



INNOVATIVE

2024 Annual and Sustainable Performance Report

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Arkema has unique and longstanding experience in bio-based materials. Thanks to our proactive R&D policy, we are constantly innovating with renewable feedstocks in our three segments: advanced materials, adhesives and coating solutions.



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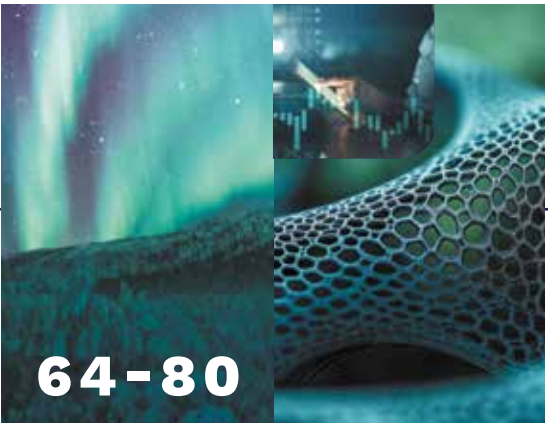
For Arkema, AI is a powerful driver of innovation and a valuable resource for optimizing industrial processes and customer relations. Take a deep dive into this technological revolution.



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SOCIAL RESPONSIBILITY

Arkema recruits around 2,000 employees worldwide every year and ranks among the most attractive companies in the industrial sector. Our bold sponsorship of women's sport, new immersive showrooms open to the public that showcase our innovations, and sponsorship initiatives that get people involved are just a few of the actions that contribute to our high employee engagement rate!



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SHAREHOLDER HANDBOOK

Our 2024 handbook reviews the year's highlights, our governance bodies and our key financial and non-financial performance.

“Our industry lies at the heart of the ecological and social transition.”

PAR THIERRY LE HÉNAFF, CHAIRMAN AND CHIEF EXECUTIVE OFFICER OF ARKEMA

Thierry Le Hénaff shares his thoughts on the major environmental, human and technological challenges shaping Arkema's development.

Reconciling industry and ecological transition

Industry is a driver for progress, a means of transformation and a pillar of sustainable development. But it still divides opinions in too many countries. It is important to change this perception and state loud and clear that industry—and the chemicals industry in particular—generates innovations and offers solutions to the challenges of the environmental and energy transition.

Technology and the chemicals industry are not at odds with the environment. On the contrary, they are its strongest allies. Our responsibility is not limited to the environment. The chemicals industry contributes

greatly to the economy—it generated global revenues of around \$5 trillion in 2024—and plays a key role in social and regional cohesion.

Our companies feed into all industrial sectors: transportation, construction, electronics, consumer goods and more. They hire and train people and engage with the community in the many regions where they operate.

My vision for Arkema reflects this vision of the contribution of chemicals, especially materials chemistry. We can make a positive impact on today's world through our innovations, our commitment to society and our technologies. This is an opportunity and a source of pride for our people.

Sustainable innovation at Arkema: rising to climate and energy challenges

Innovation represents progress. It turns challenges into opportunities. Our 1,800 researchers have embedded innovation in our DNA to drive our growth. Every year, 90% of the patents we file are aimed at obtaining tangible benefits for sustainable development.

We invest heavily in ground-breaking solutions: bio-based and/or recyclable materials, materials for 3D printing, composites that reduce the weight of transportation, new-generation adhesives that make the components they bind recyclable, additives and resins that significantly improve the performance of materials and paints, and many other innovations that are essential for shaping tomorrow's world.

Our product offer is accelerating our contribution to the UN Sustainable Development Goals (SDGs) with more efficient and sustainable materials. We expect to increase the proportion of our sales that make a significant contribution to SDGs from 53% today to 60% by 2030.

Our ambition for innovation is clear: to reduce the environmental impact of our plants and processes, of course, but also to use our materials to contribute to the transition to clean, carbon-free transport, more efficient renewable energies, sustainable low-emission construction, and cutting-edge electronics and manufactured goods that contribute to a more responsible economy.

What I want to do is make Arkema a driving force in the transformation of our society

Arkema's objective is to make a positive contribution to society, supporting our customers' innovations with high-performance, stand-out solutions and meeting the social and environmental needs of our various stakeholders.

But our efforts go beyond our product portfolio and innovation. We have one of the most ambitious Climate Change Plans in the chemicals industry. By 2030, we will have reduced our greenhouse gas emissions (scopes 1 and 2) by nearly 50% and our scope 3 emissions by 67% compared to 2019, on our way to net zero by 2050.

We are also stepping up our commitment to society by working towards greater diversity and inclusivity in our organizations. We aim to have 35% women among senior management and executives by 2030. We continue to strive for excellence in safety, with a workplace injury rate that is already among the best in the industry (0.8 per million hours worked) and continues to improve, with a target of 0.7 by 2030.

Talent: the beating hearts of our future

Nurturing talent is an effective way to prepare for the future. Every year, we welcome nearly 2,000 new employees from around the world. This represents the renewal of about 12% of our workforce. Their induction, training and development are essential to make Arkema an increasingly agile, innovative and high-performance group.

We inaugurated the Group's new headquarters in La Défense last March in this modern, outward-looking





“We have one of the most ambitious Climate Change Plans in the chemicals industry. By 2030, we will have reduced our greenhouse gas emissions (scopes 1 and 2) by nearly 50% and scope 3 emissions by 67% compared to 2019, in order to reach net zero by 2050.”

spirit, a few months after opening our new US headquarters in the Philadelphia region.

We are guided by a strong culture that is rooted in both high standards and a caring culture, driven by our five core values: solidarity, performance, simplicity, empowerment and inclusion. I am deeply committed to these values. They are not empty words; they are the foundation of our identity and enable us to attract, develop and retain the right people to accompany us on our journey.

The future is also shaped by the younger generations. They are hungry for challenges, engagement and purpose. They want to build, innovate and transform. We must listen to them, welcome them and give them what they need to build a better world.

An inclusive, high-performance company

Inclusion is not a concept; it is a belief. At Arkema, it is a core value, a people-centered principle based on respect, tolerance and openness. It fosters our capacity to innovate and gives our company the power to adapt and evolve. It also guides our sponsorship activities.

We need diversity at every level in the workforce and in the executive team. It enriches our relationships with our partners, customers and other stakeholders. We must use it to leverage creativity and commitment. Diversity in people's backgrounds, opinions, skills, generations and experiences is a strength and a driver of success.

Our company must have the most inclusive and balanced ecosystem. It must be a place where every talent can thrive, where every voice

counts, and where diversity is a source of excellence and progress.

AI: an industrial revolution we are part of

Artificial intelligence will disrupt entire sectors of our economy. Rather than fear it, we must master it and use it to accelerate our transformation and competitiveness. It is already helping us to optimize our operations, from R&D to production and marketing.

In the lab, our AI tools can predict the properties of materials and reduce development costs and waste. In our plants, these tools improve predictive maintenance, while in marketing they enable us to provide more responsive, personalized customer service.

More broadly, AI is emerging as a catalyst for efficiency, freeing our employees from repetitive activities and allowing them to focus on more value-added tasks. We will bring ambition and responsibility to this revolution.

2024, a year of resilience

For many, the past year will be remembered as one of the most challenging ever for the chemicals industry. A weak macroeconomic environment, particularly in Europe, put our sector to the test.

Nevertheless, Arkema held its ground thanks to its cutting-edge technologies, its complementary product portfolio, divided into three coherent segments—Adhesives, Advanced Materials and Coating Solutions—and its balanced global footprint.

Despite the challenges, our performance remained solid, with volumes up 2.4% (3.1% in our

specialty materials) and an EBITDA margin of 16.1%.

These figures demonstrate our ability to maintain a high level of profitability in any economic environment.

Looking beyond the numbers, 2024 was very busy. We continued to implement our long-term strategy, announced in September 2023, with the completion or advancement of a number of attractive projects.

As we turn the page on this complex year, one thing is certain: our resilience, our commitment and our ability to innovate will drive our success in 2025 and beyond.

2025: agility, ambition and growth

2025 will bring many challenges in an uncertain external environment, both economically and geopolitically. But it is in adversity that we outdo ourselves, and we have everything we need to move forward with purpose.

More than ever, in 2025 we need to be:

- Agile, to adapt rapidly to market developments.
- United behind our One Arkema culture, offering customers in our key markets the best solutions in our three segments: Adhesives, Advanced Materials, and Coatings Solutions.
- Excellent in implementing our projects, from the integration of our recent acquisitions (Ashland's engineering adhesives in the US, the Korean company Piam, and more recently, Dow's laminating adhesives) to the development of new production lines in our three key regions.
- Competitive, by accelerating our cost-cutting initiatives.

“We can have a positive impact on today’s world through our innovations, our commitment to society and our technologies. This is an opportunity and a source of pride for our people.”

- Ambitious, by accelerating the growth and development of new businesses.

2025 will be another exciting year that should allow us to accelerate towards our 2028 goal!

“We have one of the most ambitious Climate Change Plans in the chemicals industry. By 2030, we will have reduced our greenhouse gas emissions (scopes 1 and 2) by 50% and scope 3 emissions by 67% compared to 2019, in order to reach net zero by 2050.” ●

€9.5 billion
revenue

16.1%
EBITDA margin

Operations in
55 countries

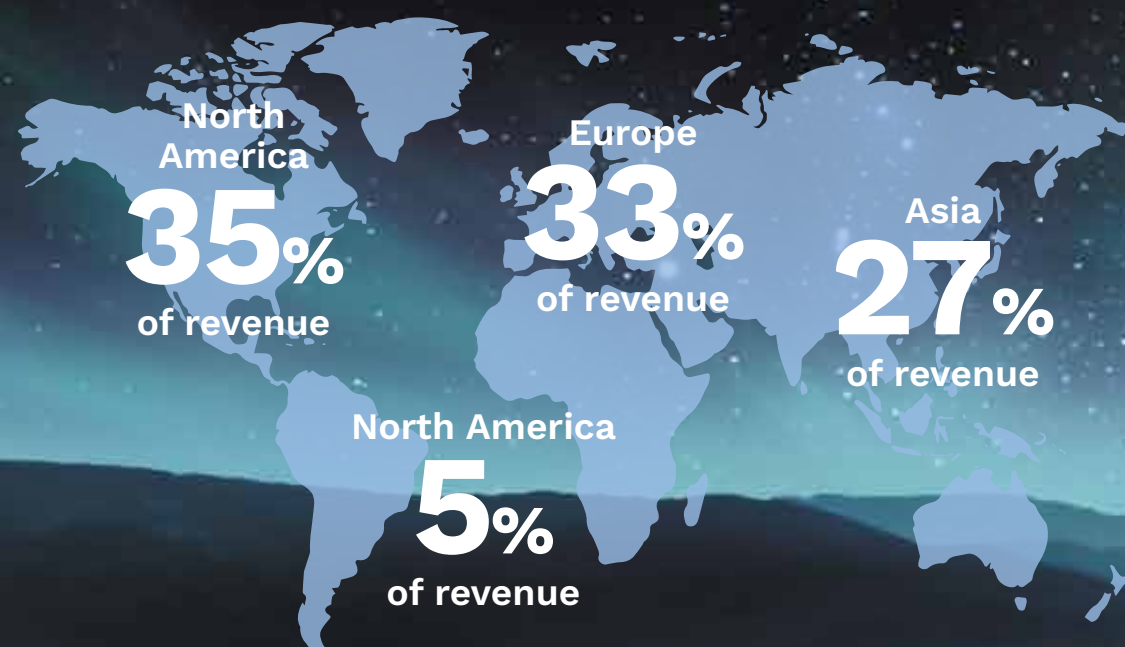
Ranked
1st to 3rd
 worldwide in
 our main businesses

157
production plants
worldwide

21,150
employees

2,000
employees hired in 2024

A GLOBAL INDUSTRIAL GROUP
WITH BALANCED REVENUE STREAMS*



ADVANCED MATERIALS, COATINGS AND ADHESIVES
SERVING 5 KEY HIGH-GROWTH MARKETS



Green energy
and electric
mobility



Efficient
buildings and
homes



Sustainable
lifestyle and
consumer goods



Advanced electronics

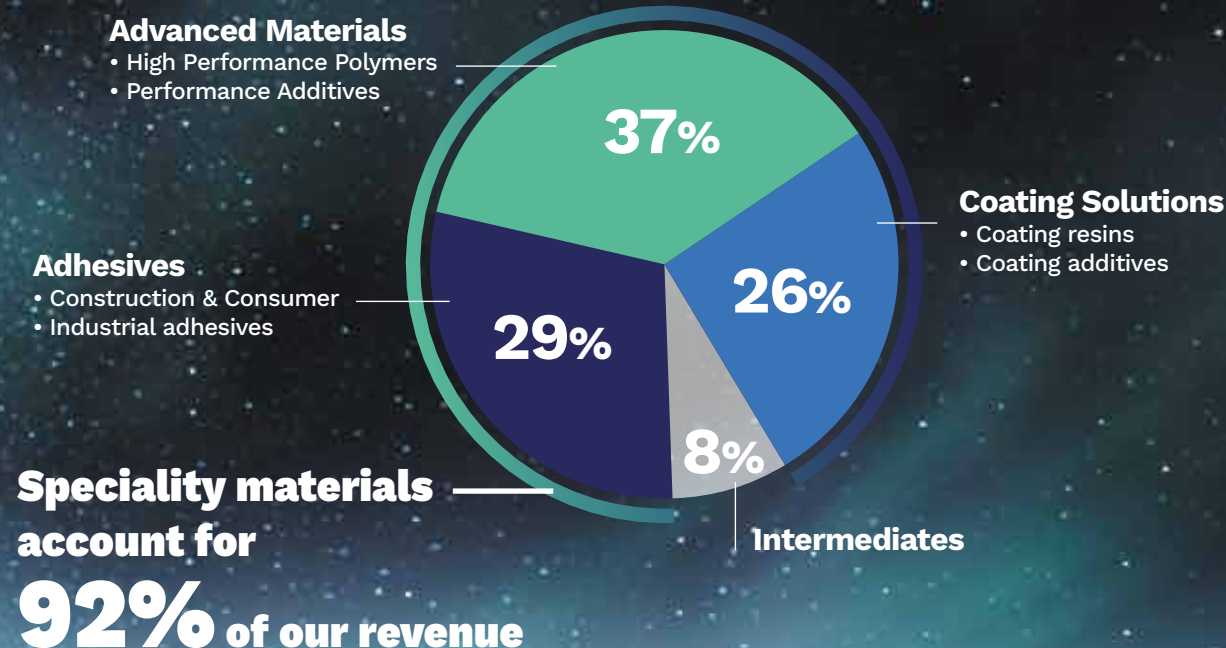


Health and wellbeing

• More than 50% of
our R&D expenditure
is dedicated to these
5 markets

• Average annual
revenue growth rate
3 times higher than
the Group average
du Groupe

ACTIVITIES IN
3 MAIN DIVISIONS AND 6 BUSINESS UNITS



SUSTAINABLE INNOVATION
IS AT THE HEART OF
WHAT WE DO

4 SUSTAINABLE INNOVATION
PRINCIPLES GUIDE
OUR R&D PROJECTS

1,800
 researchers
 across the 3 regions

2.9%
 of revenue spent
 on R&D



Lightweight
materials and
design



Bio-based materials
and materials
obtained through
biosynthesis

245
 new patents in 2024,
 of which
90%
 relate to sustainability

53%
Impact+ revenue
 (significant contribution
 to the United Nations
 Sustainable Development
 Goals)



Circular
economy



More efficient
and sustainable
processes



01

BIOSOURCING



DECARBONIZATION TARGET: ARKEMA COMMITTS TO BIOSOURCED MATERIALS

Time is running out to limit global warming to 1.5°C by 2100. It is vital to decarbonize all industrial sectors. One way to achieve this is by using plant-based, renewable raw materials, which absorb CO₂ as they grow. As a leader in materials chemistry, Arkema has put these bio-based alternatives at the heart of its innovation strategy. With longstanding expertise in castor chemistry and a proactive R&D policy, Arkema is working closely with its markets to develop a wide range of low-carbon solutions that combine responsible sourcing with high performance.

While global industry still relies heavily on fossil and mineral raw materials, the climate emergency and the increasing scarcity of these non-renewable resources require us to make profound changes to our supply streams. Alongside measures relating to energy efficiency, sustainability and recyclability, part of the solution lies in using plant-based, renewable materials with a significantly smaller carbon footprint. "It is up to the materials chemistry sector to drive this change and realize its full potential," says Armand Ajdari, the group's R&D Vice President. "We have two major approaches at our disposal: developing new pathways and processes based on renewable raw materials or biotechnologies from the outset, and identifying bio-based substitutes that can be integrated into existing processes at acceptable costs." Arkema has long identified bio-based materials as a pillar of its strategy and is committed to this twofold ambition.

The complex challenge of increasing the use of bio-based materials

Despite the decarbonization potential

of renewable materials, increasing their use in the chemicals industry is complex. In 2024, Arkema's solutions made with more than 25% bio-based materials accounted for around 10% of its revenues. This figure has remained stable for several years and is among

the highest in the market, thanks to the Group's expertise in castor oil chemistry (see page 11). "To increase the share of bio-based products, we are identifying value chains with good potential for scaling up, and showing the markets we can provide solutions that

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are as effective as their fossil-based equivalents,” explains Armand. Once we have established their technical feasibility, we must anticipate the vital issue of sourcing sufficient bio-based raw materials for industrial production. “In conjunction with the Purchasing and Sustainable Development teams, we are constantly monitoring a wide range of resources. We file anticipatory patents on some technologies, paying close attention to the criterion for non-competition with food resources,” continues the R&D Director.

When a resource is available in small volumes, the mass balance approach can be a means of incorporating it into production chains (see pages 18-19) and supporting those customers looking to source bio-based feedstock. The key is to balance market demand with the feasibility of an affordable solution and the ability to source the materials at any given time!



LIFE CYCLE ASSESSMENT:
AN OBJECTIVE DECISION-MAKING TOOL

To support its sustainable development goals, Arkema has introduced a life cycle assessment (LCA) process for the products and solutions it puts on the market. The Group’s methodology complies with international standards (ISO 14040 and 14067), which are used to quantify each product’s environmental impacts, such as the carbon footprint related to greenhouse gas emissions, energy consumption, and resource use. The LCA covers the entire value chain from cradle to grave (the extraction of the raw materials to the product’s end of life) or, more generally from cradle to gate—when the product leaves the factory.

This approach quantifies the environmental impact of using different materials and energies as well as emissions and identifies the main opportunities to reduce a product’s environmental footprint. LCAs have shown that sourcing has a significant impact on the carbon footprint of Arkema’s products and that using bio-based materials in place of fossil fuels significantly reduces the carbon footprint of products brought to market (see PA11 and PA12 case studies below). An LCA provides objective, quantified data for comparing the environmental impact of recyclable solutions. At the end of 2024, 68% of Arkema’s sales volumes were covered by LCAs; the goal is to reach 90% by 2030.

Unique expertise
in castor chemistry

Arkema has been developing unrivaled expertise in castor oil for over seventy years. This business line, which produces the iconic polyamide 11, supplies 100% bio-based molecules that combine high performance with a low carbon footprint and recyclability for a wide range of applications.

Sustainable growth for Rilsan®
polyamide 11 and Pebax® Rnew®
elastomer

Arkema increased its global production capacity for this bio-based Rilsan® polymer by 50% with the opening of its Jurong Island site in Singapore in 2022. This new-generation plant is dedicated to the synthesis of amino 11 (monomer) and polyamide 11. Two years later, the markets are responding. “Rilsan® polyamide 11 showed solid growth in 2024, outpacing global GDP,” notes David Dupont, Vice President Specialty Polyamides. “This growth is fueled by the material’s 100% bio-based composition and its exceptional lightness, toughness and temperature resistance, making it ideal for a variety of industrial applications in the automotive and electronics sectors.” Rilsan® polyamide 11 is also used in Pebax® Rnew® elastomer, the material of choice for sports equipment such as soccer cleats, running shoes and skis.

Oleris® range: the other castor oil
chemistry

The main fatty acid in castor oil has 18 carbon atoms. Eleven of these are used to synthesize amino 11, which is then used to produce Rilsan® polyamide 11. The remaining seven-carbon chain is used to make various products that Arkema markets under the Oleris® brand. These 100% bio-based products have many recognized applications in the lubricant, cosmetic, and pharmaceutical industries. One Oleris® product is also a key component in Bostik’s Fast Glue Ultra+ instant adhesive (see page 15).



Mizuno Wave rebellion pro 2



Canterbury Speed



Kiprun KD900X
by Décathlon



Cloudneo by On Running



Lacoste AG-LT23

Some famous sports shoe brands use soles made with bio-based Pebax® Rnew® thermoplastic, which provides exceptional comfort and energy return.

