

Finland's most energetic customer magazine » 4/2020

HELEN

Asahi is an easy way to take healthy breaks
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Petra Gargano gets energy from songs
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A circular economy

In a circular economy, resources and materials are used efficiently and new business is created.
» p. 11

Implementing a circular economy can improve the competitiveness of Finnish companies and create tens of thousands of jobs.

Responding to needs



EDITORIAL » Does being the customer of an energy company boil down to simply getting electricity from your socket and heat from your radiator? At Helen, we believe the customer relationship goes far beyond the consumption of energy. We are interested in how easy it is for you to charge your new electric car and how you define convenience when it comes to energy services. We want to know how digitality and renewable energy are changing your daily life. We develop our services together with our customers to make sure they suit your needs.

I took up my post as Helen's Senior Vice President, Sales and Customer Service, at the beginning of September. Helen's vision is to be the most customer-oriented energy company in the market. We want to know each customer's energy and customer service needs so we can perform well in all of our interaction with you.

Energy consumption generates a wealth of interesting data. When does your electricity consumption peak? What is your consumption this month compared to last year? Install the new Oma Helen app to access information about your customer relationship with us and your energy consumption. Of course, you can also still reach us through our more traditional service channels.

"We want to understand your daily life."

Anu-Elina Hintsa SVP, Sales and Customer Service, Helen Ltd

A SOURCE OF PRIDE

5x more

Helen's wind power output will grow fivefold by 2022. Helen is partnering with CPC Finland to build the Lakiakangas 3 wind farm near Kristiinankaupunki in Ostrobothnia. The wind farm will initially consist of 20 wind turbines with a total output of 86 MW. The size of the investment is nearly 100 million euros. Helen owns 60 per cent of the joint venture.

Production at Lakiakangas 3 will begin in late 2021.



ILLUSTRATION: CPC FINLAND OY



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Energy!

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



PHOTO: HELI HIRVELÄ

#athome Let's build a fort! Every home has pillows, blankets and chairs. Before you know it, they are being turned into a fort in one of the favourite activities of children and the young at heart. A fort is a great place to play, relax or take a nap. Even the family cats might want to get involved!

TRENDSETTER

Good energy

Inventor and non-fiction author Janne Kämpylehto believes energy should be fun.

Janne Kämpylehto wants his ideas and stunts to inspire people to think about energy.

In 2014, he built Finland's first solar power plant in an apartment building. However, the pilot plant connected to an apartment was not cost-effective. Many housing companies have since built solar power plants to supply electricity for their building systems. Soon, compensation calculation will make it possible to also take advantage of locally generated electricity in apartments without additional costs.

"Local energy is emerging as a strong trend that allows consumers to participate in the energy business. When they produce part of their energy themselves, people develop a stronger interest in energy and get smarter about using it."

Kämpylehto has developed Voimala, a learning environment that is used in 700 comprehensive schools to cover topics including the production, storage, measurement and use of renewable energy.

Ideas and projects can be a bit silly, too.

"I've been known to sail across the gulf to Tallinn on all manner of contraptions, such as a sauna raft, a hot tub raft and a solar-powered boat."

Kämpylehto's plans for next summer include sailing a solar-powered boat to Stockholm and a trip to St. Petersburg on a pontoon sofa.

DID YOU KNOW?

Next year, the use of solar power will become cheaper in housing companies for which electricity distribution network companies can offer compensation calculation - including Helen Electricity Network's operating area.

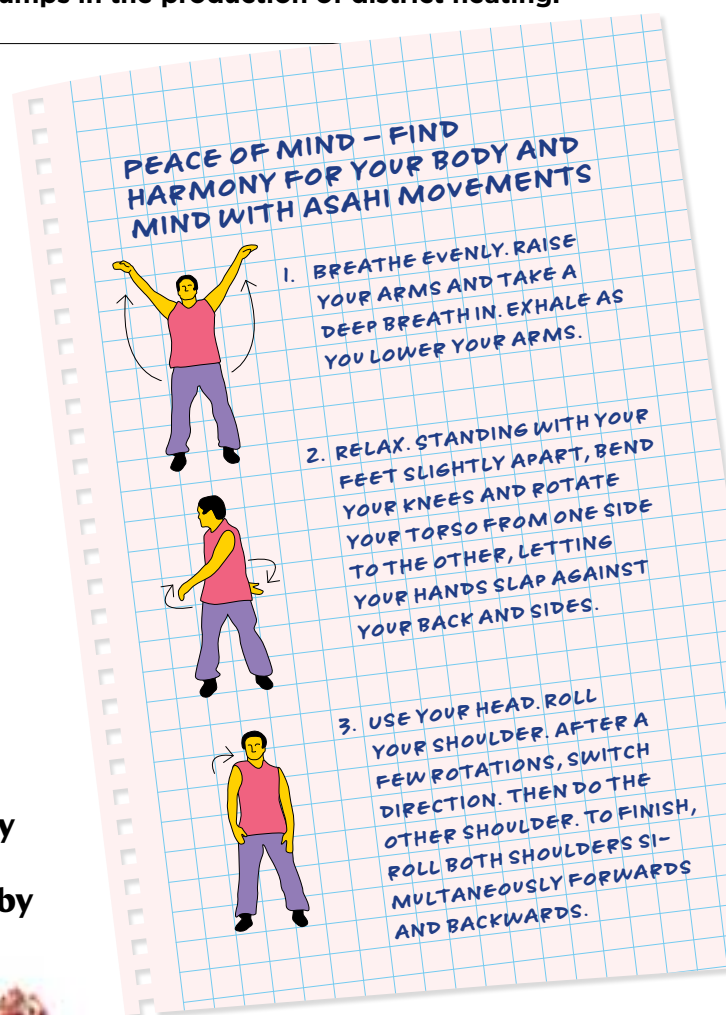


"I've been known to sail across the gulf to Tallinn on all manner of contraptions, such as a sauna raft."

#carbonneutral2035 Helen is exploring alternatives to identify the best carbon-neutral energy production methods. One option that is currently being investigated is using seawater as a year-round heat source for heat pumps in the production of district heating.



The Housing Finance and Development Centre of Finland (ARA) grants energy subsidies to housing companies for renovation projects that improve energy efficiency. For example, heating system and solar panel solutions implemented by Helen are eligible for the subsidy.



HOW IRRESPONSIBLE IS IT...

...to flush leftover food down the toilet?

Ouch! Yes, it's irresponsible. Solid biowaste is a treat for rats, allowing them to multiply in the branches of the sewer network. The only things that belong in the sewer system are toilet paper, urine, faeces and the water they are flushed down with, dishwashing water, laundry water and the water used in showering and cleaning. You can pour liquid food waste in the sewer system, such as drinks and soups that do not contain any solids. But don't pour oil and fat down the drain, as they will create blockages.

