



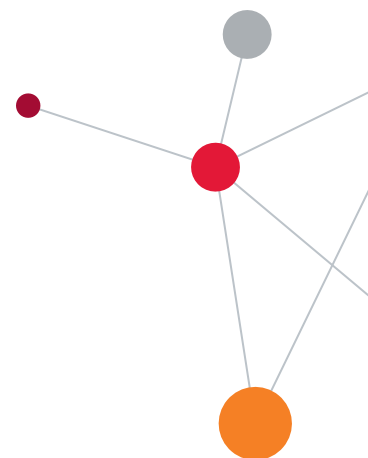
CGI

Experience the commitment®



CGI OpenGrid360

Accelerating innovation by unlocking the value of data for the move to a new energy system



Can your organization unlock the data it needs to innovate and transform?

CGI OpenGrid360 solves your data quality challenges, without disrupting your current IT systems, so you can improve on today's level of performance while accelerating your move to become a future, relevant utility network owner / operator.



Data: The transformation imperative

Developing the new digital capabilities you need for the energy transition requires a detailed, accurate and integrated view of your network — but the relevant operational data resides in many different systems and is hard to access. You also need visibility into the power generation options across all segments of the grid, including the endpoints. All of this demands an IT platform that can bring together data from internal and external sources to accelerate the successful development of new applications and services to meet customer needs, and support the move to a more flexible and sustainable future grid.

CGI OpenGrid360 is our answer to your need for data-driven transformation.