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Like polyamide 11, the Oleris® range is available worldwide, including via the new plant in Singapore, which has increased production.

**Castor beans:
a highly sustainable supply chain**

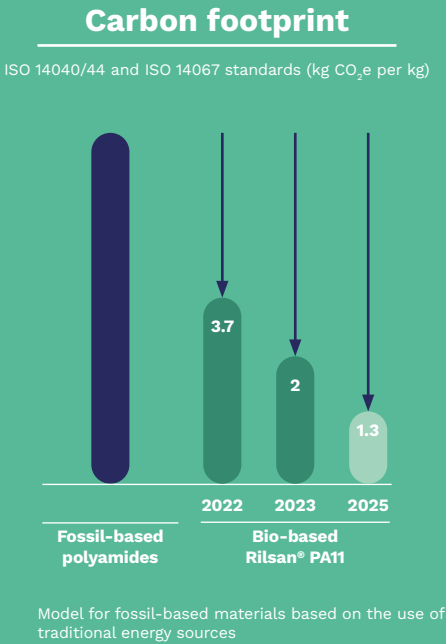
As a major purchaser of castor oil, Arkema sources most of its supply from India. The oil is obtained from castor beans grown by farmers, primarily in the Indian state of Gujarat. The crops are cultivated on semi-arid land that is not well suited for food production. Through the Pragati program, launched in 2016 in collaboration with BASF, Jayant-Agro Organics (India's leading producer of castor oil and its derivatives) and the NGO Solidaridad, Arkema has been helping farmers implement sustainable practices that require minimal water and resources. This progressive program has provided training for over ten thousand farmers, of whom eight thousand have been audited and certified. Compared to regional averages, water use has decreased by around 33% on certified farmers' plots, where these flows are accurately measured. ●



80%
The carbon footprint
of PA11 is 80% lower
than PA12.

**POLYAMIDE 11: AN EVEN LOWER
CARBON FOOTPRINT**

Thanks to its raw material, castor oil, Rilsan® polyamide 11 has an 80% lower carbon footprint than polyamide 12, its fossil-based equivalent, on leaving the factory. In absolute terms, producing PA11 from growing the castor beans to the finished product results in 1.3 kg of CO₂ emissions per kg of PA11. This figure has significantly decreased in recent years owing to changes in Arkema's energy mix, particularly the biomethane supply contract with Engie in 2023 to power the Marseille plant. The goal of dropping below one kilogram of CO₂ emitted per kilogram produced is now more achievable than ever; it has already been achieved for PA11 made from 50% recycled material (see page 20).



**SURFACTANTS: A WIDE
RANGE OF BIOSOURCED
SOLUTIONS SERVING MANY
INDUSTRIES**

Specialty Surfactants is the Arkema business unit that uses the highest proportion of bio-based raw materials relative to sales. These materials, such as vegetable oils (including castor oil) and animal-origin fatty acids, are used to make many innovative solutions.

For example, the Cecabase RT® additive plays a key role in recycling road asphalt and lowering temperatures (see page 27). In the mining industry, surfactants made from 90% bio-based resources are used to purify lithium and are both biodegradable and non-ecotoxic.

“We are pioneering the bio-based approach and are looking to extend this to new markets,” explains Gilles Barreto, R&D Director Specialty Surfactants. “In 2024, we launched a 99% bio-based solution for fertilizer coatings in Europe, which protects granules during storage and transportation. In 2025, we will begin customer trials with a new coating to meet organic certification requirements.”



In response to the growing demand in the fertigation market (application of both irrigation and soluble fertilizers), Arkema is developing castor oil-based surfactants to improve nutrient absorption via plant leaves. This biodegradable, non-ecotoxic solution reduces the use of essential agricultural resources such as nitrogen, potassium and phosphorus.



When adhesives go bio-based

Arkema’s subsidiary Bostik, a major player in the adhesives sector, is leveraging its formulation expertise to incorporate more renewable feedstocks into its solutions and decarbonize its industrial processes, from the DIY and construction markets to packaging.



“In the adhesives and adhesive solutions market, demand for bio-based feedstocks is not yet strong,” says François Court, R&D Director at Bostik. “The trend among our customers is to reduce their carbon footprint, so it is up to us to demonstrate on a

case-by-case basis that bio-based materials can be an excellent solution.” Adhesive chemistry is based on formulation chemistry, with end products that incorporate multiple components. This makes it suitable for substitutions, whereby a bio-based



component replaces its fossil equivalent. This is one of the approaches favored by Bostik to reduce the carbon footprint of its products across many categories. In 2024, it launched Seal'N'Bond Evolution, a sealant for the DIY and construction segments which performs similarly to the original Seal'N'Bond range. It contains 46% bio-based raw materials, achieved by replacing its petroleum-based fluidizing agent with an equivalent developed by Bostik’s R&D department that is obtained from soybean oil derivatives. To further reduce its carbon footprint, the finished product is sold in stores in a 40% recycled PET cartridge.

Industrial packaging: an exemplary partnership for an 80% bio-based adhesive solution

Bostik applies its decarbonization strategy to many industrial applications that are less visible to the public but often involve large volumes. One example is the Kizen™ LIME range of adhesives for paper and cardboard packaging, also launched in 2024 for consumer markets. This hot-melt adhesive, used to seal cardboard packaging, contains three main components: a tackifying resin, an “adhesive agent” developed by Bostik from wood derivatives, and a polymer designed in partnership with Dow, which reduces the carbon footprint by nearly 100% by using a food industry byproduct. It is applied at a

low temperature using a new-generation melter from Nordson. “This major innovation shows how the entire industrial ecosystem is adapting in response to the need for decarbonization,” says François Court. “We are redesigning solutions by substituting bio-based components, developing new supplier partnerships and deploying certified material traceability systems in factories to guarantee the bio-based content of formulations.” With the Kizen™ LIME range,

which offers a bio-based alternative for the packaging sector where volumes are high, Bostik is taking a significant step forward in its decarbonization strategy.

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FAST GLUE ULTRA+ INSTANT ADHESIVE: IT HAD TO BE ARKEMA

If there is such a thing as a “breakthrough” innovation in instant adhesives, then Bostik’s Fast Glue Ultra+ certainly fits the bill. There are no substitute raw materials, only a new synthesis process resulting from Arkema’s expertise in castor oil chemistry and adhesive formulation. This adhesive is 60% bio-sourced thanks to the use of n-heptanol, a byproduct of amino 11 synthesis that the Group’s R&D team have been working on since 2022. It sets instantly, is as strong as the best products on the market, and offers better moisture resistance and temperature stability. The technology platform has just been introduced under the Born2Bond™ K-85 brand for assembly applications in consumer electronics. High temperature and humidity requirements rule out the use of superglue in these applications.

The name K-85 refers to the industry-standard durability test, which involves 1,000 hours of testing at 85°C and 85% humidity. The Bostik product is the world’s first instant adhesive to pass the test. It is another example of an Arkema product that combines a bio-based formulation with high performance





Mass balance accelerates transition

The mass balance approach is an emerging trend in the chemicals industry. Also known as “bio-attributed,” it is an effective means of incorporating more renewable feedstocks into production without affecting processes, while reducing the carbon footprint of finished products. This is how it works.



On a production line that produces 100 batches, you might introduce a portion of raw material A into its bio-based version equivalent to the quantity used for one batch. You then mix the fossil-based and bio-based raw materials with the same active

ingredients. At the end of the process, out of the 100 batches obtained, you can offer customers either one fully bio-attributed batch of raw material A or two 50% bio-attributed batches or four 25% bio-attributed batches, all of which are certified and can be

promoted as such. These certificates are not available to customers of the other batches.

This is the mass balance, or bio-allocation, model, which has been developing in the chemicals industry for several years. “This approach is similar to what is happening in the energy sector with green electricity certificates, and has three advantages in materials chemistry,” explains Sylvie Despret, Arkema’s Sustainable Offer Manager. “First, it allows us to start using renewable resources in production, even when they are only available in small quantities. Second, we can do this without needing to change existing industrial systems. Most importantly, the performance of the end products remains the same, meaning customers do not have to reformulate their products.” Ultimately, “bio-attributed” batches—for which a specific number of certificates guarantees the initial quantity of renewable raw materials—meet customers’ expectations, allowing them to share this in their



communications. And customers benefit from a certificate attesting to the bio-based content introduced at the start, and make a tangible contribution to decarbonizing the value chain.

Stringent traceability system

Although the process is simple, mass balance requires rigor and transparency. ISCC (International Sustainability and Carbon Certification), a NGO, defines the methodological framework, and the entire production chain must be certified and audited annually to ensure traceability, from the raw materials of origin to the finished product. “ISCC+ certification, awarded to the entire plant for one year, mainly covers the implementation of a flawless traceability system for raw materials and accounting of production batches,” notes Sylvie Despret. “It requires manufacturers to commit significant resources.” In practice, therefore, the decision to develop a mass balance

offering is made on a case-by-case basis depending on the availability of bio-based or recycled raw materials and the maturity of the markets.

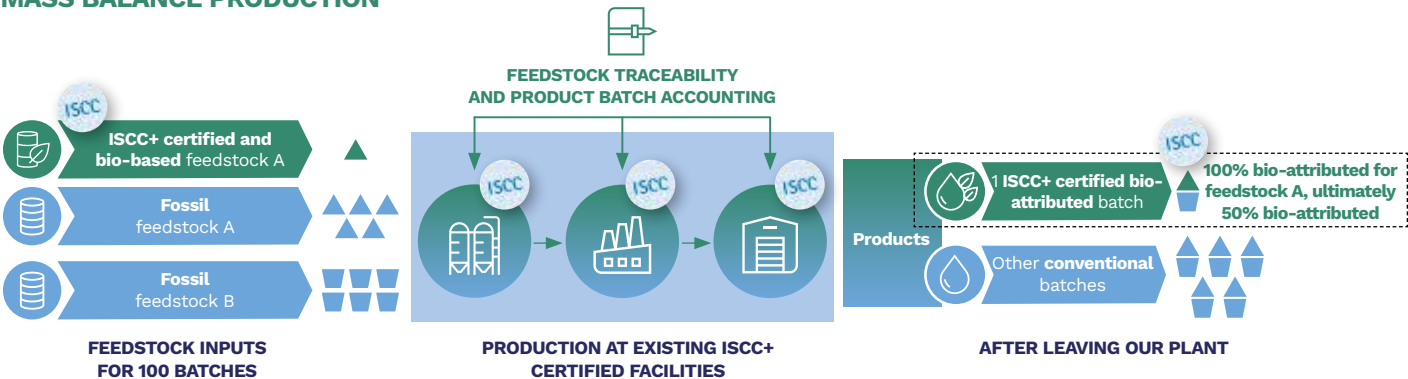
An expanded offering at Coating Solutions

At Arkema, the mass balance offering is now an attractive way for some production lines to quickly replace fossil-based feedstocks with bio-based ones. This is the case with certain Bostik products and Kynar® PVDF, for which bio-based grades have been available since 2024. The mass balance offering has mainly developed within the Coating Solutions segment, however, driven by market demand. The key objective is to support the development of more sustainable solutions for coating and protective applications in batteries, advanced electronics and construction materials such as paints and varnishes. “We have ISCC+ certification for most of our sites in Europe and Asia, and we have obtained our first certifications in the United States. This enables us to offer a bio-attributed range with a lower carbon footprint to interested customers for almost all of our products. We achieve this by using raw materials based on recycled cooking oils,” explains Hélène Pernot, Marketing Director Sustainable Offerings for Coating Solutions. “This is a key feedstock for our entire downstream supply chain.” For example, we have a range of value-added resins for the textiles industry and a range of specialty thickening agents widely used in the paint industry, now up to 30% bio-based, reducing the carbon footprint by up to 40%.

AT CARLING, ETHYL ACRYLATE IS NOW PRODUCED WITH BIOETHANOL

Alongside its mass balance offering, Coating Solutions has for a long time been developing a range of bio-based solutions using the classic “segregated” approach (where the bio-based content is inherent to the production process), such as Synaqua® resins which have a high plant biomass content. In 2024, the segment expanded its bio-based offering to include other products, thanks to a major change in sourcing at its Carling site (France), where ethyl acrylate, which contains 40% ethanol, is now produced using bioethanol derived entirely from plant-based materials. “This gives us a 40% bio-based ethyl acrylate,” says Hélène Pernot, Marketing Director Sustainable Offerings for Coating Solutions. “This is a key feedstock for our entire downstream supply chain.” For example, we have a range of value-added resins for the textiles industry and a range of specialty thickening agents widely used in the paint industry, now up to 30% bio-based, reducing the carbon footprint by up to 40%.

MASS BALANCE PRODUCTION





02

RECYCLING



RECYCLING AND THE CIRCULAR ECONOMY ARE SPEARHEADING OUR INNOVATION

From using recycled raw materials, producing recyclable materials and creating the requisite circuits to developing materials and bonding solutions that facilitate downstream recycling of manufactured products, and recovering and reusing by-products and consumables... At a time of widespread resource scarcity, the materials industry must do everything it can to integrate as much circularity as possible into its value chains, from one virtuous circle to the next.

In 2024, Earth Overshoot Day fell on August 1. According to the Global Footprint Network, this is the day when human consumption exceeds the planet's capacity to regenerate sufficient resources for that year. Along with climate change, growing resource scarcity is now the greatest threat to our societies. This concerns fossil and mineral resources, of course, but also renewable resources derived from biomass in a context of increasing pressure on land use. This presents global industry with the challenge of circularity: a material's recyclability and the effective recycling of a manufactured product are increasingly decisive in terms of social responsibility, sustainability and, in the future, competitiveness.

One circle can contain another

As a major player in materials chemistry, Arkema has made this requirement one of the pillars of its innovation policy. The Group has developed cutting-edge expertise in the synthesis of high-performance polymers, polyamides and PVDF. These thermoplastic materials, whether bio-based, partially bio-based or petroleum-based, can be recycled using a proven mechanical process. Most importantly, they can be recycled on an industrial scale and marketed as such, with growing success among customers (see page 20). At the



same time, Arkema is developing a range of solutions whose properties help improve the recyclability of manufactured products at the end of the chain: in the adhesives sector, where the challenge of disassembly is increasingly important, particularly in automotive and packaging, but also with a wide range of additives—for returnable bottles or road asphalt, for example—to help create a virtuous circle of recycling (pages

28 to 29). Arkema is also working to increase the proportion of recycled raw materials in its own products, particularly in Coating Solutions, where Reafree® powder coatings for household appliances are made from 40% recycled plastic. Lastly, where relevant, the Group is researching and implementing processes to recycle its by-products and industrial containers (pages 30 to 31).

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Polymers made from recycled materials can perform extremely well

Arkema, the world leader in high-performance polymers, has been developing its recovery and recycling channels for years. The Group now offers a complete range of recycled grades with intact properties and a much lower carbon footprint than virgin materials.

Following its acquisition of Agiplast in 2021, Arkema now has significant industrial capabilities for recovering and recycling its high-performance polymers: Rilsan® 11 polyamides, Rilsamid® 12 polyamides, Pebax® elastomer and Kynar® PVDF. “Agiplast’s plant in Casalbuttano, Italy, has world-renowned expertise in mechanical recycling processes,” explains François Tanguy, Recycling Business Manager, High-Performance Polymers. “The Group has provided it with materials, production volumes, its customer portfolio and market knowledge.” Three years later, the strategy has paid off and high-performance polymer recycling has been taken to a whole new level. As part of its Virtucycle® program, Arkema offers a wide range of materials with effective

recycling rates of 30% to 50%, and soon 70% to 95%, with performance equivalent to virgin material. “The only thing we can’t really recover is the original color!” says François. “But we are making great technical progress in offering uncolored materials.” The “raw material” for this virtuous circle now consists mainly of production waste collected from the plants of the Group’s customers or from its own sites. At a later stage, this will include more polymers from end-of-life recovery where economically viable, such as cars.

Revenue growth in all markets

Customers have responded positively. “We are seeing good revenue volume growth with new developments in



all our application markets,” says François. This is the case in B2C segments, particularly for Pebax® elastomers in sports equipment, but also in industrial applications such as recycled flame-retardant PA 12 grades. Their success owes much to mechanically recycled polymers’ low carbon footprint. “The difference is particularly marked for 50% recycled PA 11 and PA 12, which offer around 45% emissions’ savings compared to their virgin equivalent,” says François.

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RECYCLABLE COMPOSITES: ELIUM® RESIN BREATHES NEW LIFE INTO WIND POWER AND WATER SPORTS

Elium® thermoplastic resin, designed for the manufacture of fully recyclable composites, made further progress towards certification for the manufacture of wind turbine blades in 2024. The Zebra (Zero Waste Blade Research, 2020-2024) project, consisting of partners Arkema, Engie, Suez and fiberglass manufacturer Owens Corning, demonstrated the economic viability of manufacturing an 77m Elium® resin blade, its competitiveness with thermoset composites and, most importantly, its recyclability. While wind turbine blades, currently made from thermoset composites, are not recyclable at end-of-life and are typically cut up and sent to landfill, Elium® resin will enable a new generation of recyclable blades to be designed with a much better balance of energy use, cost and raw material recovery.

At the same time, this major innovation in composites is proving its worth at sea: it was used in the Oceanis Yacht 60, the flagship of Bénéteau’s monohull range, in racing and sailboats built by the NST (Neo Sailing Technologies) shipyard owned by professional skipper Lalou Roucayrol, whom Arkema has sponsored for many years, and even in speedboats used by the Scottish police! This has changed the boat building market, which generates 600,000 tons of non-recyclable composite waste

each year. Arkema recently set up a recycling process for boats made with Elium® resin through a strategic partnership with Swiss startup Composite Recycling, the Bénéteau Group, Veolia, Owens Corning and Chomarat. They have been able to demonstrate the feasibility of recycling production waste from Bénéteau sailboats (almost 10% of a boat’s mass) and, in the long term, of recycling end-of-life sailboats to make it industrially and economically viable.





Ecodesign: Bostik is ready to come unstuck

Recycling presents new challenges for adhesives: it is no longer just a question of assembling components, but also of making it possible to separate and recover them when the time comes. This is the principle of ecodesign, which Bostik has made a key element of its innovation policy. Here are some examples.



De-bonding is now a key automotive trend

In the automotive industry, performance adhesives are now widely used in many assembly applications, replacing mechanical fasteners (screws and bolts) to reduce weight. To enable the recycling of materials in an end-of-life vehicle, however, adhesives must be designed to allow controlled disassembly, and to separate materials of different types (metal, plastic, composite, thermoplastic). “Debonding is now a major market expectation, which we take into

account in many of our solutions,” explains François Court, R&D Director for Bostik. “This is the case with the structural adhesives currently in development: they consist of a layer of adhesive deposited on a primer that dissolves at a given temperature, allowing disassembly.” This technology is being considered for fixing large parts, such as car tailgates, but also for assembling cells in EV batteries (see box below).

From flooring to bottle labels

The same “controlled disassembly” approach applies to very different markets. In the construction market, for example, Bostik has launched its new R3bond® adhesive for PVC tiles and rolls, which are widely used in construction. “With conventional solutions, which adhere very strongly, the tile is often damaged by debris from the floor when the flooring is removed and then cannot be recycled,” explains François. “Whereas our formulation allows the tile to be peeled cleanly off the floor, which can then be re-covered without requiring any surface treatment and, most importantly, the ‘clean’ PVC tile is ready to be recycled.” This saves resources (and energy!) without compromising the reliability of the bond to the floor during use.

Similarly, bottle recycling requires label adhesives that can be removed during washing. Bostik has two proven technologies, for glass and PET, that allow quick removal at the temperatures specified by recycling facilities.

The R3bond® system allows PVC flooring to be removed for recycling.



**Co-recycling: when the adhesive stays in the cycle**

Other applications require co-recycling rather than disassembly: when the adhesive is incorporated into the recycled material and must not impair its future performance. This is the case with many consumer products, where the sheer volume of packaging has made recycling a sustainability imperative. Bostik has long been committed to finding recycling solutions and has developed two innovative products that are compatible with the polyurethane film recycling process. M-Resin™ is a pressure-sensitive adhesive used in the manufacture of resealable food packaging, and SF10M is a solvent-free polyurethane laminating adhesive for flexible packaging, mainly for vacuum-sealed applications. Both solutions have

been awarded the RecyClass label, an industry-wide initiative to promote recyclable plastic packaging.

In a completely different sector, Elium® resin is another example of co-recycling. The special adhesive developed by Bostik to bond the two halves of a composite wind turbine blade (700 kg of adhesive for a 15-ton blade) is incorporated into the resin during the thermal process, which allows it to be recovered. The Zebra project (see page 21) has shown that its presence has no effect on the performance of the recycled composite.

