# Project Case Study

## Strategic Planning for
## Waters Enterprise Empower 3 FR5 (CDS) deployment

### Situation

A multinational chemical company had concerns about operating system support of their older versions of Waters Empower™ CDS and took steps to upgrade to Empower 3. The client ran multiple Empower instances across eight specialty manufacturing sites and three chemical plants throughout the U.S., Europe, and China.

The client's management and laboratory informatics teams felt that internal resources did not have sufficient expertise to perform such complex work, and selected CSols to support the upgrade and consolidation efforts based on our Empower CDS expertise and specific experience with Empower 3 upgrades.

### Objectives and Challenges

The goal of this project was to achieve an up-to-date and globally harmonized CDS. CSols began by capturing the current state of the Empower CDS footprint, including version information, licenses, instrumentation models (supported and unsupported), workflows, electronic signature capabilities, reports, and custom fields.

The first challenge to arise was that in addition to the multiple sites with multiple instances to interview individually, the original implementations had been done as needed and usually on a one-off basis. This meant that cataloging existing versions and license statuses would be a complex and time-consuming task. Fortunately, that's where the expertise of a CSols CDS consultant makes a difference in the project. CSols's CDS experts have the deep and broad infrastructure and CDS expertise to perform this type of analysis—thoroughly and efficiently.

A second major challenge arose during the data gathering process. Although stakeholders were willing participants, few had the Empower expertise to fully answer the consultant's questions or provide the appropriate information. The CSols consultant leveraged many years of personal experience with complex networks and enterprise Empower installations to ask the right questions and guide the global IT organization to the highest value path forward.

CSols overcame these challenges to deliver a comprehensive document detailing the CDS and Empower footprint across four continents. With the current state established, the CSols consultant developed a strategic plan to install the new Waters Empower 3 FR5 CDS enterprise instances in the most viable, efficient, and high-value manner. CSols's expertise was crucial in creating the deployment plan for such a complex, multinational implementation.

### CSols's Role in the Solution

The execution of this project required general Empower and Empower upgrade expertise, in addition to understanding laboratory workflows and experience mapping possible deployment and upgrade paths with their associated risks and benefits.

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## PROJECT AT A GLANCE

**BUSINESS SECTOR:**

Chemical
R&D
Production

**INFORMATICS SYSTEM:**

Empower 3 FR5 CDS

**SERVICE OFFERING:**

Strategic Planning

**ELEMENTS:**

11 Global Sites
13 Labs
2.5 Months
1 CSols Business Analyst

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**A senior CSols Business Analyst *completed* the following key tasks:**

- Serve as the Empower CDS technical SME to determine the current state and possible future states of the upgrade.
- Assess current Empower CDS landscape at 11 sites leveraging a deep understanding of forward-compatibility with any future Empower 3 FR5 CDS install.
- Evaluate the latency between sites to determine if sites can share an instance of Empower 3 FR5 globally or if a regional implementation would better meet client requirements.

**A senior CSols Business Analyst *delivered* the following:**

- CDS hardware and applications inventory list for 11 sites, including:
  - » Instrument model, firmware details, and vendor information, including support status of affected instruments
  - » CSD version and license information, custom database fields for each instance, number of CDS users at each site and the related systems roles
  - » Workflows related to each instrument
  - » Electronic signature capabilties for each workstation
  - » All CDS reports and outputs for each site

- CDS strategic planning report containing:
  - » Summary of the site-by-site impact assessment
  - » Gap analysis between desired future state and current hardware and software configurations and recommend replacement where needed, including assessment of
    - · OS compatibility
    - · Hardware compatibility
    - · Practiceable instrumentation upgrades
  - » Best practices harmonization recommendations for enterprise-wide Empower 3 FR5 deployment
    - · Global custom calculation harmonization
    - · Global custom reporting harmonization
  - » Upgrade plan and recommendations, including possible paths forward for both applications and hardware
  - » Best practices system support recommendations
  - » Global implementation risk assessment and mitigation recommendations related to a multi-national Empower ™ installation
    - · Risks and mitigants related to firewalls in Asian countries
    - · Recommendations to minimize known networks latencies related to communicating between Asia and North America
    - · Identified potential risks related to LIMS and SAP interfaces with Empower™
    - · Recommended alternate paths for a global installation (i.e., regional installations) based on identified risks
  - » Data required for the project team to establish an aggressive ROI and obtain the requisite funding

# Project Case Study

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**Benefits**

- The challenges encountered during the project were easily remedied by leveraging the many years of experience with Empower systems and complex networks and infrastructures in order learn the information needed to consolidate all Empower instances and achieve enterprise-level goals for standardization and efficiency.

- The final report advised the client on the best path forward for potential upgrades to Empower 3 FR5, reducing the time spent on the project and, therefore, the overall costs.

- The client did not have to remove internal resources from their existing work or hire an internal CDS resource.

- The client was able to move forward with the upgrade, and not only benefit from fewer risks, but also a lower cost than either postponing the upgrades or using internal resources for the assessment and plan development.

- Without the detailed assessment and support of external resources, the client risked a steep learning curve, extra training hours, and a higher overall project cost.