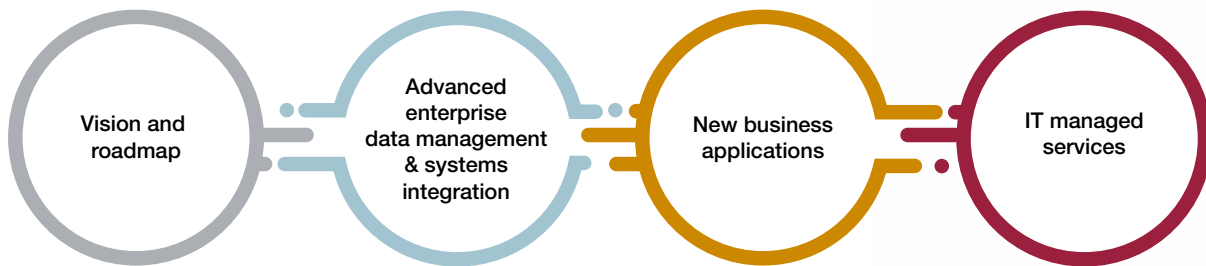


CGI OPENGRID360: ACCELERATE INNOVATION THROUGH DATA

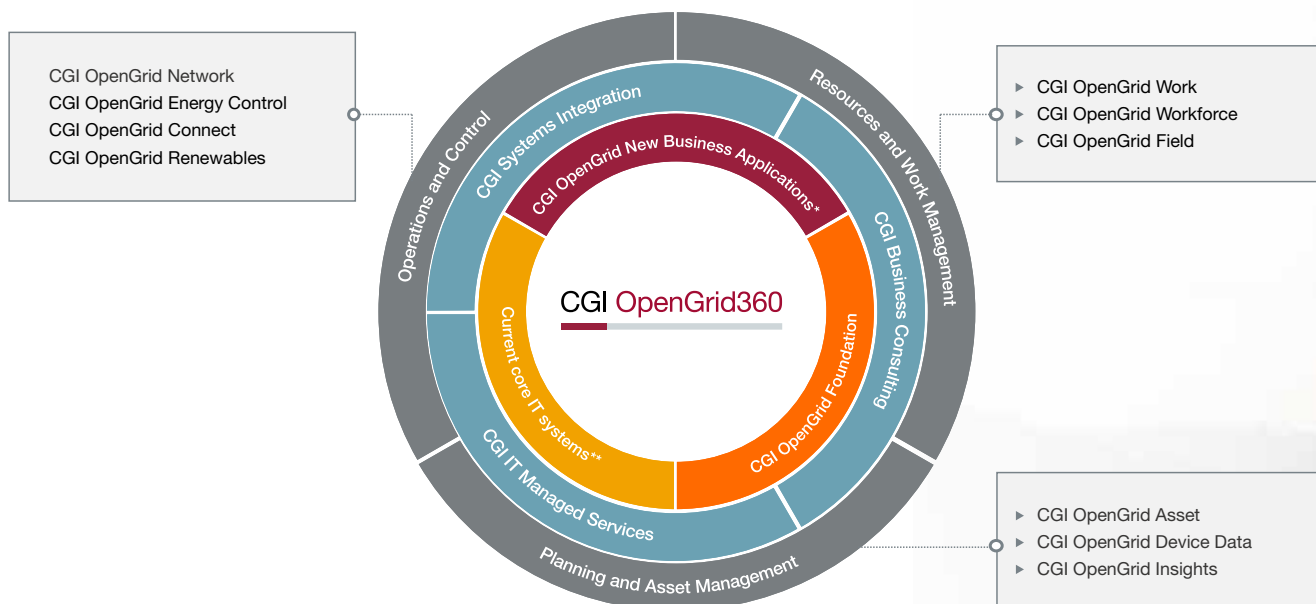
CGI OpenGrid360 empowers you to meet the demands of the evolving energy market. It accelerates your efforts to transform power grids by providing more unified, accurate and real-time data to deploy innovative applications more rapidly, such as to launch new services, improve asset utilization, provide flexibility services, and manage consumer-generated electricity more collaboratively.

An end-to-end solution suite, CGI OpenGrid360 supports the complete network value chain from asset to outage management and more. It includes strategic consulting, integration and managed services, business applications and an innovative data management approach.

Developed based on expertise acquired from our work on UK smart grids innovation programs, for example, we combine an integrated network data model, master data management, integration layer and automation (collectively, our CGI OpenGrid Foundation) to enable a single view of high-quality data across disparate enterprise systems.



CGI OpenGrid360 offers modules for asset, network and mobile workforce management, as well as for managing advanced smart grids and renewable operations. These applications help you maximize the benefits of data from the grid and endpoints. And, while modules can be used individually, even greater value can be achieved by implementing the full CGI solution suite.



ENABLE INSIGHT, INNOVATION AND AGILITY

Unlock the value of your data

- Achieve an accurate, holistic view of your power network and improve data quality through our OpenGrid Foundation, featuring a network data model, master data management, integration layer and business process automation
- Combine IT, OT and business data to address quality, system architecture and legacy investment challenges