**ELECTRIC VEHICLE BATTERIES: ARKEMA PLANS FOR THE IMPORTANT ISSUE OF RECYCLING**

Electric vehicle batteries contain rare metals and advanced solutions and are packed with innovative materials. These valuable resources need to be recovered. Arkema, a recognized supplier of materials for electric vehicles, is working on this with several solutions for recyclers. For example, structural adhesives developed by Bostik with Rescol, used for cell assembly, are designed to allow unbonding at the appropriate temperature. This is a key function for separating the cells from a battery at end of life, but also for replacing a defective cell within the battery pack to maintain the vehicle's performance.

The Group is also working with universities and recycling companies in the battery sector to develop grades of hydrogen peroxide with additives for the hydrometallurgical recovery of metals (nickel, manganese, cobalt). This process is better than pyrometallurgy as it uses less energy, is more efficient and is increasingly used by recyclers. This value-added hydrogen peroxide solution prevents foaming during the dissolution of metal oxides and optimizes recycling yields. Europe already requires battery manufacturers to use 5% recycled rare metals, rising to 15% by 2028. This product has a bright future. ●





RETURNABLE GLASS

Arkema saves bottlers 300,000 tons of CO₂ emissions a year

A “small” product with a big impact: transparent Kercoat® coating doubles the lifetime of glass bottles in the bottle return system and significantly reduces the industry’s carbon footprint.

Approximately 40% of beer bottles worldwide are returnable. “In the bottle return system, a glass bottle goes through an average of twenty cycles before it becomes too damaged and has to be destroyed,” says Alice Medevielle, Sustainable Development Manager for Glass Coating at Arkema. “But if the same bottle has been coated during production with a thin layer of Kercoat® emulsion, which delays the onset of cracking, it can last up to forty cycles.”

This mature solution is in a strong position in its market and is being adopted by many bottlers, particularly in Northern Europe, Africa and South America. The reduction in CO₂ emissions achieved by doubling the life of their bottles was precisely quantified

by Arkema in 2024 with methodological support from Carbone 4, a consulting firm co-founded by Jean-Marc Jancovici.

Two tons of CO₂ emissions saved per ton of empty bottles manufactured

The calculation was based on 2023 data from the bottling market, factoring in all relevant parameters: “From the volumes of bottles produced and the energy mix of each country to transportation distances and the carbon footprint of the coating itself,” says Alice. The study found that the Kercoat® solution enables bottlers to reduce carbon emissions associated with their bottles supplied by an average of 30%. This represents an average of



more than two tons of CO₂ emissions per ton of empty bottles. On a global scale, that’s 300,000 tons of scope one CO₂ emissions in 2023 (for 800,000,000 bottles produced) for Arkema’s bottling customers: the equivalent of about 4,000 round trips between Paris and New York!

–30%

Kercoat® reduces bottling companies’ carbon emissions from bottle supply by 30%.



ROAD ASPHALT

The dual benefit of Cecabase® RT, a factor in energy savings and recyclability

Arkema’s surfactants are disrupting the road asphalt market by lowering the production temperature and significantly increasing the proportion of recycled materials that can be used in new roads.

Launched almost fifteen years ago, the Cecabase® RT range of surfactants has made a name for itself, particularly in the United States, Europe and Japan, thanks to its proven effect on the viscosity of warm mix asphalt. “Added in very small quantities (2 ppm) to the mix of bitumen (5%) and gravel (95%) that makes up road asphalt, our solution allows customers to reduce the production temperature from 160°C to 120°C,” explains Gilles Barreto, Surfactants R&D Director at Arkema. This generates significant energy savings and improves working conditions.

Now, these rheology modifiers, in which Arkema is a world leader, are demonstrating a second major benefit for the recyclability of end-of-life asphalt. “Old roads are increasingly providing the material for new ones,” continues Gilles. “In the United States, more than 98% of reclaimed asphalt that is reused goes to road construction.” In addition to recycled asphalt, the process also uses quarry aggregates and bitumen from refineries, resulting in an average of just over 20% recycled content in new pavements in both the United States and Europe. But Cecabase® RT technology can push this percentage up to 50%, or 70%, as it allows the incorporation of recycle and virgin materials into existing mixers without modification.



8.3 kg of CO₂ emissions avoided per ton of asphalt laid

As with the Kercoat® coating (previous page), Arkema used the Carbone 4 consultancy methodology to calculate the CO₂ emissions saved through the use of its solution on a site. “We used the lowest assumptions about the performance of our solution: a 40°C reduction in the production temperature and the doubling (from 20% to 40%) of recycled content used,” explains Gilles. The calculations were made for Europe, taking account of the actual energy mix and emissions from asphalt heating, bitumen production, gravel transport, asphalt heating, etc. It found that Cecabase® RT prevents 8.3 kg of CO₂ emissions per ton of asphalt laid (2.6 kg owing to the lower production temperature plus 5.7 kg for the increased recycled content).

“Applied to the 250 million tons of asphalt laid each year in the United States using traditional techniques, the use of Cecabase RT® could prevent CO₂ emissions equivalent to 7,600 flights from Paris to New York!” points out Gilles. It should be noted that 37% of these surfactants are bio-based, derived from vegetable oil.

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Towards more recycling of byproducts and waste in our factories

Since 2019, Arkema has been engaged in systematic research on virtuous circles in order to recycle as much waste and byproduct generated downstream of its factories as possible.



The Araçariçuama Arkema site (Brazil) sends its cleaning water to the Bostik site in São Roque, 10 km away, to produce mortar.

Industrial pallets and containers can be reused!

Arkema’s factories use more than one million wooden pallets every year. The Group wanted to help protect this finite virgin resource. “Since 2023, we’ve been trying to incorporate more and more used pallets into our systems. We buy them from suppliers who specialize in reconditioning them,” says Élodie Gbenouvo, CSR Project Manager. This cultural change is already well underway in Europe, where the goal is to reach 50% reconditioned pallets by 2025. More widely, the Group is seeking to incorporate greater circularity into the management of its industrial containers.

For the large tank containers used to store and ship liquids, such as intermediate bulk containers (IBCs), closed-loop reuse systems are being implemented on a case-by-case basis with some customers wherever possible, and at many sites Arkema is endeavoring to return IBCs to suppliers who can recondition them and put them back on the market. Plastic packaging contains an increasing proportion of recycled material, thanks largely to EU regulations, as with the high-density polyethylene buckets and polypropylene cartridges sold by



Bostik, which started incorporating recycled plastic into its packaging in 2021, well ahead of the EU requirement for 35% recycled content in plastic packaging by 2030 and 65% by 2040. “Bostik is already one step

ahead, having reached 50% of average recycled content in its plastic packaging in Europe in 2024,” says Élodie. ●



50%
reconditioned
pallets by 2025.

“Every Group site is conducting an analysis, guided by a working group combining purchasing, R&D and process expertise,” explains Pierre Clousier, the Group’s Environmental Director. “We have also introduced an indicator for unrecovered waste, which is closely monitored by the Executive Committee.” Several new initiatives were implemented in 2024. In Brazil, the Araçariçuama Coating Additives site now sends its cleaning water, which was previously disposed of, by road to the Bostik plant in

Sao Roque, 10 km away, where it is used in mortar production. And the hydrogen peroxide plant in Bécancour, Canada, has found a better use for its sewage sludge: previously spread as a soil improver, it is now delivered to a local methanation plant, which uses it to generate renewable energy.



03

TRANSPORT



TOMORROW'S TRANSPORT WILL BE LOW-CARBON AND INTELLIGENT

The electric and hybrid vehicle market is growing steadily worldwide and remains a key sector for Arkema. At the same time, the Group is positioning itself green hydrogen, a complementary solution that fulfills the requirements of clean transport throughout the hydrogen value chain, from production to storage in tanks. Cars are also becoming more connected thanks to onboard electronics, ensuring greater comfort and safety for drivers. With its wide range of advanced materials, Arkema is a driving force in these three areas.

The electric car market continues to accelerate

The global electric vehicle market continued to expand at the beginning of 2025. Sales are expected to exceed 20 million units in 2025, representing a 20% increase over 2024. As the regulatory environment evolves steadily toward decarbonization, and with growing environmental awareness, Arkema is contributing to this change alongside leading automotive suppliers. Here we take a look at the main products fueling Arkema's growth in this market.

Global development with uneven local contexts

The electric vehicle (EV) sector is experiencing undeniable global momentum, though growth is uneven at local levels. China remains the sector's undisputed leader, accounting for two-thirds of global EV sales and maintaining extensive control over the battery value chain. In Europe and North America, the sector is continuing to grow thanks to favorable policies. In the United States, for example, the Inflation Reduction Act of 2022, still in force, should continue to support efforts to transition to clean energy

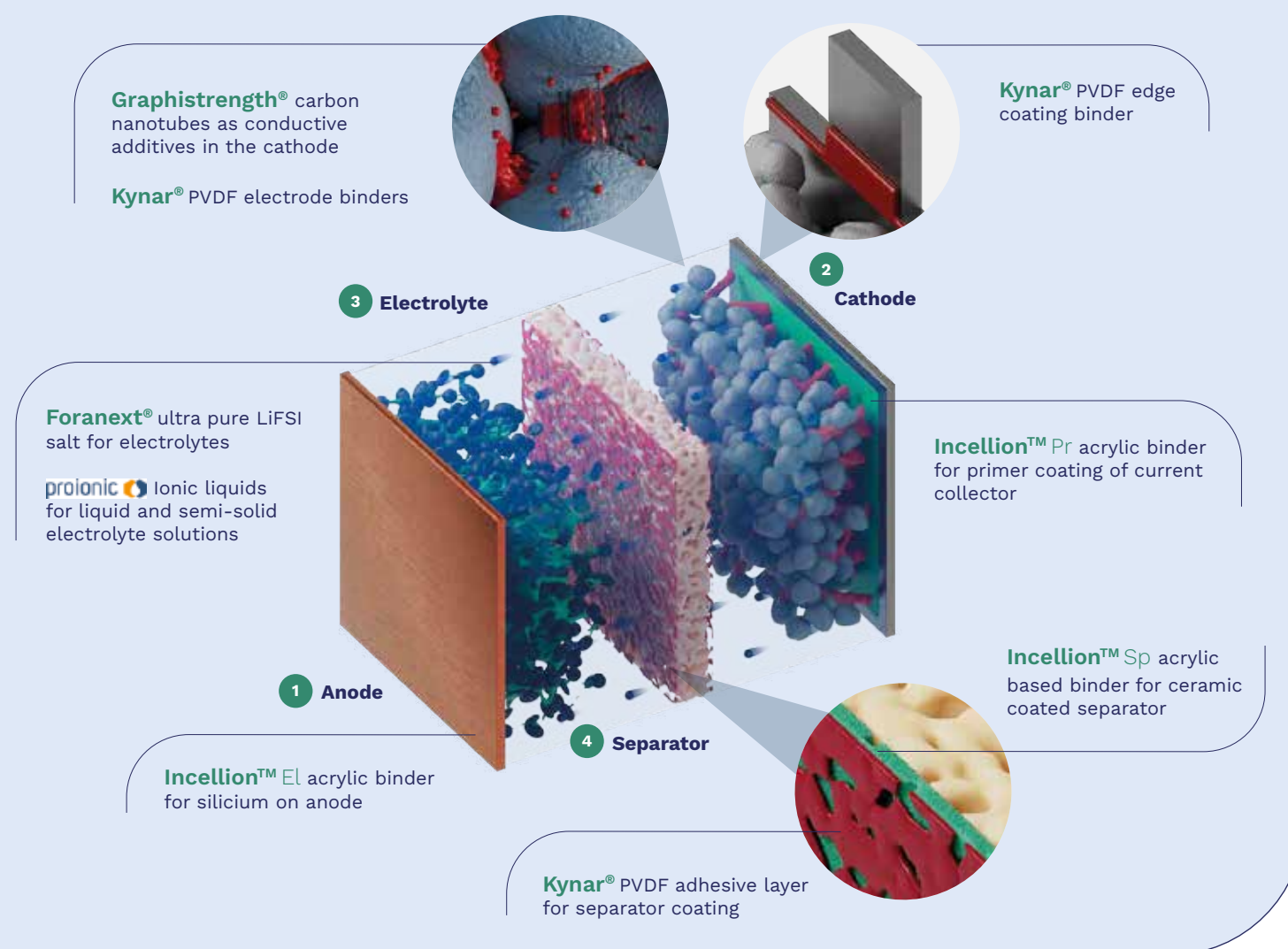
by subsidizing the local production of batteries and EVs. In Europe, the 2019 Green Deal remains a priority to help the continent reduce greenhouse gas emissions. Electric transport is one of its key areas of focus. "Although the sector's decarbonization deadlines have become more flexible, the European Union's goal remains the same: to achieve a 100% reduction in emissions for new vehicles by 2035," notes Woldemar d'Ambrières, Arkema's Global Market Manager for Batteries.

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INSIDE THE BATTERY CELL



“Electric vehicle sales are expected to exceed 20 million units in 2025, 20% up on 2024.”

The challenges of performance, range and reliability

However, the sector faces challenges in terms of range, battery energy density and charge time that are directly affecting consumers' adoption of EVs. Other important issues to overcome include vehicle safety, energy impact and production costs. Arkema is working with leading electric battery manufacturers to address these challenges and develop sustainable solutions that will facilitate the transition to low-carbon transport.

Our materials address battery performance issues

To continue to improve the power and range of lithium-ion electric vehicles, the Group's R&D focus on electrodes (anodes and cathodes) is crucial, as these components directly influence performance and energy density.

① In anodes, Incellion™ EL acrylic-based binders help integrate silicon while preserving its stability throughout charging cycles. Silicon has great potential for new-generation batteries because it has a much higher energy capacity than the traditionally used graphite.

② For cathodes, the Group is working to enhance its Kynar® binders, enabling the production of thicker electrodes with more active materials and less binder to improve cell energy density. The Incellion™ Pr range, used in primary coatings on cathodes, ensures the optimal adhesion of active materials, further enhancing the performance of conductive materials. Graphistrength® carbon nanotubes, added to cathodes in small quantities, make it easier for electrons to pass through the anode and cathode and reduce the time required to recharge the battery.

READY FOR THE NEXT WAVE OF TECHNOLOGIES

Arkema is constantly building its expertise by creating an ecosystem through acquisitions and partnerships, giving the Group a competitive edge in new-generation batteries. In 2024, Arkema acquired a majority stake in Proionic, an Austrian startup and global leader in ionic liquids.

These components are essential for designing semi-solid batteries, which offer better energy density (and therefore greater vehicle range) and safety than lithium batteries. Arkema also acquired a stake in Tiamat, a French startup pioneering sodium-ion battery technology. These batteries have the advantage of not requiring lithium, which can be difficult to source. Instead, they use sodium, which is more abundant and less prone to overheating.



③ Arkema's Foranext® Li-FSI electrolyte salts improve the conduction of lithium ions between electrodes. These high-performance salts, designed to offer enhanced electrochemical stability, increase the service life of electric batteries and reduce energy losses, even at high temperatures, improving range, reliability and overall performance.

④ The separator is an essential component in a battery, serving as an electrically insulated membrane between the anode and cathode.

During charging and discharging, it facilitates the exchange of lithium ions between the two electrodes. To improve overall battery safety, Kynar® PVDF coatings are applied to the separator. This material's very high thermal and electrochemical stability has made it a leading choice for optimized battery performance over time. Recently, Arkema also developed Incellion™ Sp, a ceramic binder that is applied to the separator to improve its thermal stability and mechanical strength, boosting the cell's safety performance and service life.

Aiming for more sustainable production

Arkema is also stepping up its R&D efforts to develop new, more sustainable production methods that use less energy. One example of this is its work on the dry process. The active material in batteries is applied to the electrodes using a solvent that must then be dried to leave only the active material. Traditionally, drying takes place in very large ovens, up to several dozen meters long, resulting in high energy use and carbon emissions. With the dry process, the active material is deposited directly onto the electrodes in its final form, eliminating the need for drying. “To support the use of the dry process in the industry, Arkema is promoting a specially designed binder,” says Woldemar. “This solution is crucial because it makes battery production much less energy intensive.” Another key benefit of the dry process is that it significantly reduces manufacturing costs. ●





Hydrogen has a role to play in low-carbon transport

Green hydrogen is gradually establishing itself as a credible alternative for low-carbon transport, attracting growing interest for freight transport. Despite many technological advances and significant investments, however, issues remain, including large-scale production, infrastructure and costs. What is Arkema's role in this changing landscape? We look at how the Group is responding to the challenges posed by hydrogen.



Described as an energy carrier rather than an energy source, hydrogen is almost never found in its pure form in nature. It must be produced in order to generate energy, in the form of electricity, for example. The use of hydrogen as an energy carrier is growing in certain transport segments, particularly road and rail.

There are two main applications for hydrogen in transport. In combustion vehicles, it can replace fossil fuels. In fuel cell vehicles, hydrogen can power electric motors by producing

electricity through an electrochemical reaction. "Each of these systems has a cost," explains Thomas Fine, Global Head of Hydrogen Business Development. "Manufacturers must evaluate the economic benefits of these two technologies."

Arkema strongly believes in green hydrogen's potential to support low-carbon transport. Unlike gray hydrogen, which is produced by cracking methane, green hydrogen is produced using renewable electricity from wind and solar farms, making

it sustainable. Furthermore, its only emission is water vapor.

A challenging solution

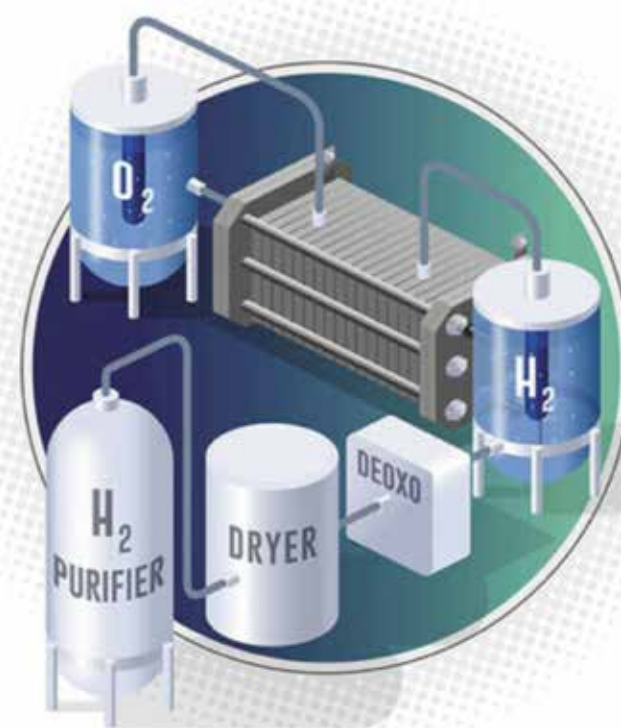
Green hydrogen presents many challenges, however. It is expensive to produce, especially compared to gray hydrogen and, owing to the technology involved, it costs more to manufacture a hydrogen-powered vehicle than an electric vehicle, particularly with fuel cells. Furthermore, hydrogen is highly flammable, so great care must be taken with tank safety on vehicles and at refueling stations. Despite these

drawbacks, hydrogen is proving to be a good complement to all-electric vehicles in the heavy-duty market. As a very light gas, hydrogen maximizes truck payloads and offers refueling times comparable to conventional fuels, as well as a good range.

Arkema can offer solutions that make hydrogen production, transport and storage more efficient, reliable, safe and cost-effective.

An impact on the entire value chain

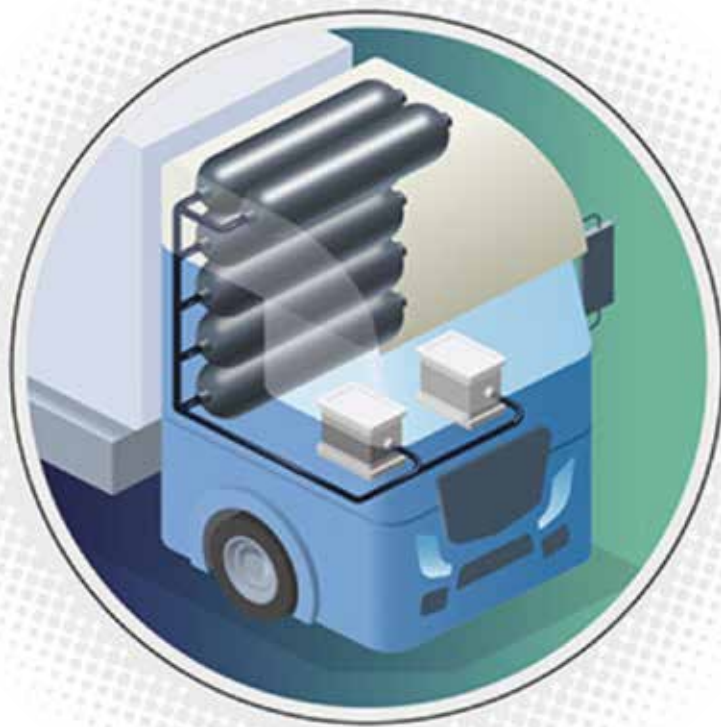
Drawing on its materials expertise, Arkema offers a range dedicated to the entire hydrogen value chain (see infographic opposite).



