We **safeguard** your irreplaceable information
Information for the future

Piql aims to be the gold standard of secure, long-term data storage and digital preservation. Our services cover a broad spectrum from planning and structuring your archive, through to digitisation of analogue content and offline plus online digital storage with unique longevity.

We can help with

DIGITAL PRESERVATION | ARCHIVAL | SECURE DATA STORAGE

with the expertise of our global team, we support and advice each client and tailor our solution to fit their exact needs.
As the world becomes digital, the world's data is in danger of being lost. Although our ability to store bits is increasing, our ability to store information over time decreases.

*IBM Research, Haifa Laboratory*

**CHALLENGES OF KEEPING INFORMATION ALIVE**

The first need of any archive, analogue or digital, is a clear structure and content overview. Information has no value if you cannot find and access it.

Although the world is a digital place now, we still have vast amounts of valuable information in analogue formats. Digitisation of documents, photos, and multimedia is time consuming and requires a high level of expertise that most organisations do not have in-house.

Long-term data storage, also known as digital preservation, is about ensuring future access to digital material, whether it is documents, images, sound, films or entire databases. The challenge is that most storage mediums have a limited lifetime, as hardware, software and file formats tend to become technically outdated after a short period of time. The best practice to work around this challenge has been to transfer the digital material to new storage mediums every 3-6 years, also known as data migration. During this process one also has to update the file formats to the latest version. Considering the constant increase of digital information, this is understandably an enormous task for any organisation. In fact, International Data Corporation (IDC) reports that data migrations represent 60% of all large enterprise IT projects.

Apart from the vast resources needed to perform these data migrations, there is also a high risk that data is lost or corrupted during the transfer from one storage medium to the other. Software failures, storage failure, lack of back-up and human error are amongst the top reasons for losing data during migration.
ORGANISING AN ARCHIVE

By implementing the best practice approach to your archive’s organisation and functionality, you can extract far greater value from your information and records. An optimised catalogue will improve searchability and ease of use, and can provide an opportunity for future monetisation of your content.

LONG-TERM FOCUS

At Piql we define long-term data storage to be the storage of any information for 10 years or more.

The big vendors in today’s data storage market focus the benefits of their products towards the short-term storage needs. It is a constant race towards faster, smaller and cheaper products and services. When focusing on storing information for the long-term, we see that security, data integrity and authenticity as well as future access are far more important.

HOW ARE WE DIFFERENT?

Our solution for long-term data storage guarantees future access and eliminates the need for data migrations. We offer:

- a storage medium with a proven lifetime of centuries
- technology and vendor independent access and retrieval of stored information
- significant cost-savings
- conversion of all files to open-source file formats recommended to ensure future readability
- secure storage medium, eliminating risk of data manipulation or loss
- storage of both digital and analogue information together on the same storage medium
- the information is stored offline.

“...We wanted a solution that once the data is stored, it is not possible to alter, add or remove any data. That it maintains the data integrity.

Jahn Fredrik Sjøvik, Head of Technology at the Norwegian National Museum of Art, Architecture and Design

A close up of the piqlFilm, showing both analogue and digital information side by side. The digital frames appears as very high resolution QR codes.
REPURPOSING A KNOWN MEDIUM

Photosensitive material has been used to carry visual information for more than 170 years, and is together with stone, papyrus and paper, the longest living information carrier. Our innovative storage medium, the piqFLlm, has the same long-lasting qualities but in addition it can store digital information.

All digital storage writes binary data, i.e. 0’s and 1’s, to a physical medium. Even cloud providers write the data in a string of 0’s and 1’s to a physical medium located at a data center somewhere in the world. We use the same principle, and write data as 0’s and 1’s to a the piqFLlm, and they appear on the film as very high resolution QR codes.

Our unique solution offers you greater data security, longevity and peace of mind, while reducing the risk of data loss and overall cost significantly.

LIGHT IN THE DIGITAL DARK AGE

Vint Cerf, VP of Google and known as one of the fathers of the internet, once described a perfect solution for today’s digital information to live into the future: “The solution is to take a snapshot of the content, the software and the operating system together with a description of the machine it runs on and preserve it all for a long period of time. And that digital snapshot will recreate the past in the future”.

This describes what we do at Piql. Information on piqFLlm is not only safeguarded for today, tomorrow or twenty years from now, it will be accessible no matter how much time passes.

We are digital preservation and long-term data storage experts. We can help you manage, enhance, digitise, monetise and preserve your data. Our purpose-built technology allows you to store and ignore, for any length of time, with guaranteed future accessibility.

“Perhaps the most significant strength is that the piqFLlm is an offline medium. And with 500-year longevity, meaning no need for migration, it sets Piql Services apart from any other physical storage medium for digital information.”

GIVING YOU CONTROL

Once information has been digitised and prepared for secure, long-term storage, the workflow for using Piql resembles that of using the cloud. From your own computer you can upload files, keep catalogues of your content, choose online and/or offline storage of the content and request for offline data to be read back from the piqlFilm via our online platform; piqlConnect.

The offline option writes the information to piqlFilm. This means you can rest assured that your data is accessible and readable at any point in the future with no need for maintenance.

Our offline technology:
1: is impossible to hack or change therefore extremely secure, and
2: requires no electricity to be kept alive which makes it the greenest data storage technology around.