Quickly and effectively deploy new capabilities and meet future needs

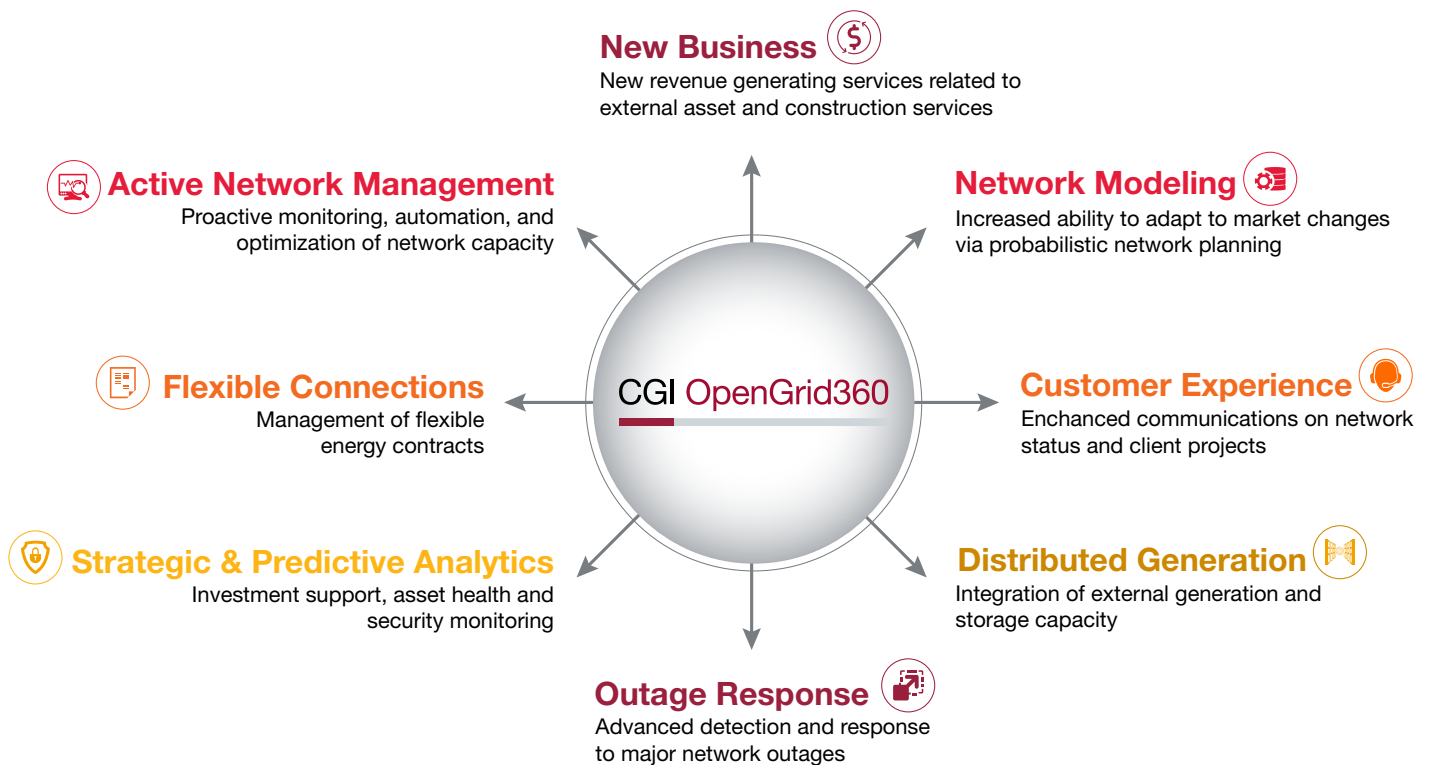
- Take advantage of automation enabled by higher quality data and an interoperable solution to eliminate the need to integrate with backend systems to launch innovative new capabilities
- Implement a pragmatic and scalable approach to delivering future capabilities and functions

We focus on your goals and follow your pace

Wherever you are on your digital journey, we help you advance by tailoring our approach to your objectives, environment and pace. CGI OpenGrid360 can be delivered globally from North America and Europe, with onsite, onshore and offshore implementation options available. Our low-impact approach is compatible with your existing systems and data environments, including data lakes, to support rapid deployment of new business capabilities and roles driven by the energy transition, without disrupting current operations. Modularity and scalability also enable you to take a pragmatic approach to delivering future capabilities.

CREATE VALUE WITH NEW BUSINESS APPLICATIONS

CGI OpenGrid360 provides an enterprise-wide data model and integration layer (CGI OpenGrid Foundation) to speed development of new business applications that deliver value-added services. We have built innovative applications on top of this foundation to help you improve data analysis and insight, automate decisions, and facilitate two-way communications. The foundation also enables your organization to build new business applications more rapidly to meet evolving customer needs.



New Business

- With flat or declining energy sales, utilities seek to offer new, personalized value-added services that deliver greater convenience, reliability, sustainability and energy cost savings to customers. CGI business applications like our customer engagement platform allow prosumers, network owners / operators and business partners to manage meter assets and offer new services.

