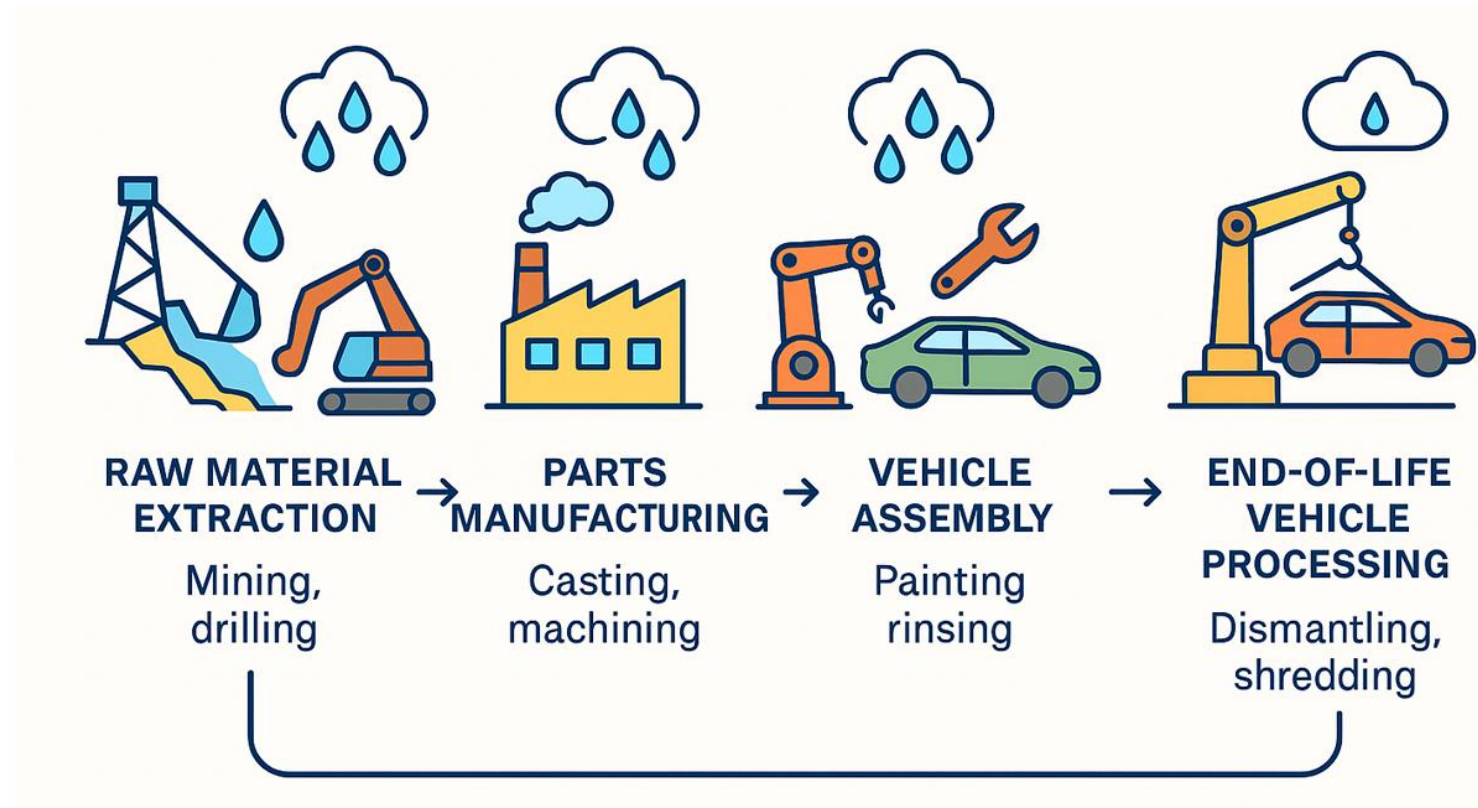
# Global water stress

Projected ratio of human water demand to water availability (water stress) by 2050



# Water use across Automotive Supply Chain

- Manufacturing one car requires **30-100 KL** of water across the full supply chain
- Raw-material extraction and processing (steel, aluminum, plastics, rubber) account for the majority of total water use.
- Assembly-plant operations such as painting, cooling, washing, and rinsing use about **5 KL per vehicle** in direct water use.
- Within assembly operations, painting consumes the highest share, often nearly **50%** of direct water use