“" It is an amazing feeling to know that my nation’s memory will be kept safe for future generations

Eric Cardoso
CTO – National Archives of Mexico
Secure, long-term data storage from A to Z

Every organisation has different needs when it comes to archiving, monetising and ensuring future access to their own information.

At Piql we can help - no matter how big or small your project is.
We support the planning and cataloguing of both analogue and digital archives. With standardised and customised pre-ingest available, we enable our clients to prepare their information for long-term storage locally.

**ARCHIVAL PLANNING**
We support the planning and cataloguing of both analogue and digital archives. With standardised and customised pre-ingest available, we enable our clients to prepare their information for long-term storage locally.

**DATA STORAGE**
Our clients can choose to store their information online, offline or both combined, and have full overview and access to their data from their desks. The offline option securely stores their data using our Open Archival Information System (ISO - 14721:2003) solution following the store-and-ignore principle. The data will stay accessible and authentic for as long as needed.

**INSIGHTS**
We are passionate experts in the long-term data storage domain, and believe in sharing our competence to enhance your archival projects. We equip you and help you develop the ideal strategy for your organisation.

**SUPPORT & INTEGRATION**
We project manage and offer premium support and advice for all our clients for as long as needed. We can integrate with any data management system, or tailor our own to fit.

**DIGITISATION**
We perform high-quality scanning to digitise paper, motion picture film, microfilm, tape, sound, images, x-rays and can also handle large scale documents such as maps. Optical Character Recognition (OCR) is applied to make the content searchable once digitised.

**ACCESS**
Information stored on piqFilm can physically be stored with us at Piq or with the client, and can be accessed by requesting retrieval through the Piq online platform. For information also stored online, a client will have instant access through the same platform.
THE ULTIMATE DATA VAULT

As part of offering the ultimate security for the world’s most valuable data, Piql has an offline data vault on the arctic island of Svalbard, where the physical reels of piqlFilm can be deposited. Deep inside arctic mountains with permafrost and ideal climatic conditions on the Svalbard archipelago, is the safest place on the planet for a “digital embassy”. The data is kept offline and access is provided on demand when needed.

This service is a collaboration between Piql and Store Norske Spitsbergen Kulkompani, a state owned Norwegian mining company based on Svalbard. While Piql preserves valuable digital data for eternity on piqlFilm, Store Norske runs the daily operation of the mine where Arctic World Archive® is located. The result of this collaboration is preservation of information in the most geopolitical stable location in the world.

The Arctic World Archive® caters for any country, authority, organization or company that holds valuable or irreplaceable information that needs secure storage with guaranteed access in the future.

The Archive holds world treasures including deposits from the National Archives of Brazil and Mexico, the National Museum of Norway, the Vatican Library and the European Space Agency.
Since the company was started in 2002, we have creatively challenged industry standards to come up with new and improved solutions. Our first product, Cinevator®, printed digital movies to analogue film 100 times faster than competitors, and has been used by film studios such as Warner Brothers, Walt Disney and Universal Studios.

Through “The Digital Dilemma” by the Academy of Motion Pictures Arts and Sciences (2007), we learnt that Hollywood risked losing digital productions due to lack of long-term storage technologies. As experts in the field, we knew film has unique longevity and security properties. We saw the potential benefits – for many industries – if we managed to convert analogue film into a digital storage medium. The concept “data-on-film” was born.
FROM NORWAY TO THE WORLD

Head-quartered in Drammen (Norway), Piql Services are offered worldwide through an extensive network of trusted partners. We can provide services in most parts of the world, and our focus is always on finding solutions that suit the unique needs of each client.

STRONG SUPPORT

We have worked closely with leading technology partners, research institutions and preservation experts through several projects funded by EU’s Horizon2020 SME program, Eurostars Eureka, the Norwegian Research Council, Innovation Norway and the Oslofjord Research Fund.
We deliver Piql Services worldwide through our network of Piql Partners. Partners that are all passionate about finding the best data storage solution for our clients.

We already have a strong global presence. Our ambition is to continue to extend our presence to cover 25 countries around the world by 2020.

We tailor our services to meet the needs of our clients and have a wide client base. Our clients come from banking, justice, government, audio visual, archival and memory institutions along with manufacturing giants and many other industries.

Some of our most notable clients include:
- The Vatican Library
- Tata Consultancy Services
- The Norwegian National Museum of Art, Architecture and Design
- The National Archives of Mexico and Brazil
- Diputacio de Barcelona
- Norwegian Health Archive
- Siemens Historical Institute

With an ever increasing global client base, our technology is becoming known as a breakthrough solution for long-term storage. Enquire with us today about how we can support you with your archive. See contact information on the back.
MIGRATION-FREE
By storing your digital data in archival file formats on our unique piqFilm, repetitive migrations are no longer needed. You avoid the risk of migration-related corruption and data loss, you’ll save time and get a more predictable long-term cost.

FUTURE-PROOF
We make data retrieval independent of access to specific technologies or vendors. For disaster recovery, all you need is a light source and any type of digital camera and computer. Readable text explains how to reproduce your files.

UNALTERABLE
Your data is preserved securely on a true WORM (Write Once, Read Many) medium, making it impossible to manipulate or delete your valuable data.

SEARCHABLE
Operated within a standard IT environment, your data is fully searchable. You’ll find what you need, whenever you need it.