Network Modeling

- The network modeling business application provides a consolidated, consistent network model across your enterprise for better-informed analysis. It automatically computes changes to grid parameters or configurations and provides relevant impact information to utility engineers. It supports the shift from deterministic to probabilistic network planning.

Customer Experience

- Utilities' customer relationships are rapidly changing from one-way to two-way models involving greater collaboration and information sharing. CGI offers new business applications to improve the customer experience in two key areas — construction project management and event management:
 - Construction project management allows external parties such as customers and contractors to interact and collaborate on the business processes of a utility construction project.
 - Event management: Provides a two-way communication channel for reporting conditions and outage events using situational awareness to filter information to affected parties and promote confidence in restoration activities. Artificial intelligence (AI) assisted analysis of social media feeds and customer application data identifies potential issue areas, while image analysis detects conditions such as a leaning or damaged poles, sparking electrical assets, etc.

Distributed Generation

- Distributed energy resources (DERs) and new loads such as EVs require centralized control within an advanced distribution management system or closely coupled system. Our distributed generation application provides a network topology view of DERs and connected loads through an aggregation platform, and enables an aggregated response based on an informed network status through a control platform.

Outage Response

- Our outage response system detects outages and automatically routes electricity to avoid power loss. It prioritizes and manages restoration efforts based on location of emergency facilities, size of outages and forecast duration. It provides incident location and restoration estimates, dispatches crews, tracks customer impact and informs other systems. AI-assisted analysis of previous events increases accuracy and speed of estimates.

Strategic & Predictive Analytics

- Strategic analysis of your vast operational data can provide regulators and customers with better data insight and accuracy and help you reduce spend on infrastructure improvements. CGI brings together leading research and business institutions to develop applications using advanced AI to optimize utility operations—such as for predictive storm impact planning and route optimization that takes into account weather forecasts, traffic and road conditions, and asset health optimization to predict equipment health.

Flexible Connections

- This business application helps you manage different connection types and gain insights about allocation and network capacity to prioritize potential usage. For example, you could offer consumers lower rates based on their willingness to accept certain restrictions (i.e. time of usage) on the energy supply.