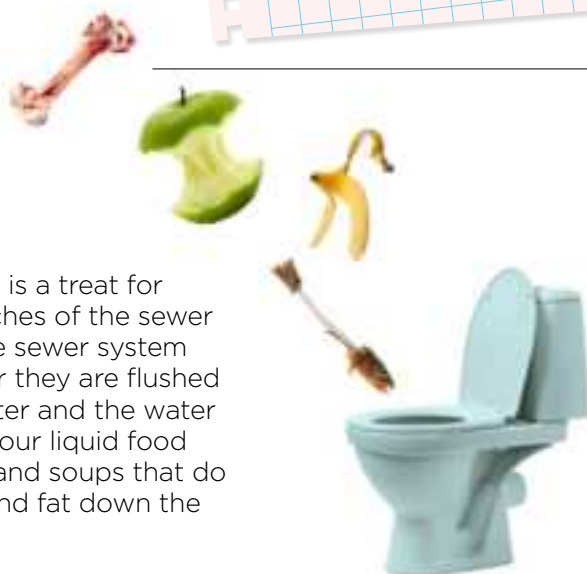


PHOTO: GETTY IMAGES

#podcast How will the new era of energy change our daily lives? In the Uutta voimaa podcast, Helen CEO Juha-Pekka Weckström discusses the future of energy with experts in various fields. You can find the podcast at helen.fi/uuttavoimaapodcast.

1

What can a smartwatch be used for?

It's an exercise buddy that measures things like your step count, time, heart rate, distance, speed and maximal oxygen uptake and records the data reliably. However, you should make sure the watch you get is right for your sport. Smartwatches can also monitor your heart rate during sleep and variations therein.

It's time to SMARTEN UP!

A smartwatch gives you accurate data to optimise your workouts.

2

What other features can a smartwatch have?

Some smartwatches can even take your electrocardiogram. You can also install applications for music services to listen to music via Bluetooth headphones while you exercise. Waterproof smartwatches are a good choice for swimming, boating and stand up paddleboarding.

3

"If your smartwatch has a built-in eSIM, you can use it as an extension of your smartphone. You can leave your phone home and manage your calls, messages and payment at the supermarket checkout via your watch. Make sure your smartwatch operating system is compatible with your smartphone."



4

What else should you consider?

Choose a smartwatch that feels right on your wrist, so you don't mind wearing it when you exercise. Display sizes vary; the larger the watch, the easier it is to use for someone with presbyopia. The battery life of smartwatches varies from less than a day to several days.

5

Complete the reader survey on page 26 for a chance to win a smartwatch.



#carbonneutral2035 Helen is involved in investigating the use of small modular nuclear reactors in district heating in the EcoSMR project by VTT Technical Research Centre of Finland. It is one possibility amongst the carbon neutral energy production methods.

Let's find out... about reduction

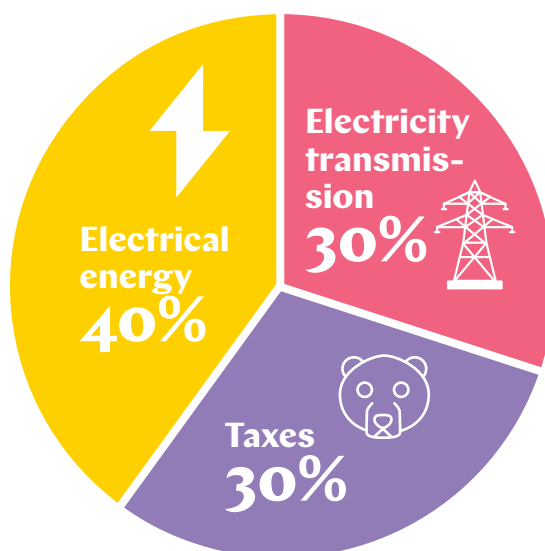
We present four different ways to reduce your carbon footprint.

	How?	Impact?	Cost?
ELECTRICITY CONTRACT	Change your contract from Basic Electricity to zero-emission Wind power.	Your carbon footprint will be reduced by 7% if you consume 3,000 kWh of electricity per year.	Your electricity bill will only increase by €15 per year.
RECYCLING	Browse online and offline flea markets to buy second-hand clothes.	Your carbon footprint will be reduced by 3% (if you spend an average of €100 per month on clothes).	You can get the same amount of clothes for hundreds or even thousands of euros less.
ELECTRIC CAR	Change your petrol car to an electric car and drive it for five years.	Your carbon footprint will be reduced by 12%.	If a electric car costs €15,000 more than a petrol car and you drive 14,000 kilometres, you save €800 in operating costs per year.
SOLAR PANELS	Install solar panels on the roof of your detached house.	Your carbon footprint will be reduced by 10%.	A solar power system with 18 panels costs €8,700. It pays itself back in 15 years and provides you with free electricity for at least 10 years.

The figures in this table are indicative averages. The effects of these actions on your carbon footprint depend on your current choices.
Sources: Guarantee Foundation carbon footprint calculator, the Finnish Climate Change Panel car calculator.

What are the components of electricity prices?

Electricity prices consist of three components: electrical energy, electricity transmission and taxes. The price of your electrical energy depends on the electricity contract you have chosen. Electrical energy is subject to value added tax. The price of electricity transmission is determined by the transmission charges of the local electricity distribution network company and is subject to electricity tax.



#electriccars Helen has invested in improving the use of electric cars in the Helsinki Metropolitan Area for more than 10 years now. In September, Helen opened Helsinki's first high voltage charger in Suvilahti, allowing drivers to charge their cars in 20 minutes.



JOINING FORCES

Smart action

The financial services giant OP has committed to 20 climate actions in 2020. Helen's zero-emission energy products and services offer smart solutions for reducing the carbon footprint.

Text: Marjukka Puolakka | Photos: Milka Alanen

“Companies play a key role by providing their customers with choices that support sustainable development,” says Satu Kuoppamäki, Senior Corporate Responsibility Manager at OP Group.



“Finland needs more renewable energy in various forms”

OP GROUP, THE LARGEST FINANCIAL SERVICES GROUP in Finland, wants to be a responsible pioneer that takes concrete action for the climate.

“OP Group has set a target of having a positive carbon handprint by 2025. This means that our operations will not generate any emissions. Our 20 climate actions chart the path towards that goal,” says Satu Kuoppamäki, Senior Corporate Responsibility Manager at OP Group.

Helen helps OP Group move towards its target of zero emissions. At OP’s office block in Vallila, premises for 5,000 employees are heated by Helen’s emission-free Recycled Heat solution. This reduces OP Group’s emissions by 4.6 per cent. This corresponds to the annual emissions of about 500 cars. The cooling of the office premises in Vallila also generates zero emissions thanks to Helen’s district cooling solution.

“Finland needs more renewable energy in various forms,” Kuoppamäki says.

