Finland's most energetic customer magazine » 1/2021

HELEN

The queen of games of intellect

Artificial intelligence performs best at tasks that require a lot of computing power. In those tasks, it is several moves ahead of any human.

» p. 11

Psst! Visit your application store to install Oma Helen. Check out page 24 for more information on the app.

An invisible helper

EDITORIAL » The best digital services are often invisible. They are services that make things convenient, highly functional and reliable. We use them at Helen to ensure that our customers have access to the best solutions of the new era of energy.

The role of data and artificial intelligence will grow further as we move towards carbon neutrality and adopt new ways of predicting energy consumption, producing energy and optimising the energy system. For example, data tells us where, how and how much our customers need energy, so we can produce it accordingly. Data also helps us identify the maintenance needs of energy networks in good time. Indeed, Helen is not only an energy company but also a data company.

Many of our customers have accessed their personal energy data via the Oma Helen application. In it, you can find information on your energy consumption at the hourly level and monitor the impact of changes in outside temperature on the electricity consumption of your home and contact our customer service through Oma Helen.

Data and AI also help us make energy production carbon neutral and energy consumption more understandable.

“Helen is not only an energy company but also a data company.”

Tuomas Teuri Chief Digital Officer

A SOURCE OF PRIDE

Smaller invoices

Helen Electricity Network offers a compensation calculation service to housing companies in its area. It enables the residents to take full advantage of the energy produced by their housing company’s solar panels: solar power used by the apartments is not subject to transmission charges, electricity taxes or energy charges.

Helen Electricity Network was involved in the development of the service in areas such as Pikku Huopalahti in Helsinki.

PHOTO: TIMO PYYKKÖ

HELEN

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Energy!

Read about current phenomena and news. Pick up tips for smooth daily life.

PHOTO: PAAVO MARTIKAINEN

#athome **This is a good time to start growing flowers for the summer. Tall verbena is a stately plant whose flowers gleam in the sun at a height of more than one metre. One week after planting, put the planting tray in your refrigerator's vegetable drawer for a month. Then place the planting tray on a window sill to sprout until the temperature no longer drops below zero at night.**

#carbonneutral2035 **Helen is the first Finnish energy company to have made a commitment to a science-based emission reduction target. Helen's procedures for monitoring climate impacts will be evaluated by an external party.**

PHOTO: KIMMO SYVÄRI

Start reducing your carbon footprint together with Helen – one step at a time. Helen offers you four easy ways to reduce the environmental impacts of housing. Take a look at our products and services at helen.fi/en

HOW IRRESPONSIBLE IS IT...

...to keep home appliances on standby?

Not irresponsible. Due to energy efficiency regulations, the standby power consumption of modern electrical appliances is low. The standby power consumption of individual appliances will not affect your electricity bill. However, most homes have many appliances – both new and old – that consume electricity when in standby mode. It's estimated that they account for as much as 3–13% of household electricity consumption. It makes sense to switch off appliances fully when they're not being used. Even the slightest bit of unnecessary consumption is, well, unnecessary.

PHOTO: ADOBE STOCK

#geothermal **Helen has added geothermal heating to its range of carbon-neutral energy solutions. It enables customers to heat their homes with zero emissions. Helen implements heating solutions on a property-specific basis based on individual needs.**

TRENDSETTER

Smart heating

Gradyent is a Dutch start-up that develops smart district heating networks.

In the future, more and more buildings in Europe will be heated by district heating. Gradyent has developed an AI platform for modelling the operations of district heating networks and predicting consumption. This helps reduce the emissions and costs associated with heating.

Established in 2019 by Hervé Huisman, Gradyent is a Dutch start-up that uses AI to optimise district heating systems. Huisman is passionate about state-of-the-art technology and having an impact on the energy business.

"Heating accounts for more than half of the world's energy consumption. Harnessing AI to optimise heating networks can improve the efficiency of energy consumption everywhere. This is the path towards carbon-neutral heating."

Helen's investment unit Helen Ventures has invested in Gradyent because Helen Ventures wants to be involved in building an even smarter global district heating network. In addition to funding, the partnership provides Gradyent with practical support, networks and a platform for collaborative innovation.

"We want to be a credible player in the global district heating market, so it's important for us to be part of Helsinki's comprehensive and advanced district heating network."

DID YOU KNOW?
Helen Ventures invests in innovative start-ups that have the ability to shake up the energy sector. Through partnership, groundbreaking ideas can grow into large-scale action.

"District heating is moving towards carbon neutrality. It can be produced from various sources, including industrial waste heat and geothermal energy."

TEXT: MARJUKKA PUOLAKKA. PHOTO: TINO VAN DEN BERG

Hello, I cook here!

An air fryer is a way to brown your food almost entirely without oil.

PHOTOS: PHILIPS AND GETTY IMAGES

1 What is an air fryer?

It's a popular new kitchen appliance priced at €40–350. Basic models are inexpensive. Pricier options make more food faster and have a larger capacity. Air fryers are like convection ovens. Quickly circulating hot air heats the food evenly on all sides. Air fryers are good for cooking healthy meals as most foods can be cooked entirely without oil.

2

"An air fryer is an energy-efficient alternative for preparing small amounts of food. Cooking fish fingers and chips for two consumes 0.4–0.5 kWh of electricity, which comes to about €0.05."

Sari Loukasmäki Energy Advisor, Helen Ltd

PARTICIPATE in our reader survey on page 26 for a chance to win an air fryer.

3 What kinds of meals can I cook in it?

You can do almost anything with an air fryer: grilling, broiling and frying. Practically anything but boiling. Meat, meatballs, chicken and fish are easy to cook in an air fryer, for example. Tests have shown that an air fryer makes crispier frozen chips than an oven. In a small household of one or two people, an air fryer can even replace an oven.

