



university of  
 groningen

center for  
 information technology

# CIT 2020 ANNUAL REPORT

A major leap  
 in the digitization  
 of the UG



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# PREFACE



The past year has been eventful and turbulent, with the COVID-19 pandemic greatly affecting the University of Groningen. At the start of 2020, no one could have predicted that the University would only be accessible to students and staff digitally. Yet that is precisely what happened after the COVID-19 lockdown in March.

CIT staff members worked incredibly hard to make it possible for the University of Groningen to shift almost overnight to teaching and doing research online, complete with remote working and online meetings. This represented a major leap in the digitization of the UG. At CIT, we are proud of how we managed in this way to keep the University open.

In the near future, our priority lies on effectively and adequately giving shape to blended learning. Digital meetings and remote working are here to stay, which is why President of the Board of the University Jouke de Vries marked digitization and technology as important focus points in the University's new Strategic Plan in the 2020 State of the University.

*Ronald Stolk*

*Director of CIT/CIO of the University of Groningen*

# MISSION

## CIT's mission

Education and research: supported by innovative and reliable IT.

## CIT's vision

CIT is the IT centre of the University of Groningen, and as such an important facilitator of education and research. The IT services we provide form an important condition for implementing, speeding up and clarifying daily UG processes, and enabling new forms of research and education. CIT is a leading Dutch and European institute in the field of information technology within the academic landscape. CIT supports and facilitates academic research and education with innovative data and IT solutions, consultancy and training.

## Organization

CIT has a staff of 270 and a budget of approximately €40 million. The CIT Board consists of a General Director and a Technical Director, supported by a Management Support Team (secretariat, communications, finances) and CIO office with expertise in architecture, information security, information management, quality and project management. CIT is further divided into five domains:

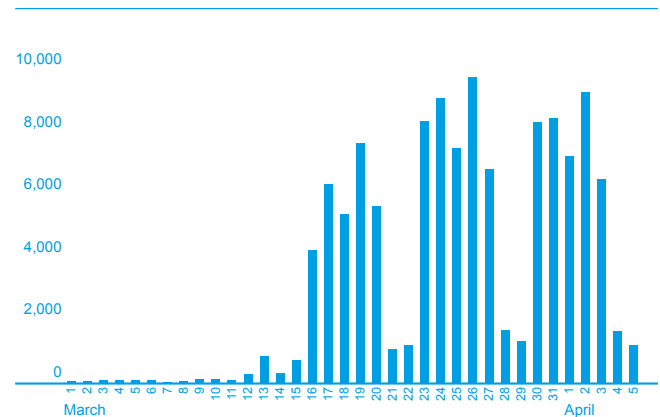
- Education
- Research
- Infrastructure
- Business Management
- Basic Workplace

# ORGANIZATION

## Online meetings

Along with education and research, all meetings also had to be moved online during the first lockdown in 2020. Google Meet figures show a spectacular increase in planned online meetings from mid-March onwards.

Daily Hangouts/Meet Sessions



# 2020: A YEAR IN REVIEW

With the COVID-19 lockdown in March 2020, the capacity of the UG IT services was tested to the utmost within a short period of time. From one day to the next, the University had to shift to online education, digital research and remote working with online meetings (sometimes more than 40,000 per week). All software remained available via the University Workplace (workplace, uwp) and staff members were able to access documents on the network drive. The CIT team worked incredibly hard to quickly and smoothly shift to the digital university and offer UG staff and students a stable remote IT environment. During the second lockdown in the autumn months, CIT once again made it possible for UG to remain virtually open.



## EDUCATION

### Online University

During the COVID-19 lockdown everyone worked hard to keep the University virtually open. Teachers went to work to create online teaching resources, with the support of webinars offered by the CIT Education Domain team.




