nic//report

8th Edition // **COVID-19**

nic.at

nic//report – Content

Stay .at home

Dear reader,

2020 is a year that no-one will forget in a hurry. It really is incredible to see how much our everyday lives changed overnight due to the global pandemic. We have fond memories of Domain pulse in Innsbruck in February, which we just managed to stage before hotels and event venues were forced to close their doors for a long time and travel became virtually impossible. We are extremely grateful that the domain industry has proved to be crisis-proof over the past few months and that we even recorded an increase in new domain registrations during this difficult time.

As we approach the end of the year, we would like to take a look back at the past few eventful months and share some of the numbers and a few insights relating to **.at** and COVID-19. We also want to give you a glimpse behind the scenes at **nic.at**'s various departments – as each individual has their own take on the challenges raised by our new ways of working.

We hope you enjoy this edition of the **nic//report**!

Richard Wein and Robert Schischka
*Managing directors of **nic.at***

INTERVIEW WITH RICHARD WEIN AND ROBERT SCHISCHKA

While our Domain pulse event went ahead without a hitch in Innsbruck at the end of February, the first case of COVID-19 was confirmed in Austria just a few days later. We interviewed our CEOs Richard Wein and Robert Schischka and asked them about their personal responses to the situation, the challenges and decisions they were faced with and what the pandemic means for nic.at.

**RICHARD WEIN
ROBERT SCHISCHKA**
nic.at CEOs

Could either of you have ever imagined just how quickly all aspects of our everyday lives would change? How are you coping with the situation on a personal level?
Richard: No, absolutely not! For me personally, a great deal has changed. No business trips, virtually every meeting is now online and I have very few face-to-face interactions and meetings. By a stroke of good fortune, I set up a teleworking space for myself in January, meaning that I already had everything in place that I need to work from home. In my view, ensuring that you have a pleasant working environment is particularly important – I am really grateful for what I have, as not everyone has enough space in their own four walls.

Robert: I have worked with teams spread across different locations a lot in the past, which means that it wasn't so much of a disruption. Luckily, I also set up an office space at home some time ago – a decent screen, printer and scanner come in very handy. And in actual fact, using the digital signature has been a blessing when working from home – more than I would have ever thought in my "normal" environment.

How do you keep the nic.at employees and teams in Vienna and Salzburg together?
Richard: I have the feeling that everyone has always come closer whenever we've had a big project or a special situation anyway. The big advantage is doubtless that a lot of our people have been with the company for a very long time and, as a result, have known each other for ages – and know each other very well.

Robert: And it also seems that this situation which has forced everyone into online meetings has actually led to better decisions in some cases. In everyday office life, things often get discussed on the fly and not everyone who

The COVID-19 crisis was not triggered by IT, so it isn't going to be solved by the internet either. All the internet can do is simply underpin the continuation of everyday life, communication and the provision of information as far as possible. The crisis has elevated the value of the internet and the importance of having your own domain to a whole new level. – Robert Schischka

should be involved in the process ends up being included.

How is communication working out on an international level?
Richard: At CENTR and ICANN level, all meetings are held online at the moment, which is perfectly alright for a pure presentation format. But online tools are no substitute for maintaining personal contacts face to face.

Robert: At CERT there are usually lots of face-to-face meetings in which highly sensitive topics come up for discussion. In this regard, fostering an atmosphere where people felt comfortable about confiding in one another was a challenge. But the initial signs are really positive – provided that the groups have known each other for a very long

time and that it is possible to find a platform that everyone can use. Workshops which require people to work on finding solutions together, integrating new employees into working groups and multi-day virtual meetings are, on the other hand, more difficult.

At nic.at you switched over to working from home in a very short space of time. Was that a difficult decision to take?
Richard: Personally, I have never been the biggest fan of working from home (laughs), but now that some time has passed I can say I am glad we took the decision as our employees are showing just how well it can go thanks to all their hard work and dedication. The health and safety of everyone in the **nic.at** team is paramount for us.