4 How do I clean it?

Cleaning an air fryer is quite easy. The removable coated parts can be put in the dishwasher. Food residue on the non-removable components can be removed with a soft brush. You should wipe the body of the air fryer with a damp cloth after each use. Refer to the user manual for detailed cleaning and care instructions for your appliance.

More information on energy-related topics: **energiatori@helen.fi**

#energyconsumption **Do you know how much energy you consume on a daily basis? Download the free Oma Helen application and reduce your electricity bill!** helen.fi/omahelen-app

Let's find out... about cleaning

There are interesting new alternatives to traditional vacuum cleaners.

	What?	How?	What else?
ROBOT VACUUM	A robot vacuum cleaner is a smart home appliance that vacuums your floors and rugs on its own. It charges its battery in a charging dock.	There is an opening on the bottom of the robot vacuum. Brushes push dust towards it and the robot vacuums the dust into its dustbin.	Robot vacuums have small dustbins. They fill up quickly, which means you need to empty and clean them often along with the filter.
CORDLESS VACUUM CLEANER	Cordless vacuum cleaners are powered by a battery. The motor and dustbin are attached to the shaft of the vacuum cleaner.	As with a traditional vacuum cleaner, dust is sucked up through a nozzle. Some models come with a removable mini vacuum cleaner.	At the lowest power setting, the battery life of a cordless vacuum cleaner can be as long as an hour. The dustbin is easy to clean after use.
STEAM CLEANER	A steam cleaner consists of a power cable, nozzle, hose and water tank. Resistors heat up the water in the tank to boiling point.	Steam is applied through the nozzle to the surface being cleaned. Chemical-free steam cleaning eliminates practically all bacteria.	Steam cleaners can be used to clean hard surfaces, such as wall and floor tiles, stone floors and even windows.
FLOOR MOP	A floor mop consists of an adjustable shaft and a mop head.	Dip the mop head in diluted all-purpose cleaner and clean the floor in a figure eight pattern.	The correct wetness of the mop depends on the floor material. A mop that is very wet is not good for parquet and laminate floors.

DID YOU KNOW?

You can't choose your electricity transmission company

Electricity transmission is provided by your local transmission company and you can't choose your provider based on competing bids. The customer can only choose their preferred transmission product from their provider's selection.

In some areas, the rated current of the main fuse influences the basic charge of the transmission network service. In Helen Electricity Network's area, the basic charge is the same for all customers except for very large connections.

The best way to optimise your electricity transmission bill is to be mindful of the energy efficiency of your home. Every kilowatt-hour you save reduces your bill.

PHOTO: KATRI TAMMINEN

#electricity network **The reliability of Helsinki's electricity network is at an all-time high. Last year, the average Helsinki resident was without electricity for only 1.2 minutes. This excellent reliability figure represents a European record.**

JOINING FORCES

New life for a centenarian

As many as 250,000 people pass through Helsinki Central Station on a daily basis. Helen's emission-free Recycled Heat and cooling have substantially reduced the carbon footprint of the 100-year-old building.

Text: Marjukka Puolakka | Photos: Kim Öhman

"We will renovate this 100-year-old building with respect for its architecture and heritage," says Jani Jääskeläinen, Programme Manager, Real Estate Development, at VR Group.

"We will improve the central railway station's energy efficiency"

VR GROUP HAS STARTED A DEVELOPMENT project aimed at upgrading the 100-year-old Helsinki Central Station and improving its energy efficiency as it enters its second century.

"We will renovate this 100-year-old building with respect for its architecture and heritage. The central railway station's comfort, safety and service offering will be improved. The use of the building will also be more energy-efficient," says Jani Jääskeläinen, Programme Manager, Real Estate Development, at VR Group.

Helsinki Central Station is by far the busiest transport hub in Finland. Designed by the architect Eliel Saarinen, the building has served train passengers since 1919.

The central railway station consumes energy for purposes such as heating, cooling and ventilation. During peak times, the doors of the station are constantly open in four directions and the building does not have vestibules at all of its entrances. The station hall connects directly to the metro tunnel, which brings in a significant amount of air flow.

"The new ventilation system will support heat recovery and improve the conditions in the station and the underground level. We are also planning to install air curtains at the entrances. We will also refurbish windows and replace the roof insulation materials."

Helen is participating in the climate upgrades to the central railway station. The station premises have been heated by Helen's emission-free Recycled Heat since the beginning of 2021. This reduces emissions by an amount equal to the annual emissions of about 400 cars. The station's cooling systems use Helen's zero-emission district cooling solution.

In addition to the 100-year-old Helsinki Central Station, VR Group owns a number of properties across Finland. They are all managed with the utmost care.

"We have properties from many different decades. During the past few years, we've evaluated the properties and created plans for improving energy efficiency. We have started using geothermal heating and solar power at our properties."

Facts

VR Group is a service company that operates in transport, logistics and maintenance. It has kept Finnish society moving for nearly 160 years.

The state-owned company employs some 6,000 professionals in various fields.

VR's daily passenger traffic volume consists of approximately 250 long-distance trains and 820 commuter trains.

VR Transpoint is an experienced and versatile logistics company that operates on both rail and road.

VR FleetCare is responsible for the maintenance of rolling stock.

8+1 good reasons

to travel by rail

1 Taking the train is a green choice. Finnish passenger trains are emission-free. Some 95 per cent of passenger trains run on clean hydropower-certified electricity. The emissions of diesel-powered trains are compensated.

2 Taking the train is a comfortable way to travel. You can sit and enjoy the views or walk around when you feel like it. You can enjoy a meal or a drink in the restaurant car. You can also order snacks to be delivered to your seat.

3 Commuting by train is productive because you can work on the go. Trains have electrical outlets and free WiFi. You can even work as a team while travelling by train – simply reserve a conference cabin or a larger cabinet.

4 With children, a train journey is an adventure and the most comfortable way to travel. Instead of getting bored on the back seat of a car, children can play and move around on a train, and toilet breaks and meal times don't slow you down.

