



# Arkema today

2023 Corporate presentation

We have got big ambitions for 2024

“Be a Specialty Materials leader,  
**offering the most innovative and sustainable solutions** to address our customers’ current and future challenges”.

By 2024, Arkema will be a pure Specialty Materials player.

Our world is facing a wave of change

**As a major player in  
Specialty Materials,**  
we are ideally positioned  
to help lead it.

# We ride together



The products, the people, the partners and the passion – this is what unites us at Arkema.

Together, we put our materials and expertise to make a more sustainable world for everyone.

The materials in our lives will be a force for progress

Our materials have a **critical role** to play, they will be:

**lighter,**  
more **efficient,**  
more **versatile,**  
more **sustainable.**



They will help us work smarter, play better, live more responsibly



## Clean mobility

### Our solutions:

- Lightweighting
- Durability
- Batteries & hydrogen



## Urbanization

### Our solutions:

- Thermal & acoustic insulation
- Energy efficiency
- Living comfort



## Environment

### Our solutions:

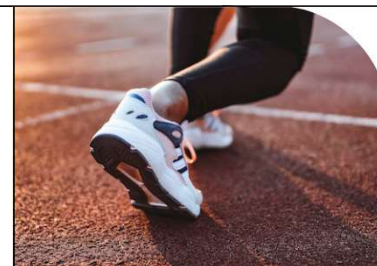
- Wind & solar
- Water treatment
- Renewable resources