# Water intensive automotive manufacturing processes

## Painting & Coating Operations

- Water-curtain paint booths, Overspray capture
- Equipment cleaning and rinsing

## Component Manufacturing

- Metal cutting (as coolant/lubricant)
- Machining operations (e.g., engines, transmissions)
- Casting and forging support systems

## Surface Treatment & Metal Finishing

- Degreasing
- Surface cleaning
- Phosphate coating
- Rinsing cycles

## Cooling and Heat Management

- Cooling machinery and equipment
- Boiler feedwater
- Cooling tower makeup
- Heat exchange processes

# Why water is now a business risk?



## Production Disruption Risk

Paint shops, plating lines, cooling towers, and battery manufacturing are water-dependent. Even short-term supply restrictions can halt vehicle or component production.



## Supplier Qualification & OEM Pressure

Major OEMs increasingly require water data, reduction targets, and ESG disclosures from suppliers.



## Regulatory & Extraction Limits

Automotive clusters in water-stressed regions face tightening groundwater permits, discharge norms, and rising industrial water tariffs.



## Cost Escalation & Volatility

Rising freshwater tariffs, tanker dependency during droughts, wastewater treatment upgrades, and energy-intensive recycling systems increase operating costs.

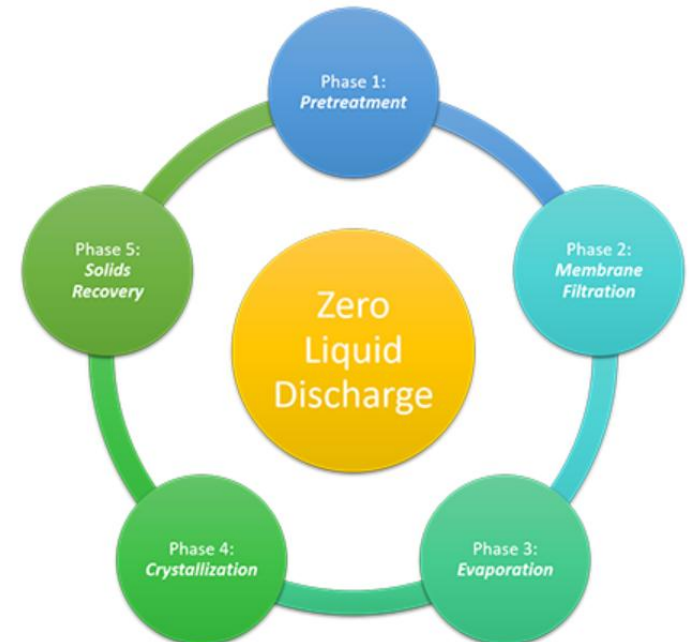
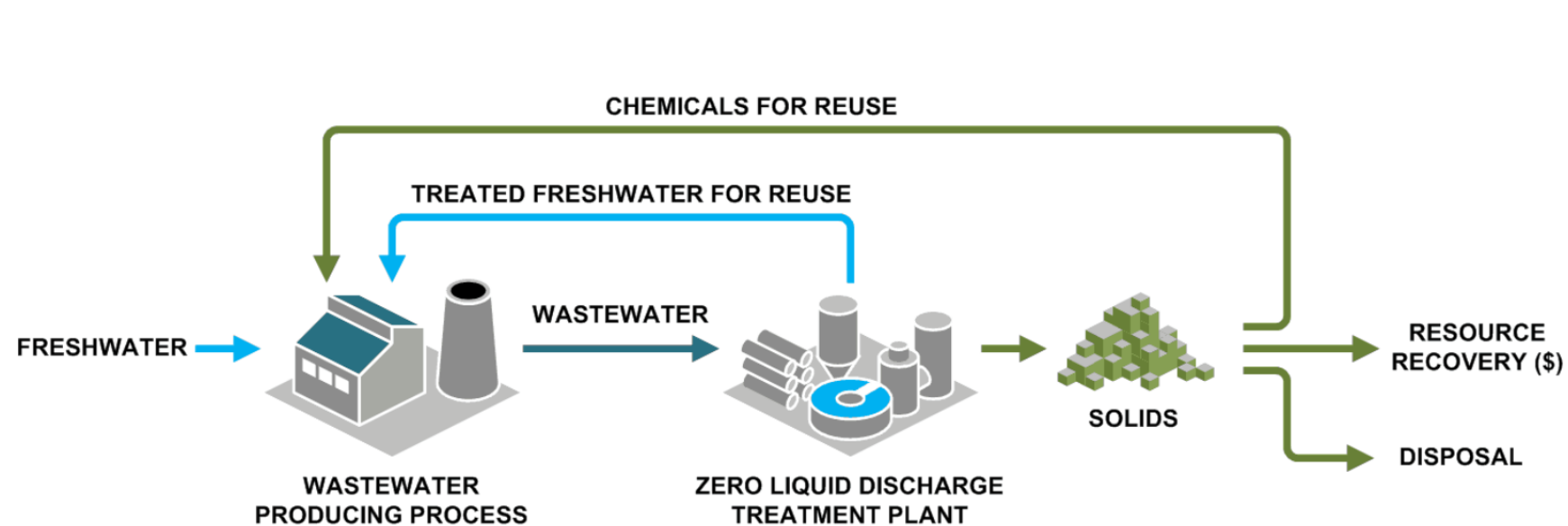