# Education

## COVID-19

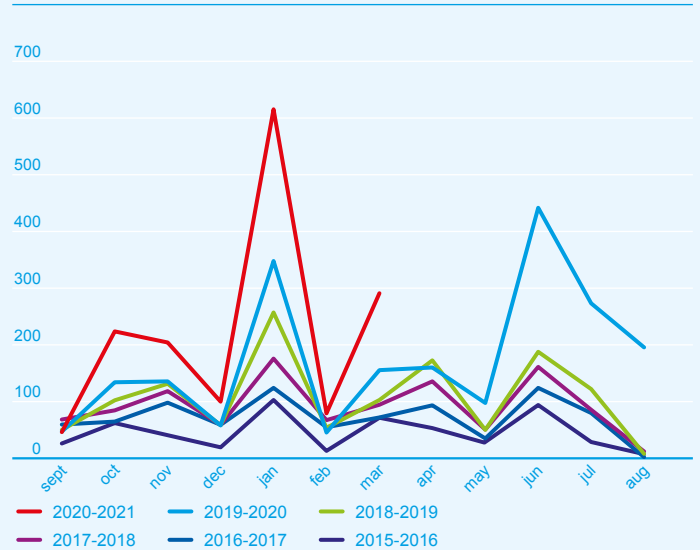
When all physical lectures were cancelled due to the COVID-19 lockdown, everyone had to suddenly shift gears. Both lecturers and the CIT staff responsible for technical education support faced the incredible challenge of radically reshaping their work. Lecturers immediately went to work to create online education resources, with the help of the CIT Education Domain team, who in the course of a single weekend created an online platform on My University (the UG Intranet) with lots of information about online teaching, complete with instruction videos. They also offered daily webinars on online teaching for lecturers and organized Q&A sessions.

In addition to online education, online testing also gained momentum. Most of the spring examinations were postponed because of the lockdown. The CIT Education Domain team devoted a lot of attention to helping lecturers optimize examination questions and answering their questions. The postponed examinations were held in June, July and August.

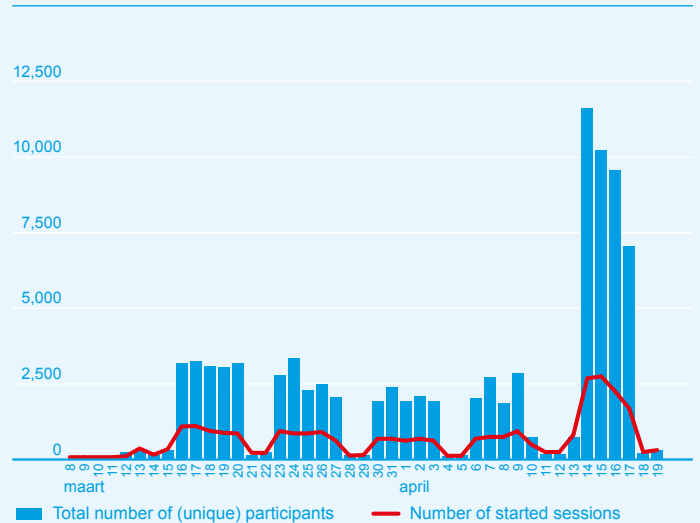


 [ukrant.nl article: 'These are the people who put UG online'](#)

Online examinations (number of digital tests per month)



Collaborate Usage



# 2020: A YEAR IN REVIEW

## UTQ certificates for Polish university lecturers

In January 2020, 70 Polish university lecturers received a certificate comparable to the UTQ (University Teaching Qualification) from the University of Groningen. The University of Groningen is one of the partners in the Masters of Didactics (MoD) project, led by the Polish Ministry of Education and financed by the European Social Fund. Over a period of five years, from 2018 to 2022, the project aims to train 1000 Polish university lecturers in didactic skills. The University of Groningen is one of the five European partners in this project and is responsible for training a total of 210 lecturers. The 70 participants were part of the four groups that received training from the CIT Education Domain team. The programme they followed took up a total of 150 hours: a full study week in Groningen, and three follow-up modules in Poland with homework assignments.



