



3DEXPERIENCE[®]

Customer Stories

1-2017

Discovery Collaboration at Sanofi

Challenges

Difficulty managing research Substance Activity Relationship data in a secure cost effective multi-collaborative environment

Vision

Deployment of a secure affordable Enterprise Collaboration Platform

Solution

BIOVIA ScienceCloud and ScienceCloud Notebook with BIOVIA Pipeline Pilot

Value

- 85% time savings in collecting and sharing data
- Improved data quality through partner adherence to organizational business rules
- Improved decision making by maintaining a single place to review results
- Improved internal & external collaboration with IP protection
- Faster spin up and spin down of collaborations – from months to weeks or days
- 80% decrease of costs for externalized projects

Discovery/Early Development at Roche

Challenges

Challenging collaboration between internal and external groups due to different imaging modalities, formats, ontologies and processing methods and managing and archiving of the images and associated data due to siloed and disconnected data

Vision

Harmonized pre-clinical global image management system

Solution

Master Image Data Management Solution based on BIOVIA

Value

- Harmonized data formats, practices and procedures through common ontology and universal viewer
- More effective use of data
- Better collaboration
- More informed collaborative decision making



Research at Unilever

Challenges

Extremely inefficient manual process for scientists finding publicly available documents and filter out the critical data

Vision

A highly automated process delivering the right data efficiently

Solution

BIOVIA Pipeline Pilot serving scientists with critical data by automatically pushing search results

Value

- Time savings for the scientists finding critical data, score and email results
- Consistent and high level process of public data provision
- Better decision making through data completeness



Research Support at Eisai

Challenges

Disconnected support process data leading to research inefficiency and low data quality

Vision

Speed innovation and research productivity through automated process workflows

Solution

BIOVIA Pipeline Pilot for support processes

Benefits

- Improve automated request and ordering systems
 - Reduced turnaround time on orders by 80%
 - Reduced time to generate inventory summaries by 85%
- Reduced synthesis to screening time by 35%
- Faster process support, improved workflows and productivity



Biologics Simulations at Regeneron

Challenges

Screening for top antibody candidates for new projects was slow and expensive

Vision

Enable expert and non-expert modelers to quickly predict characteristics of antibody candidates and to select promising candidates faster

Solution

BIOVIA Discovery Studio to automate antibody structure determination and critical molecular property predictions with advanced MD and QM tools

Benefits

- Faster lead discovery and optimization
- Streamlined predictive model building for antibody properties
- Potential for integrated projects with BIOVIA Pipeline Pilot

Discovery & Development at Syngenta

Challenges

Complex IT environment and inefficiencies delaying new products getting to market

Vision

Collaborative Design through connected research & development and the creation of a scientific knowledge base

Solution

Common simplified IT environment for 600 scientists from synthetic chemistry, process chemistry, and formulations

Value

- Simplified technology transfer
- Increased lab efficiency
- Increased productivity
- Improved compliance
- Reduced cycle times



Quality Control at Perrigo

Challenges

Need to improve compliance, productivity, and control costs within a high volume dynamic material testing laboratory (12,500 product batches/year & 9,500 raw material batches/year)

Vision

An easy to enforce, consistent testing & documentation practice across multiple labs using industry standard technology components in IT approved architecture

Solution

Integrated electronic lab workflow with BIOVIA

Benefits

- 50% reduction in review time
- 50% reduction of Right-First-Time errors
- 96% of users said they prefer BIOVIA Solution and “My RFT efforts went to zero”
- Reduction of turn-around times of 2 days
- Reduction from 18 to 1 cases of paper used in one workcell per day



Janssen R&D at J&J

Challenges

Disconnect of method & process transfer between Development and QC resulting in limited searchability, sample tracking, data transcription, multiple reviews, and minimal transparency

Vision

A knowledge based organization with fully seamless workflows between development, manufacturing and commercialization

Solution

A "Recipe Data Warehouse" with an electronic laboratory environment (ELE) with ELN as main vehicle

Benefits

- Harmonized practices and procedures through common recipes and platforms
- Complete transparency – one single organization by eliminating data silos
- One global/cross-function development team