When comparing April 2020 with the previous year, the top 25 CENTR members identified a 20 % jump in the number of new registrations. We are pleased to see that we were above the CENTR average here in the .at zone. – Richard Wein

Robert: We were fortunate that we could respond quickly – also due to the nature of our industry. The way I see it, the decision about when to go back to some semblance of "normal" operations is a much more difficult one. After all, working from home all the time can't be a permanent answer. Not everyone has the ideal conditions at home, there's no social interaction and new employees have a particularly hard time of it. While these are soft facts that cannot be measured directly, they do have a long-term bearing on satisfaction and employees' sense of identification with a company.

What were the biggest challenges you faced as CEOs?
Robert: Hardware such as laptops and RSA tokens had to be procured as quickly as possible, the customer service telephone network wasn't set up for a home-working scenario and, ultimately, we had no experience whatsoever of completely virtual teams at that time. On top of that, onboarding new colleagues was not without its difficulties: in fact, three new employees had their first day at the company in the week in which we moved to working from home. Organising the first few weeks so that they were meaningful for all concerned was definitely a challenge.

Pleasingly, the number of .at domains registered has increased significantly. What do you think were the main reasons behind this?
Richard: Clearly, lots of people have been focusing particularly closely on online topics such as digitalisation and their own online presence during lockdown, with more domains registered as a result. And then there are domains specifically connected with COVID-related content, although they only represented a relatively small proportion of the total.

What has changed for better or worse due to the COVID-19 crisis?
Richard: For me, it's good to see that working from home is going very well and that the projects we had planned are being implemented without a hitch. As far as the negatives go, I would pick out the new means of communication, as it can lead to a sense of isolation. In many households, people who are working from home are put under immense pressures, including juggling childcare and dealing with a lack of suitable space.

Robert: In my view, there is a certain danger that bad feelings or issues regarding communication via virtual channels – that would otherwise come out naturally during a face-to-face chat over coffee – could be picked up on too late.

Is there anything else that you would like to say?
Both: We would like to take a moment to thank all of our employees once again. The past few months have shown yet again what a great and highly effective team we are. This was the only way for us to achieve such a positive outcome despite the testing circumstances, and we will definitely continue to do so in future.

OUR HEADS OF DEPARTMENT SHARE THEIR VIEWS

Communication within the Web Development team was conducted more or less exclusively via video conference before the coronavirus pandemic anyway, as the teams are located in Salzburg and Vienna. As a result, working from home and the new way of doing things was not all that big a step. That said, the real challenge was getting used to the idea that our home offices were no longer retreats where we could go to devote our full concentration to individual projects, as everyone else was working from home as well. Particularly in the early stages, we were bombarded with support enquiries via chat, which our colleagues had suddenly started using.
The number of meetings mushroomed and the workload resulting from additional organisational duties rose sharply. And then there's the fact that around half of the people in our team are fathers and they had additional homeschooling duties on top of everything else. Also, the office was lacking as a place for comparing notes and exchanging information – in response, the task was to identify channels and opportunities as quickly as possible that would facilitate social interaction throughout all parts of the company. At the same time, though, the new digital communication paths simplified our jobs, and showed that working from home is highly effective and represents a viable compliment to office workspaces.
– Mario Öhlschläger, Head of Web Development

Working from home was not even on the customer care department's radar before the crisis, which is why the changeover was such a mammoth undertaking for us: in a very short time, laptops, RSA tokens, monitors and various other pieces of equipment had to be sourced and set up for a team of 10. And if that wasn't enough, our new telephone software was still in the test phase at the time. Our task was to continue to handle the numerous queries that reach us by e-mail and telephone seamlessly, in order to maintain the best possible level of service.

For us, the greatest challenge was the lack of personal exchange – we had no idea just how much information passes between the team members in our office by the by. It was also important to make allowances for our colleagues with children or family members in need of care, given the great pressures they were already under. For all of us, by far and away the most positive effect was the additional leisure time freed up by the absence of a commute, as well as the more efficient management of meetings, which tend to be much more tightly focused in the virtual realm. We are proud that we are not only continuing our day-to-day work, but also driving other projects forward, too. We have definitely grown even closer as a team made even greater use of our collective potential.
– Katharina Hackl, Head of Customer Care and Registrar Service

COVID-19 AND ITS EFFECT ON THE .at ZONE

Alongside all the challenges and negative consequences for many business and private individuals, the crisis also had one positive outcome: it led many people to optimise their online presence and take the steps needed to keep up with the rapid pace of digitalisation. A look at the numbers at **nic.at** shows that it was not just coronavirus-related domain names that were in high demand – they also reveal significant growth in the number of **.at**-domain registrations since March.

