

Transitioning from

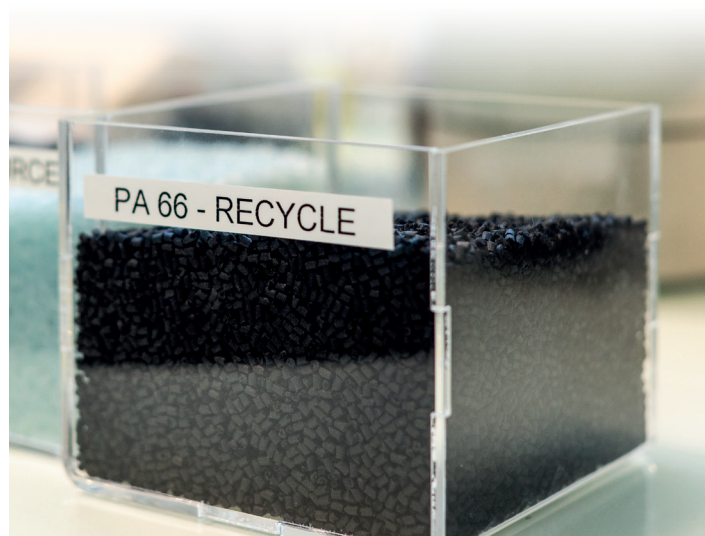
SUSTAINABLE SOLUTIONS TO A CIRCULAR ECONOMY



CIRCULAR BUSINESS AT ARAYMOND

In today's linear "take-make-waste" economy, value is created by manufacturing and selling disposable products. This is unsustainable. When the impacts of our activities exceed planetary boundaries, inequalities in access to resources—and conflicts—emerge.

We are rethinking our economic models and business practices to create economies that harness the natural cycles of the living world.



Our goal is to ensure resources are continually reused instead of depleted, beginning with the shift to circular business models.

Our involvement in the CEC (Convention des Entreprises pour le Climat), a French initiative whose mission is to bring 150 companies to co-create circular and regenerative business practices, has been crucial to this transition.

ARAYMOND'S PLAN FOR TRANSITIONING TO CIRCULAR AND REGENERATIVE BUSINESS MODELS IS BUILT ON:

- 1. Offering a first step to circular business with eco-designs for products or solutions.**
This includes designing, manufacturing, and selling products or solutions made from sustainable or renewable resources and that prioritize environmental friendliness throughout the entire product lifecycle.
- 2. A second step is to support the circular value chains and business models** of our customers by providing all-in-one solutions that enable the management of complete modules. In other words, becoming circular enablers for our customers.



DESIGNING, MANUFACTURING AND SELLING OUR SOLUTIONS THROUGH A RESPONSIBLE APPROACH

OUR AMBITIONS

FROM 2025

- Offer an **eco-designed alternative** for new product requests (according to application or specification relevancy).

BY 2030

- Offer exclusively eco-designed solutions for new product requests.

OUR ACTIONS

- ➊ Implementing new processes, tools, and trainings.
- ➋ Measuring impacts.
- ➌ Aligning our purchasing practices.
- ➍ Providing solutions with reduced environmental impact.

Reaching these milestones will also help us achieve our absolute GreenHouse Gas (GHG) emissions reduction target of 33% by 2030 (baseline 2021, scope 1, 2 & 3).

Around three-quarters of our GHG emissions originate from our products.



