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This brochure lists the rates for the services provided by SURF. These are the **rates that members pay** for SURF services. Non-members pay different rates in some cases. These rates are on request.

The brochure is divided up as follows:

- services covered by the basic fee Infrastructure
- services covered by the basic fee Procurement and Digital Platforms
- additional services, for which you pay a separate rate

SURF provides most research services not only on a fee basis, but according to NWO conditions directly to researchers at knowledge institutions.

#### More information

Do you have any questions or would you like more information? Then contact your relationship manager at SURF. Or go to <a href="www.surf.nl/en/services">www.surf.nl/en/services</a>.

All rates are **exclusive of VAT** and subject to change and typing errors.





# Services in the basic fee Infrastructure



If you pay the basic fee Infrastructure, you are free to use the following services:

#### **Network connectivity**

#### SURFinternet

SURFinternet offers Dutch education and research institutions a fast and reliable Internet connection of 1 to 100 Gbit/s. With SURFinternet, all users in the education and research communities are connected to each other and can collaborate nationally and internationally.

www.surf.nl/en/surfinternet

#### eduroam

eduroam gives students, lecturers, staff and researchers quick and easy access to the fixed and wireless networks at their own institution and at other institutions that offer this service. At more than 30.000 locations in more than 100 countries.

www.surf.nl/en/eduroam

#### eduroam Visitor Access

You can use eduroam Visitor Access to create temporary eduroam-accounts and assign them to your institution's visitors. This allows visitors to use the same safe and reliable Wi-Fi network as students, researchers, lecturers and staff.

www.surf.nl/en/eva

SURF

#### Security, trust & identity

#### **Cybersave Yourself**

Do you want to make employees and students more aware of the dangers of the Internet? Then make use of Cybersave Yourself, a campaign that increases the awareness of your staff and students with regard to security and privacy in an entertaining manner. The campaign consists of a website and an online toolkit with ready-made material.

www.surf.nl/en/cybersaveyourself

#### **SURFconext**

Let your users log in with one username and password to all cloud services your institution uses. Both for services that everyone uses and for services for small specialist teams. Secure, easy and privacy friendly.

www.surf.nl/en/surfconext

#### **SURF Research Access Management**

Researchers often spend a lot of time arranging secure access to the systems they need for their research. SURF Research Access Management provides research collaborations with fast, easy, and secure access to these systems. For HBO, WO and UMC, SURF Research Access Management is in the basic fee Infrastructure, for other sectors it is an additional service.

www.surf.nl/en/sram

#### **SURFcert**

SURFcert provides your institution with security incident support 24 hours a day, 7 days a week. SURFcert also provides you with tools to optimise security within your institution yourself. For example, SURFcert is continuously minimising the nuisance of DDoS attacks.

www.surf.nl/en/surfcert

#### **SURFaudit**

Has your institution organised the security and continuity of its company data, and the privacy of its students and staff? Have your business partners done so? SURFaudit shows you what you should take care of at a minimum for information security and privacy. Determine how your institution is doing and compare with other research and education institutions.

www.surf.nl/en/surfaudit

#### Cyber crisis exercise OZON

OZON is a large-scale national cyber crisis exercise that takes place every two years. During the OZON exercise, you will practice how to react to a cyber crisis and find out whether you are already well prepared for a cyber crisis as an institution.

www.surf.nl/en/ozon



#### **Data services**

#### **SURFfilesender**

Want to send and receive files quickly, securely and easily? With SURFfilesender, you can send large files, such as research data. The files are stored in the Netherlands. Encryption provides added security.

www.surf.nl/en/surffilesender

#### edubadges

edubadges is the digital certificates platform for the Dutch education community. edubadges enable you to award students or workers with evidence of knowledge and skills they have acquired. An edubadge is issued electronically within a secure and trusted SURF platform.

For HBO and WO, edubadges is in the basic fee Infrastructure, for other sectors it is an additional service.

www.surf.nl/en/edubadges

#### **SURFeduhub**

SURFeduhub is the platform for sharing educational data between Dutch educational institutions. Safely and via open standards. For example, students can easily view the educational offerings of their own institution and those of other institutions, as well as timetable or study progress information.

For HBO and WO, SURFeduhub is in the basic fee Infrastructure, for other sectors it is an additional service.

www.surf.nl/en/surfeduhub

#### Other services

#### CopyrightCheck

The CopyrightCheck tool analyses educational resources provided to students in the digital learning environment (LMS) and automatically classifies them as copyrighted, open access or proprietary works. This provides insight into the use of digital educational resources.

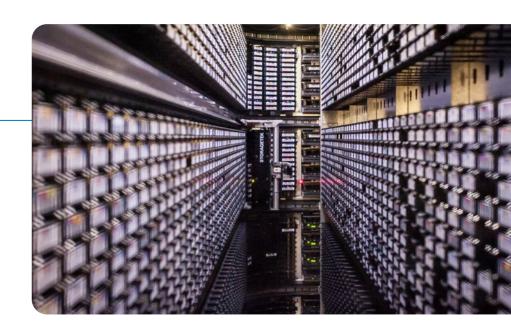
www.surf.nl/en/copyrightcheck

#### Expertise, advice and training

#### **SURFacademy**

SURFacademy offers professionalisation meetings on current IT themes for staff working in education and research. We organise these meetings together with the Dutch education and research institutions.

www.surf.nl/en/surfacademy





# Services in the basic fee Procurement and Digital Platforms

If you pay the basic fee Procurement and Digital Platforms, you can use the following services. The agreements on the annual contribution in accordance with the service agreements for content procurement UKB and SHB apply, as well as a mark-up percentage for the products purchased.