And far from being attributable to new owners, these registrations were also down to existing owners taking stock of their portfolios and making the necessary additions. Looking at the domains containing the word "shop" also delivered some interesting insights: the spike in registrations, particularly at the start of the pandemic, suggests that the **.at** zone has welcomed quite a few new online stores.

SIMONE BINDER
Head of PR & Marketing

Businesses have told us that they have been using the past few months to think about their online presence and come up with an appropriate online strategy. Campaign and landing pages are a simple and cost-effective way of guiding customers quickly to the information that they are looking for.

.at-domain registrations:
new domain holders vs. existing domain holders (year-on-year)
A closer look at the domain holders at the registrations shows a positive development - not only for new domain holders but also for existing domain holders.

ø new .at registrations
New domain holders: **up 24.69 %**
Existing domain holders: **up 13.98 %**
(Source nic.at)

	New domain holders		Existing domain holders	
Jan	-4.74 %	-2.94 %		
Feb	+17.20 %	-10.02 %		
Mar	+9.08 %	+7.59 %		
Apr	+30.60 %	+30.95 %		
May	+16.83 %	+15.24 %		
Jun	+58.13 %	+12.33 %		
Jul	+25.59 %	-4.54 %		
Aug	+15.98 %	+2.61 %		
Sep	+16.61 %	+33.71 %		

2019 2020 New domain holders
2019 2020 Existing domain holders

Changes in .at-domain registrations
A comparison with 2019 reveals a significant rise in the number of domains registered from April to June. The number of registrations rose particularly sharply at the start of both waves of infection (April and June).
(Source nic.at)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	-4.2 %	+7.7 %	+8.6 %	+30.7 %	+16.3 %	+41.3 %	+14.8 %	+11.4 %	+22.2 %
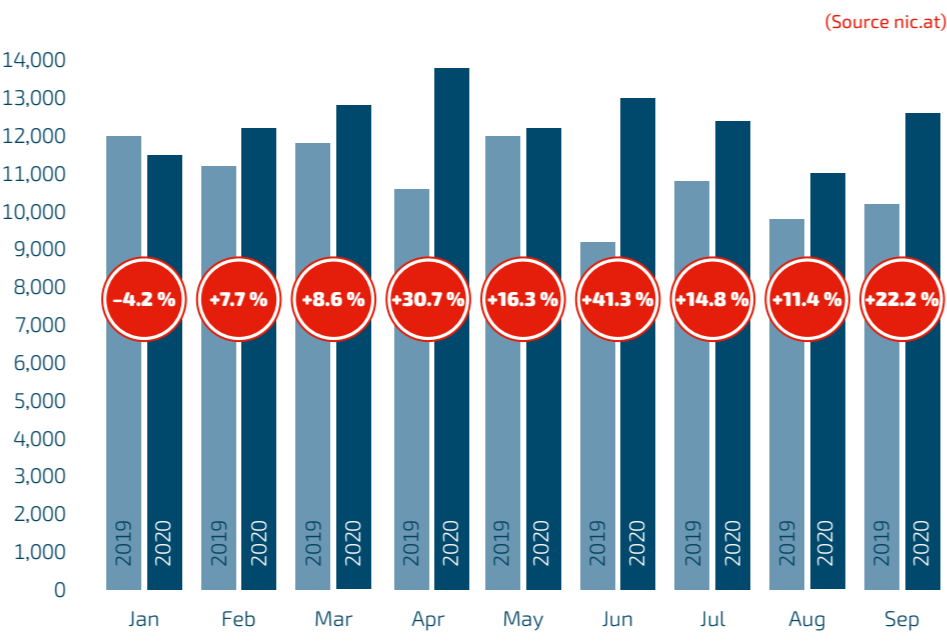
Registrations of Covid-related .at-domains
Domain names containing the term "corona" were very popular, primarily at the start of the Covid-19 crisis.

