# <u>Press release: PM meeting with PM Lee</u> <u>Hsien Loong of Singapore: 18 October</u> <u>2018</u>

A Downing Street spokesperson said:

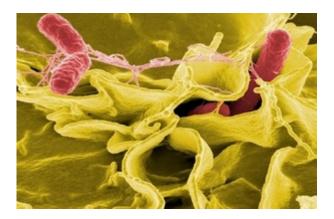
"The Prime Minister met with Prime Minister Lee Hsien Loong of Singapore ahead of the ASEM opening ceremony. Foreign Office Minister Mark Field also joined.

"The two leaders began by discussing the desire to deepen bilateral trade ties as well as potential UK involvement in the Comprehensive and Progressive Trans-Pacific Partnership – CPTPP.

"They discussed strengthening cooperation between the UK, Singapore and others in Asia to boost shared prosperity and security – including by deepening the UK's relationship with ASEAN.

"The Prime Minister reiterated the UK's commitment to upholding the rules based international system, including maritime and regional security in South East Asia."

# <u>News story: Rise in cases of</u> <u>Salmonella Typhimurium</u>



Food Standards Agency, Food Standards Scotland, Public Health England and Health Protection Scotland are reminding people to take care when handling raw meat and to cook it properly.

This comes as we investigate a rise in cases of a particular strain of Salmonella Typhimurium which have been linked to lamb and mutton. We first saw an increase in cases of this particular type of salmonella in July 2017. A number of control measures were put into place which led to a significant decline in cases at the end of that year. A total of 118 cases were reported up until May 2018.

Since June 2018, a further 165 cases have been reported (up to 19 October), which led us to put control measures in place. These haven't led to the same decline in cases as in 2017 and so we are now reminding the public about how to cook and handle raw meat.

Nick Phin, Deputy Director, National Infection Service, PHE said:

The likely cause of the increased numbers of this specific strain of Salmonella Typhimurium is considered to be meat or crosscontamination with meat from affected sheep.

People can be infected with Salmonella Typhimurium in a number of ways such as not cooking their meat properly, not washing hands thoroughly after handling raw meat, or through cross-contamination with other food, surfaces, and utensils in the kitchen.

#### Background

- 1. Symptoms of Salmonella infection include diarrhoea, vomiting, abdominal pain and fever.
- Prior to July 2017 only 2 cases of this strain (Single Nucleotide Polymorphism address 1.43.67.992.2703.3225. %) had been detected in England.
- 3. Between July 2017 and November 2017, the first increase in this strain was observed with 95 cases reported in England, Scotland and Wales. Control measures were implemented which resulted in a decline in cases.
- 4. Numbers of cases were at low levels from December 2017 to June 2018 (23 cases during this period).
- 5. In June 2018, the numbers of cases increased again and since June 2018 165 cases have been reported.
- 6. There was a death in which salmonella was thought to be a contributory factor related to this outbreak last year, but we are not aware of any deaths related to this strain in 2018.

Published 19 October 2018

### <u>News story: September 2018 Transaction</u> <u>Data</u>



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In September:

- HM Land Registry completed more than 1,648,660 applications to change or query the Land Register
- the South East topped the table of regional applications with 377,136

HM Land Registry completed 1,648,666 applications in September compared with 1,746,974 in August and 1,586,987 last September, of which:

- 376,588 were applications for register updates compared with 393,233 in August
- 788,359 were applications for an official copy of a register compared with 838,122 in August
- 213,568 were search and hold queries (official searches) compared with 226,859 in August
- 22,838 were postal applications from non-account holders compared with 27,275 in August

### Applications by region and country

Region/country	July applications	August applications	September applications
South East	412,457	402,692	377,136
Greater London	342,764	327,388	310,343
North West	199,371	196,595	189,484
South West	175,922	173,062	158,954
West Midlands	153,247	149,801	141,033
Yorkshire and the Humber	138,612	135,462	129,227
East Midlands	129,991	125,704	118,340
North	84,004	82,370	76,485
Wales	81,079	81,297	77,032
East Anglia	77,226	72,476	70,494
Isles of Scilly	109	52	56
England and Wales (not assigned)	73	75	82
Total	1,794,855	1,746,974	1,648,666