## Industry 4.0

### Our solutions:

- 3D printing
- Miniaturization
- Smart devices



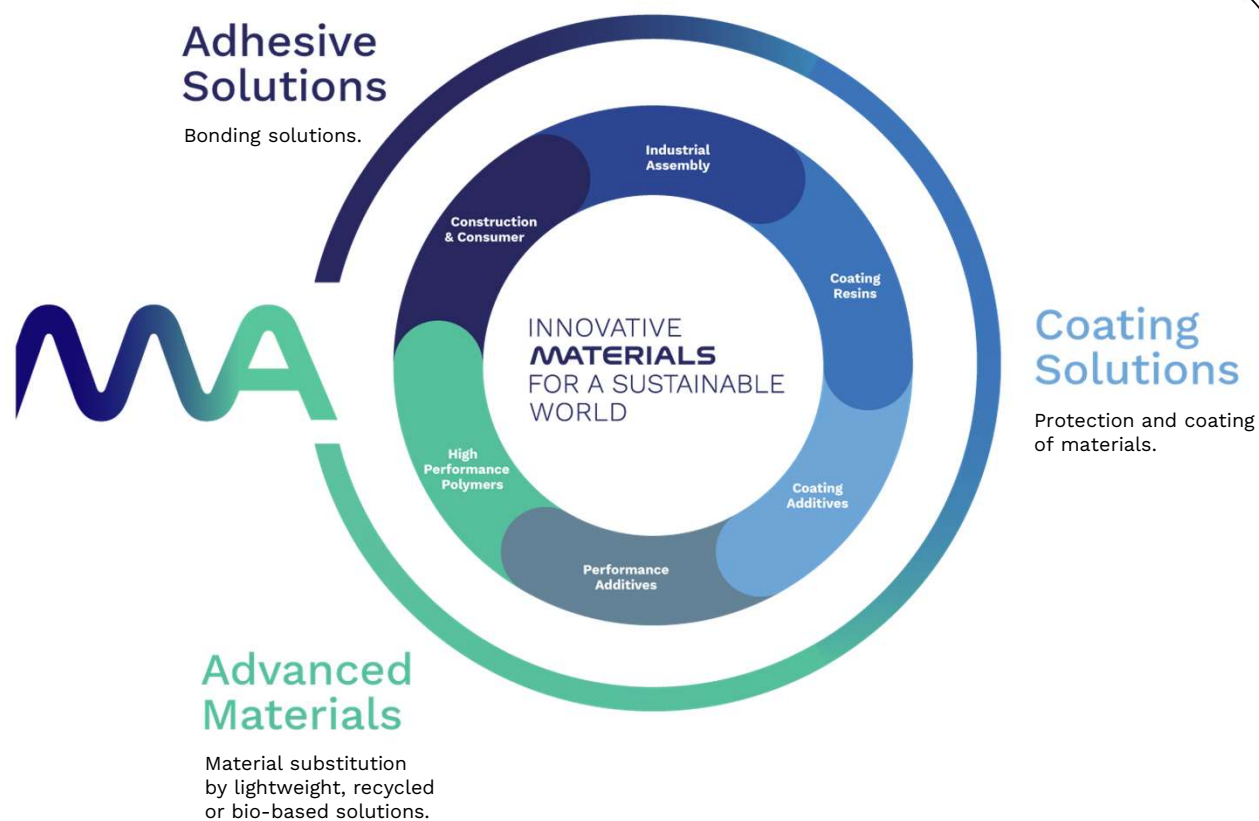
## Lifestyle

### Our solutions:

- Personalized designs
- Performance
- Sustainability

## Arkema's positioning is unique

We offer a distinctive range of solutions thanks to the wide scope of technologies and the diversity of our product lines. Our 3 segments are intimately connected to each other.



Aside these platforms, Arkema will gradually reduce the share of its Intermediates businesses (Fluorogases & Asia Acrylics)



# Accelerating in new energies and clean mobility



## ELIUM<sup>®</sup> & RILSAN<sup>®</sup> MATRIX

Recyclable thermoplastic resins and advanced materials for hydrogen tanks.

## KYNAR<sup>®</sup>

PVDF resin to improve power, autonomy and durability of rechargeable batteries in electric cars, buses and trucks.

Fluoropolymer film to protect back sheet of solar panels.

## ELIUM<sup>®</sup>

Thermoplastic resin for first wind turbine blades made of 100% recyclable composites.

## LUPEROX<sup>®</sup>

Organic peroxide initiation and cross linking of EVA (Ethylene vinyl acetate) films for solar modules.

## CRAYVALLAC<sup>®</sup>

Bio-renewable additives for wind blades and battery adhesives.

## SARTOMER<sup>®</sup>

Performance reactive diluents enabling reducing VOCs of composite/gelcoats systems.

\* VOC: volatile organic compounds

## CLEARSTRENGTH<sup>®</sup>

Toughening additives to improve performance and durability of wind mill blades systems.



# Managing natural resources and promoting circular economy



Post industrial or post-consumer recovery and regeneration of our bio-sourced materials (Rilsan® PA11) or thermoplastic materials (Kynar® PVDF).



**ALBONE®**

Hydrogen peroxide for odor annoyance management in wastewater treatment plants, without any toxic by-products nor additional sludge production.



**M-RESINS™ & BOSTIK SF10M**

A pressure sensitive adhesive enabling resealable packaging and a laminating adhesive, both used for food packaging, suitable for recycling in a polyethylene film stream (approved by independent body Recyclass).



**OPALE™ SOLUTIONS**

A unique additive technology enabling a more sustainable and efficient metal ore processing to address the increasing demand in metals for the new energies and electronics markets.



**RILSAN® FINE POWDERS**

100% bio-sourced coating for long-term protection of water pipes against abrasion and corrosion.



**KERCOAT® OPTICOAT®**

Glass coatings to extend the service life of returnable bottles.



**KYNAR®**

PVDF resin to manufacture ultra-filtration membranes for producing drinking water, barrier to particles as small as bacteria and viruses.

# Building eco-sustainable homes

## SYNAQUA®

USDA\* certified bio-based alkyd resin for solvent-free and odorless paint.

\* USDA : US department of Agriculture

## BOSTIK

First thermal insulating levelling compound -15% heat loss.

## SILIPORITE®

Molecular sieves to trap moisture in double glazing.

## CERTINCOAT®

Interior window coating = 30% saving in heating.

## PUREFIX BY BOSTIK

Solvent-free and phthalate-free invisible fastening sealant, to bond, plug or achieve thorough seal, with no emissions harmful to health in energy cost of air conditioning effect.

## KYNAR AQUATEC®

PVDF resin used as a binder for topcoat, to protect exterior paints over 20 years, and able to reflect UV, and therefore saving 25 to 30% energy in air conditioning.

