Raychem

excellence is everything

TracerLynx 3D Design System Software

Fully Integrated & Automated Heat Management



chemelex

chemelex.com



Industrial Solutions

As the world's largest provider of complete electrical heat management systems, primarily for the general process, oil and gas, chemical, and power generation industries, Chemelex provides innovative products and turnkey solutions under the market-leading Raychem brand. Our premiere turnkey solutions include full life cycle support—ranging from front-end engineering and installation to maintenance and operation services. Our global experience and office presence in 48 countries uniquely position us to manage the heat needed for projects of any size and scope.

The Heart of Our Solutions

Heat Management Systems (HMS) require special care. Our Raychem Turnkey Solutions team is widely regarded as the premiere provider of industrial Heat Management Systems. With our full suite of services, from front-end engineering and installation to maintenance and operation services, we are capable of handling heat-tracing projects of any size and scope. By focusing on safety and utilizing time-tested methods and solutions, Chemelex' heat tracing designs and installations are timely, thorough, and cost effective. Our Raychem team uses an HMS software tool called Raychem TracerLynx.

Raychem TracerLynx HMS software interfaces with the client's 3D master plant model data leveraging the benefits of the 3D model environment throughout the front-end planning, detailed engineering, procurement, construction, start-up and operation phases.

TracerLynx is based on industry standard software including elements from INTERGRAPH's SmartPlant and Isogen solutions, Chemelex' TraceCalc Pro and Microsoft SQL-Server technology. The conception of this software utilizes proven software technology and provides a long-term sustainable platform supported by a permanent team of engineering and software specialists driving further enhancements and quality control.

TracerLynx HMS software is fully compatible with all 3D modeling programs through the use of industry standard data component files.

For complete, reliable Heat Management Systems, call the experts—Chemelex.



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TRACERLYNX 3D HEAT MANAGEMENT SYSTEM SOFTWARE BENEFITS

Simplify	Compress	Optimize	Maximize
Project Management	Design Schedules	Power Distribution	Project Profitability







TRACERLYNX SOFTWARE SOLUTIONS

Singular Platform

With TracerLynx, data can be automatically imported and stored along with the applicable calculation and project design details. TracerLynx is not simply a suite of programs; rather it is a singular, powerful program comprised of a master database providing a single source of truth for all data on a global scale. This allows us to reduce errors, quickly modify scope, identify downstream changes and minimize delays to the project's schedule.

Change Management

TracerLynx will quickly identify the impact of piping & process changes on existing EHT circuits, which minimizes the negative impacts to your design and construction schedule. Filtering all changes that impact EHT designs, while providing visual indicators of changes with colored markers to identify the level of change. TracerLynx also evaluates the impact on completed and WIP activities to facilitate early intervention to minimize the impacts of design changes.

Heat Mapping Technology

In the early FEED stage of a project, TracerLynx utilizes a proprietary heat loss algorithm to create Heat Load Densities in 3D, to strategically locate EHT Control Panels first, prior to initiating detailed design. This "heat mapping" is a key requirement to begin optimizing power distribution. TracerLynx can import all relevant information into a 3D environment including piping, cable tray, structural beams, buildings, vessels and more.

Power Distribution Savings

TracerLynx allows designers to choose the optimal location for power connections. In many cases, the average conduit length drops up to 25%, lowering the total installed cost. TracerLynx imports data normally plotted in 2D programs, including the project's structural information, into a state-of-the-art 3D platform to eliminate the design guess-work and deliver the visual design clarity that was previously unattainable. Imagine the savings in a large facility with hundreds to thousands of EHT circuits!

Advanced Work Packaging

TracerLynx supports Advanced Work Packaging (AWP) to aid in labor, equipment & material management throughout the entire project work cycle. TracerLynx allocates the work into manageable pieces and provides clients with a complete "work package" outlining everything required to ensure safe and efficient construction work. Benefits of AWP include up to a 25% increase in field productivity and a 10% decrease in TIC through site schedule optimization. The utilization of TracerLynx AWP for EHT projects results in predictable schedules, reduced site rework and enhanced safety performance.