# Agreements with market parties

#### IT procurement

You can of course purchase IT products and services yourself, but this takes a lot of time, knowledge, and money. You can also make use of one of SURF's purchasing options. We collate the demand and need at the institutions and purchase software and hardware on that basis. This will of course be at the best possible terms.

www.surf.nl/en/ it-procurement

#### Content procurement

SURF concludes agreements with publishers on behalf of the university libraries (UKB and SHB). This gives researchers and students access to a wide range of (scientific) journals and databases that are important for education and research.

www.surf.nl/en/content-procurement

#### Distribution of hardware and software

Via MijnSURFmarket and <u>SURFspot.nl</u>, institutions, staff, and students purchase hardware and software that are part of framework and brokerage agreements.

www.surf.nl/en/it-facilities/joint-procurement

#### **Digital platforms**

#### Auteursrechten.nl

Auteursrechten.nl acts as a single point of reference for education staff, instructors, students and researchers to find reliable information on issues relating to copyright. They will find legal information, practical resources and tools.

www.surf.nl/en/auteursrechten-nl

#### Other services

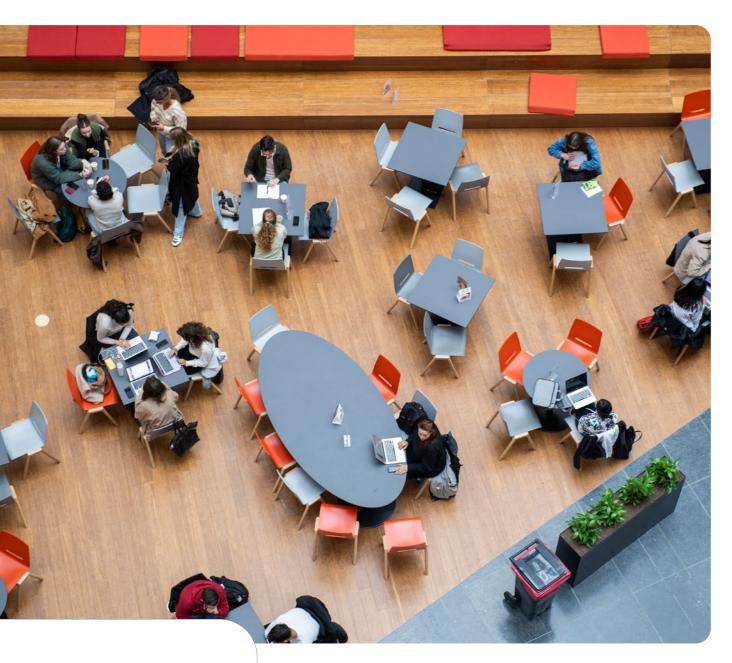
#### SURF Supplier Compliance Service

The SURF Supplier Compliance Service provides institutions with the building blocks they can use to make informed decisions about the secure use of assessed applications and (cloud) software. Among other things, the service offers frameworks and risk analyses, agreements with suppliers, supervision and support.

www.surf.nl/en/compliance



# Additional services



#### **Compute services**

#### Rate models

The compute services can be purchased as an individual service or as a component via an RCCS contract (Research Capacity Computing Service). Compute bundles can be purchased in advance and have a validity period of 12 months. The capacity available for RCCS use is capped per service.

#### **RCCS** credits

| Service  | Quantity   | Credits per TB per month                                 |
|--|--|--|
|  |  | Project space  |
| HPC Cloud <sup>1</sup>                                   | 1.03 credits per CPU hour<br>21 credits per GPU hour | HDD storage: 681<br>SSD storage: 1,525                   |
| Public clouds via<br>SURF Research<br>Cloud <sup>2</sup> | 30.18 credits per euro<br>(highest increment price)  |  |
| Snellius <sup>3</sup>                                    | 0.75 credits per CPU or<br>GPU SBU                   | Home folders<br>(backed-up): 3,050<br>Project space: 500 |

<sup>&</sup>lt;sup>1</sup> The usage on HPC Cloud is measured in core hours and TB per month.

The usage on public clouds is measured in euros.
 The usage on Snellius is measured in SBUs.

#### **National Supercomputer Snellius**

The National Supercomputer Snellius is the largest system in the Netherlands in terms of high-performance computing, fast processors and GPUs, a very fast internal network, a lot of memory space and the ability to process large data sets.

| Number of SBU | Rate per 1,000 SBUs |
|---------------|---------------------|
| 0-10,000,000  | EUR 15              |

#### Storage space

The default storage space is 200 GB (homedir).

| Number of TBs       | Rate per TB per month |
|---------------------|-----------------------|
| 1-10                | EUR 12.50             |
| 10-100              | EUR 11                |
| > 100               | EUR 9.90              |
| Homedir (backed up) | EUR 88                |

As an institution, you can also co-invest in future Snellius extensions. This is possible from as little as one node (CPU or GPU) and for a minimum period of three years. You will then receive a fixed resource allocation at a more favorable rate, which you can use at your own discretion. The rates are determined per expansion round and depend on the then current market rates for hardware and energy.

www.surf.nl/en/snellius

#### **High-performance Data processing**

Do you want to process and store large volumes of data? Our high-throughput data processing services are suited for projects that require processing of large, structured datasets. Such as instrument data from sensors, DNA sequencers, telescopes, and satellites.

#### Grid

The Grid platform offers a limitless potential of compute power and data processing thanks to a chain of international clusters connected by a fast network. Grid's data storage offers maximum scalability, both in performance and volume, by using the dCache service.

#### **CPU**

| Number of core hours | Rate per 1,000 core hours |
|----------------------|---------------------------|
| 0-80,000             | EUR 36.70                 |
| 80,000-800,000       | EUR 34.07                 |
| 800,000-8,000,000    | EUR 31.45                 |
| > 8,000,000          | EUR 28.83                 |

#### **GPU**

| Rate per 1,000 GPU hours | EUR 595 |  |
|--------------------------|---------|--|
|--------------------------|---------|--|

#### Disk

In RAID configuration; scalable data throughput in flexible environment supporting many data transport methods; can also be used in combination with other compute systems.

| Number of TBs | Rate per TB per month |
|---------------|-----------------------|
| 0-50          | EUR 15.07             |
| 50-500        | EUR 14.69             |
| 500-1,000     | EUR 11.24             |
| > 1,000       | EUR 8.11              |

#### Tape (double copy)

| Rate per 10 TB (double), per 5 years | EUR 705 |
|--------------------------------------|---------|
|--------------------------------------|---------|



#### **Spider**

Spider is a dynamic, flexible and customisable high throughput platform hosted locally at SURF. It is optimised for collaboration.

#### **CPU**

| Number of core hours | Rate per 1,000 core hours |
|----------------------|---------------------------|
| 0-80,000             | EUR 36.70                 |
| 80,000-800,000       | EUR 34.07                 |
| 800,000-8,000,000    | EUR 31.45                 |
| > 8,000,000          | EUR 28.83                 |

#### **GPU**

| Rate per 1,000 GPU hours EUR 595 |
|----------------------------------|
|----------------------------------|

#### **Shared disk storage**

Scalable network filesystem with 3x internal replication.

| Rate per TB per month | Rate per TB per month         |  |
|-----------------------|-------------------------------|--|
| HDD                   | SSD                           |  |
| EUR 22.57             | EUR 50.35                     |  |
| EUR 20.26             | EUR 50.35                     |  |
| EUR 18.02             | EUR 50.35                     |  |
|                       | HDD<br>EUR 22.57<br>EUR 20.26 |  |

www.surf.nl/en/high-performance-data-processing

#### Cloud Research Consultancy (formerly known as MS4 & Custom Cloud Solutions)

SURF offers researchers and research groups the opportunity to hire additional support for the (further) development of IT solutions and for hiring long-term operational support. For example, for customised solutions on SURF's private cloud or solutions on public clouds such as AWS & Azure.