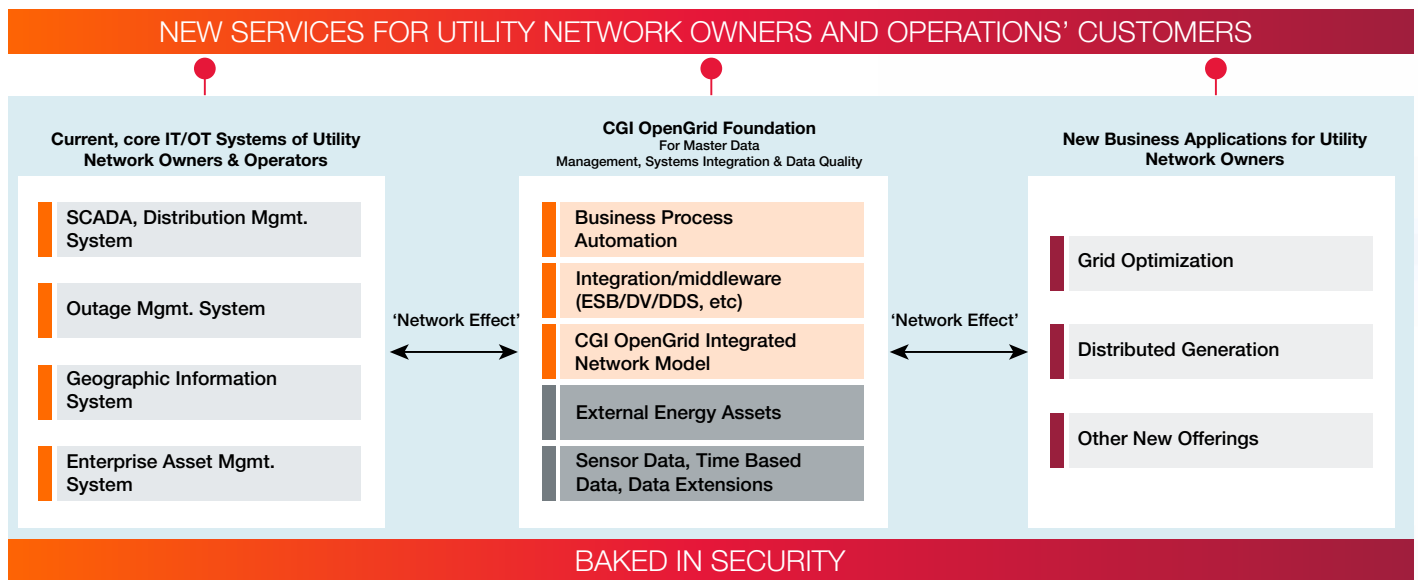
Active Network Management

- The active network management system collects and monitors relevant network data for every node connected to the network, detects grid congestion and takes necessary action to auto-restore (self-heal). It maintains a common store of collected data for post-event analysis and can provide generation forecasting, aggregate data from small-scale reserves (e.g., heating and cooling devices) and manage and configure in-line power regulators (IPRs).

HOW CGI OPENGRID360 WORKS

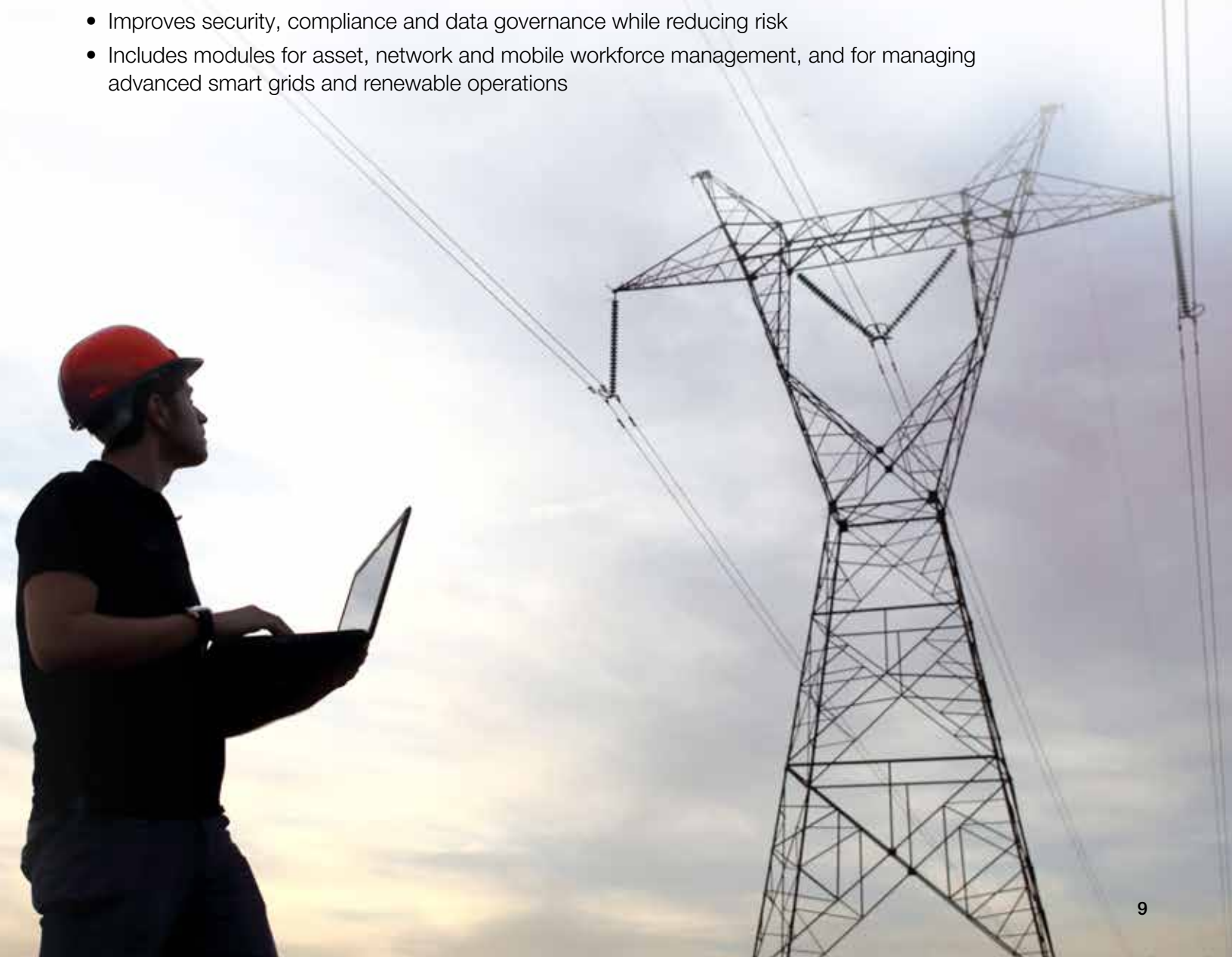
At the heart of CGI OpenGrid360 is the CGI OpenGrid Foundation master data management and integration layer. Unlike traditional relational databases or unstructured data lakes, the Foundation enables an accurate, holistic view of data across disparate enterprise systems. It takes data from each core system and automatically correlates it across all systems, notifying data stewards to the vast majority of corrections needed. Logic to correct remaining issues can be configured. Daily reporting ensures a continuous data quality initiative as opposed to a one-off migration. This is a key enabler for delivering your data governance strategy and providing enduring, integrated digital representation of your network, which are integral to successful adoption of data governance.