UG news article:  
'First UTQ certificates for Polish university lecturers'

## MOOC co-created by CIT rated one of the best online courses in 2019

In early 2020, the UK educational platform FutureLearn rated the MOOC (Massive Open Online Course) 'Improving Your Study Techniques' one of the eight best FutureLearn courses of 2019. This course was co-created by the CIT Education Domain team, who made an important contribution to this achievement.

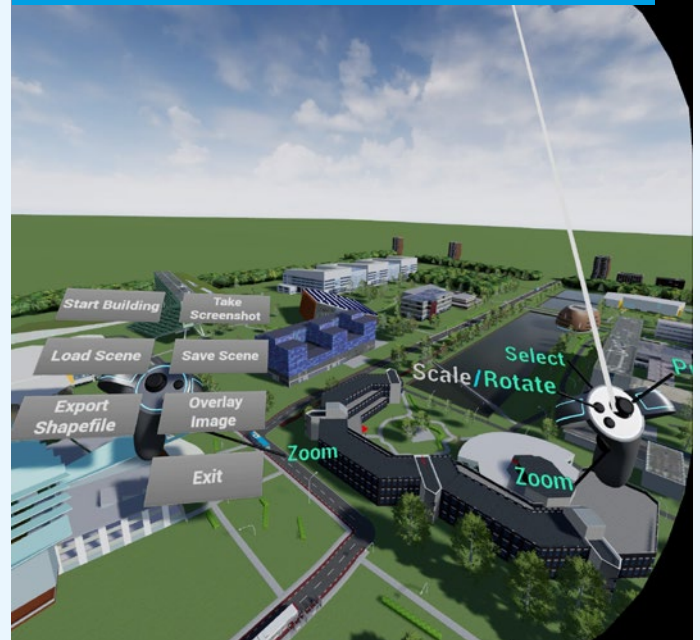


FutureLearn article:  
'8 FutureLearn courses rated best of 2019'

## RESEARCH

### 2020 Call for proposals

The CIT Research Domain team issued four calls for proposals in 2020. UG researchers were invited to submit a proposal for support in the field of spatial data, online research, data science and visualization. A total of 15 projects were selected and awarded funding.



## Doubling of Aletta Jacobs Hall examination facility

The extension of the largest examination and lecture facility of the University of Groningen on the Zernike Campus, the Aletta Jacobs Hall, was completed in 2020. The extension has doubled the capacity of the examination facility. The new wing includes two lecture halls (of 200 and 450 seats), an examination hall (with 590 digital examination stations), an additional foyer and study facilities. In addition, the entire building has been made more sustainable thanks to a geothermic energy system and more than 500 solar panels. The indoor climate has also been improved with a new climate control system.



UG news announcement:  
'Doubling of Aletta Jacobs Hall examination facility completed'



## Research

### COVID-19

The COVID-19 lockdown also meant that researchers had no access to their physical workplaces. On the UG Intranet My University, researchers were offered an overview of available online tools and services for online and distance research, including the Virtual Research Workplace, and the option to use an interactive Linux terminal to carry out computations remotely or develop data in the Cloud.

### Digital Competence Centre

In 2020, an important step was taken towards improving the University's research data infrastructure, in collaboration with the University Library. A Groningen Digital Competence Centre (GDCC) steering group was created, with the participation of two deans (Faculty of Behavioural and Social Sciences and University Medical Center Groningen) and the directors of CIT and the University Library. In a single unit, the DCC-UG combines access to all relevant primary (and secondary) research IT and data services, with the FAIR principles and Open Science as key starting points. The DCC is intended as a first-line helpdesk for UG researchers and research support staff who have questions relating to research IT and data. The DCC staff members will each contribute their own expertise concerning the use of research data, research software and computing. Existing successful initiatives such as Research Data Office (RDO) and Data Federation Hub (DFH) will be included in the DCC.