Digital Transformation at Lonza

Challenges

Decentralized and fragmented business units and difficult collaboration internally and externally (CMO's)

Vision

Design the future operational processes of Global Pharmaceutical R&D and bring Quality Control labs to the next level through Digital Transformation

Solution

BIOVIA Unified Lab Management for a connected lifecycle management enterprise

Value

- Higher Efficiency of Development Process and QC-Lab
- Harmonization and standardization of processes
- Improved collaboration also with outsourcing partners
- Enforced compliance
- Better knowledge management and retention

Discovery, Design and Testing at P&G

Challenges

Multiple disconnected systems, tedious documentation, inaccessible “dark” data, repetition of experiments

Vision

A single simplified global process with a unified lab experience in discovery, design and testing

Solution

Global implementation of BIOVIA Unified Lab Management including Insight and Modeling

Value

- 3x time reduction on scientists' documentation
- Remove 30-50% of physical testing, increase virtual testing
- Centralized knowledge with traceable and compliant data
- Improved collaboration and research
- Increased innovation productivity
- Accelerate visualization and insights
- Accelerate speed to market



Holistic Lab at Amgen

Challenges

Disparate workflows, and resource-intensive error-prone processes due to multiple incompatible systems

Vision

Advance PD science in a data-driven connected environment for better business decisions

Solution

Implementation of BIOVIA Unified Lab Management connected to a Data Lake

Value

- Single platform for simple data management and agility
- Integration of material and equipment data with automated data collection
- Cross-lab execution
- Improved compliance through validated data integrity
- Integrated and enriched data
- Streamlined data retrieval – more time using data for better decision making
- Improved productivity and reduced cycle times

R&D at Takeda Millennium

Challenges

Collaboration hindered and drug development slowed by disparate information management systems used by chemists and biologists

Vision

Improve business processes and establish new business models to succeed in a globally competitive environment

Solution

Implementation of BIOVIA Workbook for Chemists and Biologists

Benefits

- Time savings by leveraging previous work (50% of reactions are clones of previous reactions)
- Improved productivity through streamlined workflows
- Improved collaboration with chemists and biologists
- Drug candidates moving faster into pre-clinical/ clinical review
- Higher quality experimental records



End-to-End Biologics at Medimmune

Challenges

Allowing scientists to focus on science and real time decision making

Vision

Remain at the height of innovation through human-centric provisioning of data

Solution

BIOVIA Workbook deployed from early discovery over all R&D to clinical manufacturing, also on mobile devices

Benefits

- Aggregate, manage and find information quickly and easily from any stage of the R&D pipeline
- Support new (mobile) ways of working within the lab
- Support documentation of experiments
- Real-time tracking of projects and collaborations between various groups
- Optimize workflows and boost efficiencies throughout the pipeline



Development at Pfizer

Challenges

Capture data and context across diverse scientific domains including a highly compliant audit trail with an emphasis on quality

Vision

A hub for ongoing knowledge management initiatives at Pfizer to gain predictive control over key processes

Solution

BIOVIA ELN deployed for 1,000 users in analytical, process, and formulation development

Benefits

- Easy search and retrieval and secure data access
- Documentation efficiency
- Gain better process understanding and operational efficiencies
- Streamlined workflows and collaboration
- Reduced cycle times



GMP API Manufacturing at AstraZeneca

Challenges

Improve efficiency of validated workflows in GMP API manufacturing at AZ complying with strict regulatory mandates

Vision

Seamless transfer of process information through all stages of R&D to commercial manufacture

Solution

BIOVIA Workbook

Benefits

- Elimination of paper-based workflows for GMP API manufacturing
- Greater than 50% time savings on documentation – fewer documents produced, quality improved
- Refined processes improved overall quality assurance and compliance



Analytical & Bioanalytical Development at BMS

Challenges

Time consuming creation of reports, data transcription and review, maintaining multiple systems, no data mining

Vision

A strategy driven, process centric, globally optimized Information Management strategy

Solution

BIOVIA's Integrated electronic lab workflow from Method Development to Method Execution