Seamless Optimization & Integration

CRITICAL EHT DESIGN OPTIMIZATION

TracerLynx 3D design methodology has been used successfully on many of the largest Industrial Heat Tracing projects throughout the world.

Supplying optimized heat management systems that are on time and on budget by providing:

- Global Reach
- Fast, Effective Change Management
- Superior Quality of Deliverables
- Reduction in Total Project Installed Costs

Enhancing project execution efficiency to meet overall schedules and start delivering ROI.

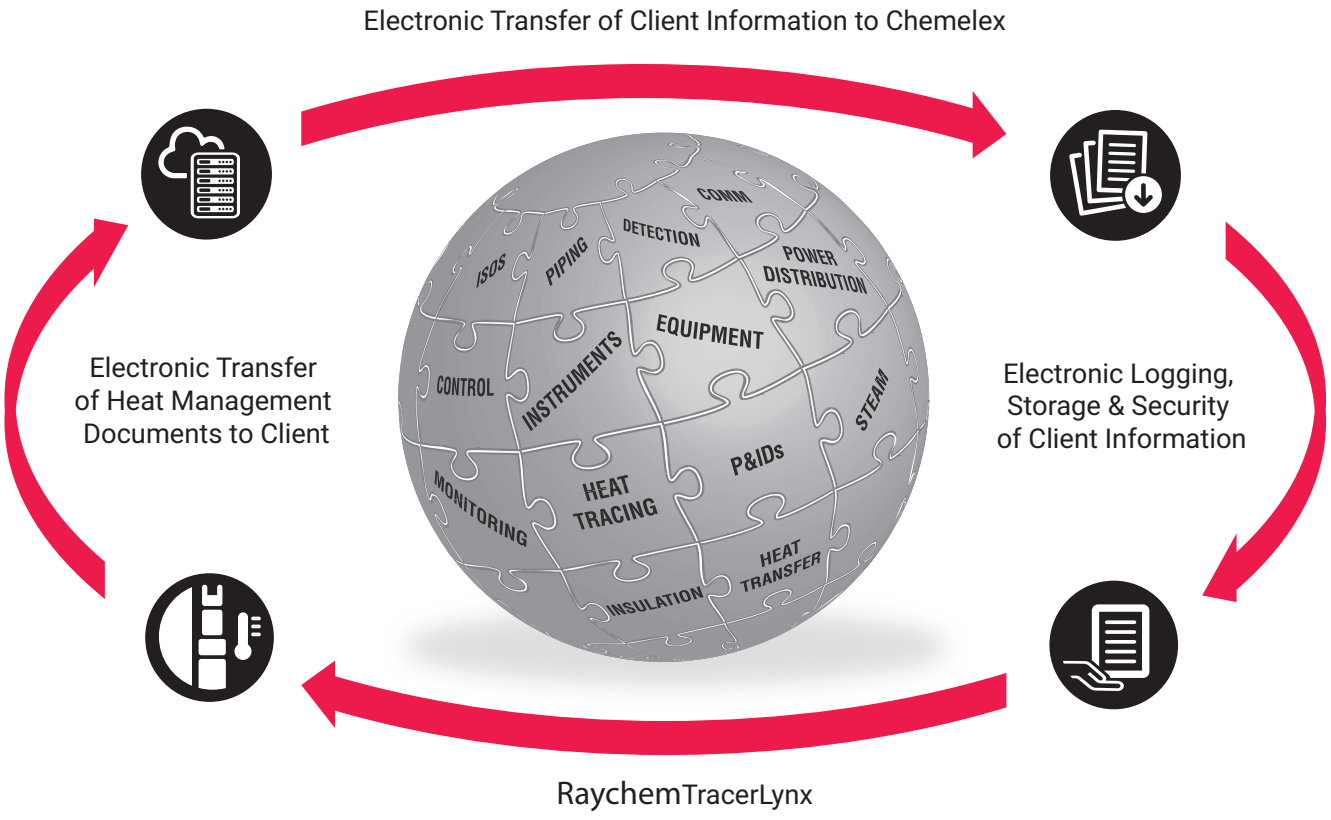


SEAMLESS INTEGRATION WITH CLIENT 3D MODEL ENGINEERING PROCESSES

Fully Compatible with all Client 3D Modeling Systems

Fully Integrated Single Database System

Global Work Sharing through Regional Engineering Teams with Concurrent Multi-User Access



3D Plant Modeling Compatibility

3D PLANT MODELING

Now the Industry Standard

Most companies now leverage the benefits of 3D plant modeling to accelerate execution and enhance accuracy and reliability on many aspects throughout a project's entire life cycle.