### First pile of the new UG HPC data centre

September marked the start of the construction of the new UG HPC data centre on the Zernike Campus. The new high tech data centre is intended to meet the University's growing need for reliable data storage and high-quality computing capacity. The current Computing Centre (Rekenhal) on the Zernike Campus is very much outdated, with insufficient space, cooling and power supply.



# 2020: A YEAR IN REVIEW

The new building will allow UG researchers and departments to keep making use of Cloud services and high-quality computational power. This kind of exceptionally strong infrastructure is crucial if we want to collaborate at international level on large-scale ground-breaking research projects. The data centre is expected to be ready for use by early 2022.



The new UG 'computing centre' on the Zernike Campus



UG news announcement:  
'UG builds a new data centre  
on the Zernike Campus'

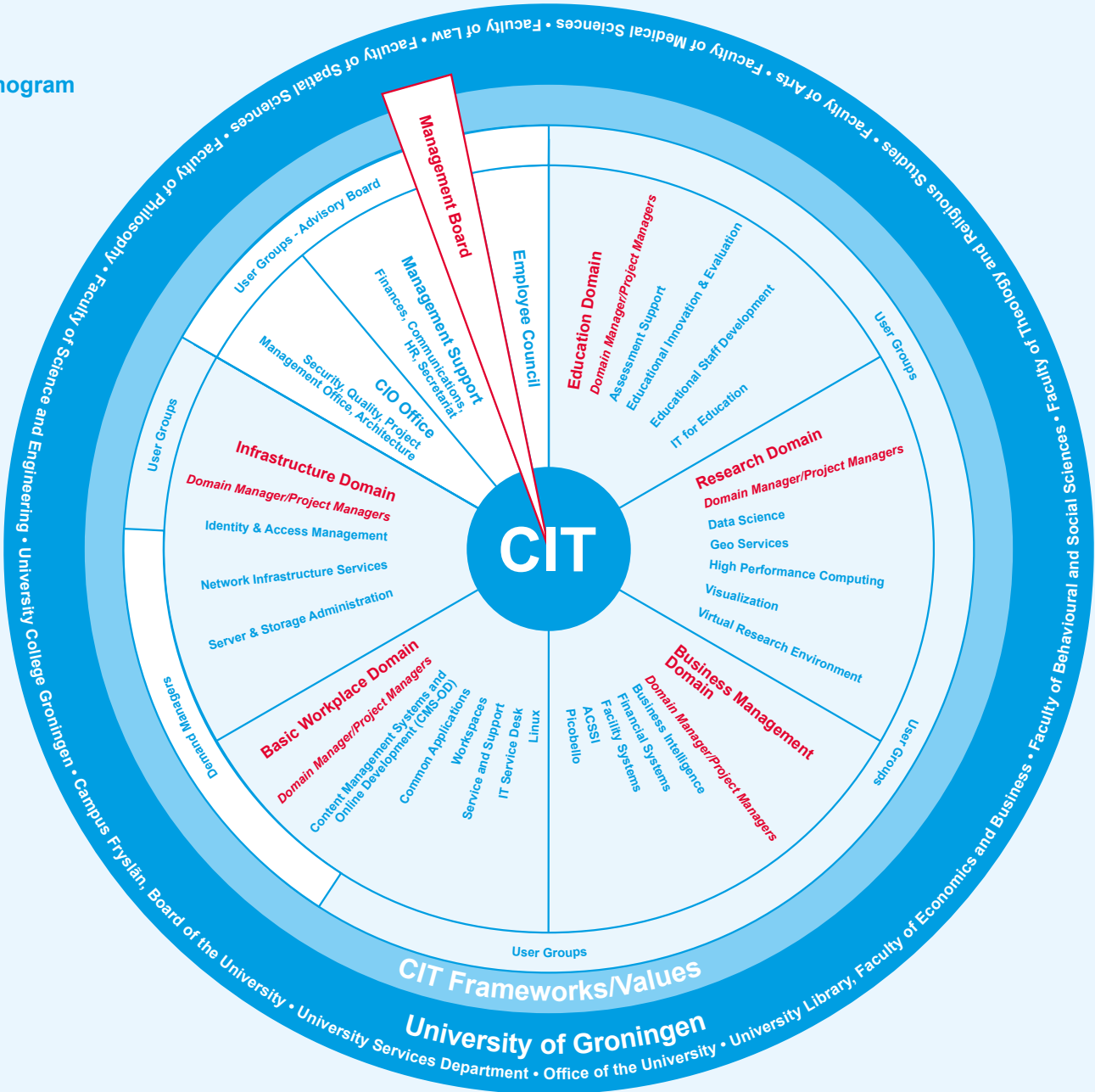
## EDUCATION

### Doubling of Aletta Jacobs Hall examination facility

The extension of the Aletta Jacobs Hall was completed in 2020. In addition to two new lecture halls and another foyer, the digital examination facility has doubled in capacity. CIT staff members were responsible for the design of the 590 digital examination stations.



# Organogram



# 2020: A YEAR IN REVIEW

## Organization

### Completing the transition: new organizational structure in teams

In 2020, we completed the organizational shift to teams and domains. Our 22 new self-organizing teams cover five domains: Education, Research, Business Management, Basic Workplace and Infrastructure. All staff members formally report directly to the general director, with a domain manager responsible for each domain. General support is provided by the Management Support Team (secretariat, finances and communications) and the CIO Office (security, quality, project management and architecture).

Thanks to the new organization into teams, CIT is now a flexible organization able to focus on providing services to the University. Team members are jointly responsible for coordinating services and making sure that our customers are optimally involved in the services we provide. This major organizational overhaul was completed without formal reorganization, in collaboration with the staff and in close consultation with the CIT Employee Council. This transition marks the start of a new CIT ready for a future that is fast becoming ever more digital.

