

**ESTONIA IS PIONEERING A  
DIGITAL REVOLUTION, USING  
TECHNOLOGY TO BREAK DOWN  
BORDERS AND CREATE A  
WORLD ACCESSIBLE TO ALL**

**WRITER** Helene Dancer  
**PHOTOGRAPHER** David Ryle



# DIGITAL NATION



**Karoli Hindriks was eight years old when Soviet tanks rolled through her hometown of Pärnu on Estonia's south-western coast in August 1991, signalling the end of 47 years of isolation behind the Iron Curtain.**

My childhood was a very different world from what Estonia is today,' she says, waving at a colleague who walks, barefoot, towards the coffee machine in the office of her Tallinn-based start-up. 'People don't know what isolation actually means – standing in line for four hours to get a piece of butter. It opened my eyes, and for us as a nation, which is why I'm so passionate about building a borderless world where it doesn't matter where you come from.'

The concept of a borderless world may sound like a utopian dream to some – and certain chaos to others – but this Baltic country of just 1.3 million is spearheading a technological revolution that may one day make it a reality.

The country's boldest move thus far has been the government's pioneering e-Residency programme, launched in 2014, which provides a transnational digital identity to anyone in the world. To become an e-Resident, all you need to do is fill out a short form online, pay €100 and wait for approval. Then it's a trip to the Estonian embassy to make sure you are who you say you are, and you're the proud owner of an e-Resident ID card, a USB card reader and codes to access Estonian public services.

Being an e-Resident isn't the same as citizenship, although the government is currently looking at revising their visa stipulations, but it allows e-Estonians to take advantage of the country's fully digitised infrastructure. There's no paperwork here – all government services in Estonia are hosted in the cloud and

underpinned by systems that allow for data to be distributed seamlessly. This means it takes a couple of minutes to file a tax return, pensions are distributed as soon as someone becomes eligible, and Estonians can vote from anywhere in the world, using their digital signatures.

For those living in countries with patchy infrastructure, the e-Residency scheme provides a welcome alternative. And for those looking to support a concept premised on openness and transparency – every move you make is logged, so there's no room for dodgy business deals – it's an ideological godsend.

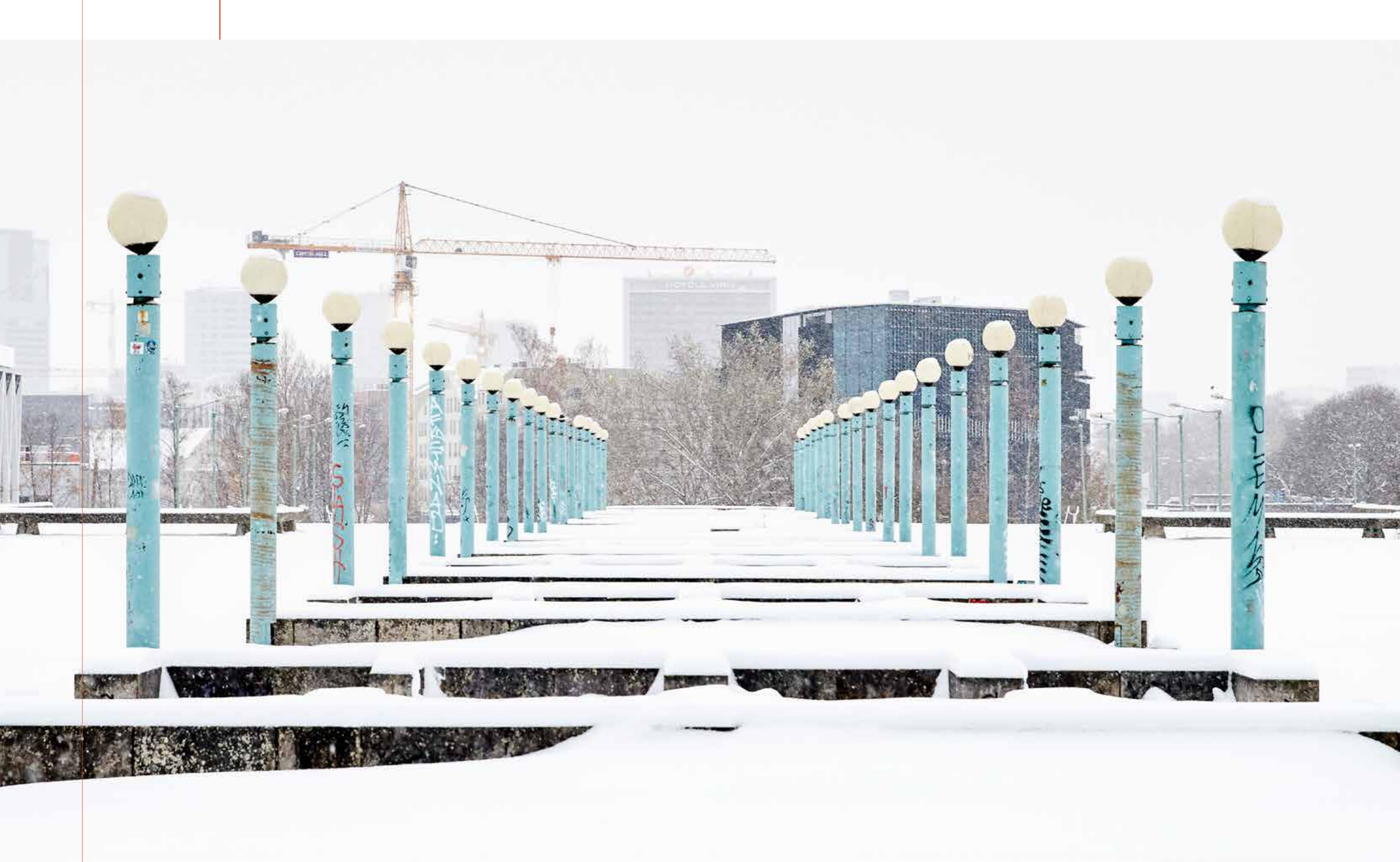
'I think it's one of the most exciting projects in the policy world,' says Karoli, her eyes burning bright. 'What we will see in the next five to 10 years is Estonia transforming a very traditional way of thinking and becoming a service provider for a new type of nation.'

