

# News story: Grayling slashes rail fares for a generation of rail passengers

- up to 1.2 million more young people to benefit from half price rail travel as new railcard extends child fares to 16 and 17 year olds (including peak and season tickets) in time for new academic year in September
- millions of 26 to 30 year olds will also benefit with the roll-out of the industry-led, government backed 26 to 30 railcard today, cutting a third off most rail tickets
- government committed to a fairer deal for young people travelling on the rail network to school, training and work
- fare rises tied to inflation for sixth year in a row, no more inflation-busting fare rises of the past

A brand new rail card that extends half-price child rail fares to 16 and 17 year olds has been announced today (2 January 2019) by Transport Secretary Chris Grayling.

The new 16 and 17 railcard will be launched this coming September (2019) with up to 1.2 million young people guaranteed a 50% discount on rail travel to coincide with the new academic year.

The announcement comes on the same day the rail industry launches the 26 to 30 railcard, benefitting an extra 3 million people with a third off their travel. It now means that rail travellers from the ages of 16 to 30 will be able to benefit from cut-price fares across the country.

Transport Secretary Chris Grayling said:

The new 16 and 17 and 26 to 30 railcard will cut fares for a generation of travellers, ensuring more young people than ever will be able to travel on our railways for less.

Today's announcement of a new 16 and 17 railcard could cut the cost of travel by hundreds of pounds a year for young people and their parents, making it cheaper to get to school, college and work.

This builds on the roll-out of the new 26 to 30 railcard and our record investment into our railways, ensuring people get the frequent, affordable and reliable journeys they deserve.

The new railcard will guarantee 50% off rail travel until the cardholder reaches their 18th birthday. Further details will be available ahead of the card's launch in the summer.

The move comes as the government freezes regulated fares in line with inflation for other travellers for the sixth year running. Since 2014 fares have, on average, remained below the annual inflation cap.

The government wants to see lower fares in the future and has launched root and branch review of the rail industry looking at fares reform and affordability for passengers. Reforms will begin in 2020.

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## **Press release: UK tests self-driving Martian robots**

Testing in the Sahara Desert of UK software for an autonomous Martian robot has now completed, with the robot travelling over 1.4km without human interaction.

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## **News story: 10 year olds in the UK have consumed 18 years' worth of sugar**

Children have already exceeded the maximum recommended sugar intake for an 18 year old by the time they reach their tenth birthday, according to Public Health England (PHE). This is based on their total sugar consumption from the age of 2.

This figure comes as a new [Change4Life](#) campaign launches today (2 January 2019), supporting families to cut back on sugar and to help tackle growing rates of childhood obesity.

While children's sugar intakes have declined slightly in recent years, they are still consuming around 8 excess sugar cubes each day, equivalent to around 2,800 excess sugar cubes per year.

To help parents manage this, Change4Life is encouraging them to 'Make a swap when you next shop'. Making simple everyday swaps can reduce children's sugar intake from some products (yoghurts, drinks and breakfast cereals) by half – while giving them healthier versions of the foods and drinks they enjoy.

Parents can try swapping:

- a higher-sugar yoghurt (for example split-pot) for a lower sugar one, to halve their sugar intake from 6 cubes of sugar to 3

- a sugary juice drink for a no-added sugar juice drink, to cut back from 2 cubes to half a cube
- a higher-sugar breakfast cereal (such as a frosted or chocolate cereal) for a lower sugar cereal, to cut back from 3 cubes to half a cube per bowl

While some foods and drinks remain high in sugar, many companies have reformulated products such as yoghurts, breakfast cereals and juice drinks, meaning these swaps are a good place for families to start.

Making these swaps every day could remove around 2,500 sugar cubes per year from a child's diet, but swapping chocolate, puddings, sweets, cakes and pastries for healthier options such as malt loaf, sugar-free jellies, lower-sugar custards and rice puddings would reduce their intake even more.

Severe obesity in 10 to 11 year olds has now [reached an all-time high](#). Overweight or obese children are more likely to be overweight or obese as adults, increasing their risk of heart disease and some cancers, while more young people than ever are developing Type 2 diabetes. Excess sugar can also lead to painful tooth decay, bullying and low self-esteem in childhood.

Dr Alison Tedstone, Chief Nutritionist at PHE, said:

Children are consuming too much sugar, but parents can take action now to prevent this building up over the years.

To make this easier for busy families, Change4Life is offering a straightforward solution – by making simple swaps each day, children can have healthier versions of everyday foods and drinks, while significantly reducing their sugar intake.

Families are encouraged to look for the Change4Life 'Good Choice' badge in shops, download the free Food Scanner app or search [Change4Life](#) to help them find lower sugar options.