5 Trains are accessible. Many trains are accessible by wheelchairs and rollators, for example. Service dogs travel for free. Assistance services are provided at the stations.

6 On a night train, you can cover longer distances safely in your own cabin. You don't have to worry about getting hungry – the restaurant car is open from early in the morning to late at night. Bring your car on a night train with a car carrier.

7 Taking the train is a good choice for your pet. All trains have seats that allow dogs, cats and other pets to travel comfortably with their owner. Air-conditioned wagons stay nice and cool even in hot summer weather.

8 Trains take you all across Finland, whether you're travelling to a nearby town or a tourist destination further away. The train takes you right into the heart of your destination city. VR operates hundreds of long-distance trains every day.

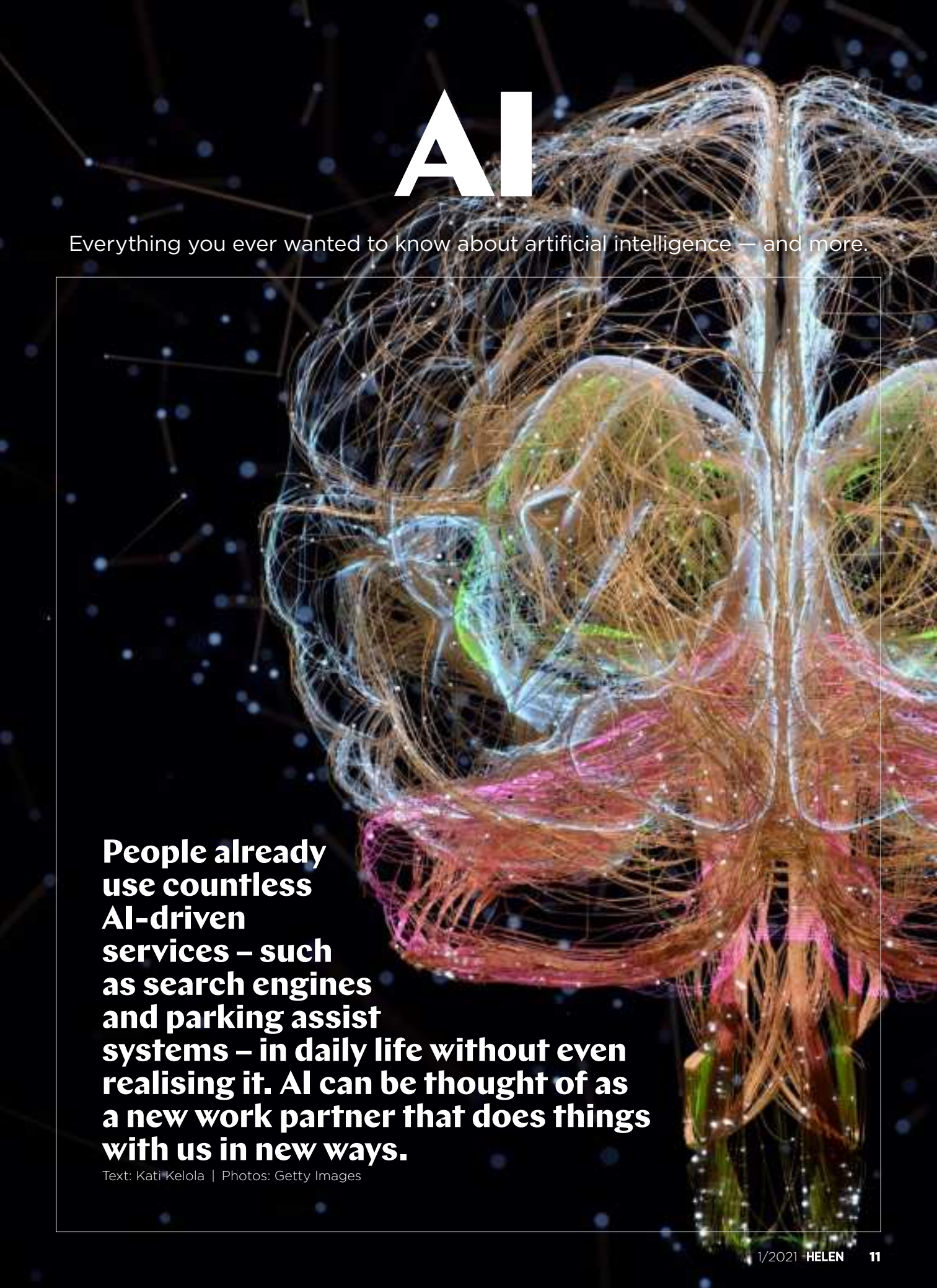
+1 Travelling by train is safe during COVID-19. Cleaning has been enhanced and maintaining good hand hygiene is easy. Trains have lots of wagons, so there is plenty of space. You can also book a private cabin or an empty seat next to you.

"Every train journey is a climate-friendly decision that reduces the CO_2 emissions of travel. Trains run on emission-free energy and Helsinki Central Station is heated with zero emissions."