TracerLynx HMS software utilizes standard plant model component files to execute the Heat Management System design directly from your design data. The designs are fully integrated and aligned with the master 3D model data.

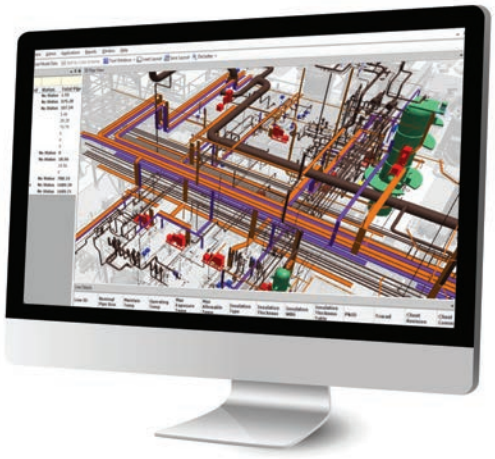


FULLY COMPATIBLE, FULLY INTEGRATED

Designed for 3D Plant Model Use

TracerLynx was designed specifically to integrate Heat Management System design capabilities with 3D plant modeling systems.

- Compatible with industry standard .idf and .pcf files
- Renders EHT data directly from the master 3D model resulting in higher design and drawing accuracy
- Identifies changes quickly and accurately
- Single database ensures that all EHT design work is performed using the latest project data
- Specialized functions support scope definition, estimating, pipe sorting and grouping, detailed engineering, material procurement, construction management, progress measurement and project controls reporting