Electrolysis is a critical process for producing low-carbon hydrogen as it uses an electric current to split water into hydrogen and oxygen. Our high-performance polymers are used in the balance of plant pipes and connectors to increase the equipment's reliability and durability.

The hydrogen produced must then be purified and dried using molecular sieves. The Group's high-capacity, high-density Siliporite® sieves have a compact structure that reduces the footprint of the production units while improving their overall performance.

Minute quantities of our Spotleak® odorizing agent are added at the plant to odorize the hydrogen, which is naturally colorless and odorless, so that it can be detected in the event of a leak and transported safely and efficiently, just like natural gas.



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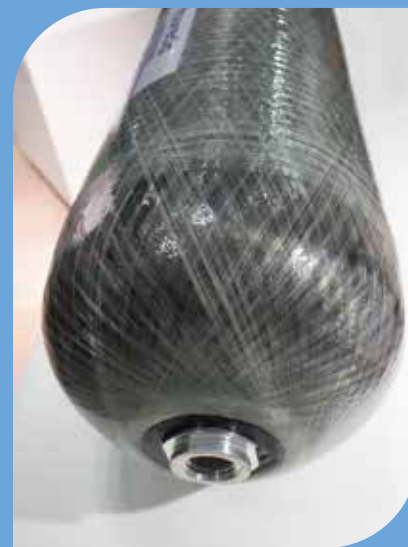
Our materials improve the tightness, lightness and strength of pipes and pressure vessels for hydrogen transport and storage. This is particularly true of Rilsan® polyamide 11, which is used in the composition of liners—the inner walls of hydrogen tanks—and has proven resistance to low temperatures. This polyamide is also effective at protecting tanks against cracks or blistering that can occur during pressure variations. “Our material is fully compatible with hydrogen,” says Olivier Merle, Hydrogen Storage and Pipelines Market Manager. “There are not many materials on the market that can withstand the thermal and mechanical stresses exerted in the tank.”

With a global total of over 100,000 hydrogen vehicles expected by the end of 2024, hydrogen transport is poised to become a reality for many sectors. With its comprehensive range of materials, Arkema will play a key role in developing this industry. ●

ENSURING USER SAFETY

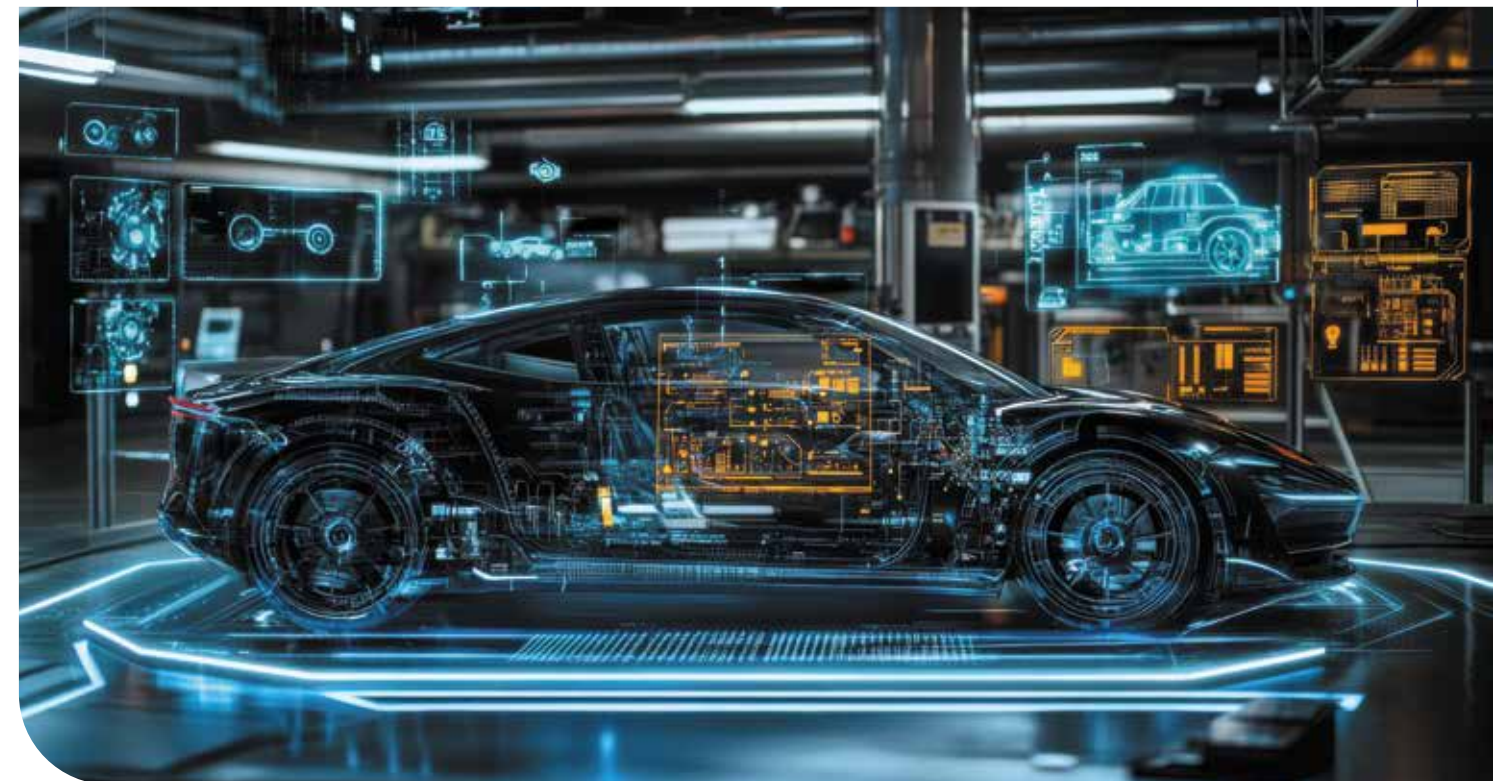
To improve reliability, facilitate maintenance and reduce the cost of hydrogen tanks, Arkema is developing an innovative range of piezoelectric polymers that are used to manufacture highly sensitive, ultra-thin and flexible smart acoustic sensors. Installed on tanks, these sensors continuously detect and quantify any impacts and measure tank aging during each refill. The Group works closely with its customers to offer solutions tailored to their specifications. In February 2025, the sensors won the Best Publicly Funded Project Demonstrator award, which was presented at the 2025

Large-area, Organic & Printed Electronics Convention (LOPEC), the world’s leading trade fair for flexible, organic and printed electronics, held annually in Germany. “Arkema is ahead of the curve in these areas,” says Fabrice Domingues dos Santos, Executive Vice President Electroactive Polymers at Arkema. “This award, which recognizes the highly innovative nature of the system, is proof of that.”



Connected vehicles: from ergonomics to safety

The smart device that has changed the world most in recent years is neither a phone nor a watch... it’s the car. Onboard electronics have become a pillar of the automotive industry, pushing boundaries to improve safety, comfort and connectivity. From advanced driver assistance systems (ADASs) to electric vehicle architecture, this technology is ushering in a new era for transport. As vehicles become condensed forms of technology on wheels, Arkema is contributing to this revolution by providing materials specifically designed for these new applications.



Between 2024
and 2028, Arkema
expects average
annual sales
growth of

10%

in the electronics
market.

Arkema has a long history in advanced electronic materials and operates throughout the sector’s value chain. “Arkema is a key partner to the automotive industry. This closeness to the market gives us a better understanding of the revolutions impacting it and allows us to offer the best of our electronics expertise to address its technological challenges,” says Fabrice Domingues dos Santos, Head of Electronics R&D at Arkema.

Between 2024 and 2028, the Group expects average annual sales growth of 10% in the electronics market. Arkema has also recently made acquisitions to strengthen its expertise. In 2023, the Group acquired Polytec PT, a German company that specializes in engineering adhesives for electronics. In the same year, Arkema acquired a majority stake in PI Advanced Materials, a South Korean company and world leader in polyamide films,

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which are particularly valued for their electrical insulation properties and temperature resistance up to 400°C for the production of semiconductors and electronic components. Arkema has also demonstrated its commitment in recent years through the development of product lines tailored to the electronics industry. One example is Born2Bond™, a line of fast-cure, high-precision assembly adhesives designed by Bostik for electronic components. This proactive development strategy, coupled with a wide range of technical materials, allows Arkema to contribute to the growth of electronics in transport.

Facilitating the role of power electronics

Power electronics are key in onboard electronics. The term refers to all semiconductor components that regulate the conversion, control and conditioning of electrical energy in a vehicle. Materials and adhesives are used to reduce heat dissipation and provide electrical insulation. Arkema offers a wide range of these products that significantly impact power electronics. To guarantee this performance, it is crucial to use lightweight, strong materials with low dielectric losses: the polyimides recently acquired by Arkema combine all these properties and are therefore highly valued as insulators in electric motors.

Electroactive polymers contribute to a seamless human-machine interface

Arkema is heavily involved in the research and development of electroactive polymers, which are marketed under the Piezotech® brand. These materials have exceptional properties: they can generate an electric current in response to a mechanical stimulus and, conversely, deform in response to an electric pulse. One application of this technology is already making waves in hydrogen storage: highly sensitive to vibrations, the polymers can be used as sensors

40%
The average proportion of onboard electronics in the total value of a vehicle.



Rilsan® Clear, our transparent polyamide, is also used in head-up displays and other onboard screens.

on hydrogen-powered vehicle tanks to monitor and detect micro-impacts. Tanks can then be repaired before dangerous leaks occur. Thanks to acoustic emission technology, the sensors can “hear” and locate every crack in the tank. The system optimizes maintenance by alerting the driver well in advance of major, costly repairs. Attached to the tank by flexible polyimide connectors and Bostik adhesive, this solution is made entirely from Arkema materials!

Electroactive polymers are also found in smart surfaces. With no external power source, these materials can transmit personalized, intuitive information, adding a new sensory dimension to the driving experience. The polymers act as flexible, versatile “actuators”. Incorporating such sensors inside a vehicle’s door handles, for example, would eliminate the need for a push button to open the door. They can also be incorporated into the steering wheel, allowing it to alert the driver via haptic feedback if the vehicle deviates from its trajectory, for example. With their unique capabilities, electroactive polymers could profoundly improve the human-machine interface!

Screens and decorative parts

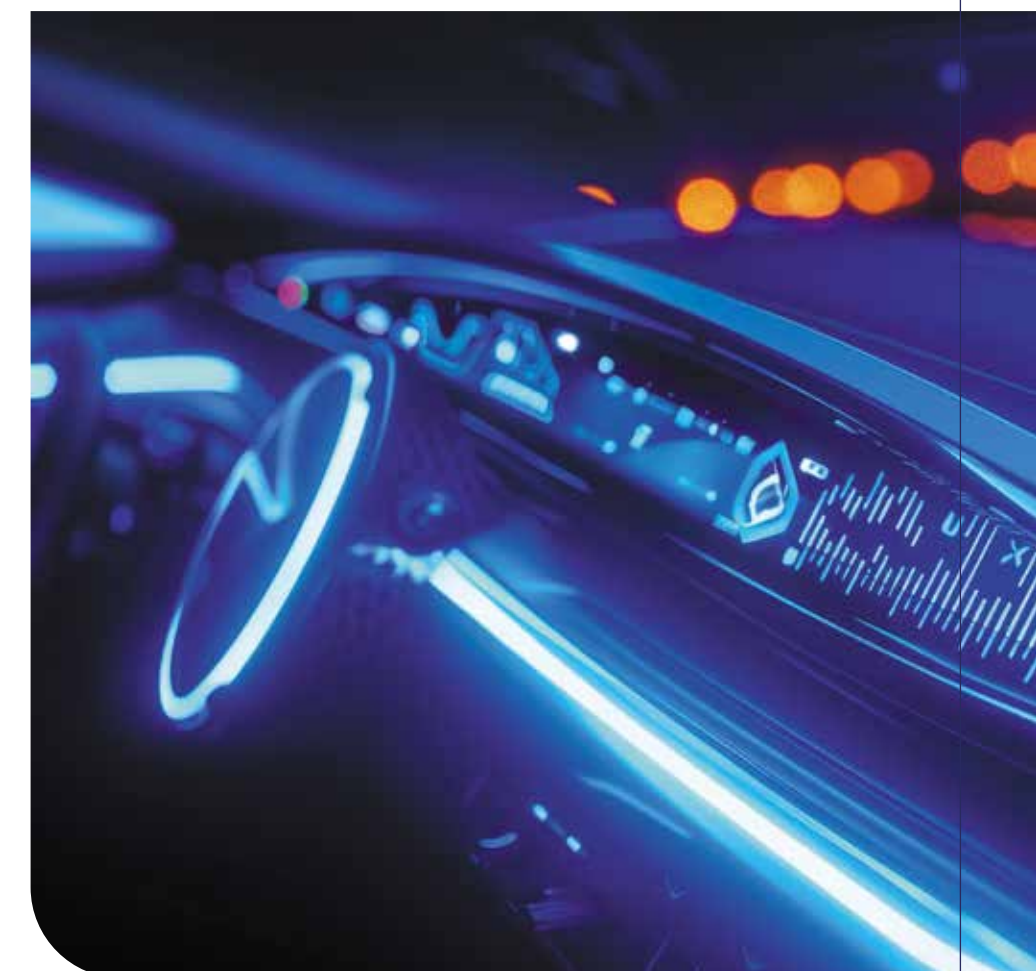
Arkema materials can be adapted for more decorative purposes in onboard electronics. Liquid optically clear adhesives (LOCA) are primarily used to bond screens to touch panels or protective lenses, and play an important role in the appearance of electronic devices. The high transparency of these Sartomer® materials allows light to pass through more easily. Their refractive index is adjusted to match the substrate they are on to reduce optical losses. These adhesives are designed to be long-lasting and withstand external stresses such as heat.

Growing demand for onboard systems

Onboard electronics now account for an average of more than 40%

of a vehicle’s value. They provide an increasing number of features, including driver assistance tools, engine and transmission management, safety and in-car comfort features, and navigation systems. This trend is expected to continue with the development of electric and autonomous vehicles.

With its wide range of materials and adhesives for electronics, Arkema is well positioned to support this evolving market! ●





04

CLIMATE



CLIMATE PLAN TARGETS AND ACTIONS

As part of its Climate Plan, Arkema has committed to an ambitious decarbonization trajectory by 2030, leveraging all available means across each of its three emission scopes. In 2024, the Group kept on track, and even ahead of schedule for scope 3 emissions reduction. Emmanuelle Bromet, Vice President Sustainable Development, explains.

Limiting global warming to 1.5°C by the end of the century requires drastically reducing anthropogenic greenhouse gas emissions and significantly decarbonizing the global economy. Arkema is firmly committed to this goal and has adopted one of the most ambitious climate plans in the chemicals industry. “We set targets, validated by the Science Based Targets Initiative (SBTi)⁽¹⁾ in 2023, to reduce greenhouse gas emissions from our plants and electricity purchases (scopes 1 and 2) by 48.5% by 2030 and emissions from our upstream and downstream activities (scope 3) by 54%, compared to 2019,” explains Emmanuelle Bromet, Vice President Sustainable Development. These figures are calculated using the SBTi methodology and align with Arkema’s decarbonization trajectory, ensuring compatibility with the 1.5°C threshold regardless of growth. The 2030 targets pave the way for net zero by 2050, representing a 90% reduction in emissions across scopes 1, 2 and 3.

“A target of net zero by 2050.”

(1) The SBTi is the methodological framework for determining carbon emission reduction trajectories for large companies.



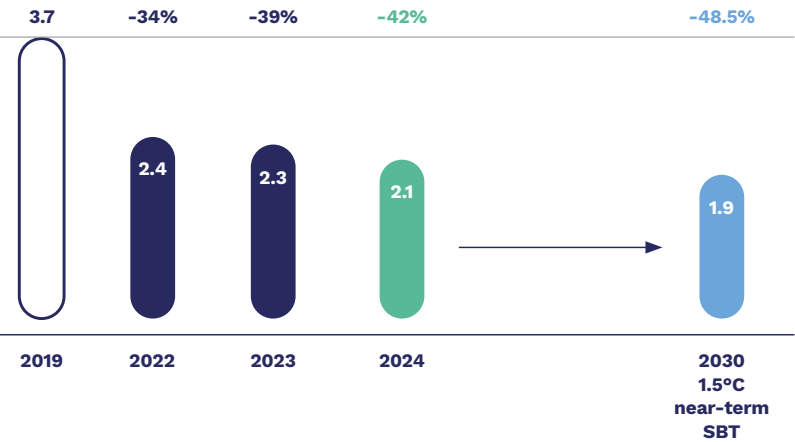


SCOPES 1+2: EMISSIONS RELATED TO OPERATIONS AND ENERGY PURCHASES DOWN 5.6% IN ONE YEAR

In 2024, Arkema's total emissions from its plant operations (scope 1) and energy purchases (scope 2) amounted to 2,145 Kt CO₂e, compared to 2,273 Kt CO₂e in 2023, a 5.6% reduction in one year. This aligns with the expected trajectory, which projects a total of 1,908 Kt CO₂e by 2030 (see figure opposite).

Scope 2: new renewable electricity contracts
“This year, we achieved particularly significant emissions reductions in scope 2. At the end of 2024, 32% of our electricity came from renewable sources compared with 27% in 2023, and 72% of our electricity was low-carbon, including nuclear energy,” notes Emmanuelle. Arkema has signed major renewable electricity supply contracts in the United States and China.

MONITORING THE 1.5°C SCIENCE-BASED TARGET (SBT) FOR REDUCING SCOPES 1 AND 2 EMISSIONS (MT CO₂e)



Scope 1: the benefits of biomethane contracts...

Several major advances have been made with scope 1 emissions. In France, for example, we signed a long-term partnership with Engie to supply more than 300 GWh of biomethane per year, primarily sourced from organic agricultural waste. This biomethane is already being used at our Marseille plant to replace fossil natural gas in the production of amino 11. In 2025, the contract will also supply most of the gas to four Bostik sites in France (Coubert, Privas, Ribécourt and Venette).

...and site investments

The Group is rolling out a new patented purification technology at its Carling plant in France, one of Europe's leading acrylic production sites. “This significant investment, totaling around €130 million, will reduce the site's emissions by 20% by 2026,” says Emmanuelle. Low-carbon electricity, including nuclear power, accounts for 72% of the electricity used by Arkema's sites. This percentage increases every



Arkema is investing approximately €130 million in its acrylics facility in Carling, France, to reduce emissions by 20% and ensure the long-term sustainability of its facilities.

year thanks to long-term renewable electricity contracts. Meanwhile, Arkema is pursuing its long-term research into energy efficiency and process optimization through its Arkema Energy program, launched in 2014. With an annual budget of €8 million, the program has yielded hundreds of initiatives across the Group. Arkema has already reduced its net energy consumption by nearly 15% compared to 2012.

-15%
Reduction in energy consumption at our sites since 2012.

72%
The proportion of low-carbon electricity, including nuclear power, used at Arkema's sites.