We have expertise available in design, performance, availability, security, sustainability and manageability. On public clouds, standard cloud components are used and adapted where necessary.

The rates below apply when using the SURF infrastructure. For customised solutions on public clouds, please ask for the rates. You can use existing SURFcumulus contracts if necessary.

For the hiring of SURF staff, the charges stated for the SURF Consultancy service apply.

#### **CPU**

| Number of core hours | Rate per 1,000 core hours |
|----------------------|---------------------------|
| 0-80,000             | EUR 36.70                 |
| 80,000-800,000       | EUR 34.07                 |
| 800,000-8,000,000    | EUR 31.45                 |
| > 8,000,000          | EUR 28.83                 |

#### **GPU**

| Rate per 1,000 GPU hours | EUR 595 |  |
|--------------------------|---------|--|

#### **Block Storage**

Private disk images with 3x internal replication.

| Number of TBs | Rate per TB per month |           |
|---------------|-----------------------|-----------|
|               | HDD                   | SSD       |
| 0-50          | EUR 22.57             | EUR 50.35 |
| 50-500        | EUR 20.26             | EUR 50.35 |
| > 500         | EUR 18.02             | EUR 50.35 |

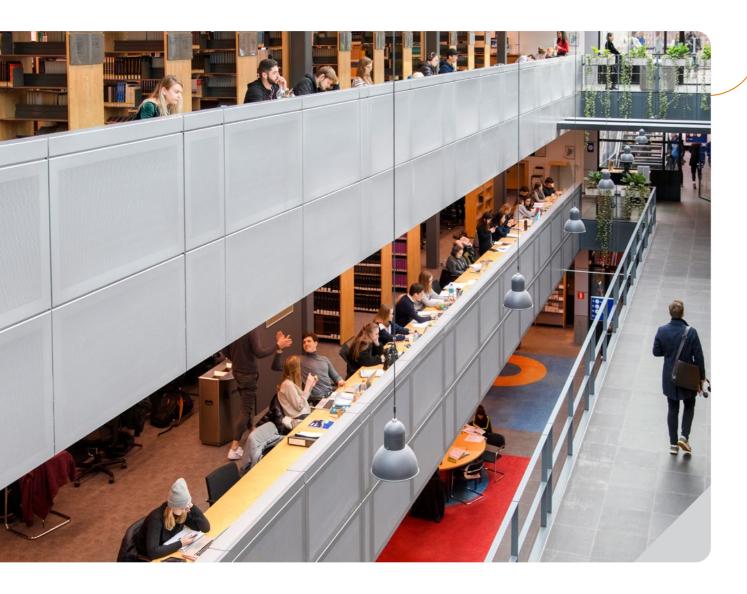


#### **Jupyter Notebook Hub**

A Jupyter Notebook is an interactive web application that you can use to create documents, known as notebooks, that contain computer code, formatted text, comparisons and visualisations. The code can be executed in the environment and you can even create streaming applications and dashboards.

The rates for this service are on request.

www.surf.nl/en/jupyter



#### **Network connectivity**

#### SURFinternet upgrade

The following options are available in addition to the basic SURFinternet service:

| Upgrade to | Rate per month |
|------------|----------------|
| 10 Gbit/s  | EUR 1,282      |
| 40 Gbit/s  | EUR 3,583      |
| 100 Gbit/s | EUR 3,583      |

#### Connecting third parties to the SURF network

If your institution is connected to the SURF network, you can, under certain conditions, register third parties to use the SURFinternet service. They can only use a network connection via SURF, and not the additional SURF services.

| Volume     | Rate per month                               |  |  |
|------------|--|--|--|
|            | Third party belongs to the SURF target group | Third party does not belong to the SURF target group |  |
| 0-25 FTE   | EUR 0  | EUR O  |  |
| 26-50 FTE  | EUR 310                                      | EUR 618  |  |
| 51-100 FTE | EUR 618                                      | EUR 927  |  |

SURF charges these rates to your institution. You can pass these costs on to the third parties.

www.surf.nl/en/connecting-third-parties



#### Connecting other locations

In addition to your primary location, you can also easily connect other locations of your institution to the SURF network. We can also connect data centres this way. We will then install two geographically separated fibre optics to that location and install network equipment. You can then apply for network connectivity to make connections via these fibre optics.

Rates for these secondary locations connections are on request. Contact your relationship manager at SURF.

www.surf.nl/en/connecting-other-locations

#### **SURFdomeinen**

As an IT administrator, you easily register and migrate Internet domains using the SURFdomains service. Managing the DNS is also easy through the online portal. You make your changes in real time.

There is no charge for the first domain. Each further domain registration:

| DNSSEC-signed domain (only domains .nl, .com, .net, and .org) | EUR 3.30 per month |
|---|--------------------|
| Non-DNSSEC-signed domain                                      | EUR 4.40 per month |

This charge is independent of the top-level domain that you select (.nl, .com, .net, .org, .eu, or .info)

www.surf.nl/en/surfdomeinen

#### **SURFfirewall**

With SURFfirewall, you secure your SURFinternet connection. SURF takes over the tendering burden and arranges the implementation: (hardware) procurement, management, licences and integration with SURFinternet. As an institution, you take care of the security policy, firewall rules and configuration. To this end, SURF provides a management portal.

The SURFfirewall service can function as an external (perimeter) firewall but also as a 'Campus-light variant' where we connect more network segments to the SURFfirewall.

| SURFfirewall capacity | Rate per month |
|-----------------------|----------------|
| 1 Gbit/s              | EUR 1,224      |
| 2 Gbit/s              | EUR 1,962      |
| 3 Gbit/s              | EUR 2,702      |
| 4 Gbit/s              | EUR 3,493      |
| 5 Gbit/s              | EUR 4,177      |
| 6 Gbit/s              | EUR 4,915      |
| 7 Gbit/s              | EUR 5,663      |

| One-time connection fee | EUR 3.524 |  |
|-------------------------|-----------|--|
|                         |           |  |

www.surf.nl/en/surffirewall



#### **SURFlichtpaden**

Do you need an ultra-fast, extremely reliable connection to another institution, data centre, service provider or different destination? SURFlichtpaden enables you to create an exclusive and direct connection outside the boundaries of the public Internet. Light paths offer additional security, reliability, and high capacity – guaranteed.