We have built innovative business applications on top of the CGI OpenGrid Foundation (see pages 6 and 7).



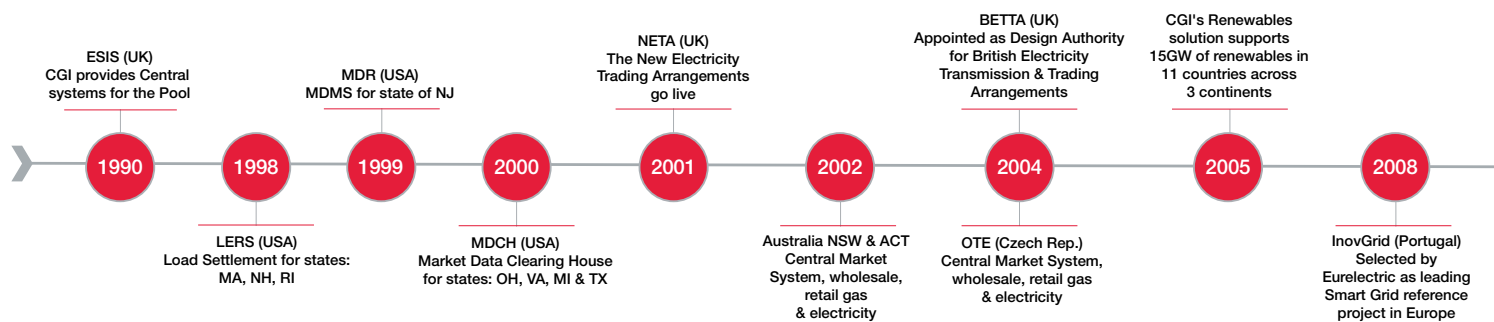
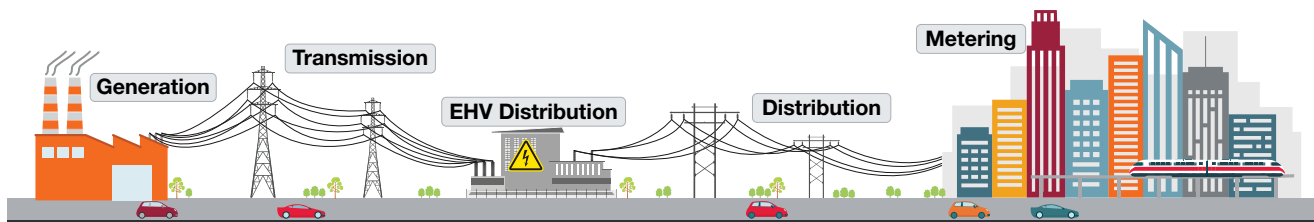
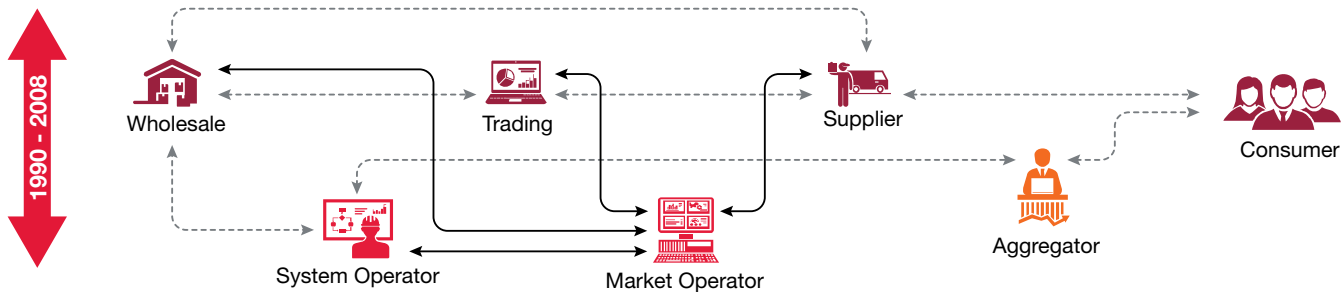
CGI OPENGRID360 AT A GLANCE

- Unlocks the value of your data to optimize operations, improve customer and workforce experiences, and create new revenue opportunities
- Built for utility network owners / operators, with utility network owners and operators
- Supports the complete network value chain from asset to outage management and more
- Based on a network data model, not just a data lake, which gives intrinsic value to the data without having to reprocess it
- Enables rapid development of new business insights, applications and business models
- Supports new business applications and future industry needs
- Unifies traditionally separated (IT and OT) domains and organizational silos with best-fit solutions
- Empowers effective roadmaps based on our comprehensive solution vision and data governance strategy
- Avoids disruption of existing systems with a low-impact approach
- Supports efficient integration of new systems, emerging technologies and legacy investments
- Improves security, compliance and data governance while reducing risk
- Includes modules for asset, network and mobile workforce management, and for managing advanced smart grids and renewable operations