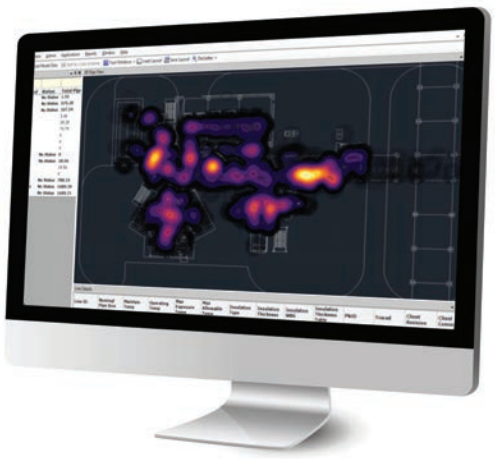


DELIVERING VALUE TO CLIENTS

Helping You Reduce Project Cost and Risk

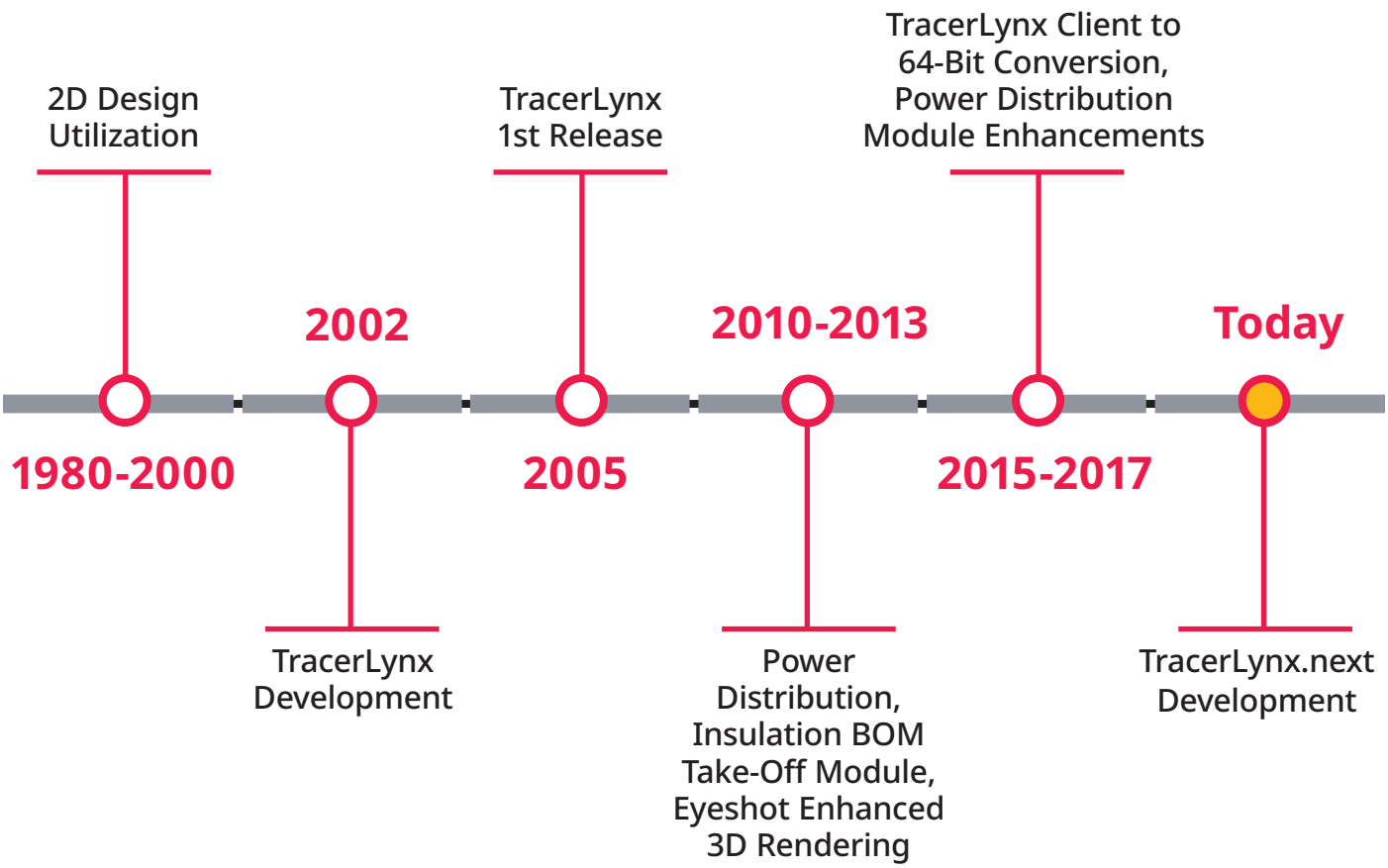
Designed with the focus on helping you manage and reduce project cost and risk, TracerLynx reduces your engineering workload and provides faster response to changes when they occur.

- Allows power distribution optimization during Front End Planning through definition of power load and locations early in the project
- Use of model data increases the accuracy of deliverables, reduces your document control costs and the time your engineers spend reviewing drawings
- Provides visual design accuracy and progress assessment
- Change Management features allow earlier detection and faster response to changes as they happen throughout the project
- Reduces cost through avoidance of idle labor and change orders as the heat tracing detailed engineering can be started later in the project when more accurate piping and equipment information is available





TRACERLYNX 3D DESIGN HISTORY





18+

Years of 3D
Design Expertise



215+

TracerLynx
EHT Designers



600,000+

Optimized
EHT Circuits



TracerLynx 3D Heat Management System Software

Provides integrated data management throughout all phases of the project life cycle