If a light path is connected to an MSP on one side, a 50% discount applies.

www.surf.nl/en/surflichtpaden

#### **National fixed light paths**

| Light path capacity | Rate per month |            |
|---------------------|----------------|------------|
|                     | Protected      | Redundant  |
| 50 Mbit/s           | EUR 85         | EUR 88     |
| 250 Mbit/s          | EUR 422        | EUR 444    |
| 500 Mbit/s          | EUR 846        | EUR 889    |
| 750 Mbit/s          | EUR 1,266      | EUR 1,344  |
| 1 Gbit/s            | EUR 1,689      | EUR 1,778  |
| 10 Gbit/s           | EUR 4,056      | EUR 4,268  |
| 40 Gbit/s           | EUR 6,457      | EUR 7,044  |
| 100 Gbit/s          | EUR 9,394      | EUR 10,568 |
|                     |                |            |

Rates for the international network connectivity services are on request.

#### **Multi Service Port (MSP)**

A Multi Service Port (MSP) is a connection to the SURF network that allows you to set up multiple light paths. You can divide the bandwidth among the various types of network connectivity, making flexible and efficient use of the available bandwidth.

| Multi Service Port type                          | Rate per month |
|--|----------------|
| Multi Service Port 1 Gbit/s                      | EUR 856        |
| Multi Service Port 10 Gbit/s                     | EUR 2,026      |
| Multi Service Port 40 Gbit/s (special)           | EUR 3,230      |
| Multi Service Port 100 Gbit/s                    | EUR 4,577      |
| Redundant Multi Service Port 1 Gbit/s            | EUR 889        |
| Redundant Multi Service Port 10 Gbit/s           | EUR 2,134      |
| Redundant Multi Service Port 40 Gbit/s (special) | EUR 3,522      |
| Redundant Multi Service Port 100 Gbit/s          | EUR 5,150      |
|  |                |

There is no charge for light paths between two MSPs within the SURF network or from an MSP to NetherLight.

#### **L2VPN** and **L3VPN**

As an institution, do you work together from different locations and want to set up online collaborations in one network? Or do you want to use cloud providers in a secure, but also easy way? Then you can set up a virtual private network via SURF's network using L2VPN or L3VPN. A Multi Service Port is required for this functionality.







#### NetherLight

The rates below apply for connectivity towards vendors who are connected to the international light path exchange.

| Capacity of the Nether-<br>Light connectivity | Rate per month |           |
|---|----------------|-----------|
|   | Protected      | Redundant |
| 50 Mbit/s                                     | EUR 64         | EUR 67    |
| 250 Mbit/s                                    | EUR 319        | EUR 333   |
| 500 Mbit/s                                    | EUR 633        | EUR 669   |
| 750 Mbit/s                                    | EUR 952        | EUR 1,000 |
| 1 Gbit/s                                      | EUR 1,266      | EUR 1,334 |
| 10 Gbit/s                                     | EUR 3,042      | EUR 3,202 |
|   |                |           |

www.surf.nl/en/netherlight

#### **SURFwireless**

#### **SURFwireless Managed**

Your users want a fast Wi-Fi network that is available anytime and anywhere. Purchasing and maintaining such a network takes a lot of time and knowledge. SURFwireless offers Wi-Fi as a Service. This provides you with a reliable, high quality Wi-Fi6 network, allowing you to move forward technically for years to come.

#### **Base rate**

| Per indoor access point  | EUR 19.25 per month |
|--------------------------|---------------------|
| Per outdoor access point | EUR 27.50 per month |

This includes the costs of hardware (replacements), personnel, licences, tendering, and 24x7 monitoring and maintenance. The rates are for a contract period of five years. The one-time costs per site are variable and based on the size of the site. These costs are quoted separately.

#### **SURFwireless Do It Yourself**

With this variant, SURF takes care of the purchase and implementation of the Wi-Fi environment. From delivery onwards, you will be at the controls and will take care of the maintenance and management of the environment, supported of course by the expertise of SURF.

#### **Base rate**

| Per indoor access point  | EUR 15.95 per month |
|--------------------------|---------------------|
| Per outdoor access point | EUR 24.20 per month |

These rates include the costs of hardware (replacements), licenses and tendering and apply for a contract period of five years. The one-time costs per site are variable and based on the size of the site. These costs are quoted separately.

#### **SURFwireless Start**

We manage your existing Wi-Fi network while your new SURFwireless network is under construction. The rates are set per project.

www.surf.nl/en/surfwireless



#### **SURFopzichter**

IT administrators use SURFopzichter ('SURF Supervisor') to monitor – online and in real time – the performance and availability of Internet services, for example websites and e-mail facilities. This online application allows you to set up checks and notifications, and to create comprehensive reports.

Rate per month

**EUR 123** 

www.surf.nl/en/surfopzichter



#### Security, trust & identity

#### **SURFmailfilter**

SURFmailfilter gives connected institutions an easy way of checking all their incoming and outgoing e-mail and filtering it for viruses, phishing and spam. SURFmailfilter detects at least 95% of spam. SURFmailfilter runs on the SURF network and is available for IPv4 and IPv6.

| Number of students | Rate per month |
|--------------------|----------------|
| 0-5,000            | EUR 415        |
| > 5,000            | EUR 1,108      |
| Outgoing mail only | EUR 594        |

www.surf.nl/en/surfmailfilter

#### **SURFcertificaten**

SURFcertificaten ('SURFcertificates') provides several types of certificates for users at affiliated institutions. Certificates are essential for IT-security. They enable encryption of information between computer systems and can provide digital signatures for documents or software code.

