DataSafe™ Solutions
Protect your valuable genomic data

Thermo Fisher
SCIENTIFIC
The world leader in serving science

Central and secure storage of next-generation sequencing (NGS) data is critical to the success of your organization. The ability to store and protect the data generated from your NGS sequencers contributes to streamlined data management and offers safeguards against disasters. We partner with you to provide a scalable data storage and backup solution.

Common concerns of NGS users:

- What happens if my current storage system crashes?

- Can I recover data if something is accidentally erased?

- Do I have a second copy of all my NGS data on-site, to access in case of system failure, theft, or damage?

These concerns can be mitigated with the right technologies and strategies in place. Whether you are solving critical research problems or handling valuable samples with your NGS application, we can help you treat your data with the utmost integrity.

DataSafe™ Solutions—protect your valuable data

Ideal for midsize and growing labs, DataSafe™ Solutions offer flexibility, protection, and rapid retrieval of genomics and life science data.

Turnkey
- Fully rely on our NGS and IT professionals for a personalized solution built for your lab
- Includes design, integration, software, hardware, and support

Scalability
- Private storage space for all of your instrument data
- Compatible with NGS, mass spectrometry, and imaging data
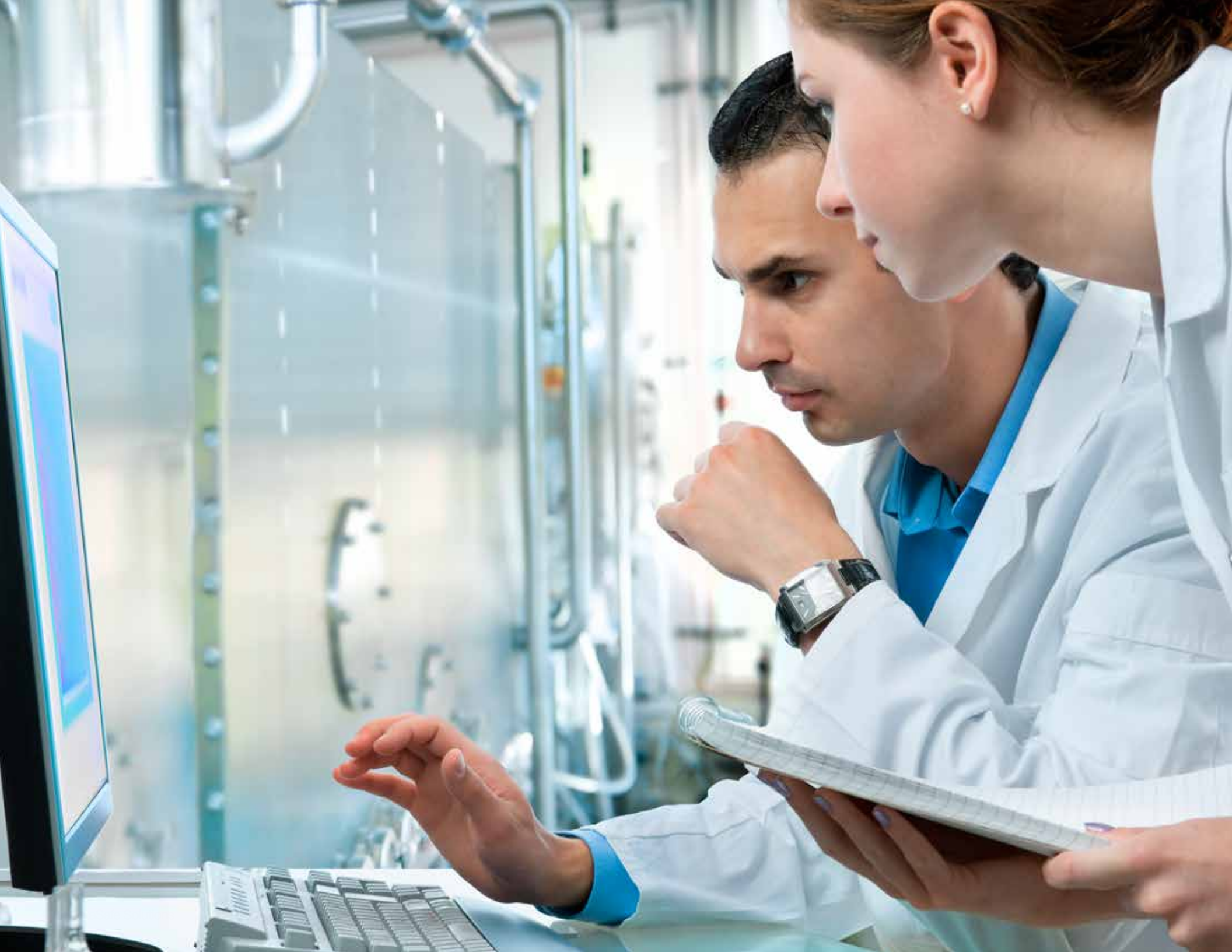- Scales as you grow: add instruments and add storage