covid 188
corona 513
maske 384
virus 98
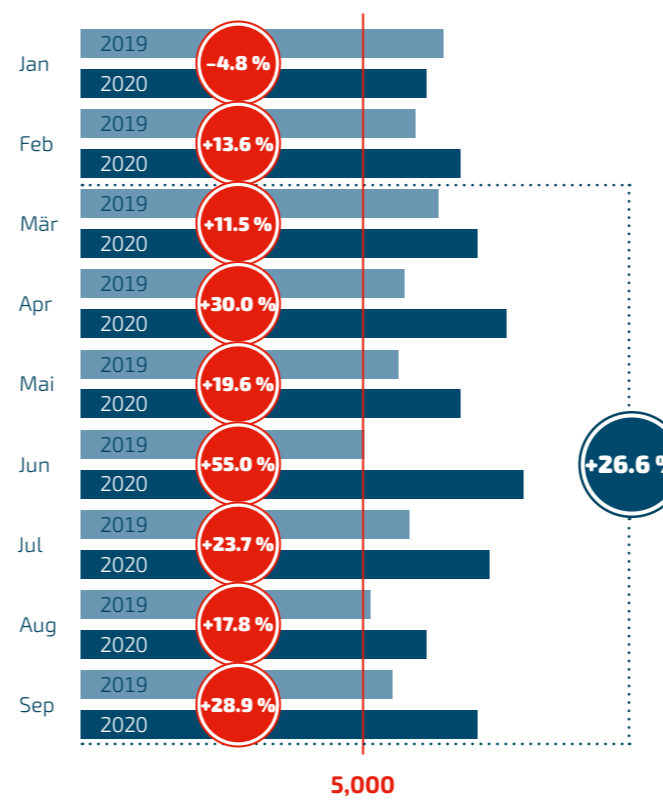(Source nic.at)
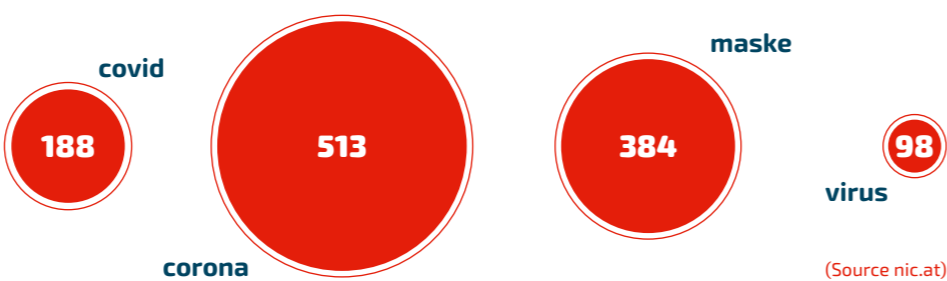
ALEXANDER MAYRHOFER
Head of R&D

Fortunately, domain deletions have also been declining in general for some time now. This means for me that registrations are more "conscious". However, the deletion rate in 2021 will be exciting – as it will show whether the numerous domains additionally registered during the "Corona period" will survive their first "year of life"
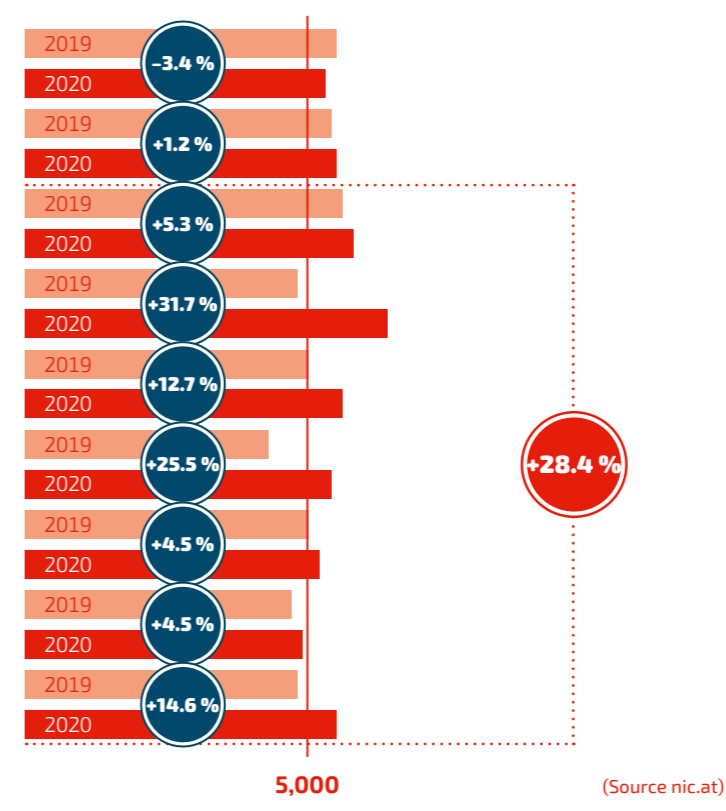
Registrations in comparison
A comparison of registrations by natural and legal persons (according to information provided by the domain holder) reveals that both groups registered significantly more domains than in the previous year – especially in April and June.