Rate per month, irrespective of the number of certificates

**EUR 161** 

www.surf.nl/en/surfcertificaten





#### eduVPN

eduVPN makes untrusted networks secure, by establishing an encrypted connection. This way, students, lecturers and researchers can use the Internet securely everywhere, and you can grant access to your institution's protected systems securely, even if users are using the Internet connection on a train, a square, or at home.

| Number of employees and/or students | Rate per month |
|-------------------------------------|----------------|
| 0-1,000                             | EUR 121        |
| 1,001-5,000                         | EUR 605        |
| 5,001-15,000                        | EUR 1,031      |
| > 15,000                            | EUR 1,515      |

If you use eduVPN to shield institutional services, additional costs for light paths may arise if there is no available MSP capacity.

www.surf.nl/en/eduvpn

#### **SURFsecureID**

SURFsecureID makes access to online services more secure through multifactor authentication. Users log in with a username and password and with a second factor: an SMS, a USB key, a mobile app (tiqr) or their Microsoft token. SURFsecureID is highly suitable for services involving sensitive data, and for preventing abuse of accounts.

| Number of users | Rate per month |
|-----------------|----------------|
| 0-1,000         | EUR 342        |
| 1,001-5,000     | EUR 615        |
| 5,001-15,000    | EUR 1,506      |
| > 15,000        | EUR 2,180      |

Rate is flat fee and includes 500 SMS transactions per month (for more than 500 SMS transactions per month, SURF charges EUR 0.055 per SMS). Rates do not include any costs of tokens. The minimum purchase period is three years.

www.surf.nl/en/surfsecureid

#### **SURF Research Access Management**

Researchers often spend a lot of time arranging secure access to the systems they need for their research. SURF Research Access Management provides research collaborations with fast, easy, and secure access to these systems.

For HBO, WO and UMC, SURF Research Access Management is in the basic fee Infrastructure, for other sectors it is an additional service.

| Rate per month | EUR 1,144 |
|----------------|-----------|
|----------------|-----------|

www.surf.nl/en/sram



#### **SURFsoc**

SURFsoc monitors and detects cyber threats and possible attacks on the institutional infrastructure, for example via a SIEM system. We share the knowledge that we acquire within SURFsoc with the institutions. That is how we increase information security within education and research.

Rates are on request.

www.surf.nl/en/surfsoc

#### **Data services**

#### **SURFsharekit**

SURFsharekit is a repository for the sustainable storage and sharing of research publications, thesis products, and digital open and semi-open educational resources. Through SURFsharekit, these materials can be made findable and available on various platforms.

The rate is based on the number of employees (FTE) plus students (part-time student counts as 0.5 FTE). The rate per employee/student is EUR 0.89 per year, with a minimum of EUR 1,791 and a maximum of EUR 12,537 per year.

www.surf.nl/en/surfsharekit

#### edubadges

edubadges is the digital certificates platform for the Dutch education community. edubadges enable you to award students or workers with evidence of knowledge and skills they have acquired. An edubadge is issued electronically within a secure and trusted SURF platform.

For MBO edubadges is an additional service. For other sectors this service is in the basic fee Infrastructure.

| Number of users | Rate per month |
|-----------------|----------------|
| 0-1,000         | EUR 1,144      |
| 1,001-5,000     | EUR 1,488      |
| 5,001-15,000    | EUR 1,602      |
| 15,001-100,000  | EUR 1,717      |

www.surf.nl/en/edubadges





#### **SURFeduhub**

SURFeduhub is the platform for sharing educational data between Dutch educational institutions. Safely and via open standards. For example, students can easily view the educational offerings of their own institution and those of other institutions, as well as timetable or study progress information.

For MBO SURFeduhub is an additional service. For other sectors this service is in the basic fee Infrastructure.

Rates are on request.

www.surf.nl/en/surfeduhub

#### **SURFdrive**

SURFdrive is a personal cloud service for the Dutch education and research. With SURFdrive your users can easily store, synchronise and share files in our secure and reliable community cloud.

There are two options. If you choose the option with up to 50 users and at some point you have more than 638 users, you automatically switch to the option with up to 750 users. This is more economical.

| Number of users | Rate per month                           |
|-----------------|--|
| Up to 50        | EUR 206 + EUR 4.02 per additional user   |
| Up to 750       | EUR 2,571 + EUR 1.72 per additional user |

We have agreed with universities that they will always purchase the second package.

www.surf.nl/en/surfdrive

#### **Research Drive**

Do your research teams need large storage quotas, and do they work collaboratively with other educational and governmental institutions or external private parties? Research Drive is a cloud-based shared-storage environment specifically designed for these requirements.

| Option   | Rate                       |
|--|----------------------------|
| Platform use - for purchased storage up to 20 TB <sup>1</sup>                    | EUR 17,623 per year        |
| Platform use - for purchased storage of 20 TB or more                            | EUR 27,113 per year        |
| Platform use - for purchased storage up to 20 TB, Community edition <sup>2</sup> | EUR 8,216 per year         |
| Storage, including disaster recovery   | EUR 22.10 per TB per month |

The minimum purchase for Storage is 10 TB (with the exception of pilots and universities of applied sciences with up to 20 lectors).

www.surf.nl/en/research-drive

#### **Object Store**

Object Store provides a general purpose online storage service that may be used for storing large quantities of data (and is, among other things, the default storage environment for Research Drive). The service is ideal for storing various types of data, and has the ability to grow without restriction, while the data remains quickly and easily accessible.

This service is available per TB, and you can purchase it per month.

| Number of TBs | Rate per month |
|---------------|----------------|
| 0-5           | EUR 15.08      |
| 5-50          | EUR 13.99      |
| 50-500        | EUR 12.93      |
| > 500         | EUR 11.85      |

www.surf.nl/en/object-store



The Community edition is intended for research groups whose institution does not have a central subscription; it offers no option for their own branding.

#### dCache

dCache is a storage system ideally suited for high-throughput data processing. The data in dCache are accessible via a variety of protocols, including WebDAV, and dCache supports various authentication systems. It offers a unique combination of scalability and speed: data can be moved transparently between disk (for fast access) and tape (long-term storage).

This service is available per TB and can be purchased per month.

#### Disk

| Number of TBs | Rate per month |
|---------------|----------------|
| 0-50          | EUR 15.07      |
| 50-500        | EUR 14.69      |
| 500-1,000     | EUR 11.24      |
| > 1,000       | EUR 8.11       |

#### Tape (double copy)

| 10 TB (double), per 5 years EUR 7 |
|-----------------------------------|
|-----------------------------------|

#### **Data Archive**

The Data Archive is the centralised location for data archiving and (long-term) storage, even in volumes running into the petabytes. The archive provides quick access to SURF's computing facilities.