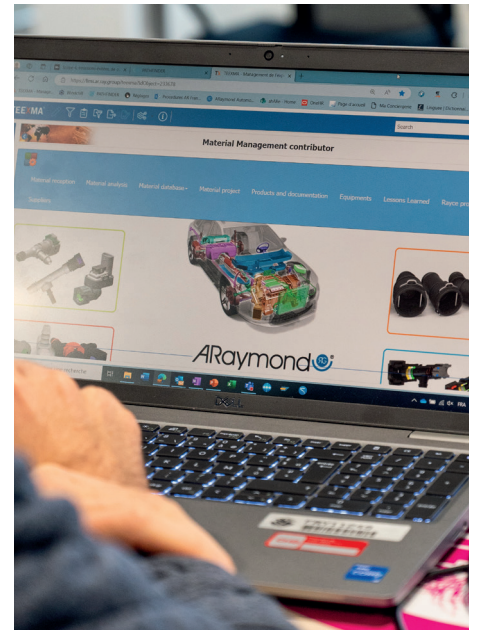


1 IMPLEMENTING NEW PROCESSES, TOOLS, & TRAINING

The first level of our circular value proposition (providing eco-designed solutions with reduced environmental impacts) depends on processes, tools, employee awareness, and eco-focused purchasing.

We have developed our own tools and training on the first two steps of the eco-design process: understanding the environmental impacts of our products throughout their lifecycle and identifying hotspots.

One of these tools is our own **Life Cycle Assessment (LCA)**, which we have already started using to assess the impacts of various product likes, processes, and locations. We have also integrated our own impact calculator into our product development software to make Life Cycle Assessments simpler and more accessible to our employees involved in R&D and eco-design.



Our LCA tool assesses environmental impacts based on four standardized environmental criteria:

STANDARDIZED ENVIRONMENTAL CRITERIA

Climate change (potential global warming due to GHG emissions).

Depletion of resources: minerals and metals.

Depletion of resources: fossil fuels.

Water use.

MATERIALS ASSESMENT

We have also created a materials database to track and improve our ratio of sustainable vs. sensitive materials.

Product developers can use these LCA tools to compare designs and calculate sustainable materials ratios:

BIO-BASED

RECYCLED

MASS-BALANCE

This is an example of an LCA for one of our latest Quick Connectors:



86,14 kg Co₂ eq
Climate Change



cAre score



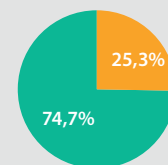
1 556,69 Mj
CED (Total)