GROUP SCOPES 1 AND 2 GHG EMISSIONS DECARBONIZATION TRAJECTORY (KT CO₂e)





SCOPE 3: BIGGER AMBITIONS

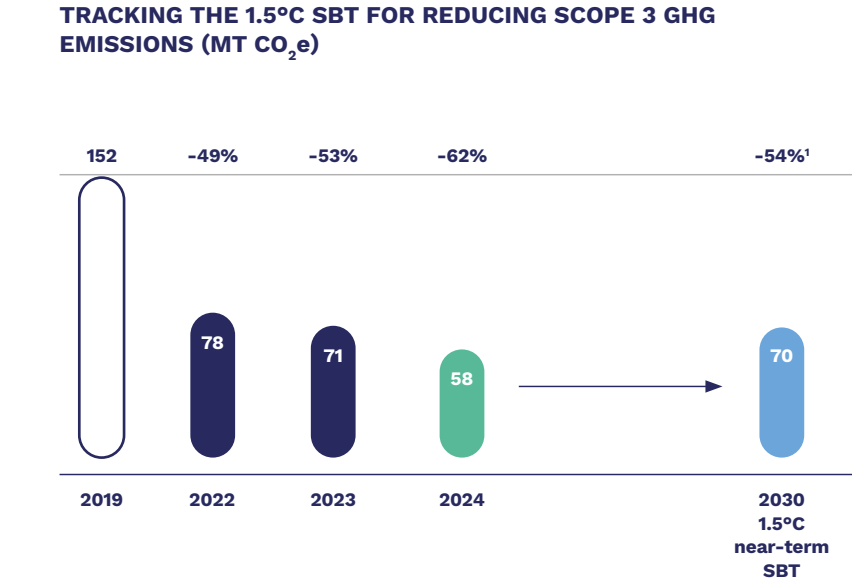
The initial target for Scope 3, which covers both upstream and downstream emissions in the value chain, was a 54% reduction by 2030. This target was achieved in 2024. Building on this progress, Arkema has set a new target to reduce its scope 3 emissions by 67% by 2030 compared to the 2019 baseline. “This significant change is partly due to the reduction in our most emissions-intensive activities in fluorinated gases, which we are replacing with next-generation solutions,” says Emmanuelle. Among other action points identified, Arkema is addressing the Group’s most impactful emission categories, particularly upstream by committing suppliers to reducing their scopes 1 and 2 emissions, shrinking the carbon footprint of the raw materials it purchases. Arkema is also taking action downstream by leveraging its innovation capabilities in sustainability.

Helping suppliers commit to reducing the carbon footprint of our raw materials

Ongoing work on raw material sourcing upstream of our plants remains a key focus in order to continue reducing scope 3 emissions. One decarbonization strategy is to develop bio-based solutions and use recycled raw materials. Arkema helps its suppliers adopt best practices to reduce their scopes 1 and 2 emissions. “We run webinars for suppliers around the world who may have different levels of CSR maturity,” says Emmanuelle. “We also use the EcoVadis benchmark, chosen by the Together for Sustainability sector initiative, which our suppliers use to assess their CSR performance as part of their continuous improvement process.” By the end of 2024, more than 2,400 companies worldwide had been assessed over the previous three years.

Taking action on downstream emissions in the value chain through sustainable innovation

“For several years now, we have been systematically evaluating our portfolio of solutions through the Archimedes program,” explains the Group’s Vice



(1) Arkema is pursuing its decarbonization efforts by setting a new, more ambitious target of a 67% reduction by 2030 compared with 2019 (50 Mt CO₂e).

President, Sustainable Development. “This approach allows us to focus the development of our portfolio on more sustainable solutions that contribute to at least one of the 17 United Nations Sustainable Development Goals.”

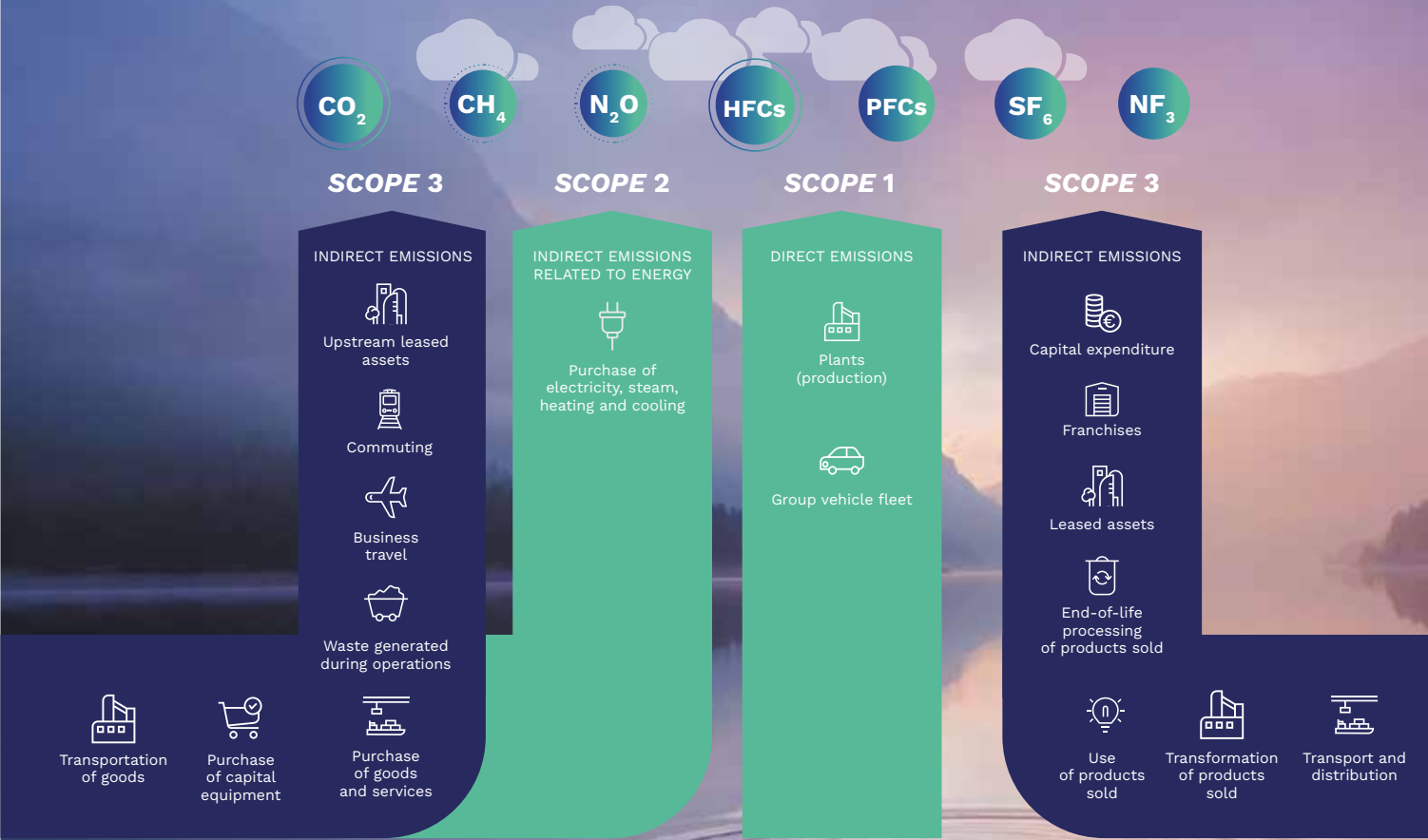
Note that it is also possible to reduce downstream scope 3 emissions by optimizing product logistics. So the Group is focusing on decarbonizing product transport by switching to more rail freight (see opposite page). ●



DOWNSTREAM TRANSPORT: 23% OF ARKEMA’S EUROPEAN TRANSPORT TAKES PLACE BY RAIL

Globally, Arkema’s downstream transport, which covers the delivery of our products to customers (accounted for in scope 3), represents 297,000 tons of CO₂ equivalent per year. “The main focus of our decarbonization efforts for shipping our products is choosing the right mode of transport,” explains Yves Antoine, Arkema’s Director, Global Logistics Procurement. Rail, and then sea, are the modes of transport with by far the lowest emissions. The Group always aims to favor these modes where the local situation and product eligibility allows. “In Europe, around 23% of our land transport is via rail,” says Yves. “This percentage is higher than the industry average and will improve further in 2025 with the transfer to rail of a significant volume of hydrogen peroxide transport between Jarrie and Lacq”. In the United States, where the Group uses more river transport, a new route up the Mississippi to Calvert City will begin in 2025. Elsewhere, changes are being implemented on a case-by-case basis. In China, for example, UV Specialties is transferring some of its routes to barges, while in the Netherlands, some routes now run on HVO renewable diesel. In the United States, the Coatings Resins BU has switched some of its routes to rail, resulting in annual savings of around 400 tons of CO₂. When it comes to decarbonization, every action counts!

Scopes: what do they cover?



What do they represent for Arkema?





05

ARTIFICIAL INTELLIGENCE



AI: LIMITLESS OPPORTUNITIES FOR OUR INDUSTRY

AI is a game changer that is impacting all activities and sectors. At the AI Action Summit held in Paris in February 2025, €109 billion in funding was announced to accelerate AI development in France. The European Union plans to invest €200 billion through the InvestAI program, while the United States will invest \$500 billion. “Convinced of AI’s value, Arkema adopted a two-pronged approach in 2024: ‘AI for All’ to boost productivity and make all our business lines aware of AI’s potential, particularly generative AI, to optimize their daily tasks; and ‘strategic AI’ in priority areas with high transformative potential, which will combine different types of AI. To support these two initiatives, Arkema will focus on training in 2025, beginning with e-learning on generative AI,” says Agnès Gosset, Arkema’s Chief Digital Officer.

In addition to driving a technological revolution, AI is a powerful accelerator of innovation and a valuable resource for the Group’s expertise. We explore this technological revolution that is impacting R&D, production and customer relations.

AI powers innovation

Artificial intelligence is transforming our R&D, making it more agile and efficient. Thanks to AI, innovation cycles are accelerating, complex tasks are being automated, and big data analysis is significantly improving.

Harnessing millions of pieces of information

Data mining encompasses a set of techniques used to explore and analyze large volumes of data that are otherwise difficult to understand and exploit. This approach is particularly useful for R&D, especially in patent management, owing to the exponential increase in the number of patents published worldwide, which represent a phenomenal amount of data. According to the World Intellectual Property Organization (WIPO), 3.5 million patent applications were filed worldwide in 2023. This makes it challenging to stay up to date on the latest innovations or defend the group’s patents against infringement. >>>





Arkema has historically used simple, keyword-based search tools. However, these systems identify thousands of patents, most of which are irrelevant. Implementing features based on generative AI and large language models (LLMs) has optimized the search process. The prompt entered into the LLM identifies the most relevant patents. AI is able to ‘read’ the results and refine the selection by only highlighting patents that fulfill pre-established criteria. These solutions combine data mining and generative AI to automate knowledge extraction, saving researchers considerable time.

This type of tool was developed for the High Performance Polymers BU and will be rolled out for document monitoring in contexts other than R&D and for other BUs. Initially made available to intellectual property experts, access is now being extended to a larger number of relevant employees. To support this culture change, the rollout is accompanied by training programs on effective tool use, writing prompts and risks to be aware of.

Faster development thanks to property prediction
The MixAI tool developed for Bostik’s Hygiene, Paper & Cardboard (HP&C) BU has two key features. First, it is a vast, structured database accessible via a dedicated app. This makes it easier for researchers to find adhesive formulations that have been developed in-house over the past



In R&D, solutions combining data mining and generative AI save considerable time in finding the right answer among millions of patents.

ten years. Second, the tool analyzes these formulations to identify models that accelerate research. MixAI lets researchers predict the properties of new formulations using previous formulations in the databases, massively reducing the number of experiments that need to be carried out in the lab. If a chemical component is missing, potentially compromising the development of a material, AI can adjust the formulation and find alternatives.

The benefits are tangible: shorter development cycles, fewer tests required for product design, less dependence on external constraints, and lower R&D costs. What’s more, the tool meets sustainability objectives, as less waste is produced in the laboratory!

AI IN R&D: IDENTIFYING DEPLOYABLE SOLUTIONS

“Artificial intelligence uses data to generate ideas, information and opportunities for innovation,” explains Jean-Yves Delannoy, Scientific Director, Digital R&D at Arkema. R&D uses various AI models based on data learned from external sources or within the Group. Through these models, it seeks to identify “similarities” that can be applied to new situations. “The learnings must then be actionable,” says Jean-Yves. In other words, they must be applicable in different use cases at all levels of the Group.



AI improves reliability and quality in our plants

Thanks to AI tools’ powerful data processing capabilities, our plants are improving their production processes and product quality. From predictive maintenance to quality control, AI is transforming every part of production.

At Arkema, the Process and Digital Manufacturing Department is exploring two main types of AI. Algorithmic AI uses numerical data and, as the name suggests, works with algorithms and powerful computing capabilities. Generative AI uses learning models fed by vast databases to produce original content such as text, images or conversations.

Algorithmic AI: better yields
We are testing algorithmic AI for the benefits it could bring, such as increased yields and reduced costs. Use cases are being identified, and some are undergoing proof of concept to verify feasibility and performance. Arkema is already modeling some reactions to optimize final yields. These models can have their limitations in industrial conditions, however, and AI can then be used to identify areas for optimization based on available data. Specifically, AI is fed with data from the field to generate models which, once validated, are used for comparison with data obtained in



AI makes it possible to anticipate potential quality defects in production.

real time during production. AI thereby provides predictive analysis of product quality and allows us to anticipate corrective actions to avoid potential defects.

Predictive maintenance testing
Predictive maintenance is based on the same principle as preventive maintenance, but takes it further. The latter consists of anticipating equipment failure based on its history and breakdown frequency, allowing technicians to intervene before failure occurs. Interventions are then predetermined and recorded in a maintenance plan.

Predictive maintenance takes a different approach. The system collects

data on the normal operation of a piece of equipment. It then analyzes the equipment data in real time and compares it to normal data to identify any anomalies. If certain tolerance thresholds are exceeded, an alert is sent to technicians, who can prepare to intervene before a breakdown occurs—even before the preventive maintenance schedule calls for it. Ultimately, this alert system enables operations to adapt to the machine’s actual needs, as determined by AI.

The service, implemented through General Electric at some of our facilities, includes predictive monitoring and 24-hour technical support to report any operational issues that could adversely affect the equipment.



With AI and predictive maintenance, technicians can tailor their interventions to the actual needs of the equipment.

A MAJOR CHALLENGE: DATA COLLECTION

Developing predictive maintenance and quality models is challenging because they have to be trained for several months using large, reliable databases. The tests initiated by Arkema therefore have the added benefit of developing a data culture within the Group and producing verified, contextualized data that can be used to feed AI models.

AI improves quality control

Real-time image processing and analysis is another application made possible by AI. This technology significantly improves quality control by providing highly accurate and almost instantaneous defect detection. In production, AI can detect imperfections in the gluing or sewing of bags for certain products. Arkema already uses this technology at its Pierre-Bénite (Rhône) and Ribécourt (Oise) plants. “These are proven algorithms and our experience with them is very positive,” says Laurent Baseilhac, Arkema’s Process Director. “They deliver rapid benefits and would be worth rolling out on a larger scale.”

Generative AI facilitates document searches

One of the potential applications of generative AI is document exploration.

Arkema’s technical archives, which are currently being digitized, cover a wide range of topics. While these archives have many uses, ranging from process optimization to decision support, their sheer volume makes them difficult to exploit. Arkema has adopted the Goldfire semantic search platform and is testing its additional AI features. We are primarily using Goldfire to explore our archives and rapidly locate the most relevant information based on pre-entered queries. The platform uses AI to read the archives and produce an intelligent summary. In the future, this generative AI technology could facilitate and accelerate content creation directly by producing operating manuals, manufacturing or project reports, technical study summaries and much more!



At the Bostik plant in Ribécourt in northern France, AI can detect imperfections in the gluing or sewing of bags for certain products.

AI in customer satisfaction

To strengthen customer relationships, Arkema is gradually implementing AI-based solutions. On Bostik’s websites, these solutions allow us to interact with customers and prospects by offering relevant, personalized content.

Chatbots support customer satisfaction...

To offer website visitors the best possible experience, Bostik is testing the use of chatbots. The project began with the scoping phase in 2024 based on two test entities. Specifications were drawn up beforehand, combining the response strategies and scope of the chatbot. First, the team identified all the questions that a chatbot can effectively answer, and those requiring direct contact with an employee.

The relevance of the answers was checked using a test-and-learn approach, allowing the solution to be gradually rolled out on a larger scale. This pilot stage was crucial for refining, correcting and improving the system. Chatbots offer many advantages. First, they provide customers with quick access to clear information independently without the need for human intervention, which many

customers requested. The instant responses are more effective than traditional asynchronous channels, such as forms or online messaging.

...and the Sales and Marketing teams

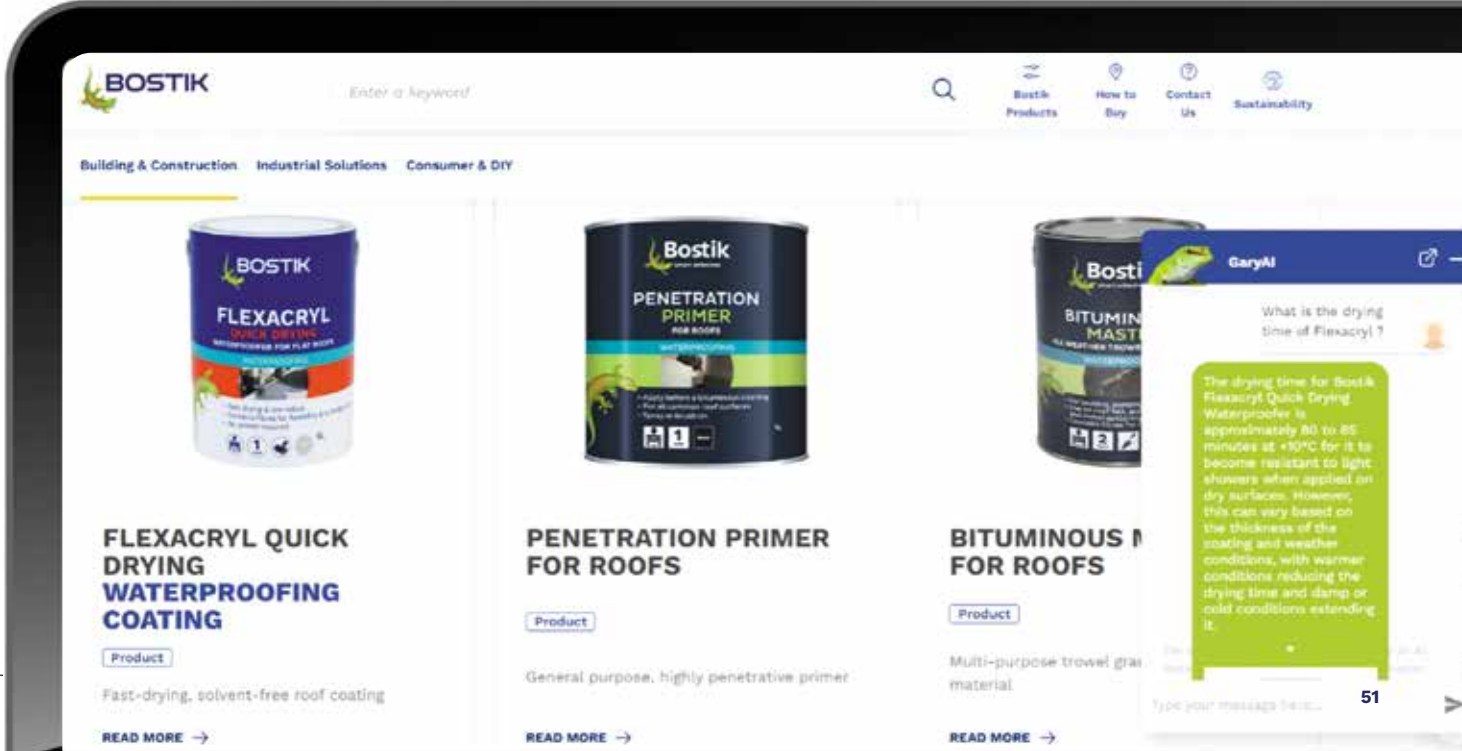
Chatbots also help optimize the Sales and Marketing team’s workload. By answering the most frequently asked questions, chatbots allow the team to focus on value-added tasks. “I prefer the term ‘augmented intelligence’ to ‘artificial intelligence,’” says Aldric Tourres, Global Director, Digital Activities at Bostik. “AI allows us to increase our productivity and focus on the most important issues.” These tools offer twofold benefits: improved customer satisfaction and more productive internal processes.

Other applications to come

Also in marketing, Arkema is exploring the benefits of generative AI for

content creation. These new tools can adapt content to different cultures, languages and channels, further personalizing customer relations.

Other applications are proving promising. The use of chatbots could help the Group’s sales agents recommend products, offering personalized recommendations for each customer. “Today,” says Aldric, “the dream is that every time someone calls customer services, they are automatically recognized, their file opens with their complete order history, and we can respond more efficiently. When it comes to using AI, we are in the right place. Arkema is conducting a range of tests and setting itself up for success.”





06

SOCIAL RESPONSIBILITY



“WE HAVE AN ONGOING RECRUITMENT PROCESS. THERE’S NO STOP-STARTING.”

Arkema is one of the most attractive companies in the industrial sector. This is a source of pride for Thierry Parmentier, Executive Vice-President, Human Resources and Communications, who talks about the Group’s assets that allow it to attract and retain talent.