Natural persons

	2019/2020	%
Jan		-4.8 %
Feb		+13.6 %
Mär		+11.5 %
Apr		+30.0 %
Mai		+19.6 %
Jun		+55.0 %
Jul		+23.7 %
Aug		+17.8 %
Sep		+28.9 %

+26.6 %

Legal persons

	2019/2020	%
		-3.4 %
		+1.2 %
		+5.3 %
		+31.7 %
		+12.7 %
		+25.5 %
		+4.5 %
		+4.5 %
		+14.6 %

+28.4 %

5,000   5,000 (Source nic.at)

Increase in the number of shop-related domains registered under .at
The **.at** zone appears to have added numerous online stores in 2020: there was a flurry of new-registration activity involving domains with the word "shop" in the name, particularly at the start of the pandemic.
(Source nic.at)

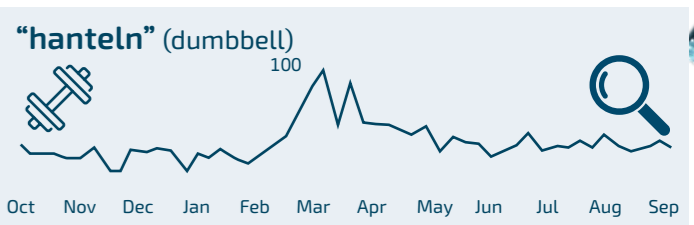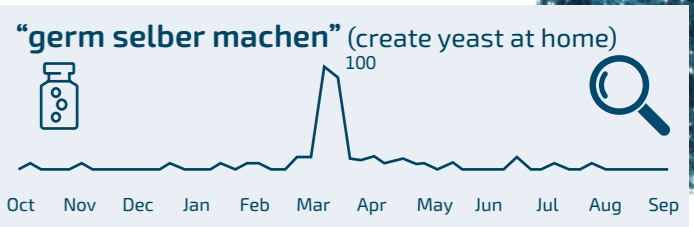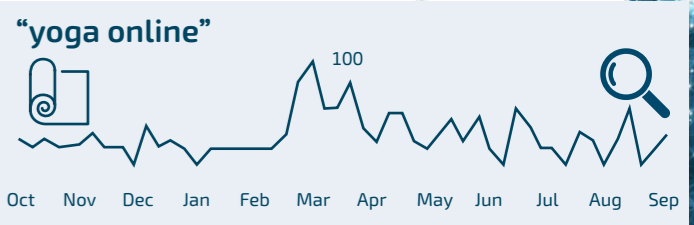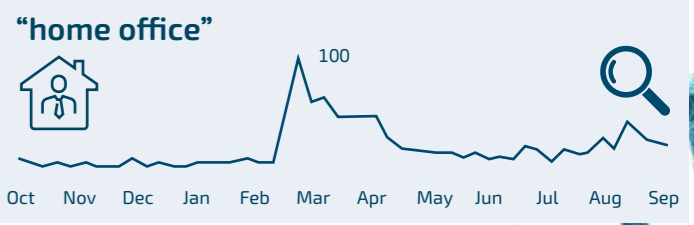| Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
88	99	194	334	158	106	127	110	90
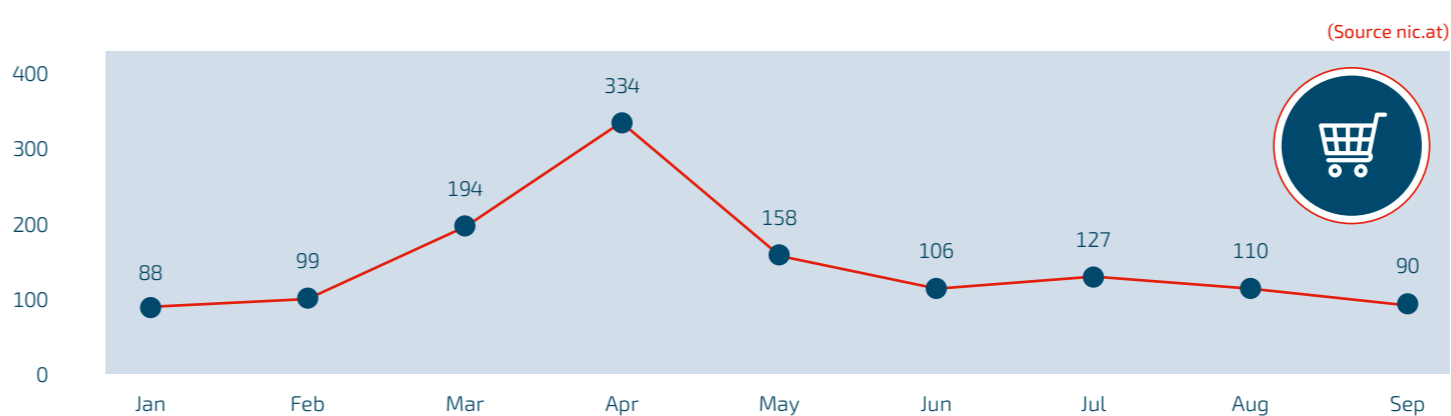
KATHARINA HACKL
Head of Customer Care