Jani Jääskeläinen
Programme Manager, Real Estate Development, VR Group

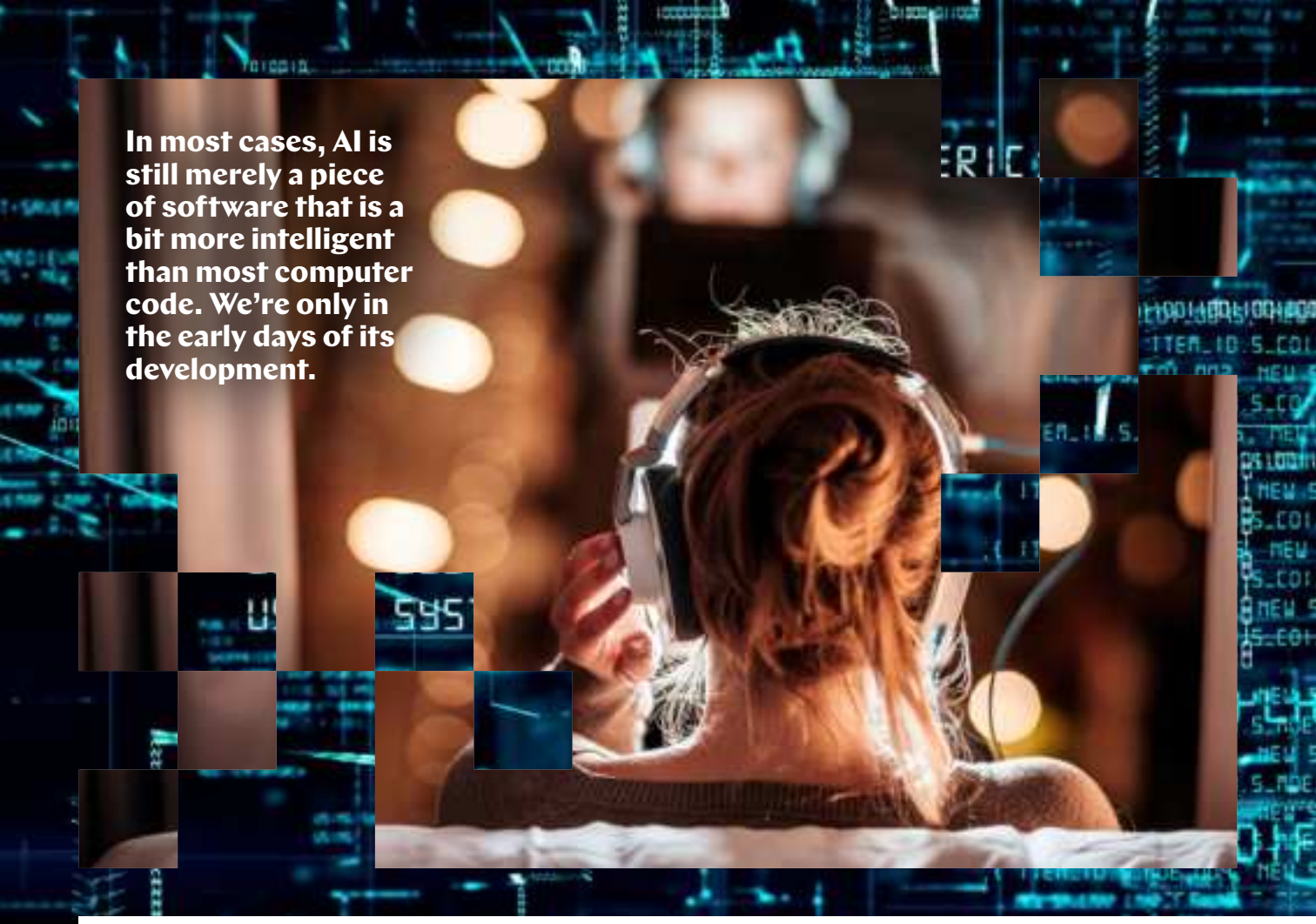
AI

Everything you ever wanted to know about artificial intelligence — and more.



People already use countless AI-driven services – such as search engines and parking assist systems – in daily life without even realising it. AI can be thought of as a new work partner that does things with us in new ways.

Text: Kati Kelola | Photos: Getty Images



In most cases, AI is still merely a piece of software that is a bit more intelligent than most computer code. We're only in the early days of its development.

FOR MANY PEOPLE, THE TERM ARTIFICIAL INTELLI-gence, or AI, brings to mind futuristic visions of robots that serve us and look after us. You might have seen amazing videos online of bipedal humanoid robots doing flips or four-legged robots with a canine appearance walking around a park.

While these are examples of what can be achieved with artificial intelligence, most AI applications are things that we interact with on a daily basis. Intelligent technology already surrounds us in our homes and workplaces without us even realising it.

When you watch Netflix or YouTube or listen to music on Spotify, AI-driven algorithms recommend similar shows or songs to you. When you tag a friend on Facebook, facial recognition algorithms learn to recognise their face. A smart refrigerator measures its energy efficiency and, one day, it will order groceries on your behalf to restock itself. Intelligent cars help you with navigation and parking, thereby increasing road safety.

"THIS IS A TREMENDOUSLY EXCITING TIME," SAYS UNI-versity lecturer Anna-Mari Rusanen from the Department of Digital Humanities at the University of Helsinki.

"We are witnessing a major social change and will be able to see how it plays out."

Rusanen sees innovations related to smart data processing and robotics as the next chapter in the history of tools.

"You could also compare it to the time people started to domesticate animals," Rusanen adds.

"AI is like a new work partner. It does things in new ways together with us."

Strictly speaking, AI systems are still merely software that is a bit more intelligent than most computer code. We're only in the early days of their development.

"The best algorithms have fairly impressive machine learning capabilities. Most basic algorithms are simply statistical mathematics and probability calculations."

Setting the right prices

Helen owns shares in hydropower plants. Smart technologies can help Helen use hydropower in electricity production when it is at its cheapest and the price is at its most optimal. Without AI, monitoring the rapidly changing situation through data from multiple sources would be impossible.

Self-driving vehicles may become a reality in the 2050s.

An algorithm is like a recipe or a list of instructions for a computer to follow. The computer executes the instructions in a set order as they are written. Current AI applications are at their best at tasks that require computing power and the ability to process large quantities of data. In these types of tasks, people are no match for a machine.

"We simply can't process massive amounts of data at the same scale as a machine to identify patterns in the data."

Computers can already beat humans at chess. However, in tasks that require an understanding of causality, identifying links between separate things or determining whether something is appropriate, machines are still no match for humans.

Tasks that require motor skills, such as executing a series of movements with a specific goal, have proved to be a challenge for programmable machines. Making a sandwich or picking fruit are more difficult for AI than chess.