### Top 5 local authority areas

Top 5 local authority areas	July applications	Top 5 local authority areas	August applications	Top 5 local authority areas	September applications
Birmingham	27,538	Birmingham	26,892	Birmingham	26,138
City of Westminster	22,955	City of Westminster	23,912	City of Westminster	23,098
Leeds	21,258	Leeds	20,833	Leeds	20,393
Cornwall	18,581	Cornwall	18,367	Manchester	17,318
Manchester	18,026	Manchester	17,578	Cornwall	17,024

#### Top 5 customers

Top 5 customers	July applications	Top 5 customers	August applications	Top 5 customers	September applications
Enact	55,674	Enact	56,544	Enact	50,715
Infotrack Limited	30,027	Infotrack Limited	30,749	Infotrack limited	34,155
O'Neill Patient	28,146	O'Neill Patient	27,267	O'Neill Patient	25,931
Optima Legal Services	26,763	Optima Legal Services	24,984	Optima Legal Services	23,915
TM Group (UK) Ltd	24,461	Eversheds LLP	20,019	TM Group (UK) Ltd	20,848

#### Next publication

Transaction Data is published on the 15th working day of each month. The October Data will be published at 11am on Friday 21 November 2018.

Published 19 October 2018

### <u>News story: Safety Bulletin 4/2018</u> <u>published</u>



The aft refrigerated salt water tank on fv Sunbeam

The MAIB has today issued a safety bulletin after working in a refrigerated salt water tank resulted in a fatal accident on board the fishing vessel Sunbeam (FR487) on 14 August 2018.

The bulletin contains details on the background of the incident, initial findings, safety lessons and recommendation, <u>read more</u>.

A full report will be published when the investigation is complete.

Published 19 October 2018

### <u>Press release: Mercury's mysteries to</u> <u>be probed by British science</u>

BepiColombo is the first European Space Agency mission to Mercury, the least explored planet in the inner Solar System, and will provide new insight into how the planet closest to the Sun formed and evolved.

The spacecraft will travel 9 billion km taking 7 years to reach Mercury and is designed to survive extreme temperatures, from +450 to -180 degrees.

BepiColombo: mission to Mercury

Science Minister Sam Gyimah said:

As this mission to Mercury sails under the stars we can reflect on the features of UK science that have made it possible. It is a sign of how far our space industry has come in exploring how much further humanity can go.

Much of the spacecraft was built right here in the UK by our growing space sector, employing nearly 40,000 people right across the country. Our modern Industrial Strategy is building an

environment in which it will continue to thrive.

The mission is an outstanding example of international collaboration at the highest level between the European and Japanese space agencies. The UK's involvement is managed and funded by the UK Space Agency.

The UK's founding membership of ESA has given the UK a key role in this mission which will provide a unique science return and maintain the UK's position at the forefront of space exploration by investing in the technology. Every £1 invested in ESA results in a £1 share in contracts for UK companies and universities.

Dr Graham Turnock, Chief Executive of the UK Space Agency, said:

UK scientists, engineers and technicians have played a vital role in developing BepiColombo and the incredibly sophisticated set of scientific instruments on board. The international collaboration involved in this mission shows how our leading role in the European Space Agency is ensuring the UK thrives in the new space age, bringing real benefits to UK companies and scientists.