“The rooftop solar power plant at our Vallila office provides us with clean elec-

tricity, and OP Real Estate Investment has included solar and geothermal plants in its property development projects.”

OP’s climate actions also include supporting the third sector. For example, OP provides funding to a Baltic Sea Action Group project that trains farmers on more sustainable soil management.

“The financial sector plays an important role in promoting sustainable development. It participates in enabling investments in new innovations and technologies. OP has four responsible theme funds whose popularity has grown tremendously over the past few years.”

For example, the OP-Clean Water invests in companies that promote the availability of clean water.

“We want to support our client companies in their responsible operations. Companies play a key role by providing their customers with choices that support sustainable development.”

The big problems of our time are solvable, but it requires action from individuals and organisations.

Facts

OP Group is the largest financial services group in Finland, with two million owner-customers. Its roots can be traced back to 1902, when the Central Lending Fund of the Cooperative Credit Societies Limited Company was founded.

OP consists of 138 independent cooperative banks and the central OP Cooperative along with its subsidiaries and affiliates.

OP employs 12,000 financial professionals, of whom 400 are located in the Baltic countries.

8+1 things a company can do to reduce its carbon footprint

1 Renewable electricity is a green choice. Helen offers water, wind and bio-certified electricity as well as electricity under the EKOenergy environmental label. Companies receive a renewable electricity certificate of origin for the electricity they consume.

2 Having a solar power plant on the roof of a commercial property reduces electricity buying costs. It can also be purchased as a service, with Helen taking responsibility for the plant's investment and maintenance.

3 Indoor areas can be kept at a comfortable cool temperature using Helen's zero-emission cooling solution produced in heat pump plants from waste heat. The cooling solution suits from offices to retail refrigeration equipment.

4 Helen's Recycled Heat is 100% recycled waste heat collected from data centres, property cooling systems, wastewater and industrial processes. The heat is processed at heat pump plants and fed into the district heating network.

5 Helen's Kiinteistövahti service helps housing companies avoid excessive and insufficient heating. Sensors in apartments measure indoor temperatures and the service provides guidance on adjustment needs based on the collected data.

6 A smart heat distribution centre is a service that involves Helen providing a new heat distribution centre for a housing company. The control system optimises heating energy consumption and maintains stable heating throughout the building.

7 Waste sorting, recycling and the circular economy are also forms of climate action. Providing sorting containers for cardboard, plastic and glass supports the recovery of materials. Minimising food waste increases the sustainability of office lunches.

8 Climate awareness is also reflected in day-to-day work: consider whether you really need to print everything. Add more plant-based food to workplace meals. Working remotely eliminates the climate impact of commuting.

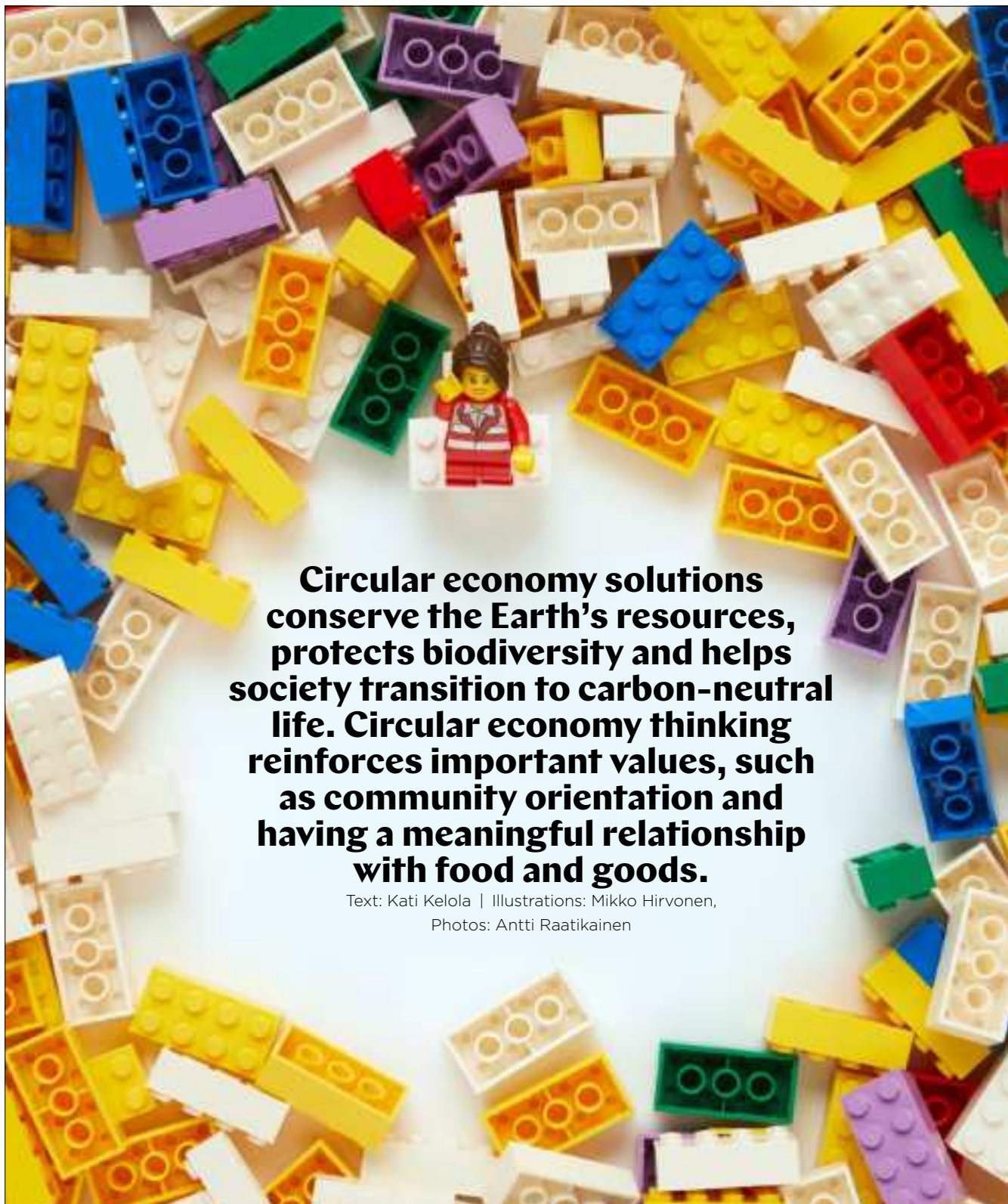
+1 Bicycle storage facilities and charging stations for electric bicycles and cars at the workplace encourage employees to choose zero-emission mobility solutions.

“Improving energy efficiency is an important step towards the 2035 carbon neutrality targets of Finland, Helsinki and Helen. Everyone's contribution matters. Working together is the only way to reach ambitious targets.”