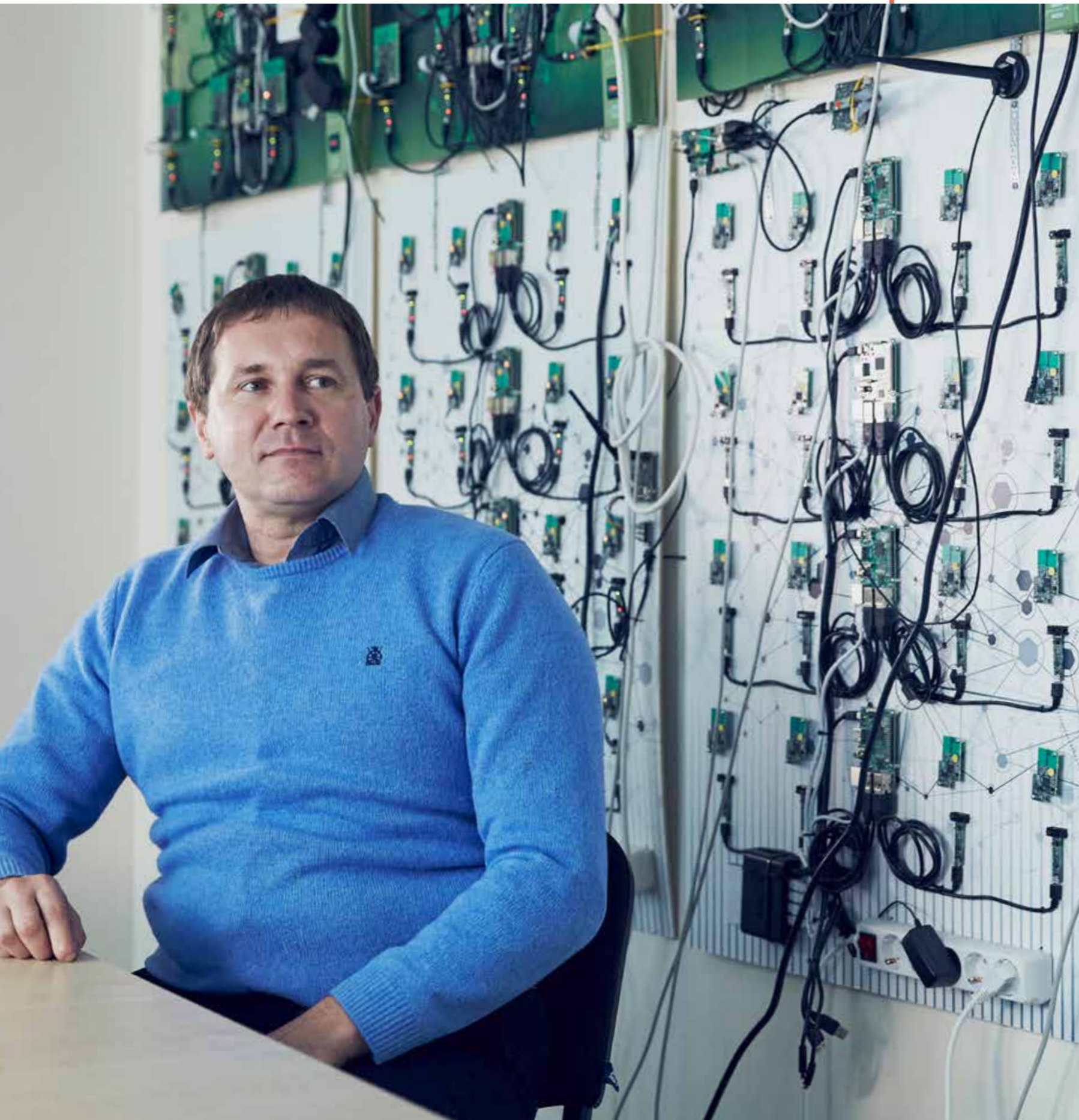
Since the programme's launch, Estonia has gained 15,000 e-Residents from 135 different countries. The goal is to have 10 million digital residents by 2025 – a task in the hands of Kaspar Korjus, the programme's managing director. Dressed in a tweed blazer and hiking boots, and with a decorous manner befitting a seasoned politician rather than the not-yet-30-year-old entrepreneur he is, Kaspar is an anachronism designing a world of the future.