## Reputational & ESG Exposure

Investors, communities, and customers expect responsible water stewardship. Poor water performance can impact ESG ratings, access to capital, and brand reputation across the supply chain.

# Zero liquid discharge

Zero Liquid Discharge (ZLD) is a water-management approach in which a facility treats all its wastewater and recovers it for reuse, ensuring no liquid effluent is discharged into the environment.



# Water harvesting

- Water harvesting refers to the process of collecting, storing, and utilizing rainwater or surface runoff for later use.
- There are two primary categories of water harvesting: in situ and surface runoff harvesting.

**In situ:** Captures water where it falls.

**Runoff harvesting:** Collects water in storage systems

- Harvested rainwater improves resilience during water shortages, ensuring uninterrupted manufacturing operations, especially in water-stressed regions



# Benefits of water circularity

**Major reduction in freshwater consumption**

**Improved Sustainability & ESG Performance**

**Low wastewater discharge and environmental impact**



**Increased Water Security & Risk Resilience**

**Operational Cost Savings**

# Water sustainability at Motherson

We are committed to using water responsibly across our operations, with care and consideration for local needs.

- All group operating sites to achieve **zero discharge** by end 2030
- All group sites operating within areas of **high-water stress** to achieve overall reduced water consumption
- Installation of **water preservation solutions** in all manufacturing units by 2030
- Installation of **water harvesting solutions** where appropriate by 2030



2030 

# Expectations from supplier partners

1

## **Expand Water Reuse, Recycling Systems & Achieve ZLD (Zero Liquid discharge)**

Apply advanced treatment technologies such as reverse osmosis (RO), ultrafiltration (UF), and biological treatment to reuse wastewater for cooling, cleaning, and advanced STP where needed.

2

## **Conduct Comprehensive Water Audits**

Identify all points of water use, losses, and wastewater generation. Mapping helps detect inefficiencies and prioritize conservation actions.

3

## **Implement Water-Efficient Technologies**

Adopt to alternative process to water like dry cleaning, dry painting, low-flow fittings, and optimized cooling systems to significantly reduce overall water demand in operations

4

## **Adopt Rainwater Harvesting Programs**

Capture rooftop and surface runoff, store it, treat it if needed, and use it for cooling towers, landscaping, and general cleaning. This reduces dependency on freshwater withdrawals .

# Water Efficiency Guide.

## Know The Water Efficiency Basics.



**Measure, Monitor & Target:**  
Understand the site water withdrawal, recycled, harvested and discharged



**Management Commitment:**  
Commitment and support from all senior management to drive water saving initiatives



**Turn Off, Turn Down:**  
Turn everything off when not being used. If you can't **turn it off**, **turn it down!** Reduce wasted water and water pressure



**Train The Trainers. Train The Team:**  
Share the knowledge. Empowered unit/site champions.



**S.M.A.R.T. Water Efficiency goals:** Specific, Measurable, Accountable, Realistic & Time Bound.



**Water Site Survey:**  
Perform a water site survey annually and find opportunities to improve. Understand your water process by installing water meters.



**Services:**  
Minimise the demand and optimise the supply.



**Maintenance:**  
Ensure maximum water efficiency hand in hand with operational efficiency. Preventative / water maintenance. Zero leaks!



**Machine and domestic process:** Improving our water efficiency with operational best practices and water treatment.



# Useful links

[Motherson Group Supplier Portal](#)

[Motherson Group Sustainability Portal](#)

[Motherson Group Sustainability report FY2024-25](#)



The responsibility lies with us all.



**Thank you.**

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