Tuomas Ojanperä
Account Manager, Helen Ltd

Circular economy

Everything you ever wanted to know about the circular economy — and more.



Circular economy solutions conserve the Earth's resources, protects biodiversity and helps society transition to carbon-neutral life. Circular economy thinking reinforces important values, such as community orientation and having a meaningful relationship with food and goods.

Text: Kati Kelola | Illustrations: Mikko Hirvonen,
Photos: Antti Raatikainen



DO YOU SORT BIOWASTE, PLASTIC, PAPER, CARDBOARD and other waste fractions at home? Do you mend broken seams on shirts and fix holes in socks? Do you borrow tools from your acquaintances instead of buying your own power drill or ladder? Do you like visiting flea markets and recycling the things you own?

Great! Perhaps you are already putting the circular economy into action in your daily life.

Circular economy is an umbrella term for choices that reduce the consumption of virgin resources and the creation of waste by reducing unnecessary consumption, extending the life cycle of products or make efficient use of the raw materials in circulation.

The goal of circular economy is to transition from excessive consumption and single-use culture towards a more sustainable way of life.

"THE CIRCULAR ECONOMY IS ABOUT ADAPTING HUMAN activity to the limits of the Earth's carrying capacity," says circular economy specialist Nani Pajunen from the Finnish Innovation Fund Sitra.

Until now, the growth of the global economy has been driven by the excessive consumption of natural resources. The consequences of this approach and other human activity include climate change and the loss of biodiversity, Pajunen explains.

"For 50 years now, we have known that we are excessively consuming the Earth's limited resources. This needs to change."

While the circular economy as a concept is new, having only been widely talked about since 2015, it boils down to something that is quite familiar to people. For the older generation in particular, using clothes for as long as possible, extending the life span of products by repairing them and sharing the products we use have been a way of life since childhood, Pajunen notes.

Online flea markets, Buy Nothing Day and car sharing services are examples of today's trends. They represent the same circularity-driven approach: making carefully considered purchases and sharing things when possible. The goods we do buy may also become more meaningful when our homes are not completely full of them.

About half of the natural resources extracted by human activity are used for construction. In a circular economy, the eventual reuse of materials and products is taken into consideration right from the design stage.

The world needs 90 trillion in investments to achieve the goals of the Paris Agreement.

In a circular economy, we must promote the efficient use of sustainably produced renewable energy.

Circularity saves money. According to Natural Resources Institute Finland, the average Finn throws away 20–25 kilograms of edible food, or about 100 euros in value. By planning your food purchases better, you can reduce waste and save your money for other uses.

While circularity as an idea is nothing new, what is new is that circularity is now a concept that is being thought about systematically at the societal level, Pajunen explains. It is not only a question of recycling, for example, but rather systemic change.

MOVING TOWARDS A CIRCULAR ECONOMY AT THE SYSTEMIC level means thinking about how we move, live and eat sustainably in the future. Forecasts suggest that three out of four people will live in cities in the future. Half of the natural resources extracted by human activity are used for construction.

“Reducing the use of virgin materials is tremendously important.”

Ideally, circularity should serve as the foundation for the design of products and buildings right from the start. Development groups consisting of special-

ists in various fields look for ways to design cities and construction operations in such a way as to achieve an outcome that is sustainable with regard to the climate, the environment and the economy.

“It all starts with life cycle thinking, which means rethinking things at each stage of the life cycle and moving away from a lifestyle of excess consumption and waste.”

According to Pajunen, in construction, this means that the eventual reuse of materials and products is taken into consideration right from the design stage.

“All the materials we produce will eventually turn into waste. But by the time something has turned into waste, it is already too late. The circulation of materials must be designed for at the beginning of the life cycle,” Pajunen explains.

Reducing waste and conserving natural resources involves one significant future vision related to the circular economy: urban mining.

Instead of extracting the raw material we need for phones, computers and cars from the Earth, they could be “mined” in the future from build-

Nani Pajunen's three tips for putting circularity into practice in your daily life

1 Consider your purchases. Think carefully about whether you really need something. Reducing excessive consumption plays a key role in the circular economy. When you do decide to buy something, consider whether you should buy it new or used.

2 Use the things you own for as long as you can. Get them serviced and repaired as necessary.

3 Take advantage of sharing services. You don't necessarily need to own everything you need to use, such as a window vacuum or a power drill. Also consider whether you could share some of the things you own with others.

Circularity solves challenges related to the shortage of natural resources, such as metals extracted from the ground.

ings, devices and goods that have reached the end of their life span.

"The management of data on materials and resources is a hot topic right now."

Pajunen argues that, in the future, products should automatically include a "recipe" that indicates the materials they contain. Databases would hold information on when a product will reach the end of its life cycle and how the materials it contains can be reused. Buildings can also be thought of as products and cities as banks of materials.

"With an old building, we might not know what materials went into it."

"ENERGY CONSUMPTION AND THE OPPORTUNITIES IT involves are part of the solutions we need to create a circular economy," says Maiju Westergren, VP, Sustainability and Public Affairs at Helen.

The production of carbon-neutral energy supports the achievement of the goals of a circular economy. This year, the most significant news related to Helen's carbon-neutral production concerned wind power and district heating: Helen