Machines also can't make choices that their programming does not address.

For example, a robot vacuum cleaner can vacuum a room and even get better at the task it is given, but it can't decide whether it should spend the day cleaning or go out for a cup of coffee, Rusanen says.

"Independent decision-making is a highly complex skill from the perspective of data processing."

According to Rusanen, figuring out how machines or computer code could set their own goals is the holy grail of AI research.

SERVICE ROBOTS CAN ALREADY BE seen in the lobbies of hospitals and hotels.

The most significant application for AI-driven systems is the processing of data. They produce analyses, parse data and calculate forecasts. They can be used to manage massive amounts of data.

"Society is in a period of transformation. Automated data

Optimising production

Helen uses AI to ensure that electricity and heating are produced at just the right amounts. With the help of machine learning, weather data and historical consumption figures can be used to model and predict district heating consumption much more accurately than before.

AI-driven solutions help optimise the production and consumption of electricity and heating on the path towards carbon neutrality.

processing is used in all sectors that need data to support decision-making."

Finland currently has a national AI programme under development. Known as AuroraAI, it is scheduled to be completed in 2022. It is an AI-assisted advisory service intended to provide people with recommendations online on a one-stop service basis to help them with various situations in life. For instance, if you're looking for a new job, AuroraAI would direct you to the services you need.

HELEN HAS ALSO INVESTED IN THE use of AI during the past couple of years, says Mikko Muurinen, Head of Data & AI at Helen.

For example, AI-driven solutions make it possible to optimise the production and consumption of electricity and heating, which promotes progress towards the goal of carbon neutrality.

"The better we understand consumption, the better we can minimise fuel needs and thereby reduce emissions and climate impacts."

Effective services

Helen uses data and AI to develop services that anticipate the customer's changing needs and make the use of Helen's services easier. For example, drivers of electric cars can be catered to by developing monitoring and recommendation systems for public charging stations.

Anticipating changes in weather and related needs with the help of intelligent analytics helps ensure that there is enough electricity for everyone on the one hand and prevent excess production on the other hand.

"We have a diverse customer base. Their interests can include the carbon footprint, prices or electric vehicles, for example. These solutions help us serve all of them even better."

Customers have access to data produced with the help of analytics. Through the Oma Helen application and the Helen website, they can already view reports on their energy consumption.

"In the future, these services can provide information to customers on how to reduce their carbon footprint or how their consumption compares with customers with similar profiles and properties."

Data from AI systems enables the timely identification of components that have reached the end of their life-cycle or are close

to breaking. It supports proactive maintenance and helps ensure that energy flows seamlessly.

Muurinen believes AI will play a very significant role for Helen in the future.

Energy production is becoming increasingly decentralised. Instead of being produced in a small number of large power plants, energy streams will be multiplied by the thousands through the proliferation of various forms of energy production, such as solar panels on the roofs of people's homes.

"Individual control rooms can't monitor such vast decentralised energy systems as effectively as a machine. AI will play an important role in monitoring and optimising data from thousands of production sites," Muurinen says.

Muurinen expects a similar trend of diversification in demand.

"Smart properties will give us the opportunity to delve into energy consumption in new ways with our customers, for example."

Putting waste heat to good use

Under Katri Vala Park, a heat pump plant recovers energy and heat from the waste water. The waste heat is used as a source of district heating. The use of advanced analytics enables the modelling of how the recovery of energy can be optimised.

ACCORDING TO UNIVERSITY LECTURER ANNA-MARI Rusanen, the current goals of AI development are focused on routine solutions that help people at work and in daily life.

She does not expect the consumer products segment to see a new invention in the next few years that is as revolutionary as smartphones have been. At one point, it was predicted that autonomous vehicles would soon be a reality, but it now looks more likely that they will become widely used in the 2050s.

During the next five years, Rusanen estimates that the most significant development will be seen in predictive algorithms.

In society, these developments will be seen in the form of smart cities where mobility is managed by intelligent traffic control systems.

Health data may be used to predict an individual's future health-related risks. That would enable the creation of treatment plans that could even prevent the person from falling ill altogether.

Smart meters

AI analyses 10,000,000 electricity meter readings every day in Helsinki and generates a wealth of quantitative data to support decision-making by experts. The facts help prioritise the process of upgrading meters during the 2020s.

Infographic: Henna Ryynänen

1. ELECTRICITY METERS
In Helsinki alone, there are 400,000 electricity meters that provide 10,000,000 readings per day: consumption figures and data on the quality of electricity.