INTERVIEW WITH THIERRY PARMENTIER, EXECUTIVE VICE-PRESIDENT, HUMAN RESOURCES AND COMMUNICATIONS

What are Arkema’s recruitment ambitions worldwide?

We are continuing to recruit despite the geopolitical context and the current challenges facing the global economy, as we did during the Covid-19 pandemic. Our group employs more than 21,000 people and we have an ongoing need for about 2,000 new people per year (excluding temporary contracts) to refresh and maintain our workforce. We recruit men and women of all ages, from those at the start of their career to highly experienced, mature individuals, in our 55 host countries.

Arkema offers more than 200 different roles in four main fields of expertise: industrial, R&D, commercial and support, with opportunities to switch between them. We strongly believe in the value of these careers and have an active policy of internal transfers and promotion. Jobs are changing and we need to support and train our employees to adapt to today’s challenges, such as digitalization, AI, the environment, working as part of a global network, and more. Our people must be increasingly agile and international. Our demographic is also

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evolving as we adapt to our industrial footprint, which is equally balanced between Asia, Europe and North America, and to the demographics of our customers. We recruit locally, even if it means training local teams and supporting them through expertise from our central departments, especially the industrial ones. We have a target of 40% non-French people in senior roles.

What makes the Arkema Group a magnet for new talent?

Our employees feel good about working with us. This was borne out by the 2023 Arkema Cares global internal survey, which we will repeat in 2025. Nearly 80% of the two-thirds of employees who took part in the last survey said they would recommend Arkema as a place to work to their friends and family! Our Net Promoter Score (NPS) is well above that of other groups. This is backed up by external surveys including one conducted by Capital magazine that ranked Arkema

third among the 500 best French employers in 2024. For the fifth year in a row, we were one of Forbes' Best Workplaces in the World, positioned 319th out of 850 companies, 19th among French organizations, and 27th in our sector. It is also reflected in the reviews posted on the Glassdoor website, where 74% of users say they would recommend Arkema to a friend, and 87% also approve of our CEO.

This attitude has not gone unnoticed by the Top Employers Institute, which has just certified our company as a top employer in ten countries including



Brazil, China, the United States and France. Arkema is also one of the 400 companies in the 2024 World's Top Companies for Women, which recognizes the progress made by women in our workforce, despite the fact that we operate in a historically male-dominated industry. This recognition encourages us to continue to apply best practice in human resources.

In 2024, we launched a new, quite unusual employer brand campaign. How do you think it went?

Yes, we need to make ourselves known and liked. This is essential in an industry that is not always properly understood in terms of its contribution to the energy transition and sustainable development. As businesses compete for talent, we need to attract candidates who want to be involved in the markets of the future: batteries, hydrogen, filtration, lightweight materials. The aim of our recent employer brand campaign was to say: come and play your part in these key areas! We hire people for their technical expertise, personality and soft skills. That's what our tagline implies: "Changing the world requires the right formula. The right formula consists of our innovative and sustainable materials, and you. Join us to develop the materials of tomorrow and make a difference together." The campaign received a lot of online coverage, especially on social media.

We were particularly impressed by the way it was taken up by our employees on LinkedIn. More than 1,000 of them spontaneously decided to get involved by attaching their photo to the campaign poster and highlighting their own soft skills. Their direct involvement raised the campaign's profile. It got three million views—that's huge!

Do you encourage job transfers?

Actively. They are a great motivator, and that creates value. For us, it is essential to engage people in three key aspects—changing region, changing role and changing business unit—and two levels—rising through



the ranks and gaining expertise. At Arkema, someone who starts out as a production engineer in thiochemicals in France could move into sales in the Performance Polymers BU in the United States. An engineer might move into sales or marketing. We give employees the opportunity to switch roles and progress through different projects, supported, if necessary, by training.

What is your assessment of the ninth employee share issue, which took place in 2024?

It was a great success, with record participation by the Group's

employees: 66% in France and 28% internationally, totaling €62 million. Our employees now represent approximately 9% of our share capital. This result reflects their dedication and confidence in Arkema's strategy and future, and gives Arkema one of the highest employee shareholding rates among French listed companies. It is a further indicator that employees feel good about working at Arkema and have a vision for the future. This positive view the employees have of the company is a key factor in Arkema's success. ●



Arkema leads the field in women's sports sponsorship

Arkema has been actively supporting women's football and cycling in France and around the world for several years, a policy that also aims to underscore the important role played by women in all fields, in industry and in society.



Think back to the 2019 Women's World Cup when the United States beat the Netherlands in the final. It was the fourth world title for the US team, and marked the start of Arkema's involvement in women's football as a sponsor of this global event, organized in France.

Meanwhile, Bostik has been a partner of the Women's Tour de France since 2023. These opportunities help to raise the profile and impact of women's sport and are aligned with the Group's aim to accelerate women's

career development and increase their numbers in the workforce, particularly in management and executive roles.

The Group's support of women's football, a bold and innovative move for an industrial player, inspired Arkema to commit further. Since then, Arkema's name has been closely associated with the French women's football championship, the Arkema Première Ligue, and the Group has decided to extend the partnership until 2028.

Arkema's commitment is also reflected in our efforts to develop the sport at all levels near our sites worldwide. Some partnerships are with amateur clubs, like the women's team of SC Nans-les-Pins, sponsored by our Marseille Saint-Menet site in the south of France, and Serquigny FC in Normandy. Others are with members of the elite, like the US pro team North Carolina Courage, who play in Division 1 of the National Women's Soccer League (NWSL). Then there's the Sereias

da Vila, the nickname of the players of Santos FC in Brazil who compete in one of the world's top championships, the Brasileiro Feminino. The most recent partnership is through Arkema in Argentina, which has just announced its sponsorship of Club Deportivo Carlos Casares, who play in the regional league of Buenos Aires province. These partnerships reflect our shared values of commitment, performance, solidarity and inclusion.



Arkema is proud to have been awarded a prize for its services to women's sport by the Alice Milliat Foundation, named after the woman who helped organize the first Women's Olympiad. The award reflects Arkema's unwavering commitment to women's sports in France.



Bostik hits the road with the women's Tour de France

Our subsidiary Bostik, a global player in specialty adhesives, is continuing its involvement in the Women's Tour de France for the second year running. As an official partner of the third edition of this global sporting event, it is an opportunity to contribute to the great momentum that women's cycling is currently experiencing.





A unique immersion in the world of Arkema

Located in the Lightwell building, which houses Arkema's new headquarters in La Défense, Europe's largest business district, Le Lab (Learn Arkema Better) showcases our innovations through unique interactive digital experiences.

Welcome to Le Lab! This 200 m² space is packed with engaging experiences, touch screens, tools and animated 3D digital content that recreates scenarios in which the often-unexpected benefits of our materials can be found.

Le Lab is an ultra-modern yet welcoming space filled with light and plants, created in part using Arkema materials and solutions such as Microtopping® flooring, marketed by our affiliate Bostik.

This is a gathering place for everyone—employees, customers, partners and students—with accessible content designed for a public audience. Bonus: this new showroom can be toured with a scientific guide by appointment or independently thanks to its range of interactive activities.



Fred, what do you like best about Le Lab?

“Everything is great about Le Lab! For example, in zone 1 we have installed the largest touchscreen in Europe, which allows visitors to explore the world of Arkema interactively. Custom-made, it measures 110 inches (280 cm) diagonally and responds to the slightest touch. But my favorite feature is Once Upon a Time, which tells the story of our materials. It presents ten objects, including a small robot made from our ultra-high-performance Kepstan® polymer, designed to go to the moon and withstand highly abrasive dust and extreme temperatures! The objects appear on a glass screen with an augmented reality device, which can overlay figures, videos and all kinds of information. In the future, we will be able to enhance this experience with our latest innovations.”

Frédéric Cavicchi, aka Fred, Arkema Scientific Mediator



A quick tour of the seven zones:

Zone one features the **Journey through Arkema** on a giant interactive screen. It displays key figures, site maps, information about our CSR policy and R&D, details of our talent, our promises, and more.

Zone 2, the Banana Lab, allows visitors to perform real-life chemistry experiments safely (drinking water filtration, ultra-strong adhesives, electroactive materials, etc.)

Zone 3 consists of a display of **five touch screens combined with audio** that immerses visitors in different soundscapes. Five educational 3D animations showcase the benefits of our innovative products in **everyday applications** (batteries, water filtration, construction, electronics and sustainable lifestyle).

Zone 4 shows how **Arkema designs recyclable materials, starting with manufacture**, and how our materials allow

customers to recycle their products more effectively. Magic flaps allow visitors to recycle used objects!

In zone 5, our “object library” showcases various finished products made with our materials.

Zone 6 invites visitors to scan a **car on a giant touchscreen** to see all the components that use Arkema solutions—a *One Arkema* experience that showcases dozens of our products and is set for updates. Today, it might be a car; tomorrow, visitors will be able to scan a city, an airplane or a bus!

Lastly, **zone seven, Once Upon a Time, highlights ten iconic objects that tell the story of our materials**. Placing the object behind a transparent screen triggers an audio playback, and visitors can enjoy a series of videos and animations through the screens using augmented reality!



GETTING OUR EMPLOYEES INVOLVED IN GRASSROOTS INITIATIVES

Arkema has initiated a number of sponsorships around the world, but it also strongly encourages its employees to get directly involved in philanthropic work: supporting the education and integration of disadvantaged young people in ways that are aligned with our values of solidarity and inclusion. And our employees have risen to the challenge!

France

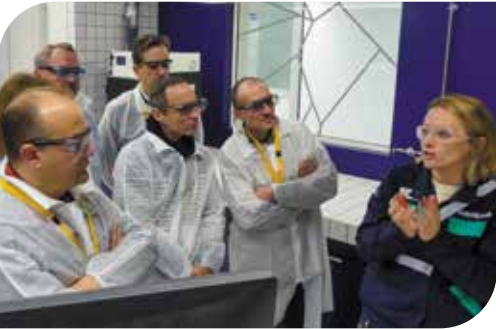
Sport dans la Ville helps young people from underprivileged neighborhoods into work

After supporting the nonprofit Sport dans la Ville since 2019, Arkema became one of its key partners in 2023. Reflecting our values of inclusion and solidarity, it was a natural step to increase our support for an organization that works with more than 10,000 young people every year in several major cities.

Arkema is particularly involved in Sport dans la Ville’s “Job in the City” program, which helps people into work. The Group’s employees mentor these young people, helping them with administrative formalities, giving English conversation classes or offering them internships or work-study contracts. They also host site visits to show them a glimpse of the workplace.



CGénial promotes careers in industry



Our partnership with the nonprofit CGénial, which began in 2006, encourages secondary school students to consider careers in science and technology.

The “Engineers and Technicians in the Classroom” program enables Arkema’s volunteer employees to meet young students and talk about their experience. Every year, more than 2,000 students learn about our career opportunities and the work of our employees. It’s an exciting experience that cultivates relationships with schools near our sites.

Through the Teachers in Business program, our employees show high school teachers around our sites to learn about the different roles and career opportunities. The teachers then report back to their students. To date, we have hosted nearly 500 teachers and education professionals from French schools at eighteen of our sites in France.

Enabling employees to volunteer during working hours

In 2024, Arkema launched its “Solidarity Days”. The scheme is currently open to the Group’s employees in France, and allows eligible employees to volunteer with nonprofits for up to two days a year during working hours.

Employees can browse opportunities with select organizations via a special platform, created in partnership with the company Koeo. They can search by theme (education, disability, environment, employment, etc.), personal expertise (IT, tutoring, manual work, help with writing CVs or with HR interviews, etc.) or professional expertise (accounting, law, communications, human resources, business development, etc.)

“This scheme allows our employees to get involved with nonprofits working in education, inclusion and diversity, in line with the Group’s values. We know that nonprofit organizations are increasingly in need of volunteers and we believe that many Arkema employees are keen to get involved and contribute their expertise and energy,” says Mathieu Zône, Director of Human Resources and Communications France & Group Labor Relations.

By the beginning of 2025, some seventy French employees had volunteered with one of these organizations.



Making the transition to retirement easier with skills-based volunteering



Launched in France in 2023, the “end-of-career” skills-based volunteering program allows employees nearing retirement to work full-time for a nonprofit organization aligned with the Group’s values, on full pay.

The program provides a unique end-of-career experience for senior employees while allowing communities to benefit from their valuable professional experience. Volunteer employees who meet the criteria also benefit from the support of our partner Koeo, which holds four in-depth

interviews with participants to assess their aptitudes and skills and to define the type of project that would best suit them.

“The end-of-career skills-based volunteering program is a fantastic opportunity for a meaningful transition before retirement,” says Nathalie Muracciole, head of the Wellbeing at Work program. These one- or two-year placements in nonprofit organizations help employees make the transition from working life to retirement.



United States



Homes for people in difficulty with Habitat for Humanity



In the United States, Arkema has been partnering with Habitat for Humanity in Philadelphia for three years. This organization renovates and builds houses for people in difficult circumstances.

As well as supplying financial support and donating building materials, Arkema allows its employees to work with Habitat for Humanity. The proximity of the Radnor headquarters and the King of Prussia Research Center to Philadelphia, Pennsylvania, allows our employees to volunteer their time and skills at the organization's building sites.

"We love the city of Philadelphia, and Arkema US has strong roots in the region. We are proud to partner with Habitat for Humanity Philadelphia to provide safe, affordable housing for families in need," says Tony O'Donovan, Regional Manager, Arkema North America.

Brazil



Gol de Letra promotes social inclusion through education and sport

Arkema Brazil has been a Gold partner of the Gol de Letra Foundation since 2024, providing funding and the support of its 500 employees.

Founded in 1998 by Raí and Leonardo, two famous Brazilian footballers who played for PSG, Gol de Letra supports more than 4,500 children, teenagers and young adults every year at its centers in São Paulo and Rio de Janeiro. The UNESCO-recognized foundation's mission is to help educate socially disadvantaged children and young people in Brazil's favelas.



Arkema's employees support the Youth and Jogo Aberto programs directly by helping 14- to 21-year-olds prepare for employment through site visits, mentoring and workshops. The Jogo Aberto (Open Play) program is aimed at 8- to 18-year-olds and offers 15 different sports and educational activities.

"We share the same passion for football and sport and the values they convey. Without partners like Arkema, Gol de Letra would not have the same reach," says Raí Souza Vieira de Oliveira, former international footballer and Founding President of the association.

All sites worldwide



Encouraging employees to get involved through the Arkema Fund

The Arkema Fund, created for Arkema's tenth anniversary in 2016, finances projects proposed by Group employees at all our sites who are personally involved in a nonprofit that works in education and inclusion. It has now funded nearly a hundred projects in sixteen different countries.

By supporting these projects and the work of thousands of volunteers taking part in educational and humanitarian outreach programs in countries where Arkema operates, the Arkema Fund is helping to revitalize these regions.

Among the initiatives supported by the Arkema Fund is Tutti Per Uno in Italy, which provides educational and social assistance to young people with neurodevelopmental disorders.

In France, Onze Mille Potes provides laundry services, underwear and secure lockers for vulnerable people, particularly the homeless and those living in unstable conditions.

Arca de Noé, in Brazil, helps marginalized women with their careers, through entrepreneurship or finding work, or by helping them to complete their studies and achieve a higher level of education.

The Cooperative for Education, a US nonprofit based in Guatemala, empowers and educates young women by helping them access education programs despite financial and cultural obstacles.



China



Broadening school children's horizons

Our Chinese employees regularly meet school children and high school students in the communities around our sites through the Arkema ChemArt Green Innovation Class, launched in 2016.

This program promotes science education and raises awareness of careers in industry and environmental challenges.

Our volunteer employees host a range of activities for students relating to corporate social responsibility on topics such as innovation, safety and the environment. These activities are based on the local needs of our employees' communities, in order to address their concerns as closely as possible.

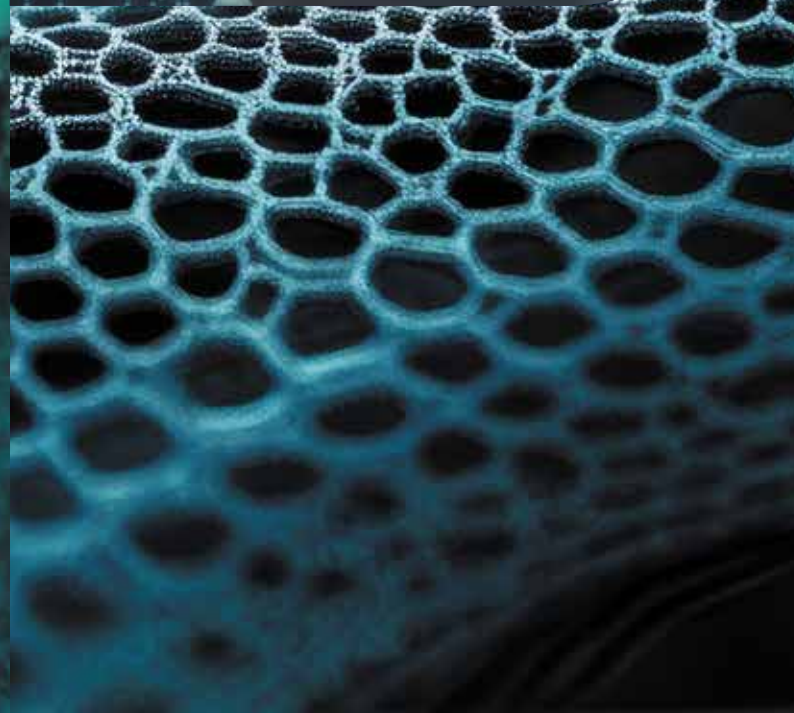
The ChemArt Green Innovation Class program provides students with opportunities and resources to help them broaden their horizons, acquire knowledge from a variety of sources, raise their awareness of environmental issues and stimulate their overall development.





07

SHAREHOLDER HANDBOOK



Review of 2024

Relive the highlights of a year marked by our sustainable innovations and climate action, investments and acquisitions, and our ongoing commitment to sport.

INNOVATIONS AND SUSTAINABLE DEVELOPMENT

January

Ramping up our global program for sustainable castor oil

The seventh year of Pragati was a success, and more than 7,000 farmers are now certified under the program, resulting in a significant increase in individual farmer yields. More than 7,000 hectares of land, mostly semi-arid, are now managed according to the SuCESS® Code of sustainable castor oil production.



February

Our bio-based polyamides receive the “Solar Impulse” label

Our bio-based polymers Rilsan® and Pebax® Rnew® received the Solar Impulse Efficient Solution label following an evaluation by independent experts. These materials now rank among the 1000+ solutions identified by the Solar Impulse Foundation that meet stringent sustainability standards. Bertrand Piccard, Founder and Chairman of the Solar Impulse Foundation, has compiled a guide to these scalable projects, aimed at decision-makers, with the intention of accelerating their implementation.

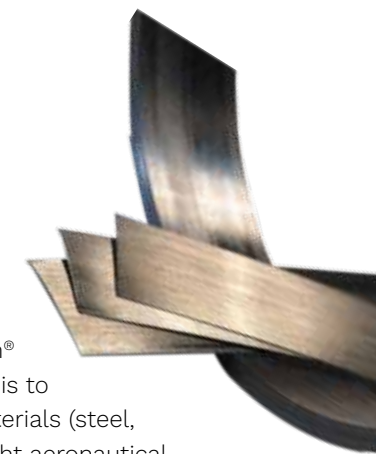


ADVANCED BIO-CIRCULAR POLYAMIDE 11 POLYMERS
is proud to be labeled
as a Solar Impulse
Efficient Solution

March

Arkema and Hexcel develop a thermoplastic composite for aeronautics

As a result of a strategic partnership, a demonstrator has been designed and manufactured using Hexply® thermoplastic tapes. These structural materials are developed from our high-performance Kepstan® PEKK resins and Hexcel carbon fibers. The aim is to produce composite parts to replace metal materials (steel, aluminum, titanium) and create more lightweight aeronautical structures rapidly and at a competitive cost.



Arkema celebrates thirty years of specialty polymer recycling

Agiplast, a world leader in high-performance thermoplastics recycling since 1994, joined the Arkema Group in 2021. Within Agiplast, Arkema's Virtucycle® customized recycling program has made it possible to develop a range of more than fifteen recycled grades, now certified by the SCS Global Services accreditation program, with a significantly reduced environmental impact.