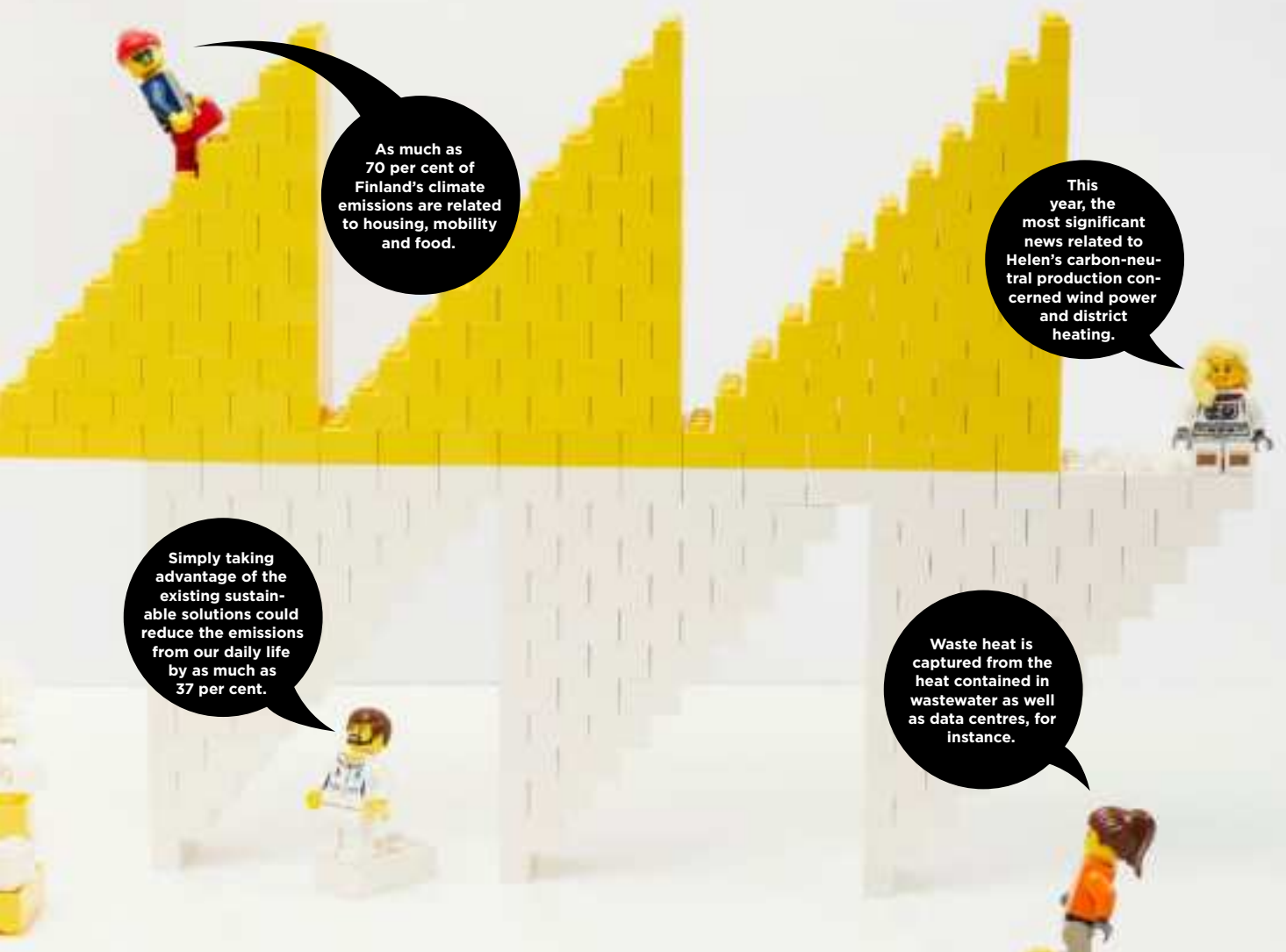
will increase its wind power production fivefold by opening two new wind farms by 2022 and reduce the carbon dioxide emissions of district heating by building new heat pumps that use waste heat as a heat source.

Waste heat is captured from the heat contained in wastewater as well as data centres, for instance. A pilot project launched in 2020 also sees Helen capture waste heat generated in the roasting processes at Paulig's coffee roastery in Vuosaari.

Waste heat is turned into district heating using industrial scale heat pumps. Construction is already under way at the Katri Vala heat pump plant in Helsinki on the sixth heat pump, and the decision has already been made on building the seventh heat pump, which will be one of the largest in the world.

In the future, the heat pumps will make it possible to generate carbon-neutral heat in Helsinki throughout the summer season and they already enable Helen to offer zero-emission district heating to its customers.

"By using solutions that are based on circular economy – by recycling energy flows – we can offer



As much as 70 per cent of Finland's climate emissions are related to housing, mobility and food.

This year, the most significant news related to Helen's carbon-neutral production concerned wind power and district heating.

Simply taking advantage of the existing sustainable solutions could reduce the emissions from our daily life by as much as 37 per cent.

Waste heat is captured from the heat contained in wastewater as well as data centres, for instance.

zero-emission heating and cooling to our customers, which will enable households and businesses alike to reduce their carbon footprint," Westergren says.

THE GOAL OF A CIRCULAR ECONOMY IS A SOCIETY characterised by comprehensive well-being. In addition to enabling smarter and more efficient use of raw materials and resources, circularity also creates new business opportunities.

Nani Pajunen highlights housing company renovation projects as one example. A housing company preparing to renovate a building's plumbing or roof could work together with its residents and a service provider to identify which materials that normally end up in waste collection containers could be collected by the company for resale, Pajunen suggests.

"The building's residents could get 20 per cent of the money earned from selling the materials."

Circularity will also create more work in existing industries. The maintenance and repair business is one example. Craftspeople can extend the life cycle of products.

ACCORDING TO NANI PAJUNEN, LESS THAN 10 PER CENT of the raw materials we use are circulated at present. In the future, things will be very different in this respect.

Finland has set a goal of being carbon neutral by 2035. The widespread implementation of circular economy solutions is essential for reaching this goal, Pajunen says.

Finland is a pioneer in circularity. Work is already under way on a national Action Plan for a Circular Economy, which will present concrete steps for Finland's path towards a circular economy.

At the household level, many aspects of circularity, such as waste sorting and recycling, are already working well.

At the industrial scale, there are also new solutions that have progressed to the investment stage. For example, a pilot plant is under construction for the processing of textile waste.

"We have a lot of people with the required knowledge and skills," Pajunen points out.

"There is no doubt in my mind that we will succeed if we want to."

Heat circulates

The heat that goes down the drain with wastewater does not go to waste in Helsinki. It is recovered and processed into district heating at Helen's Katri Vala heating and cooling plant.

Infographic: Henna Ryyänen

1.

THE SEWER NETWORK

- Wastewater goes through the sewer network to the wastewater treatment plant.

2.

WASTEWATER TREATMENT PLANT

- From here, treated wastewater goes on to the heating and cooling plant.

3.

HEATING AND COOLING PLANT

- The plant consists of several industrial scale heat pumps.
- The Katri Vala plant currently has five heat pumps, with the sixth under construction and the seventh planned for 2023.
- The treated wastewater first goes into a wastewater pumping plant. It is pumped from a tunnel through filters to heat exchangers that capture the heat contained in the water.
- The heat is channelled to heat pumps that heat district heating water.

4.

DISCHARGE TUNNEL

- The cooled and treated wastewater is channelled through a discharge tunnel out to the open sea.

5.