Benefits

- Global availability of data, re-use rather than reinvention
- Improved process understanding
- Increased compliance and quality with improved data integrity
- Increased productivity by 20% for Method Execution
- Overall cycle time reduction

Unified QC Labs at Gilead

Challenges

Paper-based workflows with manual LIMS data entry, with inefficient and inconsistent search and tracking capabilities

Vision

An integrated informatics landscape, where systems can communicate together and with the existing LIMS for improved automation and compliance

Solution

Integration of BIOVIA Workbook, BIOVIA LES and BIOVIA Inventory into existing IT landscape

Value

- Streamlined user workflows for experimental procedures
- Data integrity through direct data communication between the systems
- Great user experience with the ELN as single point of interaction
- Improved compliance through validated data integrity
- Improved lab efficiency through integration and automation

Quality Control at Eli Lilly

Challenges

Inaccurate, manual, paper-based workflows created increased risk of errors, and time to document, review, approve and investigate data

Vision

“e-Manufacturing” End-State: a seamless and paperless solution allowing for flawless execution and high data availability

Solution

BIOVIA LES, Inventory Management for secure and efficient capture of all data

Benefits

- Manual data entry into LIMS eliminated
- Proceduralization eliminates many common laboratory deviations
- Elimination of paper ensures critical records available when needed
- 40-60% reduction in review time

Operations at AstraZeneca

Challenges

Leveraging the massive quantities of data generated

Vision

Do more, faster with less - while keeping excellent quality and compliance

Solution

Integrated system for harmonizing data across Discovery, Development and Operations including BIOVIA LES and BIOVIA Discoverant

Benefits

- Increased efficiency
- Reduced operating expenses
- Reduced errors
- Maintained high quality



Environmental Monitoring at Rommelag

Challenges

Tedious data management and audit preparation;
the need for further expansion and scaling

Vision

A fully paperless Environmental Monitoring workflow that
supports the Paperless Lab initiative and fits with laboratory IT future state

Solution

BIOVIA EM with the possibility to expand to LES

Benefits

- Scalable for expansion
- Trending capabilities
- Facilitates company wide harmonization
- Improved productivity (reduced reviews, reduced deviations, improved scheduling)



Innovation at Dow

Challenges

Dark data, scientific inefficiency and collaboration barriers

Vision

Innovate by enabling world leading scientists with collaborative science to increase market share thru patent coverage

Solution

Global deployment of BIOVIA Notebook to 3.000 scientists

Value

- Find relevant work rather than repeat it
- Simplify patent writing and information gathering
- Capture all experimental knowledge
- Increase scientist efficiency
- Collaboration across disciplines
- \$24 M / year savings



R&D Collaboration at Unilever

Challenges

Unnecessary repetition of 30 – 40% of work

Vision

Paperless science to foster collaboration

Solution

BIOVIA based digital backbone for the lab supporting the work process of 4000 scientists globally

Value

- Find relevant work rather than repeat it
- Data availability for “*In-silico* First”
- Collaboration across business units
- Lab productivity & efficiency savings of \$30 M / year



Innovation at Ch. Hansen

Challenges

Short product lifecycles requiring continuous, rapid innovation;
capturing and sharing intellectual property (IP) efficiently;
collaborating effectively across global sites

Vision

Sparking innovation through seamless knowledge sharing

Solution

BIOVIA Notebook

Benefits

- Improved research efficiency with standard protocols and streamlined reporting improving focus on science
- Global scientific knowledge sharing and IP awareness
- Rapid global rollout/deployment and training in less than 1 year



R&D at Kraft Heinz

Challenges

Paper processes that don't allow sharing the large amount of data on product concepts between industry technology centers