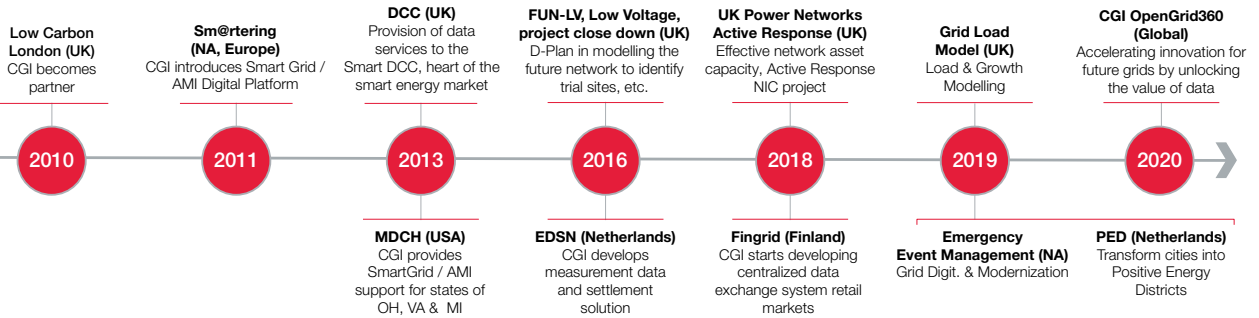
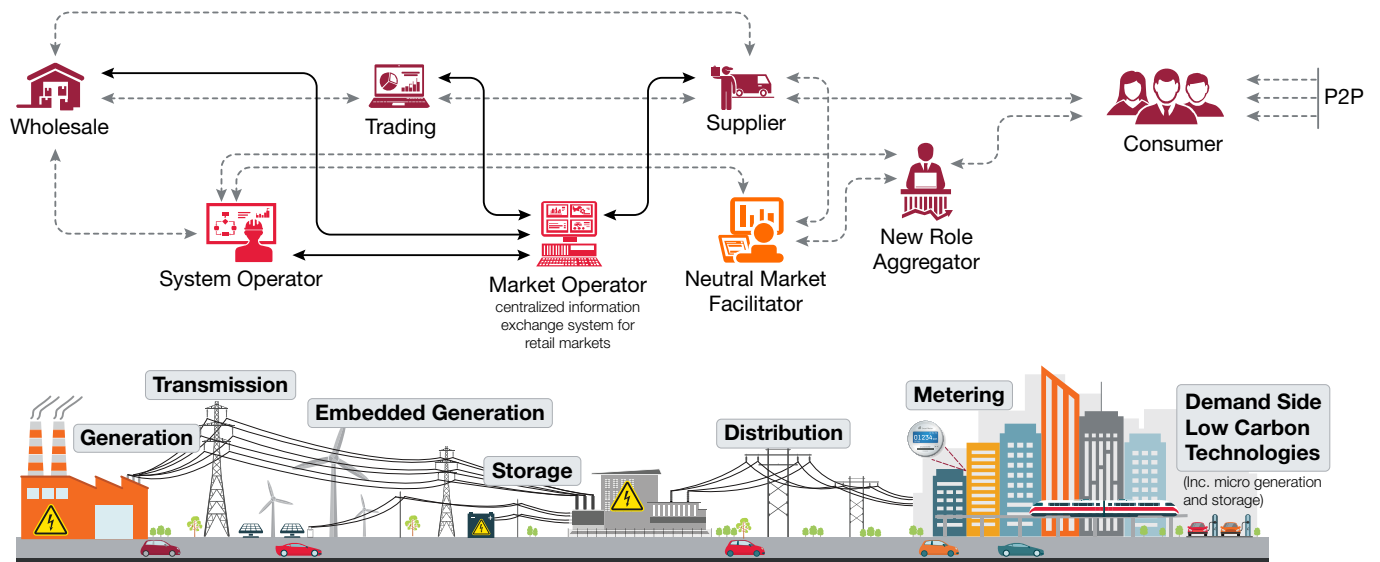


TRUSTED PARTNER FOCUSED ON YOUR NEEDS FOR MORE THAN THREE DECADES

CGI is trusted by the world's leading utilities to implement their most complex and mission-critical systems. Drawing on more than 30 years of industry experience as an end-to-end services provider, we have co-developed successful industry solutions with our clients. CGI OpenGrid360 is designed to meet the unique needs of utility network owners and operators. View the time line below to see how CGI has helped evolve the industry over the decades.



— **Straight line:** Market driven transaction and data flow
 - - - **Dotted line:** Bilateral transaction and data flow





About CGI

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world. Operating in hundreds of locations across the globe, CGI delivers end-to-end services and solutions, including strategic IT and business consulting, systems integration, intellectual property, and managed IT and business process services. CGI works with clients through a local relationship model complemented by a global delivery network to help clients achieve their goals, including becoming customer-centric digital enterprises.

Learn more at [cgi.com](https://www.cgi.com).

© 2020 CGI Inc.