May



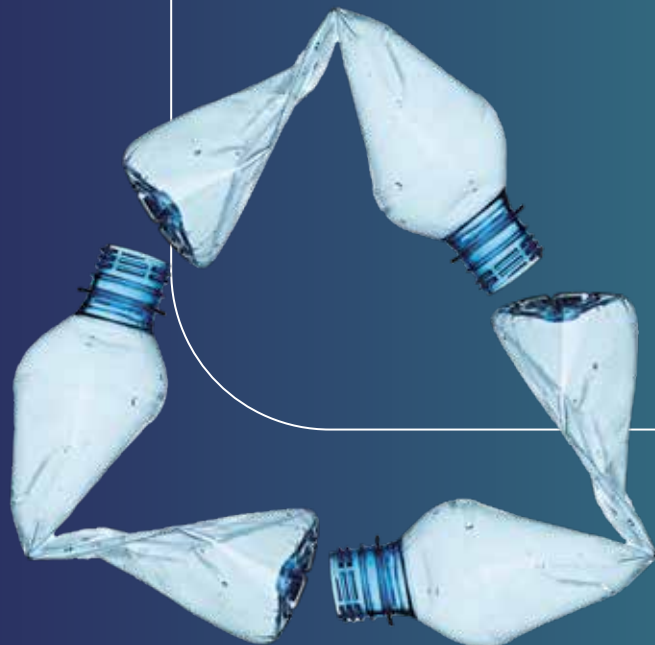
ProLogium to source PVDF from Arkema for its new-generation batteries

Arkema was selected by ProLogium, the Taiwanese technology leader in advanced batteries, as a key supplier of Kynar® PVDF grades for its future gigafactory. Located in Dunkirk, France, the plant is expected to produce up to 2 GWh of lithium ceramic batteries by 2026, enough to power as many as 26,000 cars a year.

June

Arkema's new coating resins are made from recycled PET bottles!

Arkema has developed new manufacturing processes for powder coating resins containing up to 40% recycled content from end-of-life packaging. What's more, these resins are solvent-free, generate little waste and have a 20% smaller carbon footprint!



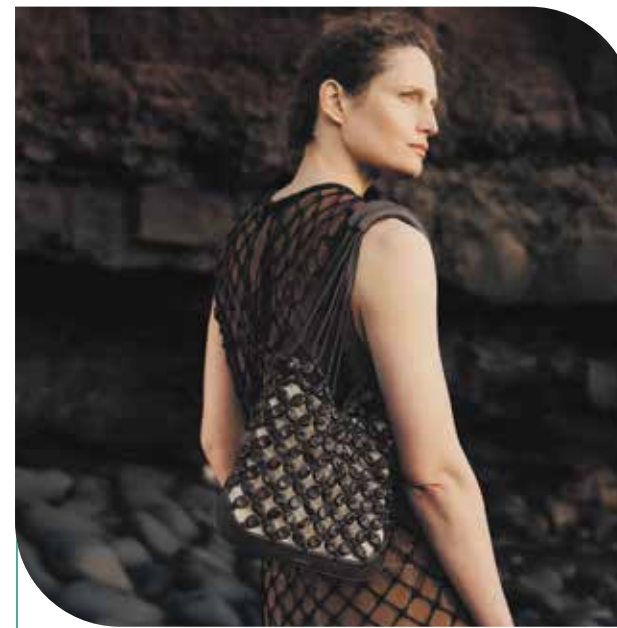
September



Bostik announces 80% bio-based adhesives for packaging

Bostik, Arkema's adhesives subsidiary, launches Kizen™ LIME, a range of packaging adhesives made from at least 80% renewable raw materials. This innovation reduces the carbon footprint by 100%, improving packaging sustainability while offering energy and cost savings.

November



A successful combination of our polyamides with leather

Arkema and Authentic Material have created innovative materials for high-end products, combining recycled leather with Rilsan® polyamide 11 or Pebax® elastomer. Marketed under the Qilin™ brand, these materials are used in various sectors from fashion and leather goods to consumer electronics and sports equipment.

CLIMATE PLAN

February



Energy transition in the United States: a decisive step

Arkema signed long-term contracts to supply four of its main US sites, as well as all Bostik sites, with renewable energy. By the end of 2024, 40% of the electricity used at Arkema's US sites came from renewable sources.

June

Rallying our employees to the climate cause

On June 19 and 20, Arkema took part in the 48 Hours Climate Fresk, an inter-company initiative that raises awareness of climate change. Workshops were held at our sites to train employees and encourage action. 4,100 employees have received this training since April 2023, with a target of 80% by 2027.



October



Solar Impulse label for Kynar Aquatec® PVDF

After bio-based polyamides, it was the turn of our Kynar Aquatec® PVDF range to obtain the Solar Impulse Efficient Solution label for its exceptional durability in reflective white roof coatings. This solution, evaluated by independent experts, offers a lifespan 300% to 400% longer than traditional solutions. Kynar Aquatec® is now one of the approved projects in the Solar Impulse 1000+ Solutions portfolio.

SITE INVESTMENTS AND ACQUISITIONS

January



A stake in Tiamat, sodium-ion battery technology

Alongside strategic investors including Stellantis Ventures and MBDA, Arkema is taking part in the €22 million fundraising round for Tiamat, a spin-off of the CNRS founded in 2017 and a pioneer in next-generation sodium-ion battery technology. With the support of the French government and the European Union, Tiamat plans to build a 5 GWh gigafactory in France dedicated entirely to the production of sodium-ion battery cells.

February

Arkema increases its global production capacity for Pebax® elastomers by 40%

To support the strong growth of its customers, particularly in sports equipment, electronics and consumer goods, Arkema increased its global production capacity for Pebax® elastomers by 40% at its Serquigny site in France.

May

Acquisition of Dow's laminating adhesives business

The Group signed an agreement to acquire Dow's flexible laminating adhesives business for food and medical packaging, with annual revenue of \$250 million. This acquisition expanded the portfolio of Bostik, Arkema's adhesives affiliate, strengthening the business segment and making it a world leader in flexible packaging.



April

Majority stake in Proionic

Arkema acquired a near-78% stake in Proionic, a leading startup in ionic liquids for lithium-ion batteries, boosting its range of solutions for new-generation batteries.



ARKEMA IN SPORT

April



Bostik and women's cycling stick together!

Arkema's affiliate Bostik partnered Zwift for the Tour de France, Paris-Roubaix, La Flèche Wallonne and Liège-Bastogne-Liège women's races. In addition to sponsoring the races, Bostik provided innovative adhesives for the cyclists' race numbers.

June

Supporting the Mexican women's artistic swimming team



In 2024, Arkema sponsored the Mexican women's artistic swimming team, which competed in the Paris Olympics after losing its public funding. The team excelled in the World Cup, winning gold in Paris. Arkema also supports Jessica Sobrino, a leading figure in this discipline.

Partnership with the Gol de Letra Foundation

Arkema became a Gold partner of the Gol de Letra Foundation in Brazil, which supports the social integration of young people from favelas through education, culture and sport. Created by two famous footballers, Raí and Leonardo, the foundation works with more than 5,000 young people each year.

September

Our employees are in the race!

The Olympic year provided an opportunity to bring our employees together through sport. During the three summer months, they took part in a Group global relay, "En route for Paris". Nearly 800 relay runners covered 7,500 km and shared their photos on a dedicated internal site, celebrating their achievements and fostering a sense of belonging to the Group. Three employees chosen at random from among participants were invited to Paris in September with their families to attend the Paralympic Games and cheer on our para-athletes Pauline Déroutède (wheelchair tennis) and Alexis Hanquiquant (triathlon).





Executive Committee

The Executive Committee, chaired by Thierry Le Hénaff, consists of a Chief Operating Officer, five operational and functional Executive Vice Presidents, and three operational Senior Vice Presidents.

It is responsible for the operational management, coordination and implementation of the strategy within the Group. This decision-making body undertakes strategic thinking and monitors performance, examines key organizational issues and major projects, and oversees the implementation of internal oversight.



1. Sophie Fouillat,
Executive Vice President
Strategy

2. Tilo Quink,
Executive Vice President
Performance Additives

3. Thierry Parmentier,
Executive Vice President
Human Resources
& Communications

4. Marc Schuller,
Chief Operating Officer
Advanced Materials, Coating
Solutions and Intermediates

5. Thierry Le Hénaff,
Chairman and Chief
Executive Officer

6. Luc Benoit-Cattin,
Executive Vice President
Industry and CSR

7. Marie-José Donsion,
Executive Vice President
Finance

8. Richard Jenkins,
Senior Vice President
Coating Solutions

9. Vincent Legros,
Senior Vice President
Adhesives (Bostik)

10. Laurent Tellier,
Senior Vice President
High Performance Polymers
and Fluorinated Gases

Three changes to the Executive Committee

In 2024, the Executive Committee welcomed two new members: **Sophie Fouillat, Executive Vice President Strategy**, replaced Bernard Boyer on his taking retirement. **Tilo Quink, from outside the Group**, took the role of **Executive Vice President Performance Additives** and replaced **Laurent Tellier**. The latter took over as **Executive Vice President High-Performance Polymers and Fluorinated Gases**, replacing Erwan Pezron, who took retirement.

Board of Directors

Chaired by Thierry Le Hénaff, the Board of Directors is composed of fourteen members, with a balanced representation between women and men. It is made up of eight independent directors, two directors representing employees and one director representing employee shareholders. The Board of Directors defines Arkema's strategic directions and oversees their implementation. It is supported by three specialized committees.

To strengthen its expertise, the Board of Directors has three specialized committees.

 **The Audit and Accounts Committee**, composed of **Marie-Ange Debon** (Chairwoman), **Isabelle Boccon-Gibod**, **Séverin Cabannes**, **Ilse Henne** and **Ian Hudson**. This committee ensures the quality of internal oversight and the reliability of information provided to shareholders and financial markets.

 **The Nominations, Compensation and Corporate Governance Committee**, composed of **Thierry Pilenko** (Chairman), **Philippe Allart**, **Hélène Moreau-Leroy** and **Philippe Sauquet**. This committee makes recommendations concerning membership of the Board of Directors, compensation policy for the Directors (including the Chairman and CEO) and corporate governance best practices.

 **The Innovation and Sustainable Growth Committee**, composed of **Ian Hudson** (Chairman), **Isabelle Boccon-Gibod**, **Florence Lambert**, **Sébastien Moynot** and **Susan Rimmer**. This committee is responsible for assessing the contribution of Arkema's innovation and strategy to environmental issues and sustainable growth. Like the other two committees, it contributes to the comprehensive review of all the Group's environmental, social and governance (ESG) and non-financial issues.

In 2024



97%

meeting attendance rate



7

meetings including one day dedicated to the Group's strategy

6 years

of service on average



1



2



3

1. Thierry Le Hénaff, Chairman and Chief Executive Officer of Arkema

2. Philippe Allart, Director representing employees

3. Isabelle Boccon-Gibod, permanent representative of the French equity fund Fonds Stratégique de Participations (FSP)



4



5



6

4. Séverin Cabannes, Independent Director

5. Marie-Ange Debon, Independent Director

6. Ilse Henne, Independent Director



7



8



9

7. Ian Hudson, Independent Director

8. Florence Lambert, Independent Director

9. Hélène Moreau-Leroy, Independent Director



10



11



12

10. Sébastien Moynot, Director representing BPIfrance

11. Nicolas Patalano, Director representing employee shareholders

12. Thierry Pilenko, Independent Director



13



14

13. Susan Rimmer, Director representing employees

14. Philippe Sauquet, Independent Director



Investor Relations

Since its initial public offering in May 2006, the Group has maintained an active, ongoing dialog with the entire financial community to explain its strategy and objectives.

Regular contact with institutional shareholders

Arkema communicates regularly with institutional investors and financial analysts, largely through roadshows and conferences held both in person and online.

The Group's executive representatives, primarily Thierry Le Hénaff and Marie-José Donsion (Chief Financial Officer), frequently meet portfolio managers and financial analysts in major financial centers in Europe, North America and Asia. The financial communications team also maintains regular contact with the financial community.

The purpose of these meetings is to inform the market of our earnings and principal transactions and to improve investor and analyst understanding of our activities, strategy and outlook. Thierry Le Hénaff and Marie-José Donsion present quarterly, semi-annual and annual results to the financial community via a livestreamed conference call.

In 2024, the Group held approximately 430 meetings through roadshows and conferences.

Arkema also organized an in-person Capital Markets Day in Paris on September 27, 2023, attended by nearly sixty investors and analysts.

Specific communications for individual shareholders

We meet regularly with our individual shareholders, especially at the Annual Shareholders' Meeting, a key forum for discussing Arkema's strategy, results and outlook.

In 2024, the Annual Shareholders' Meeting was held on May 15 at the Théâtre des Sablons in Neuilly-sur-Seine, with shareholders in attendance and live and recorded broadcasts in the Investors section of the Group's website.

The Group also met with individual shareholders at an investor meeting in Toulouse on December 2, 2024, and used digital tools to interact further

with individual shareholders. Nine email campaigns relayed the Group's news throughout the year. We offer members of our Shareholders' Club a series of activities throughout the year to familiarize them with the chemicals industry, innovations and everyday chemical applications. In 2024, the Group organized a number of museum visits on these themes.

Presentations, shareholder newsletters and other documents aimed at individual shareholders are available from the Investors section of the Group's website (<https://www.arkema.com/global/en/investor-relations/individual-shareholder/>).

Attractive dividend policy

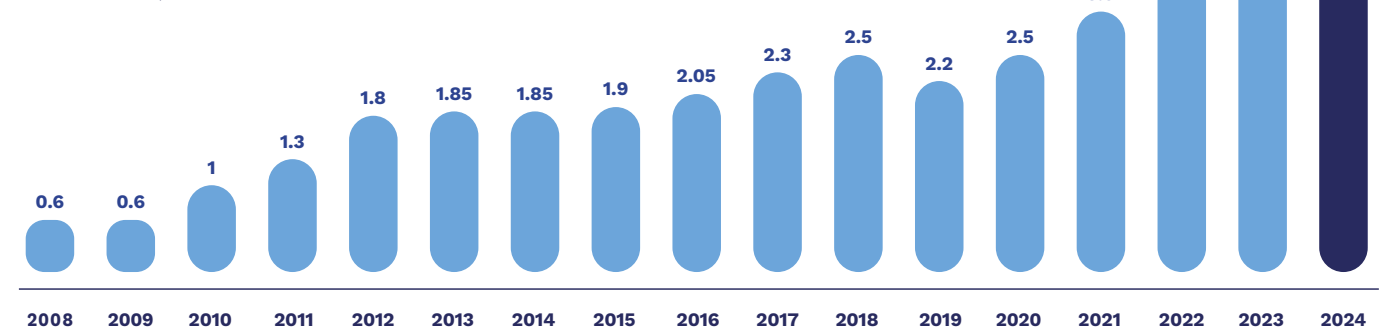
Dividends are a key part of the Group's shareholder return policy. At its Capital Markets Day on September 27, 2023, the Group restated its intention to gradually increase its dividend, with a target payout ratio of around 40% for 2024-28.

At its meeting on February 26, 2025, the Board of Directors decided to ask the Shareholders' Meeting on May 22, 2025 to approve a dividend of €3.60 per share for 2024 (compared to €3.50 per share in 2023), payable entirely in cash.

The ex-dividend date is set for May 26, 2025, and payment will be made on May 28, 2025.

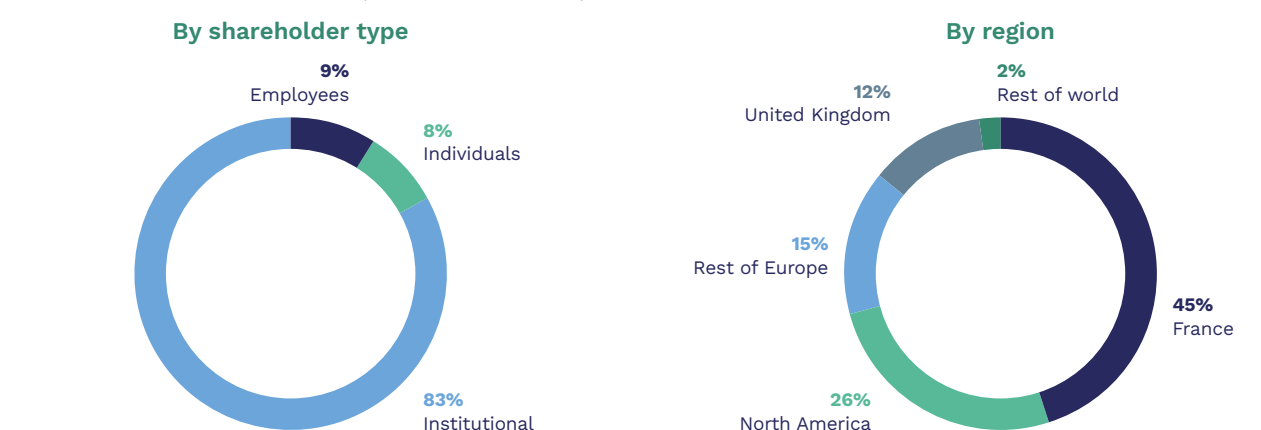


DIVIDEND INCREASE SINCE 2008 (€ PER SHARE)



(1) Dividend recommended at the Shareholders' Annual General Meeting on 22 May 2025. The dividend is a key part of the Group's shareholder return policy. The payout ratio is 40%, in line with the Group's long-term objective.

SHAREHOLDER STRUCTURE (AT DECEMBER 31, 2024)



CONTACTS

Institutional Investor Relations
investor-relations@arkema.com
Tel: +33 (0)1 49 00 74 63

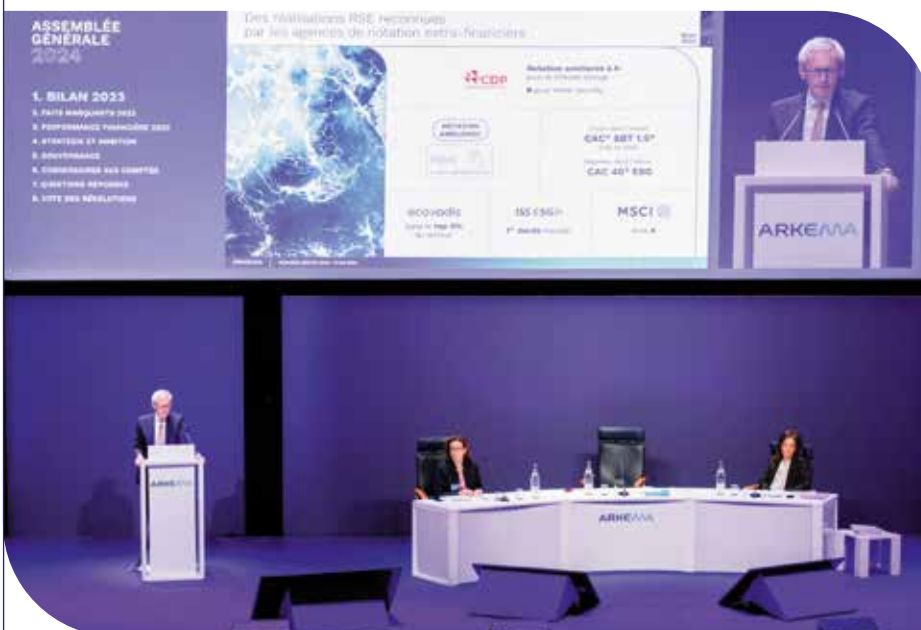
Individual Shareholder Relations
actionnaires-individuels@arkema.com
Tel: 0 800 01 00 01 (free in France)
+33 (0)1 86 86 05 87 (international)

2025 DATES

May 22
Annual Shareholders' Meeting

July 31
First-half 2025 results

November 7
Third-quarter 2025 results

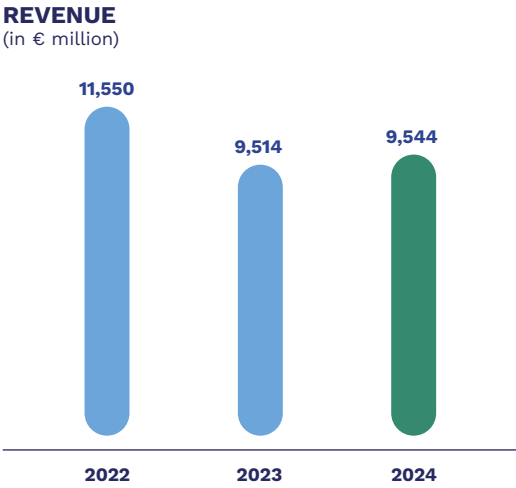




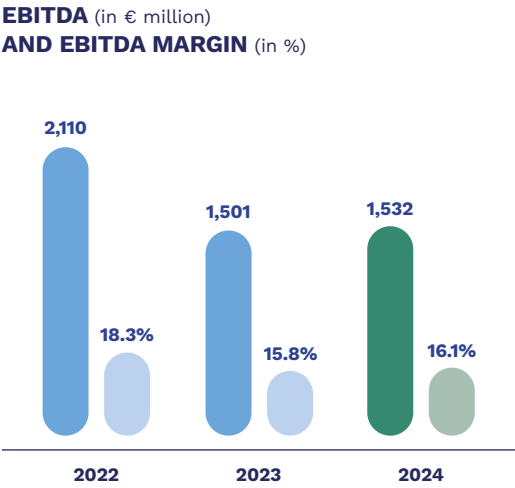
2024 financial and non-financial performance

Financial results: a solid performance in 2024

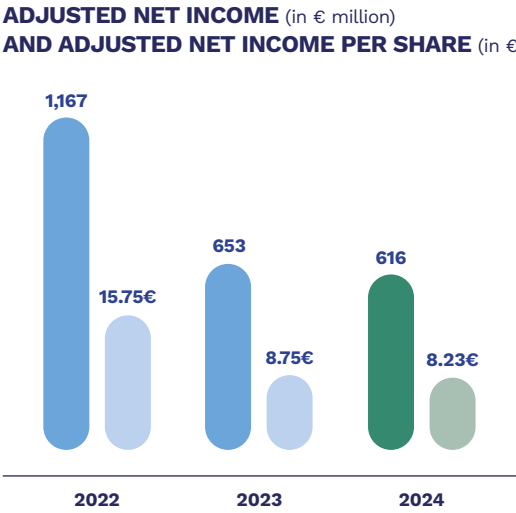
Arkema delivered a solid performance in 2024 with EBITDA up slightly to €1.53 billion and an EBITDA margin of 16.1%, underscoring the Group’s resilience and ability to adapt in a challenging macroeconomic environment.