## ENCOR® FLEX

Acrylic emulsions for liquid-applied membranes for "cool" white roofs, with excellent flexibility, water and dirt resistance, reflectivity and durability.

## RHEOTECH™ COAPUR™

Rheology and specialty additives for more sustainable waterborne coatings and adhesives, with low carbon footprint and bio-renewable based feedstock.



# Creating lightweight innovations



## BOSTIK SMP

Solvent-free, isocyanate-free sealants for windshield, for enhanced flexibility, seal and UV-resistance.

## RILSAN<sup>®</sup><sub>HT</sub>

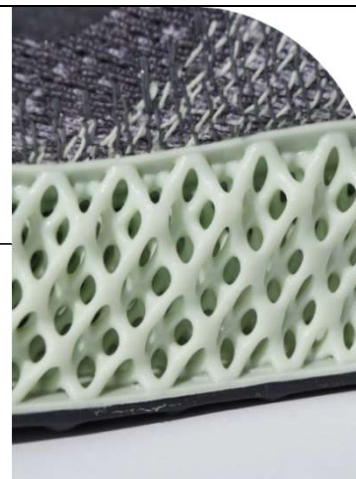
High-performance polyamide for engine parts 6x lighter than steel and capable of withstanding high temperatures.

## KEPSTAN<sup>®</sup>

PEKK material with outstanding sturdiness for the manufacture of aircraft structural parts.

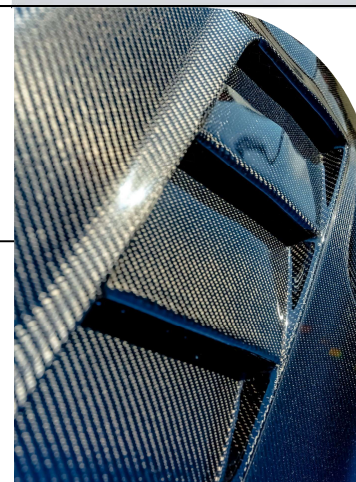
## RILSAN<sup>®</sup>

Custom 3D-printed helmets made from 100% bio-based polyamide 11.



## N3XTDIMENSION<sup>®</sup>

UV-curable resins for 3D printing of complex geometry parts.



## ELIUM<sup>®</sup>

Resin for lightweight and recyclable composite parts.



# Improving daily comfort and lifestyle for all



## FIX&FLASH BY BOSTIK

First extra strength glue that hardens thanks to light!

## SARTOMER®

Resins for low VOC\* UV adhesives optimizing signal transmission in touch screen panels.

\* VOC: volatile organic compounds



## RILSAN® CLEAR

Transparent polyamide for eyewear frames and smartphones: bio-sourced and 20% lighter than polycarbonate.

## REAFREE®

No VOC powder coating resins enabling super durability.



## VALSTERANE®

High-purity solutions for sanitizing food packaging.

## SPERSIO™

60% biobased dispersants for performance paper and board coatings.



## PEBAX®

Elastomer offering unique lightweight and flexibility combination for the soles of footwear.



## SPOTLEAK®

Sulfur-based odorizer to make gas detectable.