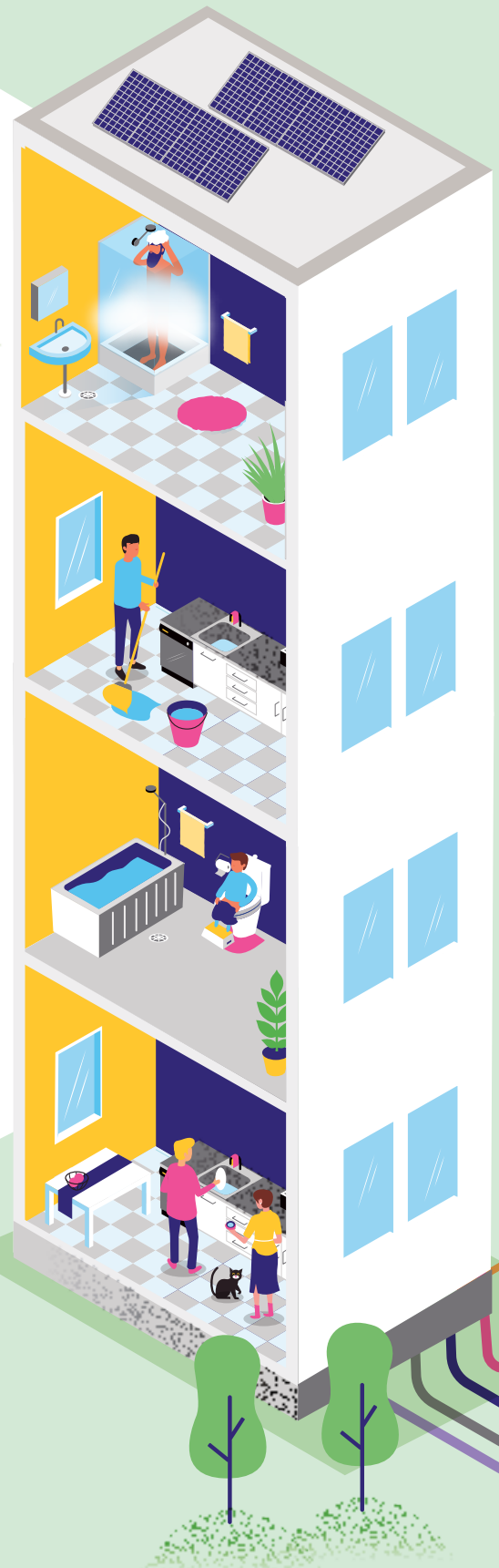
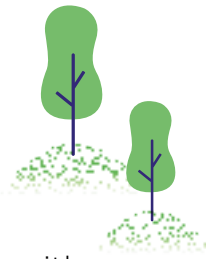
DISTRICT HEATING NETWORK

- The heated district heating water is used to heat people's homes.

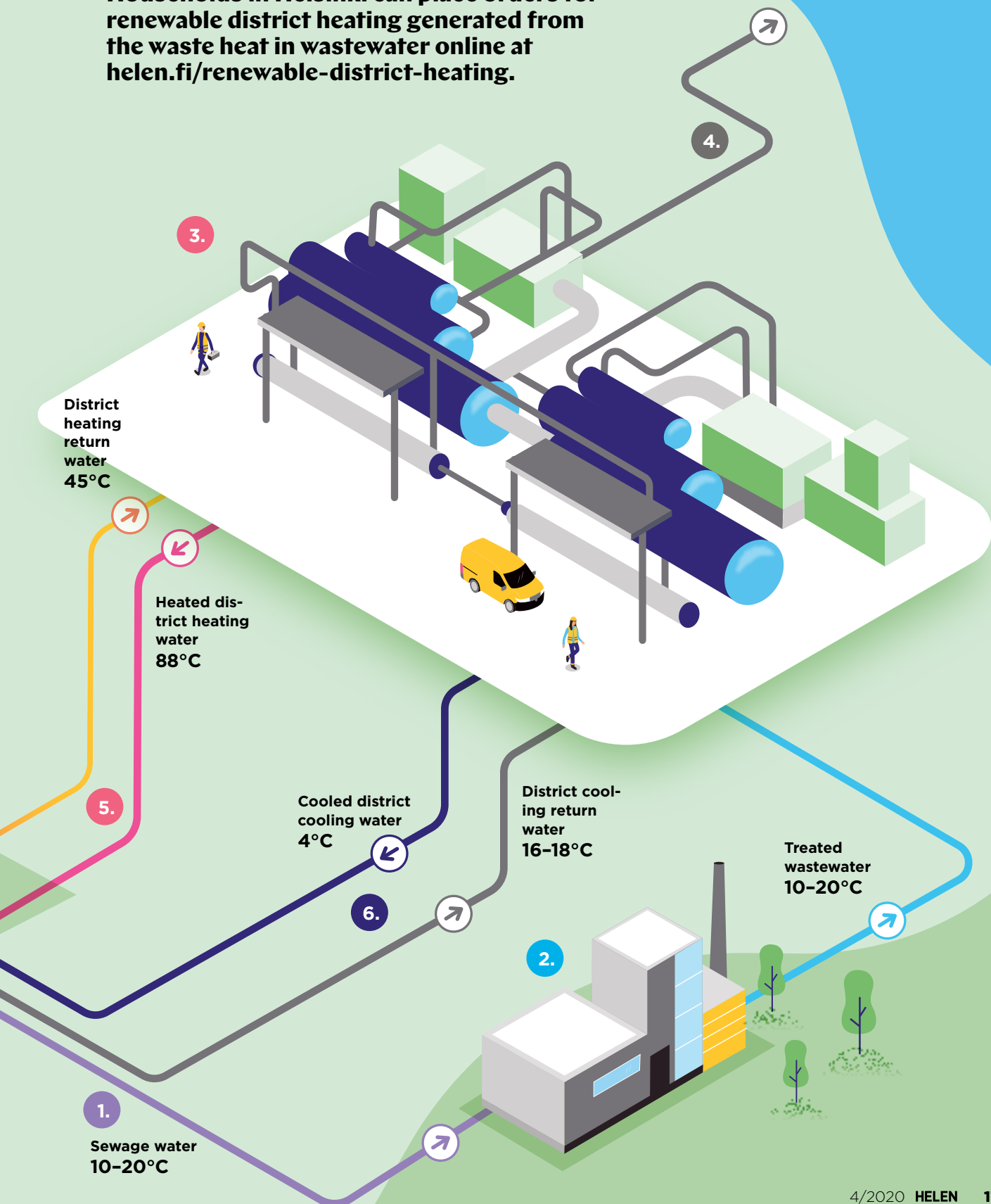
6.

DISTRICT COOLING NETWORK

- The heating and cooling plant also provides the district cooling network with water that binds waste heat from buildings.
- The heat absorbed by the return water in district cooling is turned into district heating by heat pumps.



Households in Helsinki can place orders for renewable district heating generated from the waste heat in wastewater online at helen.fi/renewable-district-heating.



An artist's treasures

Sculptor Paavo Halonen finds the materials for his pieces in nature or even waste collection containers.

My art is inspired by what is happening around me and what kinds of material I find in the environment I live in.

I grew up in the countryside, so nature has always been an element in my art. When I moved to Helsinki, I realised that waste collection containers are full of material that I can use in my art. I started to combine things that people had thrown away with materials from nature. For example, I have taken feathers and horsehair and combined them with pieces of cast concrete.

I don't spend time on looking for a specific material. Instead, I take what I can find. I like the randomness this creates. For example, I have created several pieces that include the feathers of whooper swans, but since I haven't come across any for several years, I have used other materials instead.