2,92E+001 kg Sb eq
Resource Use - minerals and metals



9,72 m³ Deprived
Water use



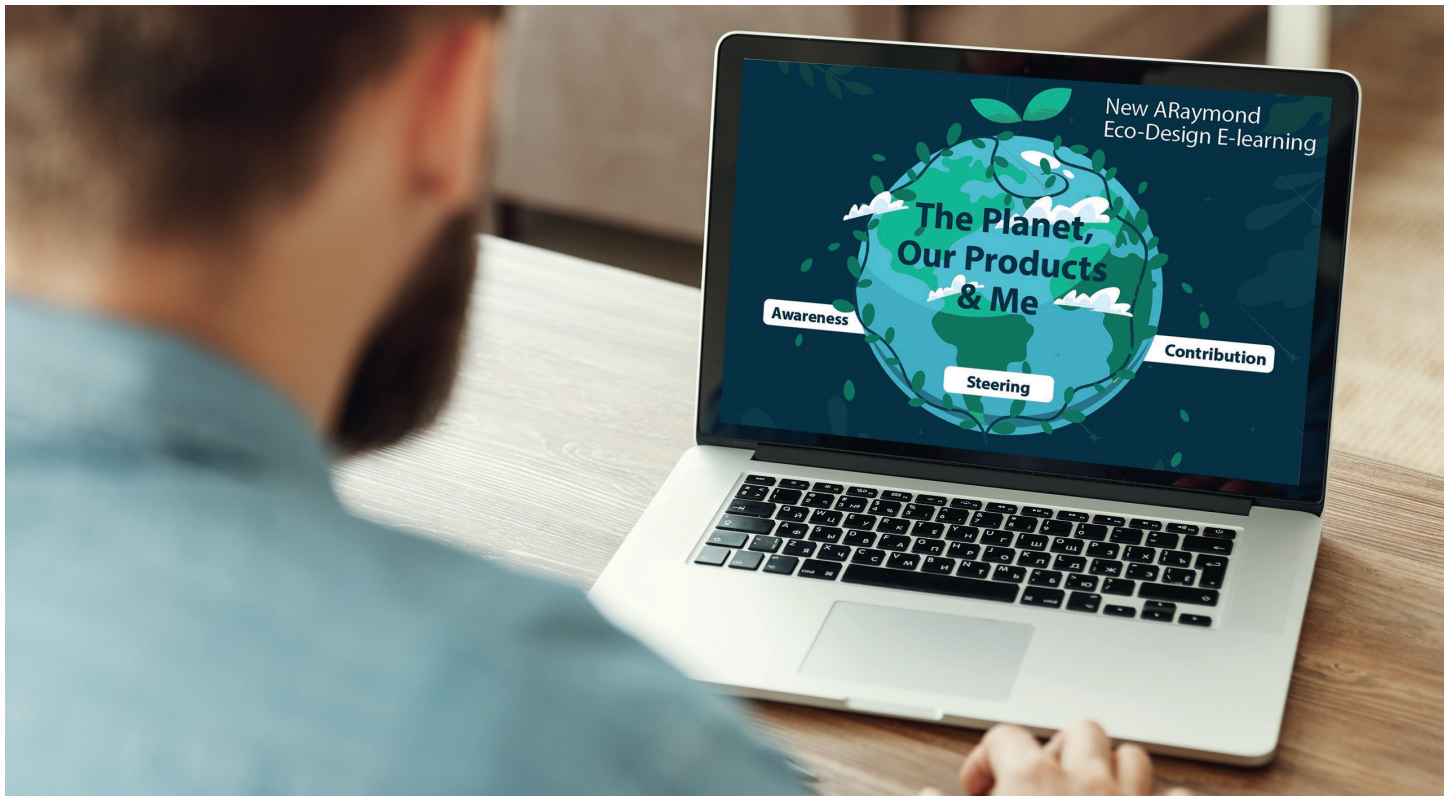
Recycled
Non Recycled

% Recycled content



In 2023 our product development team leaders received eco-design training to better equip them to offer eco-designed alternatives.

Eco-design extends beyond R&D, however. To ensure that all our employees can contribute, we created an e-learning program that will be implemented across the entire ARaymond network that includes three foundational sections: **awareness / contribution / steering**.



2

MEASURING IMPACTS

Using LCAs and our materials database, our R&D and materials experts and buyers are working together to:

MEASURE AND MONITOR

The ratios of new products that include sustainable vs. sensitive* materials, with a particular focus on plastics.

The ratios of sustainable vs. sensitive* plastics we procure.

ASSESS MATERIALS IMPACTS

We use these ratios and data on the impacts of sensitive materials to work with our strategic suppliers on alternatives.

**Materials are considered sensitive as defined in EU regulations like REACH, which aims to make the manufacturing and use of chemicals safer, or the Conflict Minerals Regulation to ensure the responsible sourcing of certain minerals.*



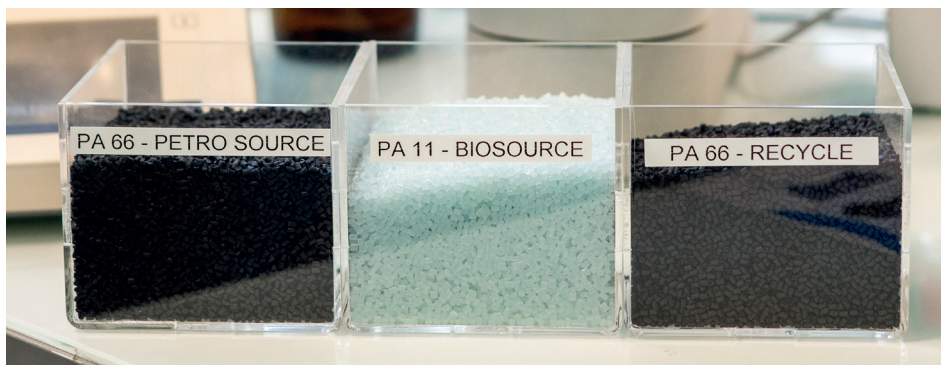
3 ALIGNING OUR PURCHASING PRACTICES

Working with our strategic suppliers and learning about **what sustainable solutions they offer**, whether it is for products we already purchase or could potentially purchase in the future, **is crucial to our circular value proposition.**