TRACERLYNX PROJECT LIFE CYCLE DATA INTEGRATION PROCESS

PROJECT SET-UP

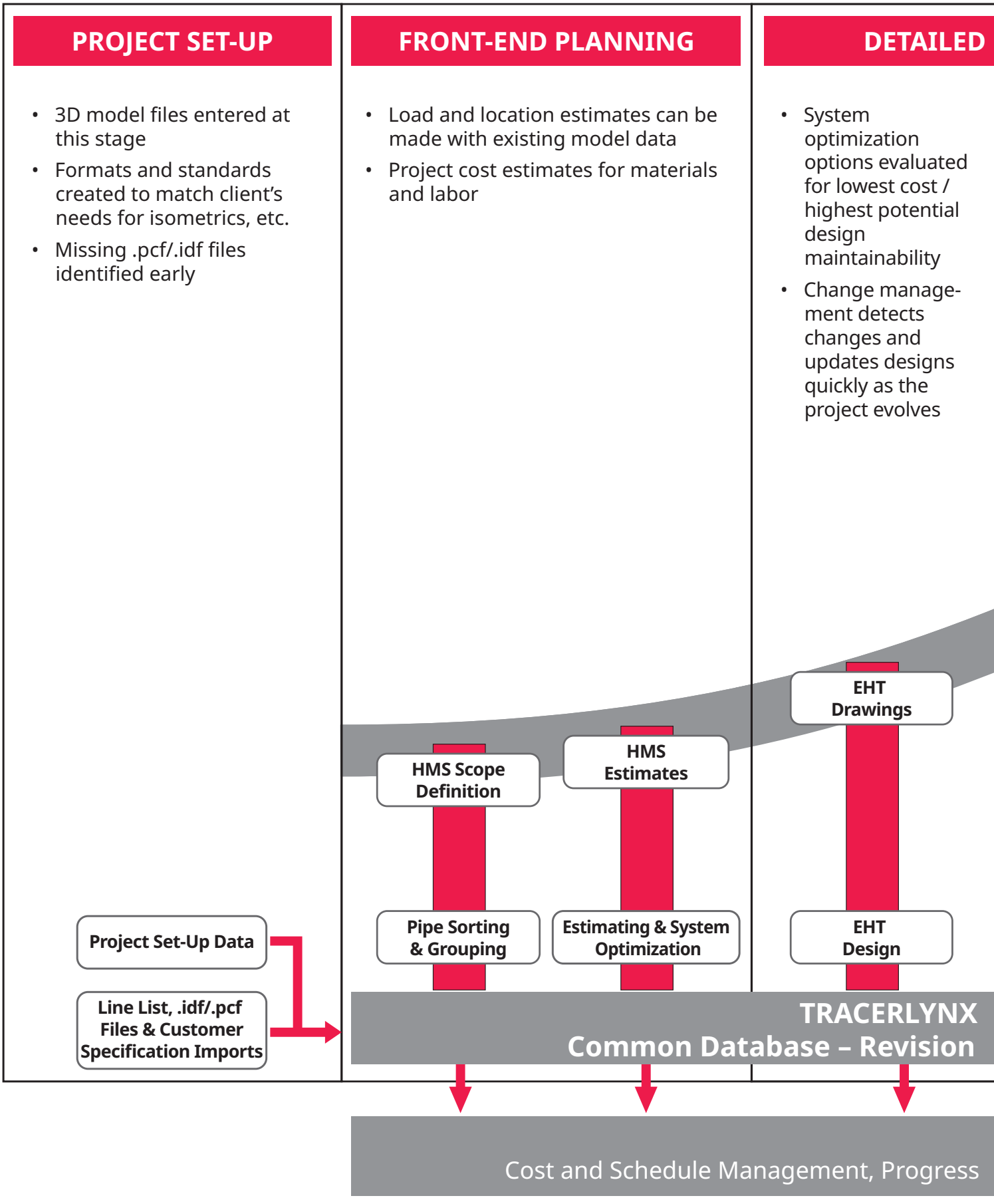
- 3D model files entered at this stage
- Formats and standards created to match client's needs for isometrics, etc.
- Missing .pcf/.idf files identified early

FRONT-END PLANNING

- Load and location estimates can be made with existing model data
- Project cost estimates for materials and labor

DETAILED

- System optimization options evaluated for lowest cost / highest potential design maintainability
- Change management detects changes and updates designs quickly as the project evolves