'I feel like the e-Residency programme is a moral obligation for us – as Estonia has succeeded in becoming a digital society, we can open the gates and everyone can be part of it,' he says, explaining that >>

Karoli Hindriks at the Tallinn head office of Jobbatical, the start-up she founded to facilitate job sabbaticals all over the world. Previous spread, from left: Mari Vavulski, who heads up the government-run initiative Startup Estonia; snowy Tallinn







## E-RESIDENTS BY COUNTRY

2,512

Finland

1,206

Russia

938

USA

805

Ukraine

790

UK

Left: Alar Vörk at the Tallinn office of Cityntel. Previous page: Estonia has come a long way since the Iron Curtain era, which saw the construction of Linnahall, the former Soviet sports and concert venue

starting from scratch back in 1991 meant there were no creaking legacy systems to deal with. Instead, the government could use the brightest and best minds to build something entirely new.

Aside from its moral value, the e-Residency programme also provides a revenue boost. Kaspar says, on average, e-Residents pay €250 per month on services in Estonia – legal and banking support, for example.

‘Estonians are hungry and have that urge to build something bigger than themselves, and see how technology can help in that process. Technology is accepted by all generations as people see it can make your life better,’ he says.

One of Estonia’s most remarkable technology success stories is Skype, the communications platform that has helped make the world a whole lot smaller.

Three of the original development team come from Estonia, and the tech behemoth is referred to with the type of reverence designated for a national hero.

Microsoft bought Skype in 2011 for \$8.5bn and its unprecedented success has helped galvanise a fertile start-up scene in Estonia. According to Mari Vavulski, who heads up the government-run initiative Startup Estonia, there are currently more than 400 start-ups operating in Estonia, and more than 40 companies founded by ex-Skype employees.

‘Many people were inspired by Skype and success breeds success. You need to build the environment and community,

and both government and private sector understands this.’ She cites Startup Estonia as an essential part of the puzzle in supporting the start-up community by attracting investors, hosting networking events, and serving as a conduit to the government’s policy makers.

The start-up scene in Estonia is famously co-operative, which Mari believes is another reason for its vitality. Such is their predilection for looking out for each other that the start-ups have been nicknamed the Estonian Mafia.

A 10-minute drive west of Tallinn’s famed medieval Old Town is the old Soviet industrial zone of Telliskivi Loomelinnak, which means ‘creative city’. The austere warehouses stand tall, their walls used as canvases by local street artists, while inside they are alive with design studios, artisanal cafés and start-ups.