In recent months, our lives have shifted online to a large degree – and this is reflected in the number of **.at** domain registrations. Lots of companies have come to realise just how important a presence online is: whether it's for an online shop, showing important customer information or forms for setting up appointments online. In our eyes, this explains the sharp rise in domain registration.

Popular search terms around COVID-19
The Google search trends highlight what the average Austrian has been focusing on in recent months – as confirmed by numerous social media channels and blogs: COVID-19 has sparked a do-it-yourself and home cooking frenzy! So much so that, alongside toilet paper, yeast was hard to get hold of for a while, which led to a surge in the popularity of sourdough bread. Staying in shape without going out and home office set-ups were also among the top searches.

"home office"
"yoga online"
"germ selber machen" (create yeast at home)
"hanteln" (dumbbell)

(Source trends.google.com)

Google trends provides access to a largely unfiltered sample of actual search requests made to Google. The resulting numbers are then scaled on a range of 0 to 100 based on a topic's proportion to all searches on all topics.

The biggest challenge for our department was the lack of personal exchange, which online tools can only partly make up for. We were already kitted out with laptops and were familiar with working over the VPN before the crisis, which made the changeover less jarring from a technical perspective at least. The crisis has brought us even closer together as a team, and has definitely had a number of positives for the whole company, including the opportunity to work from home flexibly and without interruption – and without sacrificing reliability, as the past few months have proved. It has shown that working from home is possible at **nic.at**, which will change a lot in future.

Thinking of Stopline, the Austrian Report Centre against Child Sexual Abuse Material and National Socialism

on the internet, we have already overtaken the 15,000 reports logged in 2018 and, regrettably, we are closing in on a new record for the year. The huge influx of reports represents a major administrative challenge and takes a psychological toll on everyone involved, which is why it's so important to keep on gauging the mood and paying attention to people's mental state despite the distance.
– Barbara Schloßbauer, Head of Legal

As the accounting team had only ever worked in the office prior to the crisis, we had to completely rethink numerous processes that had become established over the years: to take one example, we habitually printed out everything – but now all of our processes had to be digitalised as quickly as possible. And thinking of the three new employees who joined us exactly at the time that the coronavirus crisis first hit in March, we had to find new ways to get them up and running with the neces-

sary hardware and software, and bring them up to speed with the details of the job while also training them and integrating them into the team. Personal contact with colleagues and bosses is particularly important during the early stages with a new employer.