### Customer satisfaction survey: 7.1 for CIT

At the start of the year and before the COVID-19 pandemic, we conducted a survey among UG staff, asking respondents to indicate which CIT products and services they used and how they valued them. CIT passed the test, with a rating of 7.1. The rating and accompanying report show that CIT service provision is satisfactory, while also providing enough directions for further improvement.

The survey that was sent to all CIT customers formed the second phase in our customer satisfaction survey. In the next phase (Phase 3), we will translate these insights to concrete steps towards further improving customer satisfaction.

### Information Security Master Plan

Since nearly all important UG processes and services depend on IT, the security of the UG network and IT systems is increasingly warranting a higher priority. Partly in response to the large-scale ransomware attack at the University of Maastricht (in late 2019), cyber security was given absolute top priority within the UG in the past year. The CIT Security team was substantially expanded and went to work to improve the University's IT security. In 2020, the Board of the University established an Information Security Master Plan that includes many measures intended to improve the security of the University network in the coming years. These include not only measures to be implemented in the background, but also measures that directly affect end users, such as password changes and Multi-Factor Authentication (MFA).

# 2020: OVERVIEW

## January

- TechTalks050: Eurosonic Noorderslag Special: 'How technology is changing the music world'



Interview Fred Hassert

- First Groningen Tech Exchange Meetup (with three CIT staff members speaking about Data Science)

## February

- DFH-meetup with Aletta Jacobs School of Public Health: 'How population data can support evidence-based, and more effective health policies'
- Third annual Peregrine User Group Meeting
- Information Security Master Plan established by the Board of the University
- Spatial Data call by Geodienst (via Twitter)

## March

- Start CIT customer satisfaction survey among UG staff
- First 'Food for Thought' lunch meeting on the Virtual Research Environment (VRE)
- Education Domain team introduces bi-weekly coffee chats

## April

- Launch of Groningen Digital Competence Centre (GDCC) announced
- Data centre policy established by UG