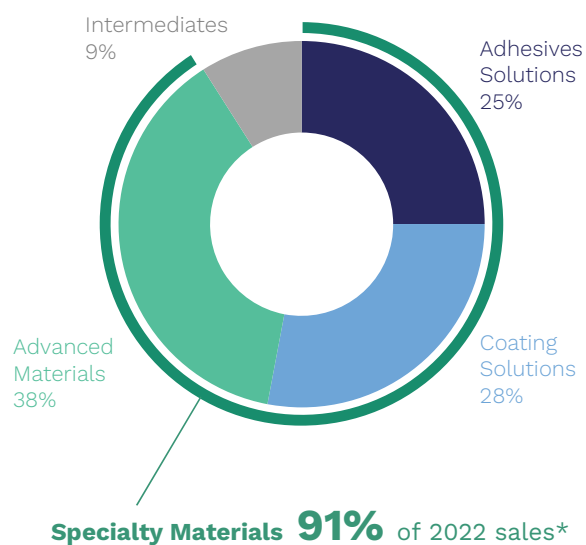


## SENSIO™

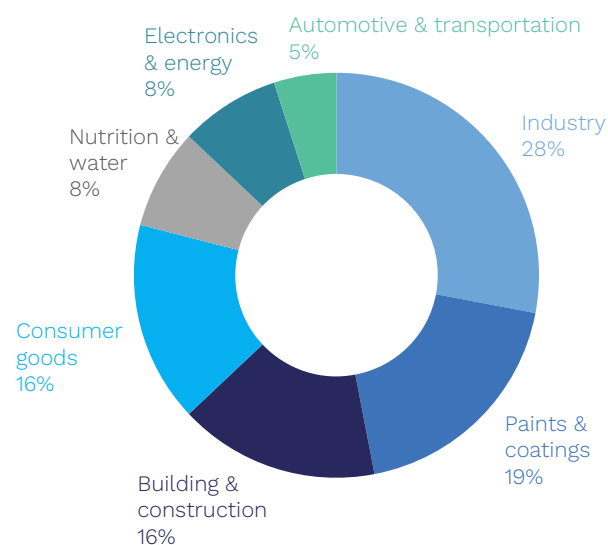
Bio-based surfactants, derived from castor oil for biodegradable detergents.