Cancelling the numerous business trips, training courses and events that had been scheduled represented quite a considerable administrative burden, too. And there were lots of things that needed to be coordinated internally: the weekly English lessons with a native speaker were replaced with video conferences, and stretching time during breaks – a recommended part of our occupational health and safety measures – was held online instead. For me, the biggest advantage is that there is no longer any need for every single meeting to take place face to face, meaning that there are fewer business trips. In terms of digitalisation, **nic.at** has also made enormous strides which will continue to serve us well in future.
– Martina Salzmann, Head of Accounting

AN INTERVIEW WITH OTMAR LENDL, LONG-STANDING HEAD OF CERT

What effect did the nationwide changeover to working from home have on IT security? Otmar Lendl is head of the national Computer Emergency Response Team (CERT), which is operated by nic.at. We talked to him about the current situation and the challenges surrounding IT security.

Otmar, what challenges did you face at the start of the COVID-19 pandemic?
The current situation is still very interesting from an IT security perspective. The short-notice, en-masse changeover to working from home and homeschooling brought a number of new challenges. Properly functioning digital communication became much more important overnight, and there was widespread nervousness at this point.

But as it turned out, there were virtually no issues at all with the backbones, i.e. the data lines that quite literally form the backbone of the internet. In terms of equipment such as laptops, VPN capacity and connection speeds, many companies found themselves needing to make various upgrades to ensure that the changeover to working from home went off without a hitch.

What role did CERT play in this regard?
As is the case with all global events, would-be scammers and social engineering attacks seized on COVID-19 as a kind of bait. We issued a number of COVID-19-related recommendations for companies and institutions, urging them to prepare for their people working from home, to anticipate potential bottlenecks and make sure that their employees were aware of potential attacks linked to the pandemic.

Video conferences in particular were a very popular talking point to begin with. The individual software providers multiplied and established themselves rapidly.
The basic significance of video conferencing as a communication tool is uncontested. Selecting the provider that's right for you is a difficult choice and I wouldn't like to make any form of personal recommendation on that. You need to set out the requirements before making a decision, and only then should you go on to look at individual offerings in any detail. The central questions are: what do I want to use the solution for? What functions

do I actually need? Who do I have to – and can I – trust? What technical security measures need to be put in place?

What is your personal take and how do you see things progressing from here?
In my view, the speed at which the numerous innovations and adaptations were adopted was a very positive point. In terms of the IT, it is clear that COVID-19 was not triggered by an IT problem, and isn't going to be solved by clever IT strategies either. The availability of systems and networks is becoming more important all the time, which is why getting the IT side of things on a secure footing is essential for society as a whole.

From a technical perspective, the pandemic did not change anything: everything that was being preached in 2019 is still just as valid. And the attack vectors – such as macros in documents, DDoS attacks and perpetrators like Emotet and TA505 – are more or less the same.

A good IT security strategy, implementing it consistently and putting in place the necessary awareness measures remain key elements of a successfully run business.

OTMAR LENDL
CERT.at

nic.at EMPLOYEE DEVELOPS AI APPLICATION TO DIAGNOSE COVID-19

Advanced cases of COVID-19 are more easily identifiable through x-ray or computed tomography (CT) scans of the lungs than with conventional PCR tests of throat swabs. nic.at employee Aaron Kaplan and his brother Hamilton developed an artificial intelligence system in their Deep Insights AI lab in Vienna – the device can diagnose the coronavirus with a sensitivity of more than 90 %, which could support hospital diagnostics.

The artificial intelligence device created by Deep Insights is what is known in the trade as a "convolutional neuronal network". Trained using thousands of anonymised images, it delivers either a positive COVID-19 diagnosis or a negative result. In the latter case, the result could indicate a pathological finding (such as pneumonia) or a normal finding. "Our COVID-19 image classifier can be used in those more severe cases where the virus has already reached and attacked the lungs," explains Aaron Kaplan.

The AI system was developed in partnership with another Vienna-based company, LifeTec, which contributed its medical expertise. A conscious decision was take to go down the open source route, as the license allows extensive modifications and further development while supporting real-world testability.

In the meantime, a Munich-based open source manufacturer for hospital management systems has added the product to its open source portfolio. This potentially puts it in hospitals in Albania, Afghanistan and Vietnam.