Here, the not-for-profit organisation Garage48 hosts a co-working space for entrepreneurs looking for a place to sculpt their ideas and surround themselves with like-minded people. The notion of community is at the heart of everything Garage48 does. It was created by six local entrepreneurs who also host hackathons, where people come together for 48 hours to brainstorm ideas and create prototypes.

These sessions, according to Garage48’s partnership and events organiser Maarika Truu, are highly charged and creative. So much so that Garage48 is now organising events outside of Estonia, primarily in other former Soviet Union countries. >>

### How to become an e-Estonian

1

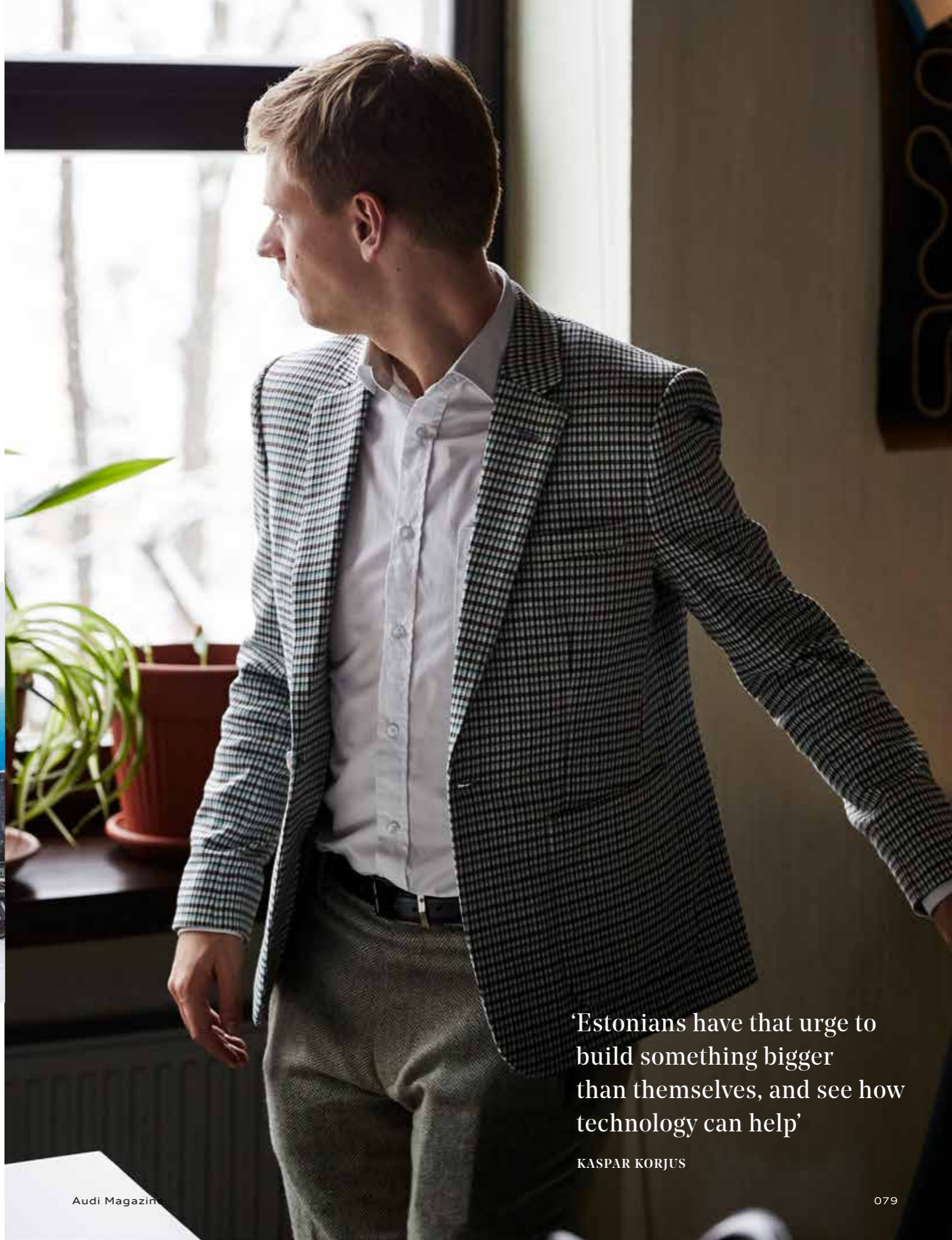
If the idea of becoming a digital resident appeals, whether for practical or ideological reasons, visit [apply.e-estonia.com](http://apply.e-estonia.com) and fill out the online form, pay €100 and wait for your approval.