Vision

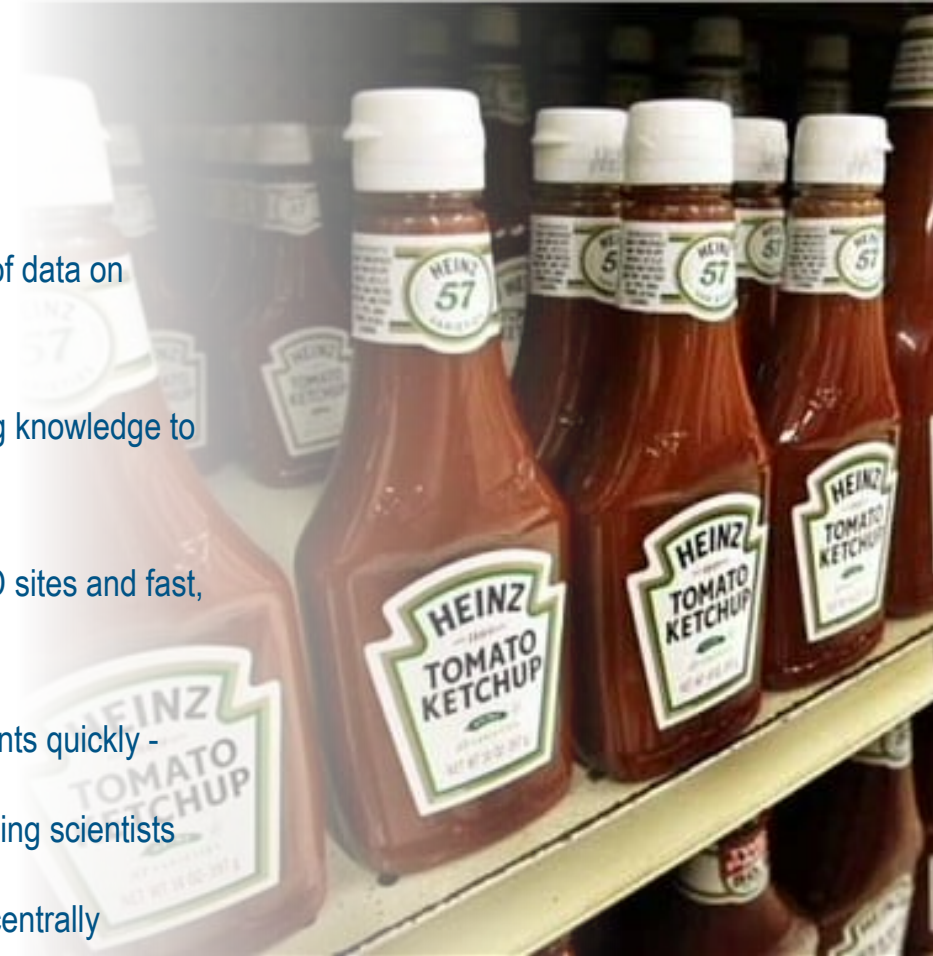
Modernizing research documentation and effectively sharing knowledge to drive product innovation

Solution

Rapid deployment of BIOVIA Notebook across multiple R&D sites and fast, broad adoption by thousands of users in different functions

Benefits

- Improved overall knowledge of IP by searching experiments quickly - including scanned legacy paper notebooks
- Monitor work progress of research groups without disrupting scientists
- Faster report creation
- Safeguard patents and IP protection storing information centrally



Global R&D at Chevron

Challenges

Inability to effectively track materials used for research across global R&D sites after merger with Phillips resulting in regulatory and management risks

Vision

End-to-end accountability of research materials

Solution

Implementation of BIOVIA CISPro across global R&D

Value

- Improved materials reporting and reconciliations
- Multi-site integration
- Reduction of regulatory compliance issues
- Ability to meet risk management objectives



R&D at Essilor

Challenges

Lack of overview of location and expiration date of chemicals inventory leading to unnecessary costs and regulatory scrutiny

Vision

One system to monitor chemical quantities, shelf life, ownership and hazard information

Solution

BIOVIA CISPro

Value

- Reduced number of chemical containers on site by half
- Reduced inventory material cost by 33%
- Increased reconciliation accuracy by 27.5%
- Reduced number of lab packs being shipped
- Reduced chemical disposal costs