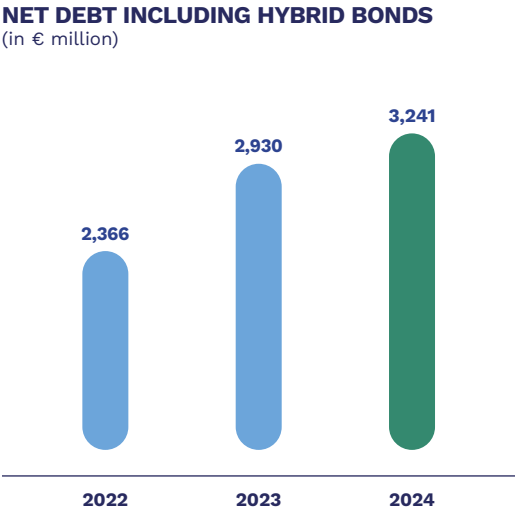
Group revenue totaled €9,544 million in 2024, stable compared to 2023 (up 0.3%), in a macroeconomic environment marked by weak overall demand.



EBITDA, at €1,532 million, is up 2.1% on last year, driven by strong growth in Asia, partially offset by a sharp decline in Europe, with North America remaining stable. The Group achieved a healthy EBITDA margin of 16.1%.



Adjusted net income totaled €616 million, or €8.23 per share.



Net debt including hybrid bonds amounted to €3,241 million at the end of 2024, including payment of a dividend of €3.50 per share for the 2023 financial year. It includes the renewal in 2024 of the ten-year lease commitments for the French and US headquarters. At the end of 2024, it represented 2.1 times EBITDA for the past twelve months.

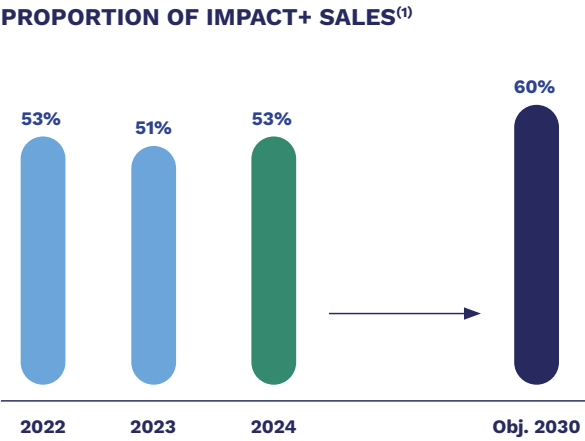
CSR commitments and results

Arkema aims to generate sustainable and responsible growth for its businesses and responds to societal issues by providing its customers with sustainable and innovative solutions that contribute to the United Nations Sustainable Development Goals (SDGs).

To increase Corporate Social Responsibility (CSR) transparency for all stakeholders, Arkema has set out its social commitments and rolled them out across the Group to encourage buy-in to a culture of sustainable development. These commitments are based on Arkema’s long-standing core values, especially its safety culture, respect for the environment, innovation, community and close stakeholder relations. They are reflected in three strong principles that structure Arkema’s CSR policy:

- To deliver sustainable solutions driven by innovation
- To act as a responsible manufacturer
- To cultivate a position as a leading employer and maintain open dialog with stakeholders.

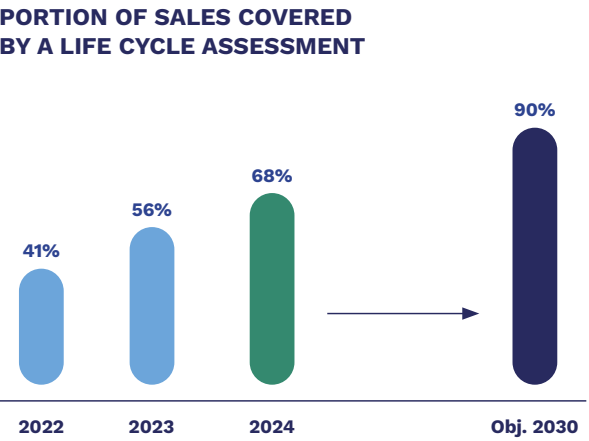
1. DELIVERING SUSTAINABLE SOLUTIONS DRIVEN BY INNOVATION



In order to strengthen its commitment to offering sustainable products, for several years the Group has been evaluating its portfolio of solutions against sustainability criteria through its Archimedes program. In 2024, the share of sales that made a significant contribution to the UN SDGs (ImpACT+) was 53%.

2030 target:
for 60% of our sales to make a significant contribution to the SDGs

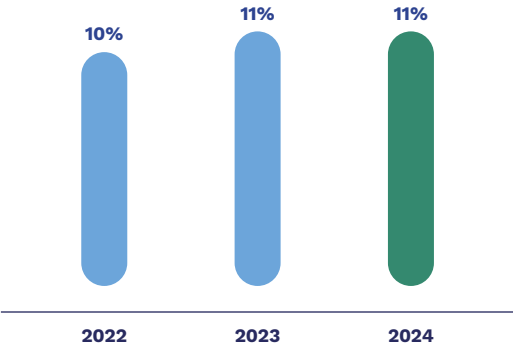
⁽¹⁾ The proportion of sales making a significant contribution to the SDGs (ImpACT+) was based on an assessment of 89% of the Group’s sales to third parties in 2024.



In 2024, 68% of sales were subject to a Life Cycle Assessment (LCA). This sharply increased figure was achieved by optimizing the Group’s processes and tools to meet growing customer demand for LCA data, especially on the carbon footprint.

2030 target:
for 90% of our sales to be covered by an LCA

PROPORTION OF SALES FROM RENEWABLE OR RECYCLED RAW MATERIALS



The proportion of sales from renewable or recycled feedstocks includes sales based on a content of at least 25% renewable or recycled raw materials.

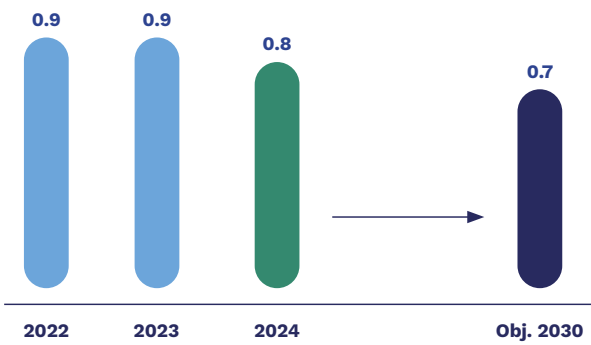


2. BEING A RESPONSIBLE MANUFACTURER

Safety: two indicators with targets for 2030

TRIR

(Total Recordable Injury Rate per million hours worked)

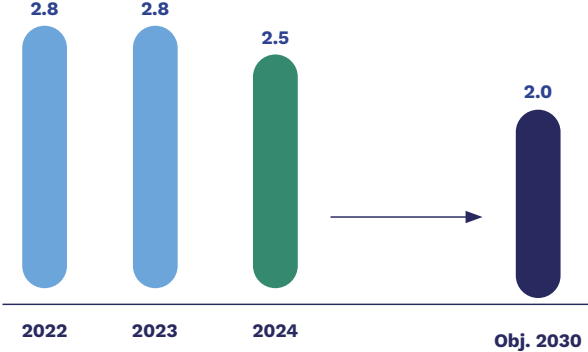


The Group continued to improve its results in 2024 with a TRIR of 0.8. This outcome is the result of action plans implemented in recent years to raise awareness of the Group's safety requirements among our employees and contractors. Arkema's TRIR performance is among the best in the chemicals industry.

New 2030 target:
The Group has set itself a new, more ambitious target of 0.7 (previously 0.8).

PSER

(number of process events per million work hours)



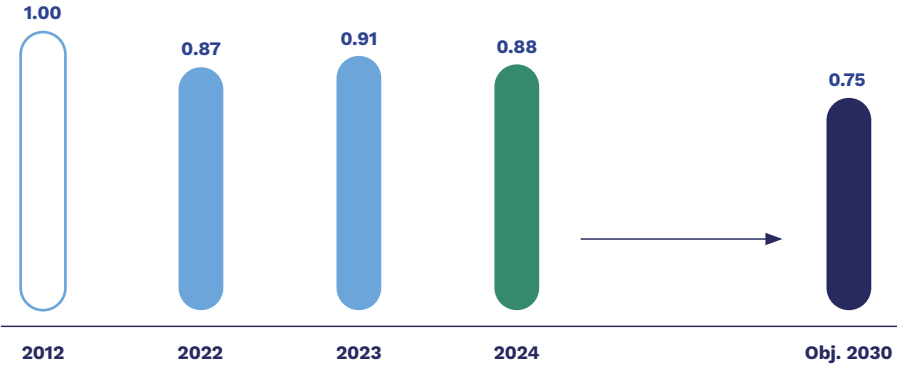
Improvement in the Process Safety Events Rate (PSER) is attributable to concrete, targeted actions implemented after analyzing types of process events and root causes.

2030 target:
PSER of 2.0

The energy, water and air targets are based on Environmental Footprint Performance Indicators (EFPIs), which reflect changes in the Group's scope of activity and plant production. The baseline year for these indicators is 2012.

ENERGY

(net energy purchases EFPI)

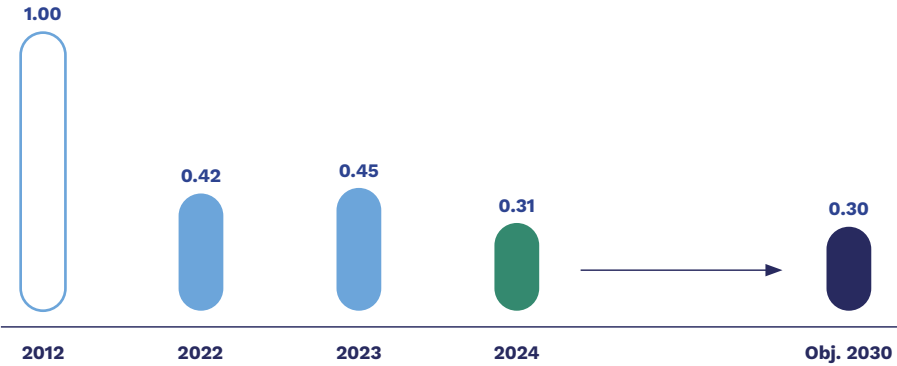


In 2024, energy performance improved by 3% compared to 2023 as a result of better production levels and continued energy optimization measures.

2030 target:
25% reduction in net energy purchases in terms of EFPIs compared to 2012.

EMISSIONS INTO WATER

(Chemical Oxygen Demand [COD] EFPI)

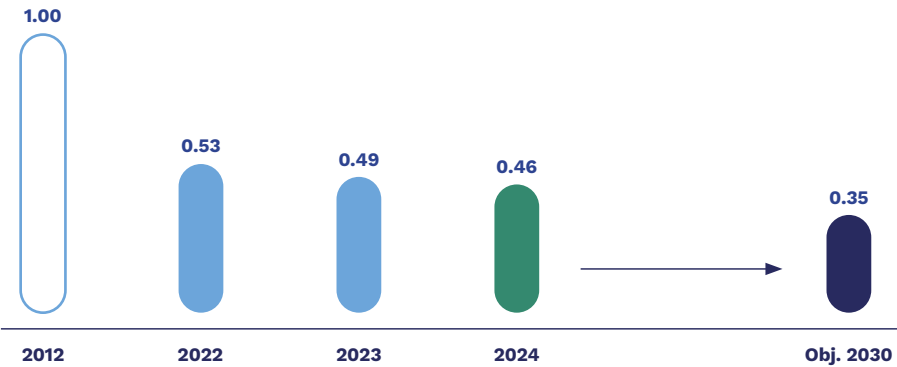


Thanks to improvements in treatment efficiency, COD emissions were significantly lower at most sites in 2024, particularly in Nansha, China.

New 2030 target:
The Group has set a new, more ambitious goal to reduce COD emissions by 70%, as measured by EFPI compared to 2012 (the previous goal was 65%)

EMISSIONS INTO AIR

(Volatile Organic Compounds [VOCs] EFPI)



The VOC EFPI continues to progress towards the 2030 target thanks to actions taken at sites, such as the installation of thermal oxidizers, constant leak detection and vent washing.

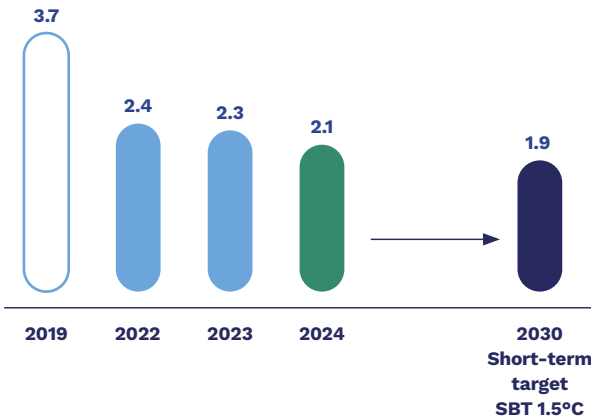
2030 target:
65% reduction in VOC emissions in terms of EFPI compared to 2012.

Climate and environment: five indicators with targets for 2030

The two climate indicators relate to greenhouse gas emissions in scopes 1 and 2, and scope 3 (all categories) under the Kyoto Protocol. The value of absolute GHG emissions is compared to the 2019 baseline.

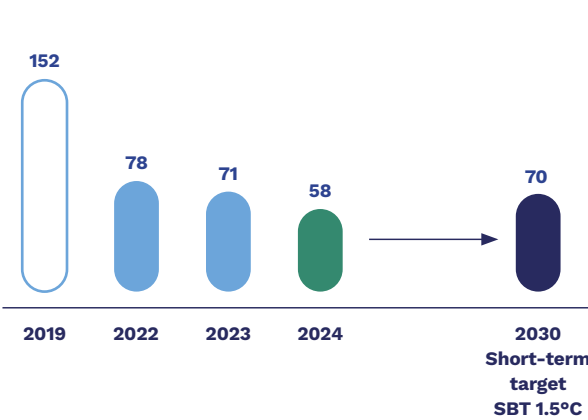
CLIMATE SCOPES 1+2

(scope 1+2 greenhouse gas emissions in Mt CO₂e)



CLIMATE SCOPE 3

(scope 3 greenhouse gas emissions in Mt CO₂e)



In 2024, Arkema was on track with its 1.5°C climate target, as shown in the graphs above.

Absolute greenhouse gas (GHG) emissions from **scopes 1 and 2** are down 42% compared to the 2019 baseline. This decrease resulted from the Group's ongoing efforts to implement its climate plan, particularly its low-carbon energy supply contracts.

The Group's **scope 3** GHG emissions decreased by 19% compared to 2023 and by 62% compared to 2019. This decline is primarily due to the gradual reduction of the most emission-intensive activities.

2030 targets (sbti validated):

- 48.5% reduction in Kyoto Protocol scope 1 and 2 GHG emissions compared to 2019.
- 54% reduction in Kyoto Protocol scope 3 GHG emissions compared to 2019.

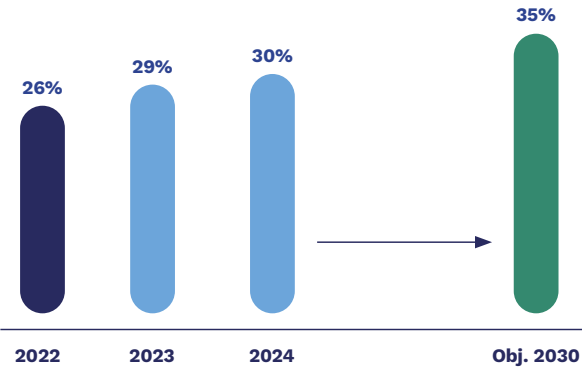
In 2024, Arkema exceeded its short-term 2030 target for Scope 3 GHG emissions. Building on this progress, the Group will pursue its decarbonization efforts and has set a new, more ambitious goal: to reduce its scope 3 GHG emissions by 67% by 2030 compared to 2019 levels.



3. TO CULTIVATE A POSITION AS A LEADING EMPLOYER AND MAINTAIN OPEN DIALOG WITH STAKEHOLDERS

Employee development and diversity

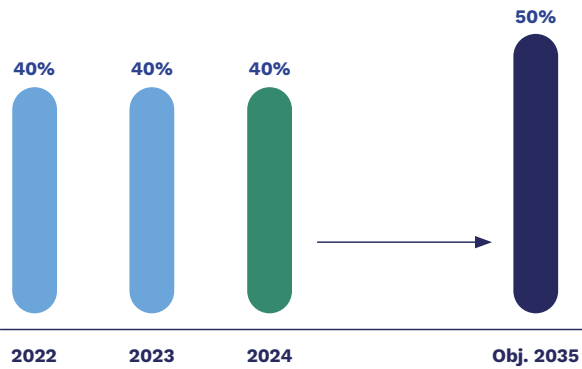
PROPORTION OF WOMEN AMONG SENIOR MANAGEMENT AND EXECUTIVES



In 2024, across the Group, the proportion of women among senior management and executives increased by one point compared to 2023.

New 2030 target:
Having achieved its target of 30% women in senior management and executive positions by 2024, the Group has set itself a new target of 35%.

PROPORTION OF NON-FRENCH EMPLOYEES AMONG SENIOR MANAGEMENT AND EXECUTIVES

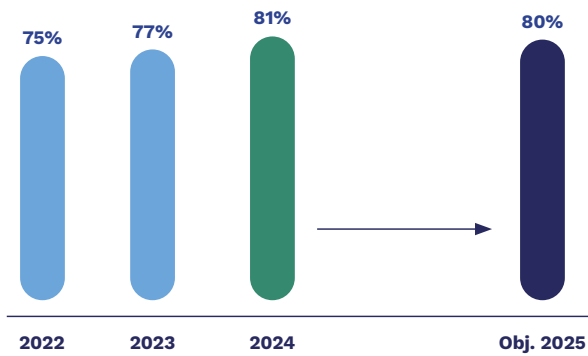


In all countries where Arkema operates, we prioritize local skills and expertise at all levels including senior management and executives. In 2024, the percentage of non-French employees in senior management remained stable at 40%.

2035 target:
Proportion of non-French nationals among senior management and directors: 50%

Responsible purchasing

PROPORTION OF PURCHASES FROM RELEVANT SUPPLIERS COVERED BY A TFS ASSESSMENT



In 2014, Arkema joined the Together for Sustainability (TfS) initiative created by six European chemicals groups.

By the end of 2024, more than 2,400 of the Group's suppliers and subcontractors had been assessed against CSR criteria over the previous three years. The proportion of purchases from relevant suppliers covered by a TfS assessment was 81%.

2025 target:
80% of purchases from relevant suppliers to be covered by a TfS assessment. At the end of 2024, the Group achieved its target and is working to consolidate this performance in 2025.

FOR THE WORLD TO CHANGE,
WE MUST CHANGE THE MATERIALS WE USE.

Beginning the journey to a more sustainable world means embracing innovative materials.

At Arkema, we offer a broad spectrum of materials essential for the battery ecosystem, as well as solutions that support the development of hydrogen as a fuel. Arkema makes mobility better by ensuring innovation and responsibility always go hand in hand.

Arkema. Innovative materials for a sustainable world.

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