## May

- Call for online research pilot projects
- Final report of customer satisfaction survey

- DFH online workshop 'How to find and choose the right IT facilities throughout the entire data life cycle'
- RDO/DFH webinar 'Research Data Management Insight'

## June

- Food for Thought lunch meeting on Geodienst
- Completion of CIT transition
- Call for Data Science 2020 proposals

## August

- Construction of new UG HPC data centre announced

## September

- Opening of Academic Year/Data Wise Minor
- Webinar 'Research Data Management Insight'

## October

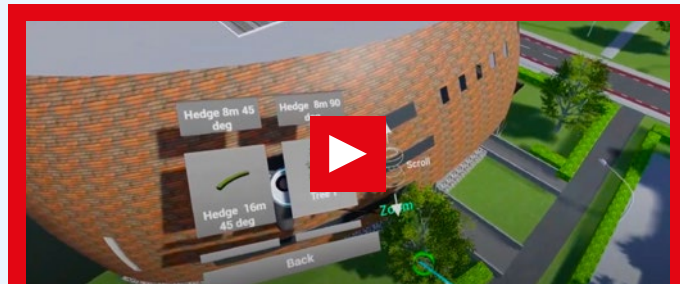
- Webinar 'Your research and the General Data Protection Regulation (GDPR)'

## November

- DASH/UMCG webinar in collaboration with Data Science: 'AI in predictive infection management'
- RDO/DFO webinar 'IT requirements for your research'

## December

- RDO/DFH-meetup: 'Doing research from home in a responsible way'
- Call for proposals Virtual Reality and 3D technology



Showreel Reality Centre

# CIT IN THE NEWS IN 2020

## January

- UG news: [First UTQ certificates for Polish university lecturers](#)

## February

- FutureLearn: [MOOC](#) co-created by CIT rated one of the best 2019 online courses

## March

- SURF Magazine: [Interview with Ronald Stolk on structural investment in innovation and support](#)
- RTV Noord: [Professors learn to teach](#)
- UG newspaper: [Behind the scenes at CIT](#)

## April

- Twitter Mark Rutte, 29 April: Rutte breaks in on online lectures in Groningen and Maastricht: <https://twitter.com/MinPres/status/1255430823442034688>

## May

- NWO/UG news: [Comenius Teaching Fellow grant for Order in the Virtual Kindergarten](#) Class project
- UG news: [Doubling of Aletta Jacobs Hall examination facility completed](#)

## June

- UG Magazine: Article on Data Science '[The solution to the filter bubble? Artificial Intelligence!](#)'

## August

- OOG TV: [Interview about new data centre with Technical Director Anke Breeuwsma](#)
- Industry Relations: [Article on AI](#)
- RTV Noord: Interview with Cisca Wijmenga about the [Education Action Plan](#)

## September

- UG Magazine: Article on Data Science '[A new perspective on the philosophical canon thanks to AI](#)'
- UK: [UG invests €5.5 million in online teaching](#)
- UG news: [First pile of UG Data Centre](#)

## October

- UG news: [Analysis of housing under construction](#) by ABN AMRO and Geodienst

## November

- DvhN: [Student team wins 5G Student Battle with smart safety vest for police officers](#)

## December

- UG news: Article on Data Science '[Frisian is not uniform](#)'
- UG Magazine: Article on Data Science '[Research on the cycle of yeast cells reaches new level thanks to Artificial Intelligence](#)'

## ORGANIZATION

### Construction begins on UG HPC Data Centre

With the construction of a new HPC Data Centre in the autumn of 2020, the University hopes to meet a growing need for reliable data storage and high-quality computational power.



# CIT IN 2021

As a result of the 2020 COVID-19 pandemic, the growing digitization of research and education and the new practice of remote working both gained incredible momentum. This has led to IT being earmarked as an important theme in the new UG Strategic Plan for 2021-2026. Spearheads for the future include big data (construction of new HPC Data Centre), sensitive data (medical data, company information with the use of virtualization technologies), digital exams and exams with real-life applications.

