BUSINESS NEWS LESSONS

Air travel: the shape of things to come

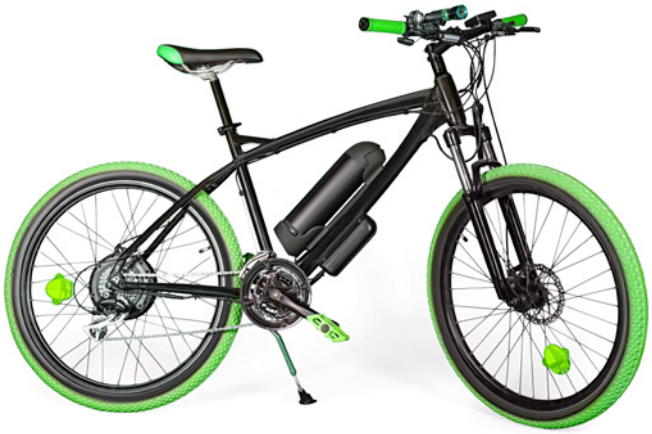
one stop english

1 Warmer

a. How do you imagine people will travel around in the future? Look at the images below and discuss what the public transport vehicles of tomorrow will look like.

1

2



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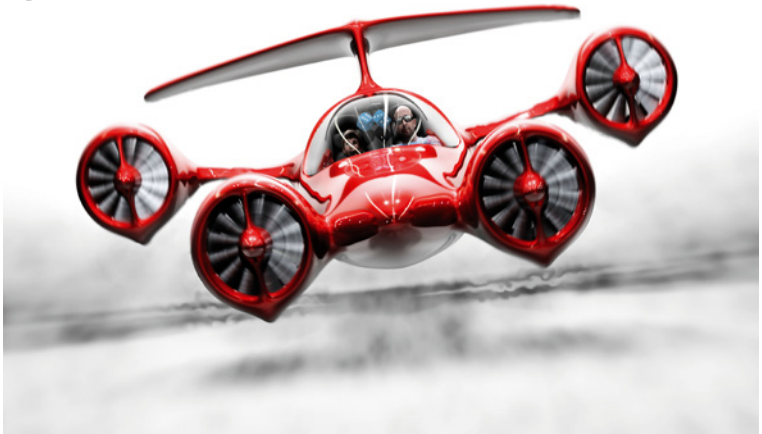

Advanced

Image credits: 1. DIGITAL VISION; 2. Getty Images/iStockphoto: Eshma; 3. Alamy Stock Photo: I. Glory

2 Key words and expressions

a. Find words from the article and write them next to the definitions below. Use the paragraph numbers to help you.

1. the main part of an aircraft that the wings are fixed to _____ (1)
2. one of the first people to do something important that is later continued and developed by other people _____ (2)
3. a military aircraft that cannot be noticed by radar _____ (2)
4. the first form of something new, made before it is produced in large quantities _____ (3)
5. stretching or spreading something in a way that looks strange _____ (5)
6. at an angle that is not 90 degrees _____ (5)
7. objects arranged so that they are not at the same height or not in a straight line _____ (5)
8. a machine that is operated by another piece of equipment from a short distance away _____ (6)
9. describing something that has been made smaller in size, amount etc than it used to be _____ (6)
10. a passage between rows of seats, for example in a theatre or plane. _____ (7)

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The model plane that might be the future of flying

THE FLYING-V RAISES THE PROSPECT OF FEWER EMISSIONS AND MORE SPACE (EVEN THOUGH IT'S ONLY THREE METRES WIDE)

1 There have been big aircraft advances since flying began: jet engines, lighter materials, computerised control systems. But the shape of the planes has stayed the same — fuselage, two wings and a tail. Aviation engineers have long seen the heavy fuselage as a nuisance. What if the passengers and cargo could be housed in a wing?

2 The flying wing might look futuristic but the idea is nothing new. Possibly the first flying wing was designed and flown by Czech aviation pioneer Igo Etrich in 1909, although he had to add a tail to keep it stable. During the second world war, both the Americans and Germans worked at flying-wing bombers, without fully succeeding. In the postwar era, the US managed to build flying-wing military aircraft such as the B-2 stealth bomber.

3 Engineers have been trying to build a passenger flying wing too. KLM and the Delft University of Technology, supported by Airbus, have created a prototype called the Flying-V, a 3-metre- wide scale model of which made its pilotless first flight at an air base in Germany in July.