For example, our CSR TechDays, bring our purchasing, R&D, and materials experts and our strategic materials suppliers together around:

- ARaymond sustainability targets and supplier solutions.
- Environmental data on materials and products.

Aligning our purchasing practices and circular value proposition has resulted in bio-based, recycled, and mass-balance materials being sourced, qualified, and validated by our experts and integrated into ARaymond products and solutions.



MORE EXAMPLES

2012

Introduction of biodegradable materials into our agricultural solutions and guarantee of recycled materials in all ARaymond products for this market.

2019

Orbit tree nursery fasteners made from sustainable, UV-resistant materials, lengthening their lifespan.





4 PROVIDING SOLUTIONS WITH REDUCED ENVIRONMENTAL IMPACT,
(CONTRIBUTING TO NET ZERO CARBON)

By implementing new processes, tools, and training, measuring impacts, and aligning our purchasing practices, we are making progress toward:

EXISTING SOLUTIONS	NEW SOLUTIONS
We are also improving the environmental performance of our existing products and solutions to reduce both direct, and indirect impacts.	Offering an eco-designed alternative for every new request.
Supporting progress toward our larger goal of reducing our GHG emissions.	

Eco-design is a key driver to reduce our indirect emissions substantially. This is especially true for the automotive market, with its large volumes and high GHG emissions during use.

AS AN EXAMPLE	
Our efforts to reduce the mass of a Quick Connector, along with the selection of new materials, have led to a 54% decrease in the product’s carbon footprint.	Products that are easy to maintain and repair last longer and reduce the impacts of the systems (like vehicles) into which they are integrated, so we are improving part designs and geometries to facilitate disassembly.



Looking further ahead, some of our products could help accelerate the deployment of low-carbon technologies or improve their efficiency. These include:

- Quick assembly solutions for building insulation panels.
- Better thermal insulation reduces buildings’ energy consumption.

Some of these actions are implemented globally, and others are implemented by local teams who fully support our global approach on circularity.



BECOMING A CIRCULAR PARTNER AND PROVIDING ALL-IN-ONE SOLUTIONS

OUR COMMITMENTS

Respond to all customer requests using our acquired expertise and tools to collaboratively create new circular value propositions.

OUR ACTIONS

- 5 Becoming a circular enabler
- 6 Reducing waste

5 BECOMING A CIRCULAR ENABLER

The next phase in building our circular value proposition requires the continued and progressive participation of our entire ecosystem, suppliers, customers, and all other stakeholders:

OUR GOALS

Design and offer products that are reusable or recyclable at the end of their life.

Design and offer products and systems that support disassembly, modularity, and maintenance to help lengthen the lifespans of the systems into which they are integrated.

Help our customers transition to circular business models.

OUR OFFERS

Level 1

Level 2

Level 3





AUTOMOTIVE

OUR PRODUCT DEVELOPMENT TEAMS IN FRANCE HAVE BEEN:

Studying end-of-life processes at automotive dismantlers.

Completing eco-design training focused on dismantling operations.

The knowledge gained, plus our expertise in assembly and disassembly, positions us to contribute to multi-stakeholder system and/or global function redesign workshops.

As vehicle electrification ramps up, we are also working with battery OEMs and recycling leaders to find the quickest routes to battery recycling, disassembly, and second-life applications:

We have designed components that facilitate battery repair and the recovery of copper.



ENERGY

WE ARE DEVELOPING INNOVATIVE SOLUTIONS FOR THE ENTIRE FLOATING PV LIFECYCLE

A 100% recyclable aluminum structure to significantly reduce the overall carbon footprint compared to plastic floaters.