## Education Action Plan

In the first lockdown, we gained a lot of experience in online learning and students and staff members discovered the advantages of this modality. In the process, it also became clear that online education asks for different didactic and learning skills and that this requires a lot of effort. In response, the Board of the University established an Education Action Plan to support lecturers in offering online classes and blended learning: not only teaching from behind their screens, but also in lecture halls, with some students attending in person and others from home, and the option of quickly shifting from on-site to online education. This set of measures is intended to reduce work pressure on the staff and improve diversity and quality.



Article in RTV Noord:

“UG was still in crisis mode: ‘We are now ready to think about our next step’”

## Research

We will continue to work out the plans for the creation of the University Digital Competence Centre (DCC). The DCC will combine all relevant UG expertise in the field of research IT and data for UG researchers and research support staff. There is also close collaboration with the DCC of the University Medical Center. Organizationally, the UG-DCC will fall under the CIT Research Domain and work closely together with the facilitating organizational units of CIT and the University Library. The DCC will be part of a national network of Digital Competence Centres. The NWO programme ‘Local Digital

Competence Centres’ has given all Dutch universities, academic medical centres and NWO and KNAW institutes the opportunity to apply for a one-time impulse grant.

## Security road map

The UG is continuously working to improve IT security. Partly in response to the growing threat of cyber-attacks, we are working on stage and in the wings to implement various measures to better protect the University network. This is why in 2020 the Board of the University established an Information Security Master Plan, which includes many measures for improving the University’s IT security. Based on a security roadmap, CIT staff members work on projects intended to lift the IT security level of the UG to a higher plane, including password changes and the introduction of Multi-Factor Authentication (MFA).

## Product and service catalogue

Over the past year, CIT has worked towards developing a product and service catalogue. This catalogue will offer clients and stakeholders a transparent overview of CIT products and services, including conditions. This product and service catalogue will be created in TOPdesk and will be accompanied by a Self-Service Portal, where students and staff members can, among other things, submit a question or request and follow its status, or find answers in the FAQ section. After completing the test phase, the product and service catalogue will become available to all staff members and students in 2021 under the name of IRIS.

**Ronald:** As CIT Board, our theme for this year is 'Building a new CIT'.

**Anke:** The formal completion of the transition is a new start. I believe that we can create something beautiful together.

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**Ronald:** The cyber-attack on the University of Maastricht has certainly raised our awareness of the importance of IT for universities and the growing cybersecurity risks.

**Anke:** We will speed up the introduction of Multi-Factor Authentication for all UG students and staff members.

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**Ronald:** We will use all our expertise and knowledge to ensure Groningen is not the next victim of a cyberattack!

**Anke:** Making the University's IT infrastructure more secure is the joint responsibility of the entire CIT staff. Together, we can do it!

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**Ronald:** Just as other sections of society, universities are also preparing for potential COVID-19 infections.

**Anke:** Since staff members now have to do all their teaching and other activities from home, we have to create a vital infrastructure for the University.

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**Anke:** In March, we managed a total of 27,000 Google Hangouts Meet sessions, more than 1500 simultaneous UWP sessions and more than 3000 students in Blackboard Collaborate, and we provided support for operational management and other IT and data issues.

**Ronald:** The Board of the University has indicated their intention to shift towards a blend of on-site and online teaching.

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**Anke:** Video calls all day, phone calls combined with Slack and WhatsApp: this is our new routine.

**Ronald:** This is the biggest crash-course on remote working ever, but is it going to become the 'new normal'? What is temporary and what is here to stay?

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**Ronald:** After the transition, we will have a really professional organization that will allow us to realize our ambition of providing the University with highly professional IT targeted to the customers' needs.



**Anke:** Together we will build a new CIT: we have many competent colleagues, we are technically strong, and we are great innovators.

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**Ronald:** The customer satisfaction survey shows that CIT is doing well with an overall score of 7 plus.