At present, the scientific focus in COVID-19 diagnostics in Austria is firmly on the development of new rapid tests. "This means that using AI to make diagnoses based on CT scans is not so relevant right now, but that could quickly change, including in situations when hospitals are overburdened and rapid diagnostic tests are in short supply. Like rapid tests, CT scans also provide results within 5 to 15 minutes," Aaron Kaplan concluded.
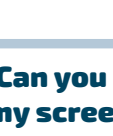
The open source solution is available at github.com/deep-insights-ai/COVID-19-classifier and can be copied, optimised and/or developed further without restriction.

AARON KAPLAN
CERT.at
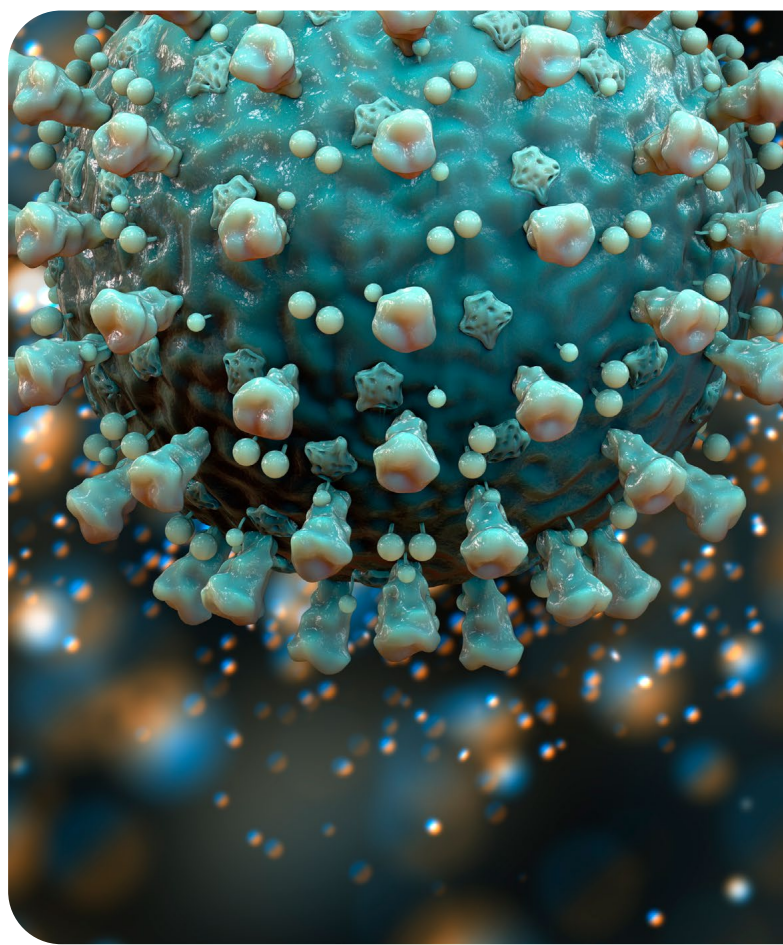
THE **nic.at** VIDEO CALL BINGO

We've all been there: one video call after the other, "who's in already" replaces a friendly "hello" and the sound of the next call starting triggers an involuntary flinch. But help is at hand! We want to help ease your frustration with our very own **nic.at** bullsh*t bingo game to help you get through your day online. Enjoy yourself and don't forget: once you have ticked all the boxes, jump up and shout "bingo"!

Several people start to talk at the same time.	**"M… conn… kee….cut…. …t."**	**"Something's not working my end."**	**Pet puts in an appearance.**	**Small talk until the final participant finally joins.**
Someone forgets to stop sharing their screen.	**"You've frozen"**	**Someone is eating during the call**	**Weird noises in the background.**	**"Sorry, I was in the wrong meeting room."**
Someone is wearing sweatpants with a dress shirt/blouse	**"Can you see my screen?"**	**"Who's missing?"**	**"I think you're still on mute."**	**"Nice background"**
There's a knock at the door.	**Child yelling in the background.**	**"You go first"**	**"Let me just share my screen"**	**"Can you hear me?"**

Icons: Gettyimages.com/pixelalex, artekvat, SN Nazmul Haque, Mark Astakhov, marradaisy, Fourleavelover, sudowoodo, Burham Adiatma, kowalaska-art, Denis Magulin, Omelchenko Andrii, KoizkayaOlga, Volodymyr Kotoshchuck, 13ree_design, Arna Photo, liluydesign

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