ENGINEERING

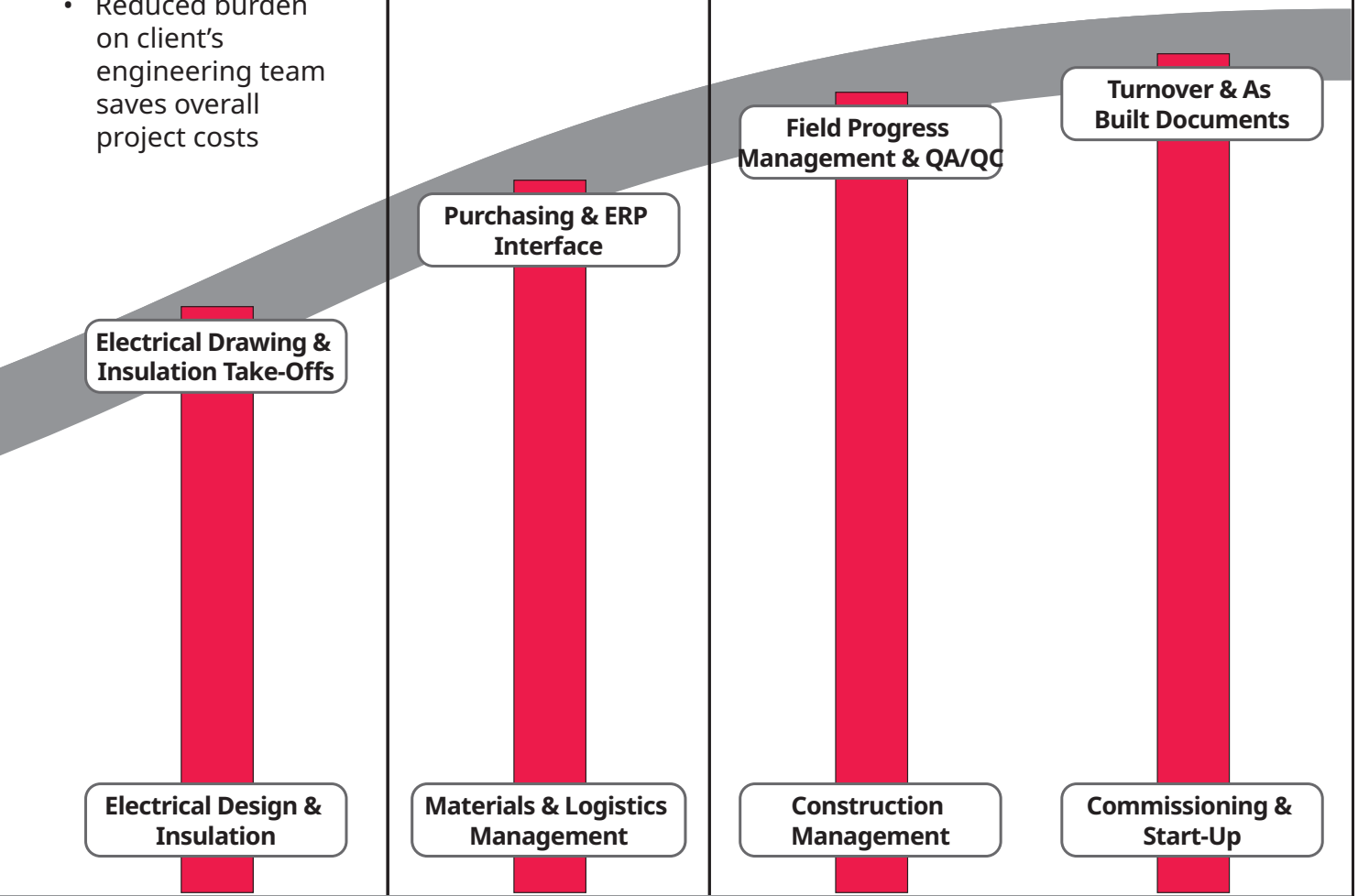
- Superior quality and accuracy through single database structure
- Accelerated execution by leveraging our design teams around the globe
- Reduced burden on client's engineering team saves overall project costs

PROCUREMENT

- Bill of materials automatically created from engineering designs
- Material delivery directly to its defined location

CONSTRUCTION

- Change management features to handle field changes quickly
- Progress measurement and reporting provides work status visualization
- Document control for final as-built isometrics



– CONTROL TOWER
Control – Change Management

Project Controls
Measurement, Customized Reporting & Information Management

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