# We make the materials that make a difference

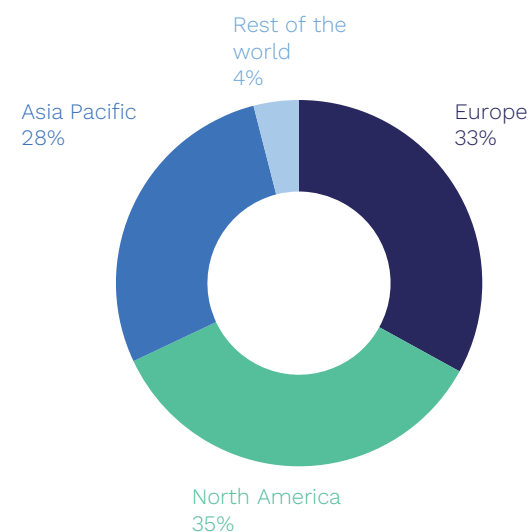
## The right products



## For the right markets



## With balanced geographical footprint

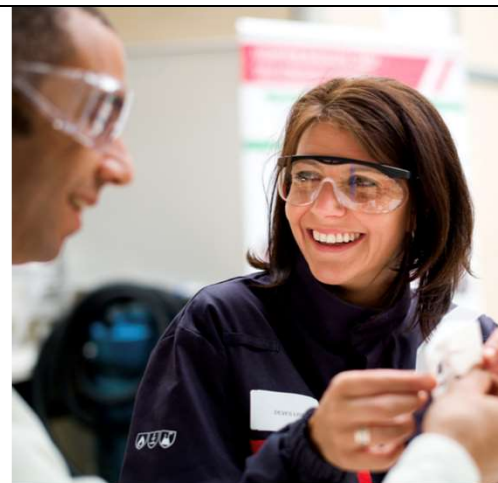


2022 sales: **€11.5bn**

## Levers that reinforce our success



**Accelerating growth** through bolt-on acquisitions.

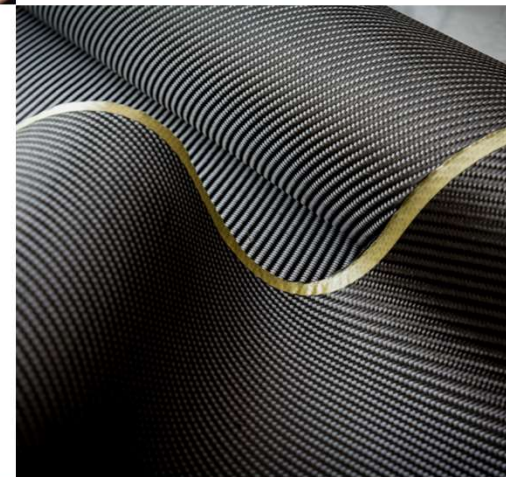


**Achieving** best-in-class CSR performance among chemical players.

**Focusing innovation** on sustainability.



**Taking action** in commercial and operational excellence initiatives.



# Our people make it happen



Diversity  
and inclusion

**21,100**

passionate employees  
across the globe



Rising talents

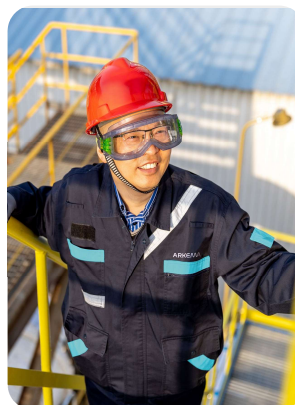
**2,212**

recruitments  
in **2022**



Committed to our  
**10,000**  
customers

Collaborations with leading  
brands



Worldwide  
expertise

**55** countries

**148** plants

**16** R&D centers

**1,800** researchers



# Sustainable innovation is in our DNA

**1,800**

researchers.

**60**

R&D partnerships.

**16**

R&D centers  
in Europe, Asia and  
America.



**+200**

Patents filed in 2022  
including more than 90%  
linked to sustainability.

**2.3 %**

of company sales  
allocated in R&D.

**1**

incubator dedicated  
to disruptive  
innovations.

**~15 %**

of sales from products  
launched within last 5  
years.



**Our 2030 objective\*:**

to generate

**€1.5 bn**

**Additional sales**

vs €1.0bn previously announced, from our  
**5 innovation platforms:**

- Lightweight materials and design
- Electronic solutions
- New energies
- Living comfort & home efficiency
- Natural resources management

aligned with the megatrends.

\* Compared with 2019.

## Values that guide our ambitions



Simplicity

Performance

Solidarity

Empowerment

Inclusion

Sustainability isn't just a buzzword

For us, it's at the heart  
of our development.  
We take **concrete actions**  
**and measure our progress**  
every step of the way.



# We are committed to a sustainable future

We deliver sustainable solutions driven by innovation.

We manage our activities as a responsible manufacturer.

We cultivate our position as an employer of choice and maintain an open dialog and close relations with our stakeholders.

## Responsible product stewardship

### Solutions addressing social challenges provided by 5 innovation platforms:

- New energies
- Natural resources management
- Living comfort & home efficiency
- Lightweight materials & design
- Electronics solutions



- Health & safety of people
- Safety of processes
- Environmental footprint reduction
- Resources management
- Climate
- Biodiversity

- Ethics
- Human rights
- Diversity & inclusion
- Employee development
- Quality of life at work
- Responsible value chain
- Corporate citizenship





# We take action for the climate and the environment

## Safety

**To be among the best in the industry.**

→ 2030 safety targets

People*	Processes*
<b>0.8</b>	<b>2.0</b>
Reduce injury frequency rate.	Reduce process-event frequency rate.

→ 2022 performance

People	Processes
<b>0.9</b>	<b>2.8</b>

\* Number of accidents or process events per million work hours.



## Climate

**Keeping global warming in line with the Paris Agreement.**

→ 2030 target

Emissions

**-48.5%** reduction in GHG emissions from scopes 1 & 2

**-54%** reduction in GHG emissions from scope 3  
- VS **2019**

→ 2022 performance

**-16%** reduction in GHG emissions from scopes 1 & 2 vs 2021

**-15%** reduction in GHG emissions from scope 3 vs 2021

## Environment

**Further reduce the environmental footprint of the Group's activities.**

→ 2030 targets



AIR	WATER	ENERGY
<b>-65%</b>	<b>-60%</b>	<b>-25%</b>
vs 2012 In intensity of emissions from Volatile Organic Compounds (VOC).	vs 2012 In intensity from Chemical Oxygen Demand (COD).	vs 2012 In intensity from net energy purchase.