Protection
- Be 100% in control of your data with a physical, on-site device
- Control access to your sample information
- Automatically back up and mirror your data

Speed
- Up to 100x faster transfers than off-site or cloud storage
- Make your instrument run like new by cleaning up primary storage

Integrated solution with ongoing support

DataSafe™ Solutions combine IT consultation, hardware, NGS system integration, and support by IT and NGS professionals.

Consultation ▸ **Hardware** ▸ **Integration** ▸ **Ongoing support**

Consultation

Based on best practices from genomics, and IT industries, our IT consultant works with you to understand the data and budgetary needs of your institution. We partner with you or your local IT team to build a strategy to help ensure your data can be recovered should a mechanical or operational error occur—this results in a customized storage solution for your critical NGS data. The consultation involves gathering requirements that include:

- Data retention time—how long do you need to keep data?
- Data replication needs—should multiple copies of your data be made?
- Recovery-point objectives—how often do you want to back up your data (hourly, daily, monthly)?
- Granularity—which data files are backed up at each interval?
- Recovery-time objectives—how much time can you dedicate to recover lost data?
- Data archives—what data do you want to keep long term but not access daily?
- Volume management—what is the best way to use disk space to balance efficiency, reliability, and budget?
- Disaster recovery—what is the plan if a disk fails?
- Operational recovery—what is the plan if something gets deleted accidentally?

Hardware

Next, we design a system tailored for you. The enterprise-quality hardware is optimized around your organization's goals and can scale to grow with you as you add instrumentation to your laboratory. Our scale-out network attached storage (NAS) systems start between 20 and 100 TB and scale to 500 TB and beyond.

Integration

Your data storage solution is integrated and installed seamlessly with your NGS instruments. Your data remains on site and private, available to share only with users you specify.

Support

Every DataSafe™ Solution includes multiyear, on-site hardware and software support. Additionally, your solution includes one year of direct access to specialized IT consultants for support with integration, network connection, and data management.

Allowing you to focus on genomics, not your data storage

Why are we best equipped to provide this service?

- We understand the NGS data needs of core, service, and research labs, and are prepared to provide knowledgeable guidance for your storage strategy

- Our experienced IT consultants are proficient in NGS, the Linux® operating system, and high-performance computing, and are well versed in genomics data storage needs