This service is available per 10 TB and can be purchased per 5 years. An extension to a current contract has the same end date as the original contract.

| R 705 |
|-------|
|-------|

www.surf.nl/en/data-archive

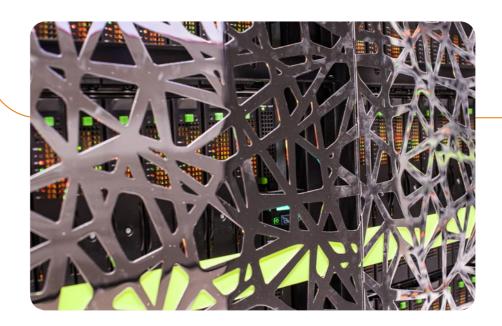
#### Persistent Identifiers (PID)

Persistent identifiers (PIDs) ensure the findability of your data, now and always. PIDs are comparable to the ISBN numbers assigned to books. Even if the location or underlying infrastructure changes, the reference path remains intact. SURF offers the PID service in cooperation with the European Persistent Identifier Consortium (EPIC).

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| Component                          | Rate               |
|------------------------------------|--------------------|
| Handle prefix request/registration | EUR 48.40 once     |
| PID hosting service                | EUR 493 per year   |
| Handle prefix preservation         | EUR 48.40 per year |

www.surf.nl/en/data-persistent-identifier





#### **iRODS** Hosting

Does your institution want to use iRODS to manage research data without its own management burden? The iRODS Hosting service enables you to make use of the high-quality data management facilities offered by iRODS, such as the secure sharing of data, metadata management, and workflow automation for the implementation of data management policies. In addition, iRODS Hosting offers access to various (online and offline) data storage facilities offered by SURF.

| Component                                      | Rate   |
|--|--|
| Subscription for hosting, management & support | EUR 13,239 per year                                |
| Online storage                                 | See Object Store and Cloud Research<br>Consultancy |
| Long-term storage                              | See Data Archive                                   |

#### **LDAP** module

With this option, your iRODS instance will perform authentication and authorisation against an LDAP server. This can be your existing organisation LDAP, which can simplify user management for your iRODS instance.

| Rate per instance per year | EUR 2,259 |  |
|----------------------------|-----------|--|
| Rate per motance per year  | 231(2,233 |  |

#### **Storage Tiering module**

With this option, you can deploy multiple storage resources more easily than if you only used bare iRODS rules. This gives you more control over how your data policy is handled in your iRODS instance.

| Rate per instance per year   | EUR 2,259 |
|------------------------------|-----------|
| Rate per ilistalice per year | EUR 2,233 |

www.surf.nl/en/irods-hosting



#### **RDM Storage Scale-out**

Does your institution already use iRODS technology and do researchers need additional storage capacity for research data, or need long-term storage? With the RDM Storage Scale-out module for iRODS, they make easy and flexible use of large-scale data storage facilities at SURF such as online storage or Data Archive (other storage services on request). With this service they expand their storage space as needed, for example for storing (very) large data sets or data that is not actively used.

| Component                                      | Rate   |
|--|--|
| Subscription for hosting, management & support | EUR 7,449 per year                                 |
| Online storage                                 | See Object Store and Cloud Research<br>Consultancy |
| Long-term storage                              | See Data Archive                                   |

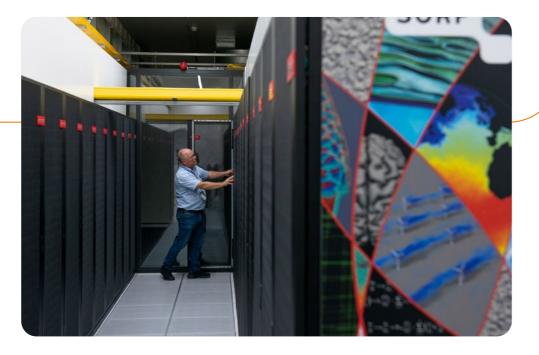
www.surf.nl/en/rdm-storage-scale-out



#### **Yoda Hosting**

Researchers and research support staff use Yoda software to deploy iRODS in their daily Research Data Management work. A web portal and WebDAV interface allow for easier interaction with the underlying iRODS instance, guided by standardised workflows. With Yoda Hosting, SURF runs a Yoda instance for your institution, so you can offer the power of iRODS and the benefits of an easy user experience to your research groups.

| Component                                      | Rate   |
|--|--|
| Subscription for hosting, management & support | EUR 28,600 per year                                |
| Online storage                                 | See Object Store and Cloud Research<br>Consultancy |
| Long-term storage                              | See Data Archive                                   |



#### **SRAM Module**

With this option, your iRODS instance will perform authentication and authorisation against SURF Research Access Management. In this way, you delegate user management to the researchers and research supporters themselves, so that they can organise their collaboration to best effect, even across multiple services.

| Rate per instance per year | EUR O |
|----------------------------|-------|
|----------------------------|-------|

#### LDAP module

With this option, your iRODS instance will perform authentication and authorisation against an LDAP server. This can be your existing organisation LDAP, which can simplify user management for your iRODS instance.

#### **Storage Tiering module**

With this option, you can deploy multiple storage resources more easily than if you only used bare iRODS rules. This gives you more control over how your data policy is handled in your iRODS instance.

| Rate per instance per year | EUR 2,259 |
|----------------------------|-----------|
|----------------------------|-----------|

#### **SURF Data Repository**

SURF Data Repository focuses on the secure storage, accessibility and retrieval of large datasets. Users can create new publications themselves via the website or have datasets annotated and published in a partially automated manner. An extension to a current contract has the same end date as the original contract.

This service is available per 10 TB and can be purchased per 5 years.

| Rate per 10 TB, per 5 years EU | R 1,412 |
|--------------------------------|---------|
|--------------------------------|---------|



#### laaS

#### **SURFcumulus**

If you want to make lawful and secure use of cloud services provided by top suppliers, you should make use of SURFcumulus. SURF has already done the tendering, continuously checks the quality, security and legislation and supports your institution in choosing and using the cloud services. You use the services on a 'pay-as-you-go' basis, and you brush up your knowledge with various courses and training programmes.

#### **SURFcumulus and SURFcumulus Professional Services**

You pay the costs charged by the provider for the virtual machines used. In addition to these charges, you will pay a service contribution to SURF to cover administrative and support costs. The maximum amount of the service contribution is EUR 100,000 per institution per year.

| Service component                 | Service contribution on the consumption costs |
|-----------------------------------|---|
| SURFcumulus                       | 5%  |
| SURFcumulus Professional Services | 5%  |

#### **SURFcumulus Application Delivery**

Give your students and staff access to applications anytime, anywhere, while they are using their own devices. SURFcumulus Application Delivery helps to make education more flexible and at the same time takes the burden off your IT department. This part of SURFcumulus is tailor-made. Rates are on request.