In my latest piece, "My skin is soft", I used construction gloves that workers had dropped here and there on the street. During the COVID-19 lockdown, I had several weeks to walk around the city to collect them.

I wouldn't call it waste. I would call it material. One man's trash is another man's treasure. The materials I find help me develop the ideas in my head. The most important aspect of my art is the process of making things with your own hands: hammering nails, sawing, feeling and touching.

Recycling is a deep-seated element of my art, but it's not the ultimate purpose. I don't want people to look at my art and say "that's a piece made from recycled materials". I want my art to convey a message of peace, harmony and aesthetics. These are not trendy words. They are important things.

TEXT: SUSANNA CYGNEL, PHOTO: ELINA SIMONEN

Artist Paavo Halonen finds the materials for his art in the environment he lives in, preferably by coincidence.

**PAAVO'S
TIPS**
How to find
creativity:



Get your hands
in clay or
paint.



Dare to try -
you won't
fail.



Use materials
from nature.



Get tips from
people who
know.

Did you know this about the circular economy?

Find out how familiar you are with the consumption patterns of the future.

1

What is the circular economy?

- A. An economic model in which consumption is based on using services
- B. An economic model in which consumption is based on ownership
- C. An economic model based on the continuous production of goods

4

How much does Helen Ventures invest in European companies that develop the energy industry and circular economy, amongst other things?

- A. EUR 10 million
- B. EUR 30 million
- C. EUR 50 million

2

What percentage of Finns believes it is desirable for Finland to shift to a circular economy by 2025?

- A. 47%
- B. 67%
- C. 87%

5

When did the Club of Rome publish the book The Limits to Growth?

- A. 1962
- B. 1972
- C. 1982

7

In which month was Earth Overshoot Day this year?

- A. June
- B. August
- C. September

3

When did Thomas Malthus wonder whether we would have enough food to feed the world's growing population?

- A. 1698
- B. 1798
- C. 1898

6

By when does Helen intend to achieve carbon neutrality in energy production?

- A. 2035
- B. 2040
- C. 2045

8

How much in savings can the circular economy approach generate for companies in the EU by 2030?

- A. €200 million
- B. €400 million
- C. €600 million

9

Is saving energy part of the circular economy?

- A. No
- B. Yes, because it aims to reduce resource consumption.

Are shipping
containers the
future of creative
construction?



Art in shipping containers

A centre of arts built from shipping containers in London is designed to reflect the creativity of its artists.

Container City II is one of the world's most widely known container buildings. It is located in Trinity Buoy Wharf, a centre of arts and culture on the banks of the Thames in London. The building consists of 22 bright-coloured shipping container studios that are recognisable from afar and designed to reflect the creativity of the artists that work in the studios. It took eight days to crane in the containers. Container City II was completed in 2002.


Container City II was built right next to Container City I, which was completed one year earlier and comprises 15 container studios. The container buildings are connected by bridges and a lift. The area has been built to be accessible to persons with disabilities.



TIMELINE

The history of television

Do you know what the most widely watched TV show in Finnish history is?



The first TV commercial was shown before a baseball game between the Brooklyn Dodgers and the Philadelphia Phillies. Bulova paid less than 10 dollars for the watch advertisement.

❖ 1928 ❖

❖ 1933 ❖

❖ 1935 ❖

❖ 1941 ❖

❖ 1951 ❖

The Crooked Circle was the first feature film to be shown on TV. Directed by H. Bruce Humberstone, the comedy-mystery could be watched on half a dozen TV sets in Los Angeles.

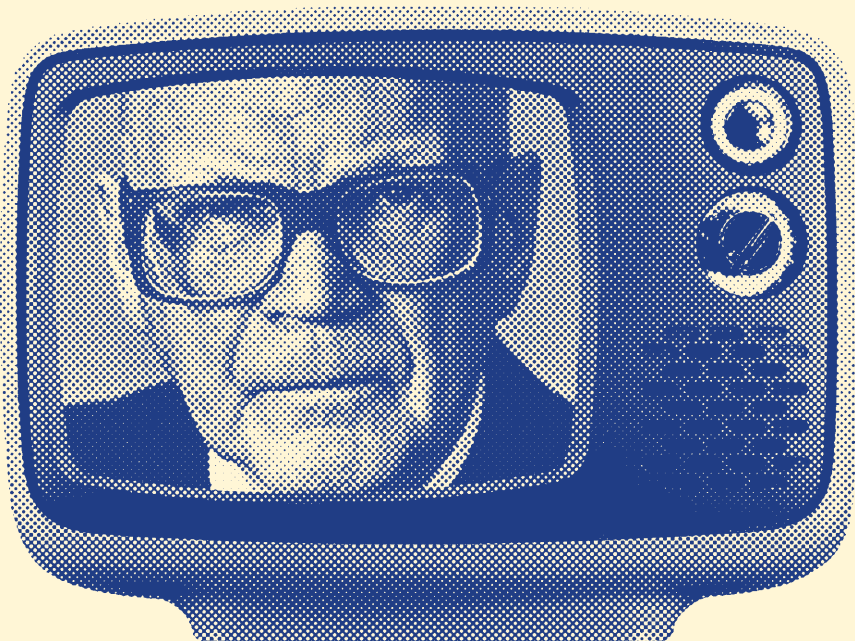
The variety show Premiere was the first TV programme to be broadcast in colour in the US. One slight problem was that most TV sets at the time were black and white.

The Queen's Messenger was the first TV programme ever to be broadcast. The one act play by J. Hartley Manners was a spy drama that featured two actors. It could be watched on four TV sets in New York City.

TV programmes began to be broadcast regularly in Europe, in Germany. They mostly consisted of the news and were shown three times per week. The following year, several hours of moving pictures were broadcast each day from the Berlin Olympics.

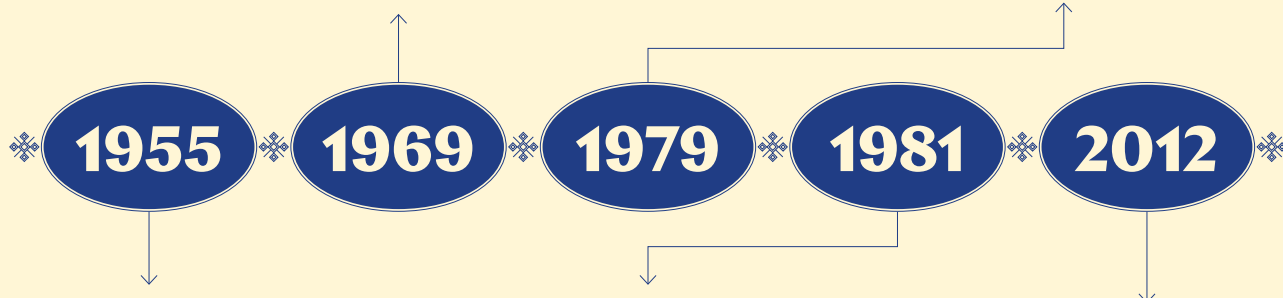


Jesse Owens won four gold medals at the Berlin Olympics in 1936.