On-site assembly to minimize transportation and the associated impacts.

We are also assessing component reuse and recyclability with an expert in aluminum and plastics recycling located near ARaymond Energies in France.

In the future ARaymond would go beyond offering eco-designed solutions by taking full responsibility for systems' lifecycle and managing their end of life. We are currently laying the groundwork for this third phase of our circular value proposition.

We will measure our progress toward becoming a circular enabler by tracking our ratio of sustainable sales (sales of solutions that are circular by design or that enable circularity). This new KPI is under construction.

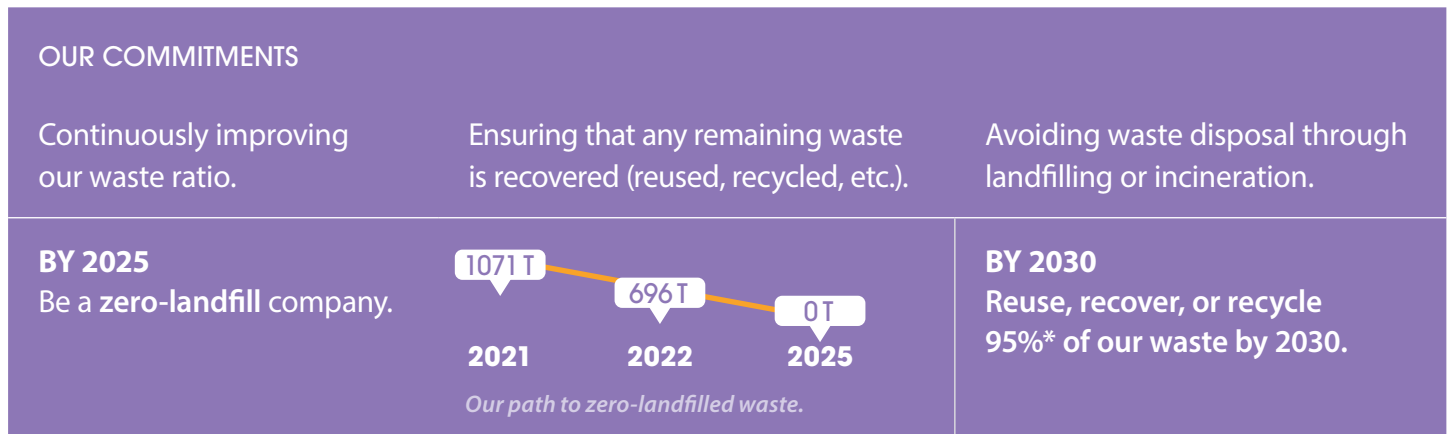




6 REDUCING WASTE

Circular approaches that reduce waste at the source and repurpose waste help mitigate demand for virgin resources.

We are reducing the amount of waste we generate through our operations and throughout our product life cycle by:



*Zero-landfill

SMART PLASTIC WASTE SORTING

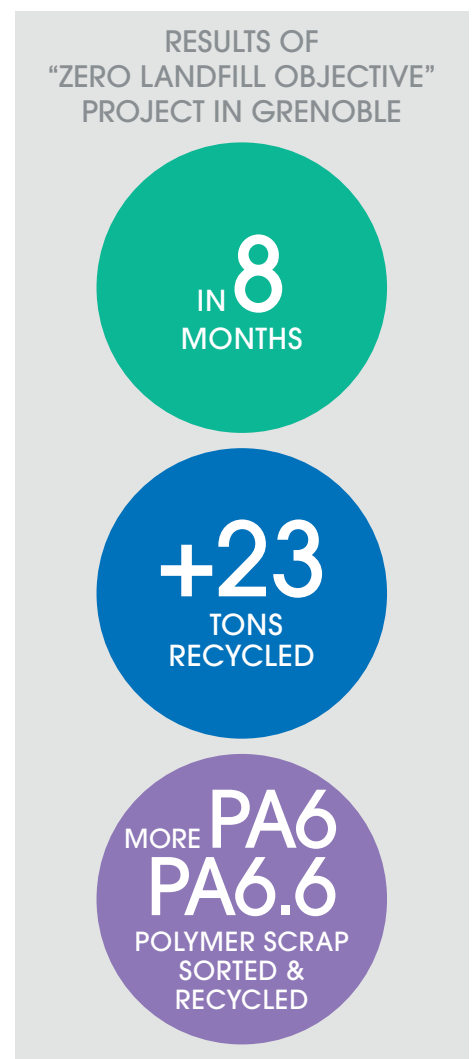
At ARaymond in France, we have developed a smart system to sort plastic components and send them to the appropriate recycling center.