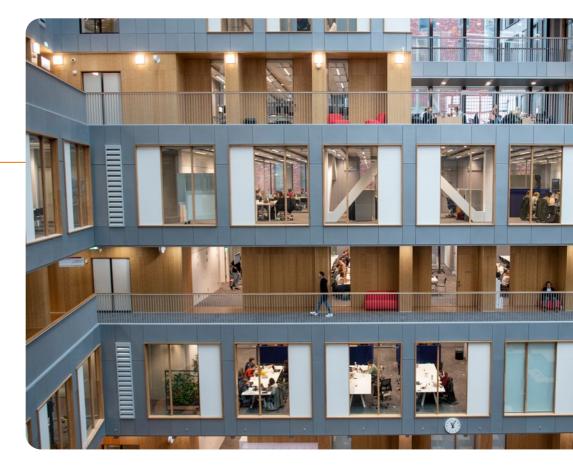
www.surf.nl/en/surfcumulus

#### **HPC Cloud**

HPC Cloud is the SURF compute infrastructure, which is available through SURF Research Cloud. The computing infrastructure can range from a few VMs to an entire cluster and is expandable as needed. There is a choice of operating systems and analysis software. HPC Cloud is housed in a SURF data centre.

You can purchase this service through an RCCS contract. Credit bundles can be purchased in advance and are valid for twelve months.

www.surf.nl/en/hpc-cloud





#### **Digital platforms**

#### edusources

edusources is the platform for digital (open) educational resources for Dutch education. With edusources, instructors, librarians and students have access in one place to a diverse range of digital educational resources. Educational resources are stored and made available within SURF's safe and reliable platform.

The use of edusources requires a repository. If you use our own repository service SURFsharekit for that, you pay a combined charge for edusources and SURFsharekit.

#### **Collaboration license**

| Service                   | Rate per month |
|---------------------------|----------------|
| edusources                | EUR 527        |
| edusources + SURFsharekit | EUR 621        |

#### **Campus license**

| Number of students | Rate per month |                              |
|--------------------|----------------|------------------------------|
|                    | edusources     | edusources +<br>SURFsharekit |
| 0-1,000            | EUR 527        | EUR 621                      |
| 1,001-5,000        | EUR 686        | EUR 878                      |
| 5,001-15,000       | EUR 972        | EUR 1,450                    |
| 15,001-100,000     | EUR 1,087      | EUR 1,754                    |

www.surf.nl/en/edusources

#### **HBO Kennisbank**

HBO Kennisbank ('HBO Knowledge Bank') contains more than 60,000 publications by professors, teacher-researchers and students at universities of applied sciences. They can be reused to improve one's own research or education. Users can also upload their own work in order to inspire others.

The fee is based on the number of employees (FTE) plus students (part-time students count as 0.5 FTE). The fee per employee/student is EUR 0.53 per year, with a minimum of EUR 1,173 and a maximum of EUR 14,090 per year.

www.surf.nl/en/hbo-kennisbank

#### **Credit via SURFspot**

As an institution, you can make SURFspot credit available to a group of staff and/ or students. Users order on SURFspot.nl with the credit that is linked to their account. SURFspot arranges the delivery and, as an institution, you will receive one invoice for all employees and/or students.

Rates are available on request.

www.surfspot.nl/tegoed





#### Kies Op Maat

Students want tailor-made solutions when it comes to their studies, and studying outside their own institution makes this possible. Kies Op Maat ('Tailor-made Choice') offers a wide range of education from 29 universities of applied sciences and four universities. Students can easily register for a minor or course at another education institution.

| Number of students | Rate per month |
|--------------------|----------------|
| 0-1,000            | EUR 42         |
| 1,001-1,500        | EUR 85         |
| 1,501-2,000        | EUR 127        |
| 2,001-2,500        | EUR 169        |
| 2,501-3,000        | EUR 212        |
| 3,001-3,500        | EUR 255        |
| 3,501-4,000        | EUR 297        |
| 4,001-4,500        | EUR 340        |
| 4,501-5,000        | EUR 382        |
| > 5,000            | EUR 424        |

www.surf.nl/en/kies-op-maat



#### **SURF Research Cloud**

SURF Research Cloud is a portal in which users can easily build a virtual research or education environment. They can use preconfigured workspaces and datasets or add these themselves. Institutions, research communities, and suppliers can contribute to the functionality and catalogue of SURF Research Cloud by integrating their compute and data services.

#### **SURF Research Cloud service**

This service can be used free of charge in combination with an RCCS contract for SURF HPC Cloud or for a public cloud provider.

#### **SURF Research Cloud Development & Support Service**

This service enables institutions to view SURF Research Cloud as part of their own research or education infrastructure. This service offers joint further development of SURF Research Cloud based on the institutions' requirements, integration with the institutions' helpdesk and training courses.

| Sector                                    | Subscription per year                                 |
|---|---|
| WO, UMC, research institutions, libraries | EUR 37,379  |
| НВО                                       | EUR 24,853  |
| МВО                                       | The first year is free - this is an exploratory year. |

www.surf.nl/en/surf-research-cloud

#### **Publinova**

Publinova is *the* national platform that makes practice-based research findable and accessible to everyone, and where researchers and professors can share their expertise with colleagues from other universities of applied sciences and professionals from the field. Visitors to the platform will find information on research results, projects, parties involved and researchers.

The fee is EUR 1.93 per student per year, with a minimum of EUR 2,200 and a maximum of EUR 44,000 per year.

www.surf.nl/en/publinova



#### Expertise, advice and training

#### **SURF Consultancy**

Researchers and IT managers can draw on our wealth of experience in IT solutions for research and IT infrastructure. We help you develop or improve your research application, data visualisation, machine learning projects or with the optimal set-up of your data or network infrastructure.