→ 2022 performance

AIR	WATER	ENERGY
<b>-47%</b>	<b>-58%</b>	<b>-13%</b>



# Real actions, concrete results

Five innovation and research platforms	Circular economy	Archimedes program
<p>In 2022, more than</p> <p><b>90%</b> of patents filed relating to sustainable development.</p>	<p><b>A sustainable resource management</b></p> <p>Life Cycle Assessment target</p> <div> <div>In 2022</div> <div>2024 target</div> </div> <p><b>41%</b> <b>50%</b></p> <p>of our sales covered by a Life Cycle Assessment.</p>	<p><b>Moving toward higher positive impact</b></p> <p>ImpACT+ target</p> <div> <div>In 2022*</div> <div>2030 target</div> </div> <p><b>53%</b> <b>65%</b></p> <p>51% in 2021</p> <p>of our sales significantly contributing to UN's SDGs.</p>
<ul style="list-style-type: none"> <li>New energies</li> <li>Natural resources management</li> <li>Living comfort &amp; home efficiency</li> <li>Lightweight materials &amp; design</li> <li>Electronics solutions</li> </ul>	<p><b>Zebra Partnership</b></p> <p>Zero-waste blade research: creation of the first 100% recyclable wind-turbine blade (based on Elium® resin).</p> <div>  </div> <p>Recycling service for post industrial and post consumer materials associated with Arkema and client activities (Rilsan® PA11 and Kynar® PVDF).</p>	<p>* Portfolio Sustainability Assessment based on 86% of sales assessed in 2022 (excl. Ashland adhesives) and 85% in 2021.</p> 

# We engage with our employees

## Diversity and development of employees

### Diversity and gender equality

	Share of women *	Share of non-French *
→ 2022	26%	40%
→ 2030 target	30%	50%

\* Employees in senior management and executive positions.



### Engagement

82%

of employees actively engaged and confident in the development of the Group.

2023 Top Employer in 4 countries.



## Engagement, philanthropy, and Common Ground® initiatives

### Philanthropy and patronage

- Financing of educational and job insertion projects through sport or culture (Sport dans la Ville, Science Teacher program in the US, ChemArt Green Innovation in China, etc.).
- Arkema Fund for Education.

### Community relations and local outreach

Every year,

~80%

of our industrial sites carried out 1,000 local actions.





We engage with our supply chain



Implementing the  
**Together  
for Sustainability\***  
join initiative.

**+ 1,700**

suppliers assessed by the end of 2021.

2021 performance    2025 target

**71%**    **80%**

purchasing spend of relevant suppliers\*\* covered by  
TfS assessment..



\* TfS (Together for Sustainability) aims to develop societal  
responsibility throughout the chemical industry service chain.

\*\* Recurring suppliers accounting for 80% of purchases amount.

**Pragati initiative:**  
training castor oil  
farmers in India.

Castor oil is used in numerous  
Arkema products, including  
our 100% bio-based Rilsan® polymer.

End of 2022

**+6,200** farmers trained, audited  
and certified in 80 villages  
in North Gujarat.

# Recognized sustainability performance

Member of  
**Dow Jones  
Sustainability Indices**

Powered by the S&P Global CSA

→ Joined the DJSI World and  
DJSI Europe indices since 2020.  
“Chemicals” category

→ **3rd place** of DJSI World in 2022.

The Dow Jones Sustainability indices (DJSI) reward  
companies with the best performances in terms of  
sustainability.

## CAC 40® ESG

Included in a new Euronext index since 2021.

## MSCI

**A** grade since 2017.



In 2022, **B** for Climate change.

## MOODY'S | ESG

**Top percentile** all sectors combined.  
Score: **69**

## ISS ESG

October 2022: **1st decile** (global).

## ecovadis

Among top **3%** of the sector's best rated companies.



## Sponsorship: a common eagerness for challenges




**PARTENAIRE DE LA D1 ARKEMA DEPUIS 2019**

Arkema associates its name with the Women's Football D1 to promote the development of women's soccer and the place of women in sport and in business.



Solidarity, performance, simplicity, accountability and inclusion: each in their own way, the athletes we support as sponsor embody and bring to life these values that drive us on a daily basis.

[arkema.com](https://arkema.com)



Wheelchair tennis, paratriathlon, or women's football: we are proud to support four high-level athletes engaged in very different sports, but with whom we share the same values.



And a strong, passionate brand ready to lead the wave of change!



Thank you