ZERO LANDFILL OBJECTIVE

In February 2021, ARaymond and several other Grenoble-based companies in the French Convention des Entreprises pour le Climat, launched the Zero Landfill Objective project to achieve a 50% reduction in landfilled waste each year.

The objective concerns production-related plastic waste and ordinary industrial waste. It has been integrated into ARaymond's KPIs.





TRANSITIONING TO A CONTRIBUTIVE AND, ULTIMATELY, A REGENERATIVE ENTERPRISE

The French Convention des Entreprises pour le Climat in 2021 and 2022 was the launchpad for our transition to circular and regenerative business models.

Since then, we have introduced several initiatives to keep our transition moving forward.

The ARaymond Think Tank of around 20 ARaymond officers, managing directors, coordinators, and managers, plus other companies interested in partnering with ARaymond on developing circular and regenerative business models.

Currently in France, the ARaymond Think Tank will be expanded to all regions where ARaymond operates to stimulate the development of new concepts, accelerate ongoing initiatives, and foster collaboration within and beyond ARaymond.



Socio-ecological roadmap to becoming a contributive company and, ultimately, a regenerative company. This roadmap, which aligns with our global strategy, focuses on skills development, servant leadership, eco-design, low-carbon market segments and solutions, new offers, new expertise, and new partnerships in a climate of economic peace to support tomorrow's regenerative economy.





URBAN CANOPEE PARTNERSHIP

Partnership with Urban Canopee, a France-based startup that is deploying urban plant canopies to reduce heat, restore biodiversity, fight air pollution, and improve quality of life. After our two companies met in 2017, ARaymond donated 3,000 standard clips for mock-ups of Urban Canopee's product, the Corolle.



TESTIMONIAL

Urban Canopee's idea to cool down cities with plants is in line with the core values of ARaymond, who holds a strong belief that we are part of the global ecosystem. We take responsibility for protecting our environment, both now and for future generations.

Stephane Gelibert,
ARaymond Business
Development Manager
Industrialized Construction

Read more about
our partnership with
Urban Canopee



We adapted our automotive fasteners to create a strong fastening solution that can withstand wind and heavy loads while remaining flexible and lightweight.



“ The commitments to sustainable development made by ARaymond and the action plan presented to us appear quite comprehensive, covering all important dimensions. Given our focus on circularity and sustainability, we consider it crucial that our suppliers also share these values and respond to our CSR requirements. We have regular exchanges with ARaymond on our respective strategies. Additionally, we closely follow ARaymond’s progress in circularity and are familiar with the value propositions the teams are working on, particularly those related to improving disassembly, notably for batteries. ”

Sébastien Villette
Business Development Director,
Circular Economy, Stellantis



“ I’ve had the opportunity to work with ARaymond teams on CSR-related topics, particularly by presenting the End-of-Life Vehicle (ELV) sector and discussing its impact on the design of our products.

For me, key priorities include enhancing design for recycling and integrating recycled materials. It’s crucial to explore these improvement areas to best integrate environmental concerns into the design of our products. ”

Olivier Gaudeau
Director, Public Affairs and
Automotive Recycling Projects
Indra Automotive Recycling