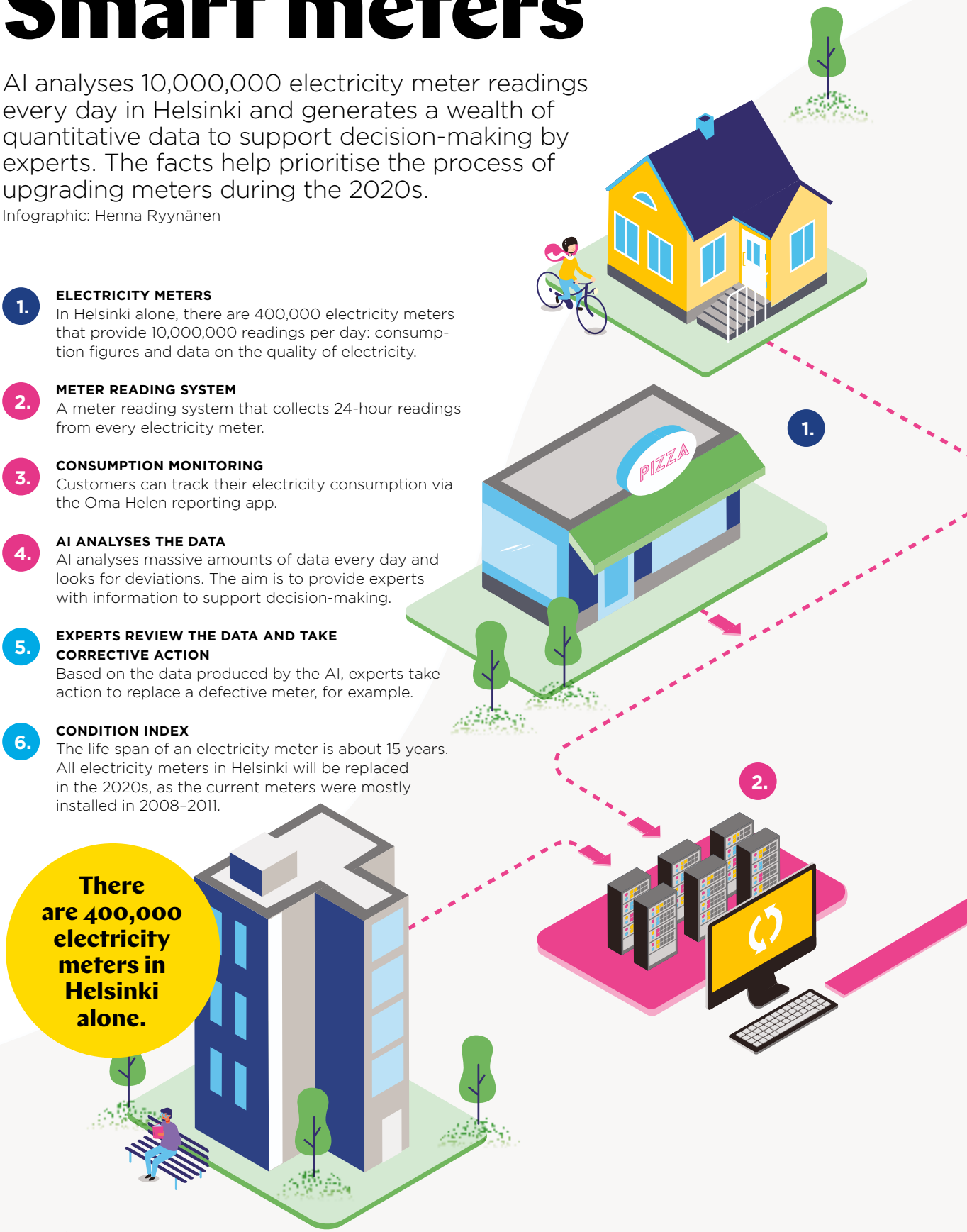
2. METER READING SYSTEM
A meter reading system that collects 24-hour readings from every electricity meter.

3. CONSUMPTION MONITORING
Customers can track their electricity consumption via the Oma Helen reporting app.

4. AI ANALYSES THE DATA
AI analyses massive amounts of data every day and looks for deviations. The aim is to provide experts with information to support decision-making.

5. EXPERTS REVIEW THE DATA AND TAKE CORRECTIVE ACTION
Based on the data produced by the AI, experts take action to replace a defective meter, for example.

6. CONDITION INDEX
The life span of an electricity meter is about 15 years. All electricity meters in Helsinki will be replaced in the 2020s, as the current meters were mostly installed in 2008–2011.



There are many different types of electricity meters in Helsinki that are analysed with the help of AI.

AI supports decision-making processes.

Condition index data produced by AI helps determine the optimal timing of replacing each type of electricity meter.

Getting the most out of smart devices

Laura Riuttanen adjusts the lighting in her home through her smartphone and a robot vacuum keeps the floors clean.

My enthusiasm for smart devices started with a step counter. The fitness tracker gave me data on how many steps I'd taken, which motivated me to move more.

Then I got into smartwatches. Now I wear an Apple Watch, which collects data and is connected to my phone and computer. There are lots of smartwatches available these days. It makes sense to compare the options. After my first fitness tracker, I have bought many other smart devices that are useful and provide data on various things in daily life.

Our two-room apartment is kept clean by a robot vacuum. My dust allergy means regular vacuuming is important, but me and my partner are not very diligent about cleaning. The robot vacuum helps keep my allergy under control and improves quality of life in general. Our apartment used to get vacuumed much less often.

We also have a smart TV and we can control the lighting at home with smart technology. We originally got smart lighting for our dog, Bruno. We didn't want him to be home alone in the dark. Now we can turn on the lights through our phone.

Smart lighting is also useful in other ways. It lets you change the mood in your home and you can set them to switch off automatically.

It's not that I need smart technology to deliver significant benefits in every situation. We could manage without it, but it does make daily life more fun. Some of the devices don't exactly transform your life, but it's nice to get data on various things.

If we were to live in a detached house one day, I'd get a smart home security system that would alert us in the event of water damage or a break-in, for example. Families with children would probably get a lot of benefits from smart locks.

TEXT: IRENE NAAKKA, PHOTO: ESSI LYYTIKÄINEN

9 TRICKY QUESTIONS

How much do you actually know about AI?

Test your knowledge of the background of the algorithms that are reshaping our world.

1

When did AI research begin?
A. In the 1950s
B. In the 1980s
C. In the 2010s

2

What percentage of Europeans have a favourable attitude towards AI?
A. 41%
B. 61%
C. 81%

3

What is the current boom in AI primarily based on?
A. Symbolism
B. Semantic analysis
C. Deep learning neural networks

4

What is narrow AI?
A. It can only handle a specific task it was designed for
B. It can teach itself
C. It has a will of its own

5

What percentage of Europeans want new technologies to be closely scrutinised and supervised?
A. 78%
B. 88%
C. 98%

6

Why can AI solve many problems better than humans?
A. It can recognise correlations
B. It can find unexpected connections between things
C. It has unlimited computing capacity

7

What was the number of new net jobs created by technology annually in technologically advanced countries between 1999 and 2010?
A. 20,000
B. 50,000
C. 80,000

8

What does the Turing test determine?
A. Whether a machine can mimic human thinking
B. Whether a machine is self-learning
C. Whether AI is powerful enough for an algorithm

9

What was the name of the first AI system to beat human contestants in a trivia quiz?
A. Watson
B. Smith
C. Einstein

ANSWER KEY: 1 A, 2 B, 3 C, 4 A, 5 B, 6 B, 7 C, 8 A, 9 A.