4 The aircraft's creators presented the results this month, with Roelof Vos, leader of the project and a Delft assistant professor, calling it "the most revolutionary change in aviation since the introduction of the jet aircraft".

5 The Flying-V, as its name suggests, is really two wings, splaying out v-shaped from a pointed nose. Apart from the environmental benefits, of which more below, the designers are excited about the possibilities for passengers. We should always take cabin comfort promises with a pinch of salt — remember the gyms and bowling alleys we were promised in the Airbus A380? The Flying-V team says the plane could feature economy bunk beds. But a more important advantage of a slanted cabin wall is that the seats could be staggered, rather than in rows, so that, even in economy, people would not share arm rests with their neighbours.

6 There have been other remote-controlled test flights of scaled-down blended wing- body aircraft. Boeing designed the X-48B and X-48C aircraft, which have more of a triangle than a v-shape. Built by Cranfield Aerospace of the UK, and flown in a partnership with Nasa, the planes ended their flights in 2013, with the partners declaring them a successful look at the future. Airbus showed off its similarly shaped Maveric demonstrator at this year's Singapore air show, saying it could one day be a replacement for today's short-haul single aisle planes.

7 The Flying-V is a future long-haul plane, carrying up to 360 passengers. The model's maiden flight, while largely successful, was not perfect. The plane's centre of gravity turned out to be too far back. It rolled and yawed and landed awkwardly, breaking its nose gear. All these problems are correctable, Vos said.

8 More important is whether the gains would be worth it. The Flying-V would use 20 per cent less fuel than today's most advanced long-haul planes, which doesn't sound much in an age when many oppose flying altogether. But Vos says that's only the fuel saving from a different air frame. It doesn't take into account improvements in materials and engines — or the use of a different fuel. While he doesn't envisage the Flying-V ever being electric, he suggests it may be possible, one day, for it to fly on hydrogen.

9 When could a plane like this enter service? "In my personal view, 2040," Vos told me. Richard Wahls, Nasa's strategic technical adviser on advanced aircraft, also said wing-body planes could be rolling off the production line in the late 2030s. A long way off. But the pause in our flying is not a bad time to think about a more advanced and environmentally improved way of doing it.

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Michael Skapinker, September 21 2020

Glossary

Roll – Rotation around the front-to-back axis i.e. the plane spins round in the air

Yaw – Rotation around the vertical axis i.e. the back and front of the plane turn side to side

3 Understanding the article

a. Answer the questions about the article.

1. What will the Flying-V look like?
2. What examples of flying wings have been designed before?
3. When and where did the model of the Flying-V take its first flight?
4. What facilities were intended for the Airbus A380?
5. Why might passengers be more comfortable with the design of the Flying-V?
6. What went wrong on the model's first flight?
7. What are the environmental benefits in terms of fuel?
8. What fuel could the Flying-V run on in the future?

4 Business language – adjectives for describing change

a. Complete the sentences with the adjectives in the box.

advanced	correctable	futuristic	improved	maiden
personal	revolutionary	stable	strategic	successful

1. The model looks very _____. It's what I imagined our customers would be using in 2050.
2. If the platform isn't _____, then we can't launch the website.
3. The developers think the new software is _____. There's nothing like it on the market.

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4. How do you measure whether a product is _____? Is it by the number of units sold or how innovative it is?
5. The Titanic sank on its _____ voyage.
6. There are a few faults in the original design but they are all _____.
7. We are using the most _____ technology to develop our products. Our closest rivals are using much more basic modelling.
8. My _____ view is that we should be targeting the youth market.
9. The board has made a/an _____ decision to change our approach to how we market our products.
10. Our sales figures have _____ dramatically since last quarter. They're up by 30%.

b. Use the adjectives above to make sentences about the industry you work in. You can use a dictionary to help you.

5 Discussion questions

What new developments are taking place in your industry? Explain their impact and whether these changes are welcome.

If you are not aware of developments in your industry, what changes would you like to see in the future? How would these changes affect the direction of the industry? Discuss how it would affect the following:

- job roles
- technology
- markets
- consumer behaviour

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Wider business theme – Car travel

a. Work in groups of three to research the future of car travel. You should each choose a different topic to investigate:

- Driverless cars
- Hydrogen powered cars
- Electric powered cars

Note down existing and future models, practical issues for use, manufacturing costs and sale price, target markets, projected dates for roll out, etc.

b. Explain your research to the group in a presentation about the option you chose. Then discuss together which developments have the greatest potential for commercial success.

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