**Anke:** With our new organizational structure we can make sure that we retain this level of customer satisfaction.

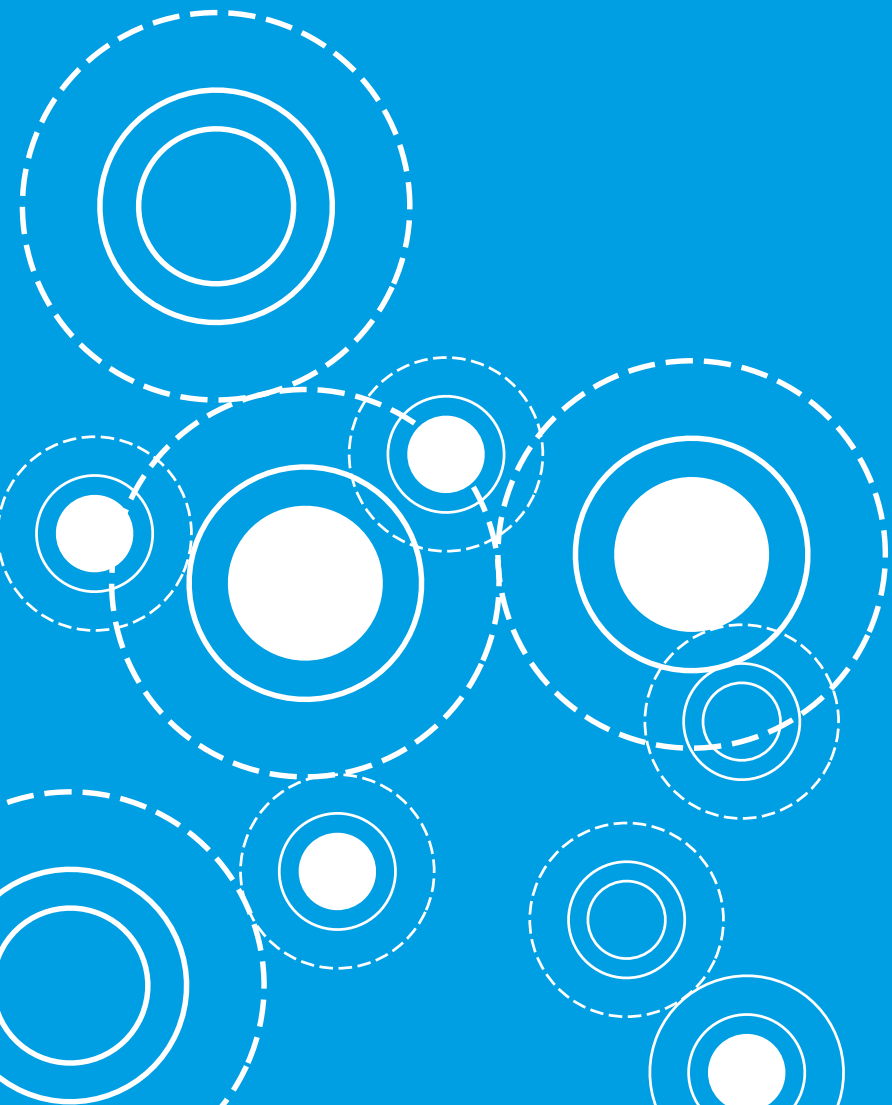
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**Ronald:** We see new, challenging activities in all domains, including the Education Action Plan, the Groningen Digital Competence Center, Multi-Factor Authentication and the construction of the new HPC Data Centre.

**Anke:** The Board of the University wants to continue to invest in large-scale HPC facilities and together with overall digitization this will form an important theme in the new UG strategy.

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**These quotes, by Ronald Stolk (General Director) and Anke Breeuwsma (Technical Director), appeared in the weekly internal CIT blog during the past year.**



[rug.nl/cit](http://rug.nl/cit)