2

Once your application is approved, you’ll receive an email and then an invitation to collect your e-Residency card from the nearest Estonian embassy to you, or from Estonia itself. You choose.

3

As an e-Resident, you have your own digital signature and codes to access Estonian services, all hosted online. You can launch a business and run it online, but you’ll pay tax in your own country.



Clockwise from top left: Skype, one of Estonia's biggest tech success stories; the Q5 in the snow; Kaspar Korjus, the e-Residency programme's managing director; Soviet trains; old Tallinn street lights with new technology

'Estonians have that urge to build something bigger than themselves, and see how technology can help'

KASPAR KORJUS

## DIGITAL NATIVES

# 15k

people have applied to become an e-Resident of Estonia since 2014

# 135

different nationalities have applied to the scheme

# 2126

companies are owned by Estonian e-Residents

‘We have the same cultural background, so we bring our Estonian know-how and help them boost their start-ups as we did here,’ she says, stroking Riki, the office beagle. ‘You can feel the urge that people want to build something new and innovative.’

Trudge through the snow blanketing the cobbled streets of Tallinn’s Old Town, however, and it feels like going back in time rather than forwards. Students dressed up as knights accost a couple of red-nosed tourists to convince them to visit the Museum of Medieval Torture. Instead, the tourists accept the advances of a woman dressed up as a witch and buy from her a glass of mulled wine, or *glogg*, and drink it quickly to warm themselves.

The freshly fallen snow glistens below the streetlights – but, it being Estonia, these aren’t just any ancient-looking streetlights. They’re actually powered by a system devised by Estonian Mafia heavyweight Cityntel. CEO Alar Võrk explains that Cityntel is a smart streetlight solution that involves small wireless controllers within the lights. Combined with sensors that gather information from the street – the number of people, traffic levels and weather conditions – the brightness of the lights is automatically turned up or down accordingly.

‘The street lights communicate with each other wirelessly, through a mesh network, rather than controlled by remote control,’ Alar explains. With a proud smile, Alar calls his invention ‘the Internet of Things 2.0, when version one doesn’t even exist yet,’ referring to the concept of internet-connected physical devices collecting and exchanging data.

‘We already have quite a high standard of living but we want to develop further. You don’t compromise on the history – the lights in Tallinn Old Town still look like medieval lanterns, but have the newest technology inside,’ he says.

Like Karoli, he also remembers vividly the challenging days under Soviet rule – ‘when you went to the supermarket, all you

had were shelves’ – and suggests that Estonia’s past means people are more open-minded in looking for solutions and aren’t afraid of change. ‘In the Soviet times, if you didn’t have something you had to be creative,’ says Alar. ‘If you didn’t have car spare parts, you’d have to be creative as to how to fix your car. This creative thinking is still there.’

It’s this aptitude for creative thinking that has secured Karoli’s start-up, Jobbatical, a place on the Estonian Mafia’s Wall of Fame – a shortlist that celebrates the most financially successful and innovative local companies.

Karoli launched Jobbatical two years ago as an online marketplace to connect tech and business talent with mainly one- to two-year career opportunities across the world. ‘You’re sitting in London and it’s raining outside and you’ve always dreamed of working in south-east Asia, so why not let Jobbatical find you a job?’ she says, her sales pitch well oiled. ‘Our idea is to help distribute knowledge in a new way – career adventures that fulfil some kind of dream and help to build a more diverse and borderless world.’

Her Damascene moment came when she was awarded a scholarship to the US as a student. She was struck by the idea that if everyone could work or study overseas to broaden their minds the world would be a better place.

‘With Jobbatical, we work across many countries, have over 60,000 people looking to relocate and a thousand stories of people moving to different countries... It’s quite an emotional journey,’ she says, leaving the confines of the glass-walled boardroom for the beanbag-strewn chill-out area with its very own Jobbatical-branded swing. She manoeuvres herself onto its wooden surface, her laptop on her knees.

‘I’m really proud of what we’ve achieved in such a short time,’ she says, rocking gently from side to side. ‘In Estonia, if you’re good and you work hard, you can become anyone.’ 