Popular brands – including Nestlé Shredded Wheat, Nestlé Low Sugar Oat Cheerios, Petits Filous and Soreen (malt loaf) – will display the 'Good Choice' badge online, in-store and throughout their advertising, to help parents find healthier options.

Customers can also find healthier options in supporting supermarkets including Asda and Aldi, as well as in Londis and Budgens convenience stores.

With a third of children leaving primary school overweight or obese, tackling obesity requires wider action and is not just limited to individual efforts from parents. PHE is working with the food industry to remove 20% of sugar from the products contributing the most to children's sugar intakes by 2020.

In May 2018, PHE published [progress against the first-year sugar reduction](#) ambition of 5%, which showed an average 2% reduction in sugar across categories for retailers and manufacturers.

While breakfast cereals and yoghurts and fromage frais were among the categories meeting or exceeding the 5% ambition, some products in these categories are still high in sugar – this is why Change4Life is making it easier for parents to find lower-sugar options.

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## [Press release: UK tests self-driving Martian robots](#)

As far as we know, Mars is the only planet populated entirely by robots! Due to the time taken for commands to travel to Mars (eight minutes each way), hand guided robots are limited to travelling only a few dozen metres a day.

New software developed in the UK will change this, enabling future Mars rovers to make their own decisions about where to go and how to get there, driving up to a kilometre per day so delivering more scientific returns per mission.

The UK is a world leader in robotics and the government is working with business and academia to encourage further investments in the technology as part of the modern Industrial Strategy.

Catherine Mealing-Jones, Director of Growth at the UK Space Agency, said:

Mars is a very difficult planet to land safely on, so it's essential to maximise the discoveries from each successful touchdown.

New autonomous robot technology like this will help to further unlock Mars' mysteries and I'm delighted that the UK is a key player in this cutting-edge field.

Companies and universities from around the UK including Airbus Defence & Space, Thales Alenia Space, Scisys, King's College London, the University of Strathclyde, and GMV-UK participated in the software testing at Ibn Battuta Test Centre in Morocco in December.

Over the course of a month the team, consisting of engineers from companies all across Europe was co-ordinated by representatives from the UK Space Agency as well as the German, French, Spanish, Italian and European Space Agencies (ESA). They tested a variety of new technologies, including data fusion systems, a plug-and-play sensor suite and an open-source operating system for robotic control.

Airbus in Stevenage is the prime contractor for the new ESA Exomars rover, due to land on Mars in 2020. Following a public competition last year, the UK

Space Agency will announce the name of the new UK-built rover this spring.

The UK Space Agency is the second largest European contributor to ExoMars, having invested €287 million in the mission and £14 million on the instruments. This, in addition to successful negotiations with ESA, secured key mission contracts for the UK space sector.

### **What technology was tested?**

- **The ERGO Autonomy framework:** The autonomy framework enables the rover to make decisions by itself without the need for human intervention. These decisions could be about the path a rover needs to take to get to its destination. It also means the rover can make decisions about managing its resources, for example shutting down certain functions to conserve power. It will also give the rover the ability to investigate things it deems to be interesting, things which human operators might miss.
- **The INFUSE Data Fusion:** Data fusion is the fusing together of data from different sensors and sources in order to create useful information such as maps, which the rover can then use to navigate successfully across the difficult Martian landscape. The data will be provided by different types of camera, sensors, trackers and torches to give the rover a full understanding of the Martian world around it.
- **The I3DS Plug And Play Sensor Suite:** The rover needs various sensors to enable it to see, perceive and understand the Martian world. Using a 'plug-and-play' approach means that sensors can be installed and removed easily according to the mission requirements. The Sensor suite also has a unique, built-in computer called an ICU (Interaction Control Unit) that processes the signals from the sensors into information before passing that information to the Data Fusion system.
- **The ESROCOS Operating System:** Robots need operating systems to function, just like your computer, tablet, phone or laptop at home. The operating system provides the low-level software and libraries required by the robot to undertake basic functions. It also provides the language and framework with which the other software (such as the ERGO Autonomy Framework and the INFUSE Data Fusion) must adhere in order to create a coherent and integrated system. In other words, this is the core software that provides the rules which bind all the other systems and software together.

The new software systems were mounted onto a four-wheeled rover called 'Sherpa', provided by the German Robotics Innovation Centre DFKI.

The Ibn Battuta test centre is named after the 14th century Islamic explorer of the same name, and is a popular site for testing Mars rovers, as the red, rocky terrain is very similar to the surface of the Red Planet.

The tests are part of a series of research projects of a programme called the Space Robotics Strategic Research Cluster, funded by the European Commission via the Horizon2020 Programme.

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## **Press release: Minister for Asia statement on Bangladesh elections**

FCO Minister of State for Asia and the Pacific Mark Field comments on the announcement of the unofficial results for Bangladesh's general election