Global professional services team

With over 155 years of combined NGS experience and over 45 bioinformatics scientists, your professional services team is highly equipped to help with complete end-to-end NGS projects, including software consulting, compliance services, data analysis and interpretation, and application training.
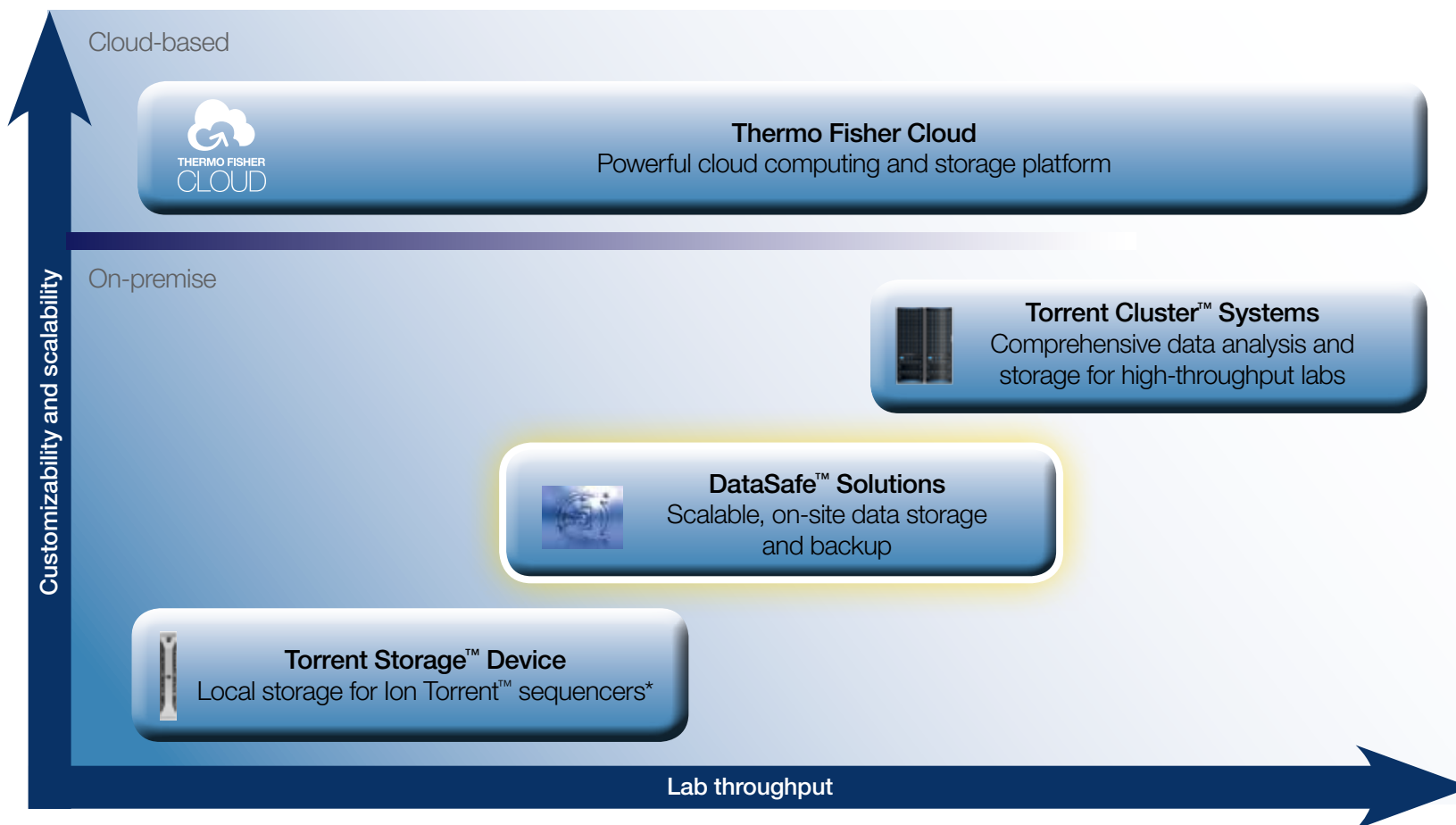
Fast facts

- 90% of the world's data has been generated in the last 2 years[1]

- In one year of operation, a hospital sequencing 1,000 exome samples may need to add as much as 50 TB of additional storage

- In a recent study, 50% of NGS users identified a need for long-term data storage solutions; this includes labs performing translational and clinical research[2]

- Only 30% of NGS labs reported having central data storage and backup provided by their organization[3]

- Data storage has been identified as a top logistical challenge and operational bottleneck that can delay adaptation of NGS into the laboratory[4]

1. Baseline Magazine: http://www.baselinemag.com/analyt-ics-big-data/slideshows/surprising-statistics-about-big-data.html
2. BCC Research Market Forecasting, Bioinformatics: Technologies and Global Markets, April 2013.
3. Percepta market research report 2014.
4. DeciBio report, Next-Generation Sequencing: Market Size, Segmentation, Growth and Trends by Provider, March 2013, 2nd Edition.w

DataSafe™ Solutions are ideal for midsize and growing NGS laboratories that are looking for a centralized on-premise data repository and backup system. We also offer a range of other data storage options and backup solutions.

Cloud-based

Thermo Fisher Cloud
Powerful cloud computing and storage platform

On-premise

Torrent Cluster™ Systems
Comprehensive data analysis and storage for high-throughput labs

DataSafe™ Solutions
Scalable, on-site data storage and backup

Torrent Storage™ Device
Local storage for Ion Torrent™ sequencers*

Customizability and scalability →

Lab throughput →

To request a consultation, learn more about DataSafe™ Solutions, or talk about financing options, please email us at:

North America and Latin America: **ngs-amsupport@thermofisher.com**
Europe, Middle East, and Africa: **ngs-eusupport@thermofisher.com**
Greater China: **ngs-gcsupport@thermofisher.com**

Australia, Taiwan, New Zealand, Singapore, South East Asia, Korea, and India: **profserv@thermofisher.com**
Japan: **jptech@thermofisher.com**

Find out more at **lifetechnologies.com/datasafe**

Thermo Fisher
S C I E N T I F I C
The world leader in serving science