Surface Chemistry at Akzo Nobel

Challenges

Address critical workflow efficiency, risk management and cost control issues

Vision

Accurate hazardous materials reporting in a complex lab environment

Solution

BIOVIA CISPro deployed in the cloud and usage of barcode scanners

Value

- Overview over hazardous material (amount, location, “owner”)
- Quick, accurate chemical inventory status and reporting
- Direct access of Safety Data Sheets (SDS)
- Lower costs through reduced purchases of unnecessary chemicals, fewer chemicals in waste stream and reduced chemical disposal costs
- Faster experimentation, improved productivity



Petrochemical Lab at LyondellBasell

Challenges

Meet the demands of evolving regulatory requirements or laboratory productivity needs

Vision

Implement a single upgradable system for long-term sustainability

Solution

BIOVIA CISPro as a single interface for chemical inventory management

Value

- Streamlined chemical management processes
- Accurate understanding of the location and quantity of all chemicals on site
- No more time wasted looking for nonexistent or misplaced materials
- Provided real-time information

Biologics Production at Merck

Challenges

Time consuming gathering of data, data inaccuracy and slow and inefficient Tech Transfer from R&D to Manufacturing

Vision

Reduce new process start-up times and improve manufacturing productivity

Solution

BIOVIA Discoverant for comprehensive data capture supporting tech transfers, troubleshooting and compliance

Benefits

- Easy Technology Transfer
- Identification of critical and key process parameters for 'Quality by Design' projects
- Faster process investigations (data analysis time from 4 weeks to a few hours)
- Traceability of raw materials and process intermediates (3 days to 5 minutes to identify batches originating from defective raw material)
- 10-15% improvement in manufacturing productivity



Global Manufacturing at BMS

Challenges

Monitor, understand and reduce sources of process and product variability

Vision

Implement a Process Robustness initiative across global manufacturing network for manufacturing sites with no investigations and no recalls

Solution

Global implementation of BIOVIA Discoverant for process monitoring, understanding and verification

Value

- Faster data aggregation
- Easier technology transfer
- 16% time savings for batch processing
- Reduced Cycle times
- Reduced costs - improved bottom line by e.g. \$20M in a single plant
- 65% reduction in “Quality Events”
- 30% faster investigations

Global Manufacturing at Eli Lilly

Challenges

Time consuming regulatory reporting and incident resolution, difficulty to access data, understand genealogy and causes for variability

Vision

Understand and improve global manufacturing while addressing regulatory needs

Solution

BIOVIA Discoverant as a GMP ready solution for integration and analysis that leverages existing IT systems

Value

- 90% reduction in time taken to generate APR's
- Reduction of variability
- Traceability of raws to intermediates to final product
- Linking downstream process output(s) to upstream process conditions
- Incident resolution – from weeks to hours

Life Science R&D at Vertex

Challenges

Complex technology landscape, inefficient document management and regulatory submissions processes, IP protection

Vision

Improve efficiency while remaining compliant to compete in a highly regulated market

Solution

BIOVIA QUMAS EDMS as an internal platform for communicating and collaborating on critical documents

Benefits

- Increased efficiency
- Reduced risk of IP loss and of regulatory action
- Improved ability to collaborate with partners for competitive advantage
- Reduced time of drugs to market

Contract Manufacturing at Alvogen

Challenges

Disconnected business units with slow manual processes

Vision

Support growing business with an integrated compliant solution for Quality

Solution

Global implementation of integrated BIOVIA QUMAS EDMS and EQMS

Benefits

- 40% time improvement for FTF, FTM and CMC approval
- 30% cycle time reduction for documentation
- Compliance with EU Annex 11 and FDA Part 11
- Easy document search and access, e.g., during audits
- Secure and efficient handling of separate CMO CAPA processes
- Cost avoidance by supporting growth without increase of staff
- Positive ROI within a few months
- Faster time to market



GMP Manufacturing at Biogen

Challenges

Inefficient and costly paper-based procedures;
providing operators with the effective version of the procedure

Vision

Improve the delivery of critical documentation to employees
working in a clean environment

Solution

BIOVIA QUMAS EDMS, used for the iPad

Benefits

- Saved time - over 1,575 hours per year
- Reduced labor costs by \$110,000 per year
- Eliminated materials costs of over \$3,300 per year
- Freed up counter space in manufacturing areas