The UK's contribution to the mission:

- The UK Space Agency funded, and University of Leicester designed and built the Mercury Imaging X-ray Spectrometer (MIXS). This instrument will use novel X-ray optics to determine small-scale features on Mercury and find out what the planet's surface is made of.
- Airbus Defence and Space provided spacecraft structures, electrical and chemical propulsion systems and the systems which will separate the spacecraft modules on arrival at Mercury.
- QinetiQ supplied the innovative electric propulsion system. A beam of charged particles are expelled from the spacecraft to propel it forward. Ion propulsion produces low levels of thrust very efficiently compared with conventional chemical rockets.
- Thales Alenia Space UK supplied the Remote Interface Units that acquire sensor data and telemetry as well as driving the thrusters that control the spacecraft.
- UK teams also provided a hardware contribution to the Finnish led Solar Intensity X-ray & particle spectrometer (SIXS).

Emma Bunce, Professor of Planetary Plasma Physics at the University of Leicester said:

The University of Leicester technical and engineering team has dedicated many years of work to design, develop and build the Mercury Imaging X-ray Spectrometer (MIXS) instrument, in collaboration with multiple institutes and companies across Europe. MIXS is designed to measure fluorescent X-ray photons from the surface of Mercury which will give us details of the elemental composition, and hence provide insight on the formation and evolution of the planet. MIXS will also explore how the charged particle environment interacts with the surface. The dual system of MIXS will allow a good global coverage of the planet using the efficient collimator (MIXS-C) design and will provide unprecedented detail of local-scale features using the first true imaging telescope (MIXS-T) for a planetary mission.

Peter Randall, Electric Propulsion Systems Engineer, QinetiQ, said:

QinetiQ has more than 50 years' experience of developing and testing electric propulsion systems and so we are delighted that our super-efficient T6 ion engines will play such a pivotal role in the seven year voyage to Mercury.

The new T6 ion thrusters have been designed to work for long periods in extremely hostile environments and, powered by solar energy, will enable the spacecraft to reach maximum speed with minimal fuel consumption. The ground-breaking development of these thrusters couldn't have resulted in a more thrilling project and we are proud to be the engine power behind the BepiColombo mission to Mercury.

Justin Byrne, Head of Earth Observation, Navigation and Science, Airbus UK said:

Building a spacecraft that needs to travel billions of km is quite a challenge — but we made it work with the comet chaser Rosetta, and BepiColombo is a worthy successor. All the Airbus teams in Stevenage and Portsmouth will join with their colleagues across the rest of Europe in making sure the launch goes according to plan

Key science objectives are to discover:

- The origin and evolution of a planet close to its parent star
- The planet's interior structure and composition
- Characteristics and origin of its internal magnetic field
- Surface processes, such as cratering, tectonics, polar deposits and volcanism
- The structure, composition, origin and dynamics of Mercury's exosphere
- The structure and dynamics of Mercury's magnetosphere
- Einstein's Theory of General Relativity (by making precise measurements of the spacecraft's orbit and position)

David Rothery, Professor of Planetary Geosciences at the Open University, said:

We really need to understand Mercury better. So much about it seems wrong for a planet that close to the Sun, so maybe it originated further out. A collision with the proto-Earth or proto-Venus could be what robbed it of so much of its original rock.

As a volcanologist though, one aspect that really impresses me about Mercury is all the volcanic explosion vents. They are spectacular evidence of violent eruptions, powered by escaping gas that recurred for much of the past four billion years.

The UK's space sector is going from strength to strength, employing around 40,000 people and carrying our world-class science while growing the economy. In 2016 the UK committed €1.4 billion across a range of ESA space programmes, leading European space research in telecommunications and Earth Observation, while providing cutting-edge capabilities in exploration.

This is all supported by the Government's <u>Industrial Strategy</u>, with major initiatives such as the National Satellite Test Facility at Harwell and the development of a commercial spaceport in Sutherland, Scotland, which could be the first in mainland Europe.

BepiColombo will launch from Europe's spaceport in French Guiana at 02:45 UK time on Saturday (20th October). The spacecraft is named after Giuseppe (Bepi) Colombo (1920-84), an Italian mathematician and engineer, who studied Mercury's orbital motion.