Rate per hour EUR 130

#### Training courses for research

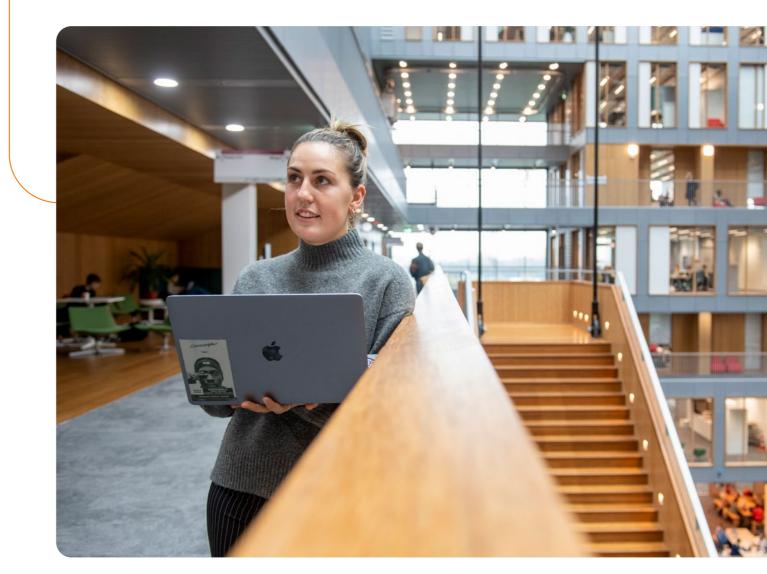
SURF regularly organises hands-on system training courses for researchers and research support staff: online, at our offices in Utrecht and Amsterdam or at your educational or research institution. You can also include the training courses in the curriculum of your institution.

The full list of training courses can be found at:

www.surf.nl/en/training-courses-for-research

| Length     | 1-12<br>participants | 13-24<br>participants | 25-37<br>participants | 38-50<br>participants |
|------------|----------------------|-----------------------|-----------------------|-----------------------|
| 2 hours    | EUR 350              | EUR 584               | EUR 817               | EUR 1,051             |
| half a day | EUR 701              | EUR 1,167             | EUR 1,634             | EUR 2,101             |
| 1 day      | EUR 1,285            | EUR 2,218             | EUR 3,151             | EUR 4,085             |
| 2 days     | EUR 2,335            | EUR 4,202             | EUR 6,071             | EUR 7,937             |

Customised training courses are available on request.





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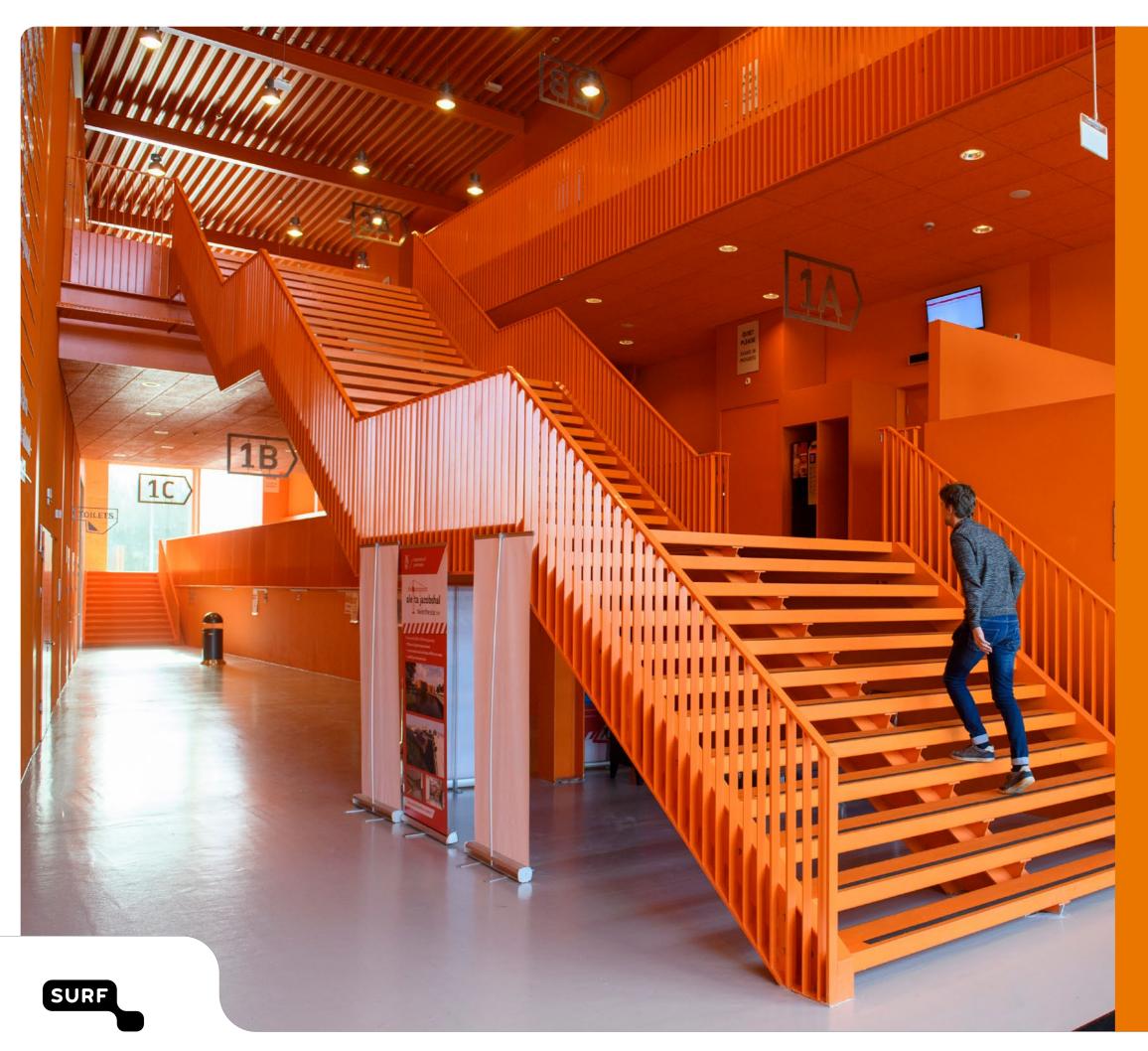
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SURF



### SURF Cooperative Driving innovation together

SURF is the cooperative association in which Dutch research universities, universities of applied sciences, vocational schools, university medical centres, and research institutions work together to provide the best IT for education and research. We develop and provide reliable, state-of-the-art IT services, or purchase them centrally on favourable conditions. We collaborate on new, innovative applications of IT in education and research. And we come together to exchange knowledge, ideas and expertise. This keeps Dutch education and research at the top of the world.

#### SURF Utrecht

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#### **SURF Amsterdam**

Science Park 140 1098 XG Amsterdam +31 88 787 30 00

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