PHOTO: GETTY IMAGES

Edmond de Belamy is the first portrait produced by AI to be sold at auction.

THE BIG PICTURE

An artist's portrait

How much of the art market will AI take over in the near future?

A couple of years ago, the painting Edmond de Belamy was sold in a Christie's auction in New York for USD 432,500. While that is not unusual, the artist's signature at the bottom is. Instead of a barely legible hand-written name, the text is part of the algorithm that produced the painting.

The gilt-framed painting itself is a portrait of a portly man, possibly a French clergyman judging by the dark frock coat and white-collared shirt. In pre-auction estimates, it was valued at USD 7,000–10,000. It was produced by Obvious, a Paris-based arts collective. It is one of 11 portraits of the fictitious Belamy family.

PHOTO: GETTY IMAGES

TIMELINE

Space flight through the years

Did you know the name of the dog that made it to space before any human?

The Soviet Union launched the artificial satellite Sputnik 1 into space, where it remained in orbit for three months. Its successor, Sputnik 2, had a dog named Laika on board.

1903

The Russian educator Konstantin Tsiolkovsky is the father of astronautics. He calculated that rockets would fly the farthest using liquid fuel.

1923

German physicist Hermann Oberth published a book about a rocket launched into outer space. His book inspired the birth of rocketry communities around the world. One of them developed the V-2 rocket, which was used to bomb London during World War II.

1926

The American professor Robert H. Goddard successfully launched a rocket fuelled by liquid oxygen and petrol. It reached an altitude of 12.5 metres, flew for 2.5 seconds and covered a horizontal distance of 56 metres.

1957

1961

The Soviet cosmonaut Yuri Gagarin was the first human in space. His space flight lasted for 108 minutes, during which his capsule, Vostok 1, reached an altitude of 325 kilometres.

The American astronauts Neil Armstrong and Edwin "Buzz" Aldrin walked on the Moon. Michael Collins flew with them on Apollo 11. The first step on the Moon was one small step for man but one giant leap for mankind.

Buzz Aldrin on the Moon in a photo taken by Neil Armstrong.

1963

The Soviet cosmonaut Valentina Tereshkova became the first woman to fly into space on Vostok 6.

1965

The Soviet cosmonaut Alexei Leonov conducted a spacewalk on Voskhod 2. He spent 12 minutes at a distance of five metres from the spacecraft.

1969

2018

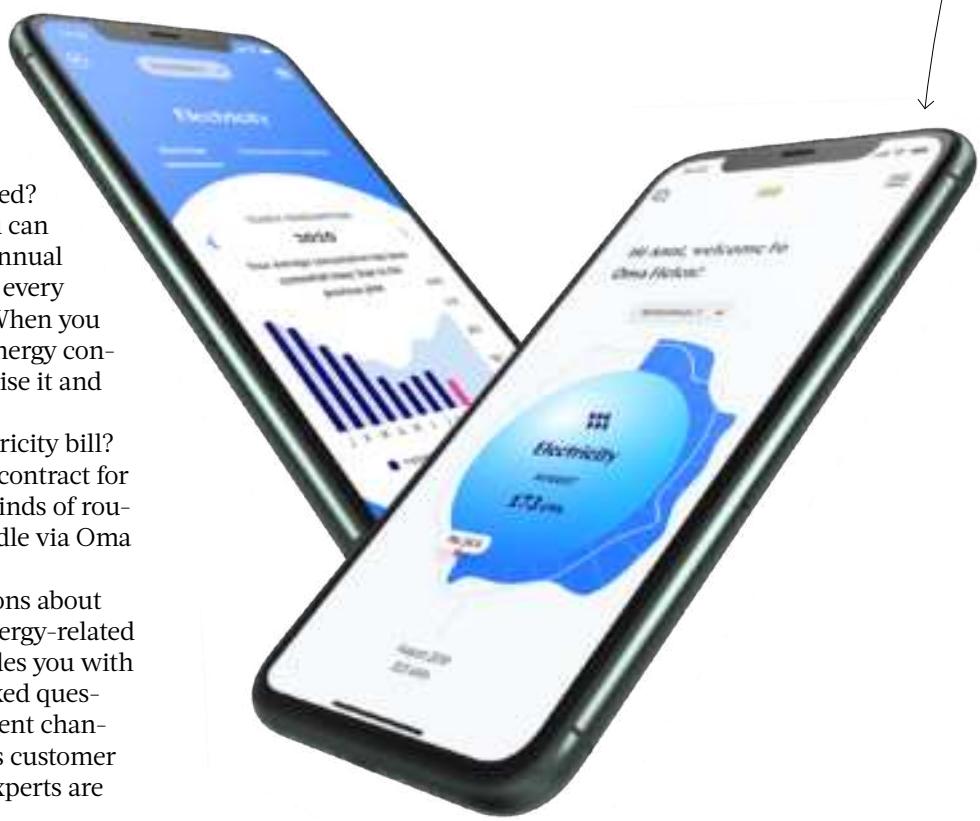
A satellite developed by the Finnish space technology company ICEYE Oy was launched into orbit. It uses a SAR radar to capture images of the surface of the Earth.

2020

Astronauts from the National Aeronautics and Space Administration, or NASA, flew to the International Space Station on a spacecraft developed by the commercial operator SpaceX. SpaceX has announced it is planning to send tourists into space.

Know your energy with Oma Helen

Oma Helen is a mobile application that helps you know more about your energy consumption and gives you access to a range of energy-related services.



DO YOU KNOW WHICH day of the week your electricity consumption is the highest? Or how your electricity is produced? Through Oma Helen, you can monitor your hourly or annual energy consumption and every time frame in between. When you know more about your energy consumption, you can optimise it and save money.