President Urho Kekkonen's New Year's speech was the first colour TV broadcast in Finland.

The most widely watched TV programme in Finnish history was the Miss Finland pageant in 1979 with 3.3 million viewers. Päivi Uitto was crowned as Miss Finland.



Actor Lasse Pöysti hosted Finland's first TV broadcast. The one-hour broadcast included choral singing, opening remarks, a short film, puppet theatre, music, a performance by artists, a Swedish-language sketch, a presentation of hypnosis methods, a weather report and handing out scholarships. The broadcast could be viewed on about 15 TV sets in Helsinki.



A supplementary service was added to TV that remains popular to this day: teletext. Teletext can still be used to read the news and programme information.



The London Olympics are the world's most widely watched TV broadcast. An estimated 3.6 billion people tuned in to watch the London Olympics on



Cameraman Eero Lappalainen, actor Helena Vinkka and host Lasse Pöysti preparing for Finland's first-ever TV broadcast.

A cool indoor temperature keeps your brain sharp

Is your radiator as hot as it gets? Reducing room temperatures can have a favourable effect on health, productivity and alertness. We asked Senior Research Scientist Sirkka Rissanen from the Finnish Institute of Occupational Health to explain what the optimal temperature is for human performance.

Text: Tiina Tuppurainen, Photo: Getty Images

What is the optimal room temperature for health?

The key is to feel comfortable: not too cold and not too hot. The normal indoor temperature is 19–25 degrees. In winter the recommended indoor temperature is 20–23 degrees, compared to 24–25 degrees in summer.

To promote good sleep quality, the bedroom should be cooler than the other rooms. A bedroom temperature of 17–21 degrees is ideal for restful sleep. The ideal temperature under the blanket is 30–32.5 degrees.

Is the right room temperature a question of preference, or should people get used to being in a cool room?

The right temperature is a matter of personal preference. The range of comfortable temperatures for different people is about six degrees. Some like warmer rooms, others prefer cooler temperatures. This depends on factors such as health and age.

In the bedroom, it makes sense to get used to a cooler temperature for better sleep. Cooler temperatures are also better from the perspective of energy consumption, but being in a draughty room and feeling cold is not good for your health.

How can you get used to cooler temperatures?

By reducing the temperature gradually. It takes a couple of weeks to get used to it, just like it does when you go on holiday in a hot climate.

In cooler temperatures, the extremities of the body get cold more easily. If you feel cold in some parts of your body, you can regulate it by your clothing, like the socks you wear.

Average room temperatures in Finland are higher than in many other countries. In the past, Finns were used to old houses being cool inside. Of course, whether you are active or just lounging on your sofa also matters a lot.

What benefits does a lower room temperature have for health and well-being?

A slightly cool room is ideal for your mental alertness and brain performance. High temperatures have a negative effect on your performance and alertness. At work, this means more mistakes as well as lower motivation and productivity.

When the air is hot and dry, your respiratory membranes, eyes and skin can get dry and irritated. This is why allergies and respiratory symptoms increase in winter when the heating is turned on.

When the respiratory membranes are dry, your immune response against viruses is diminished. This is because dry air reduces your ciliary activity, which protects you from bacteria and viruses.

What is a good level of humidity indoors?

The recommended relative humidity for indoor areas is 35–50 per cent, although 50 per cent is rarely reached without additional humidification.

In winter, humidity can drop to a level as low as under 10 per cent. You should maintain a relative humidity of at least 10–30 per cent in your bedroom. A cheap way to increase humidity is to dry laundry in your bedroom. It also cools down the room, as wet laundry ties up heat.

Ultimately, it comes down to how you feel personally. That should guide your decisions.

Allergies and respiratory symptoms increase in winter when the heating is turned on.

Did you know this about indoor temperatures?

- Indoor temperatures that are too high can cause fatigue, vertigo and nausea.
- Indoor air problems increase when the temperature rises to above 22 degrees.
- Reducing the room temperature from 24 to 21 degrees often reduces symptoms related to indoor air quality by one-third.
- You should measure the room temperature about one metre above floor level and in the middle of the room.
- Reducing your indoor temperature by one degree reduces your heating costs by 5%.
- Helen's Kiinteistövahti service helps if your entire housing company has problems with excess heating and uneven temperatures.

SUDOKU

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Sudokus' solutions: helen.fi/sudoku

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READER SURVEY

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 January 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 survey respondent will win a smartwatch.

Smartwatch

Suunto 7 from the Kesken Kello selection combines Suunto's wide-ranging experience from sports, free offline maps and useful smartwatch features.

7 SOURCES OF ENERGY

Petra Gargano

1

Powerful music

When the going gets tough, I like to listen to fast-tempo music like System of a Down or Rihanna. Eventually, I'll be singing along and my son will say something like "Stop shouting, mum!"

2

Audiobooks

They get my mind off the daily grind. I've even managed to trick myself into running while listening to audiobooks and tolerating a high heart rate.

3

Singing

I noticed this when I was a contestant on Survivor Finland. As the scheming increased on the island, I started to feel more stress also because I wasn't able to express myself by singing. Finally, I decided to wade out into the water to sing. I guess the other contestants liked it because they followed me to have a listen.



Facts

Petra Gargano is a singer-songwriter who has built a solo career after being part of the popular band Tiktak.

She has also been featured in many TV shows, including Vain elämää, Tähdet tähdet and Selviytyjät.

Petra's latest album, Miljoona syytä, was released earlier this year.

4

Songwriting

I get energy from expressing myself by writing songs. When I really concentrate, my brain starts to work at the subconscious level. I might even wake up in the middle of the night to write down part of a song that suddenly comes to me.



5

Exercise

I didn't get into exercise until I was pregnant with my first child. At first, I went to the gym by myself. Two years ago, I found a gym where the workouts are social and fun.



6

Social media

I like the social dimension of social media. I enjoy replying to messages and going live on Instagram. My family sometimes complains that I've always got my phone in my hand.




7

Bedtime stretching

The older you get, the more important sleep becomes. When I have a night off, I like to do a stretching routine before bed.





**The goal of a
circular economy
is a society
characterised by
comprehensive
well-being.**

Helen Ltd

Sähkötalo,
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- asiakaspalvelu@helen.fi

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New district heating connections

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- kaukolampoliittymat@helen.fi

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- kaukolampo@helen.fi

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- 09 617 8001
- District heating equipment inspections and assistance
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- 09 617 8015
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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

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Calls are subject to local network or mobile call charges

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