

## Our Products

Many of Johnson Matthey's products and services are environmentally or socially beneficial, either in their own right or in the way they are used by our customers.

As we say in our [Sustainability 2017 Vision](#), we focus our business on our core skills in catalysis, precious metals, fine chemicals and process technology.

We develop and manufacture many different types of **catalysts** which provide environmental and sustainability benefits. Johnson Matthey's catalysts are:

- Fitted to vehicles to remove harmful pollutants from their exhausts.
- Used in industrial processes to clean up or reduce harmful emissions.
- Used by our customers to enable them to run their processes more efficiently.
- Used in the manufacture of ammonia, a vital intermediate in the production of fertilisers to enhance food production.

Find out more about our catalysts by clicking on the case studies below.



### CASE STUDY

#### **Catalysts – The Key to Making Better Use of Natural Resources and Combating CO<sub>2</sub> Emissions**

[Find out why our catalysts can help in achieving a more sustainable future](#)



### CASE STUDY

#### **A Major Contribution to Cleaner Air**

[Find out how our products have reduced pollution around the world](#)



### CASE STUDY

#### **New Catalyst Technology Tackles N<sub>2</sub>O**

[Read about how this technology is helping to reduce industrial emissions](#)

The development of the chemistry of **precious metals** such as platinum, palladium and rhodium underpins many of Johnson Matthey's products and technologies. Our understanding of the physical and chemical properties of the precious metals has contributed to the development of a wide range of environmentally and socially beneficial products including emission control catalysts for vehicles, platinum based anticancer drugs for chemotherapy treatments and catalysts for fuel cells.



### CASE STUDY

#### **Fuel Cells for the Future**

[Read about this technology for producing clean electricity](#)

The recycling and refining of precious metals are a core competence of Johnson Matthey. We offer a range of recycling and refining services to our customers around the world and seek to apply the principles of recycling and refining throughout our internal operations. Our knowledge and expertise in this area give us a firm foundation which allows us to tackle the task of further improving the resource efficiency of our products in manufacture and use.

Our core skills in **fine chemicals** underpin a number of our products which are used in the areas of medicine, health and safety. We manufacture active pharmaceutical ingredients which are used by pharmaceutical companies in drug preparations to alleviate certain symptoms. We also manufacture opiate products, such as morphine and codeine, which are used to relieve pain.

We supply Bitrex®, the bitterest substance yet discovered. Bitrex is added to a wide range of household cleaners, pesticides, DIY and automotive products to combat accidental poisonings in young children.



### CASE STUDY

#### **Making the World a 'Bitter' Place!**

[Find out how our products contribute to safety in the home](#)

When a chemical manufacturing company decides to make a new product, it has to choose a manufacturing process to make efficient use of materials and allow the design and construction of the plant at minimal cost. Johnson Matthey's Davy Process Technology business develops new, highly efficient chemical **process technologies** and licenses this know-how to chemical manufacturers. The increasing emphasis on sustainable technologies is opening up a number of possibilities for downstream processing to petrochemicals and Davy Process Technology has built a portfolio of processes in this area.



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#### CASE STUDY

##### **New Process Technologies for Renewable Feedstocks**

[Read about our new process for producing propylene glycol](#)

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We already develop, manufacture and market a range of products with environmental and social benefits but there is a growing market for sustainable products and technologies. This presents key opportunity for future business growth.

A core part of our sustainability strategy is to improve the sustainability footprint of our existing products and to develop new sustainable products and services for our customers, enabled by our experience in catalysis, precious metals, fine chemicals and process technology. We will continue our high level of investment in R&D and will draw on the expertise of our people. We will also look to further collaborate with our customers, suppliers and other partners to understand what they are doing about sustainability and maximise the benefits throughout the supply chain. We aim to be innovative, not only in developing products which deliver a sustainability benefit but also in the way we make them so they are manufactured in the most responsible way with the most efficient use of natural resources.

**>4**  
**billion tonnes**  
of pollutants converted  
to harmless gases  
using Johnson  
Matthey's autocatalysts  
since 1974