Did you pay your electricity bill? Or sign a new electricity contract for your new home? These kinds of routines are also easy to handle via Oma Helen.

If you have any questions about your contract or other energy-related issues, Oma Helen provides you with answers to frequently asked questions as well as a convenient channel for contacting Helen's customer service. Helen's energy experts are always ready to help you.

Install the free Oma Helen app today!

1. **The new Oma Helen mobile app has been released. It initially serves Helen's electricity customers.**

2. **Download the free app from the App Store (iOS) or Google Play (Android).**

3. **When you use the app for the first time, use your online banking codes or Mobile ID for authentication.**

Lataa App Storesta

HAE Google Play

1. Insights about energy consumption

On the main page of the app, you can monitor your energy consumption for the current month compared to the previous year.

Your day-to-day electricity consumption

Data for the period
12 March 2016–12 March 2018

Your average daily electricity consumption is
4.8 kWh

Your consumption at night (22:00–7:00)
24.4%

Your consumption is the highest on
Sundays

Your consumption is the lowest on
Tuesdays

Highest consumption figure on record
10.5 kWh
Tuesday, 25 December 2018

Lowest daily consumption figure
2.3 kWh
Wednesday, 3 July 2019

Your consumption history shows your consumption data at different degrees of specificity, from hourly figures to annual data.

2. Peace of mind about energy-related issues

In the bills section, you can see the status of your electricity bills and choose to receive notifications of new bills.

Are you wondering when your electricity contract will expire or how your electricity is produced? You can find this information on Oma Helen as well.

3. Help with service issues and problems

You can contact our customer service by sending a message or calling us on the phone.

Need help with energy-related issues or have any questions about your contract? Oma Helen helps you with your energy-related services.

SUDOKU

Sudokus' solutions: helen.fi/sudoku

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READER CONTEST

Send us your feedback and win a prize!

Which of the stories in this issue was the most interesting to you? You can also let us know what you would like to read about in Helen magazine.
Participate in the survey by 11 April 2021 at **helen.fi/magazine-feedback** or send a postcard to Helen, Helen magazine, 00090 HELEN. Don't forget to write your contact details and customer number on the card.

One lucky entrant will win an air fryer.

Philips Airfryer XXL
The new Philips Airfryer XXL thinks and cooks for you. Its smart sensor technology adjusts the cooking time and temperature automatically.

Jorma Uotinen

1

Home workouts

I've danced for more than 40 years but now, in my 70s, I don't work out every day anymore. I did Bikram Yoga for a while, but these days I keep my mind and body sharp by doing workouts at home. I stretch and move based on how I feel.

2

Music

When I want a little "me" time, I enjoy a little concert at home. I put on a record that has a lot of meaning for me personally and really give it my full attention. One hour like that really recharges me. Lately, I've been listening to José Carreras and Anne Sofie von Otter.

3

Art

Paintings and other experiences of art elevate you above the routines of daily life. They give me energy. Art also helps you structure the world around you. Intense experiences with art also drive my own artistic process forward.

Facts

Jorma Uotinen, 70, is a veteran dancer and choreographer who performs in concerts and is often featured on TV shows.

Since 7 February, he has been one of the judges of Talent Finland on MTV3.

From March onwards, he will perform in concerts subject to the COVID-19 situation.

4

Soups

I like soups that are filling but don't make me feel too heavy. Sausage soup is my favourite food. I can't wait to have my sister cook it for me again.

5

The city

I get energy from the urban environment. Maybe it's because I've always lived in the city. I like walking around the city centre, taking in the hectic atmosphere of the city and admiring the architecture.

5

Just being

The COVID-19 situation has made a lot of activities impossible. I've simply enjoy being home without doing anything. Sometimes it's good to just be without any pressure to perform.

7

Inspiration

Inspiration comes when you push yourself out of your comfort zone. I can't just sit around waiting for inspiration. Making art is both energising and draining at the same time.

PHOTOS: JIRINA ALANKO, SATU NYSTRÖM, ADOBE STOCK AND GETTY IMAGES

AI can beat a human player in chess, but picking berries is a bigger challenge.

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Helen Ltd

Sähkötalo,
Kampinkuja 2,
00090 HELEN
- helen.fi

ELECTRICITY CUSTOMERS
Mon–Fri 8–18
Contracts and billing
- 09 617 8080
- asiakaspalvelu@helen.fi

On the web
- helen.fi/contact-us

Free online services
- helen.fi

Phone line for movers 24/7
- 09 617 8020

HEATING CUSTOMERS
Mon–Fri 8–16
New district heating connections
- 09 617 8013
- kaukolampoliittymat@helen.fi

Contract amendments and assistance
- 09 617 8014
- kaukolampo@helen.fi

Billing, meter reading and energy consumption
- 09 617 8001

District heating equipment inspections and assistance
- 09 617 8012

COOLING CUSTOMERS
Mon–Fri 8–16
Sales and contracts
- 09 617 8015
- kaukojaahdytys@helen.fi

ENERGY GALLERY AND CUSTOMER SERVICE
Sähkötalo, 3rd floor
Mon–Fri 8–16
(closed until further notice)
Energy Gallery: group visits, advice on topics such as heating, new electricity solutions and consumption monitoring as well as guidance on issues related to the selection, use and maintenance of household appliances
- energiatori@helen.fi

FAULT REPORTS
Disruptions in electricity distribution
- 08001 80808

Disruptions in district heating distribution
- 08001 60602

Real-time information on disruptions
- helen.fi

CALL CHARGES
Calls are subject to local network or mobile call charges

Helen Electricity Network Ltd

- helensahkoverkko.fi

ELECTRICITY NETWORK CUSTOMERS
Contracts and billing
- 09 617 8090

Electricity network connections
- 09 617 8086

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- helensahkoverkko.fi

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