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## Tối đa hóa hiệu quả hoạt động Truy cập dữ liệu thời gian thực trên các nguồn dữ liệu khác nhau

**SIEMENS**  
*Ingenuity for Life*

Trình bày dữ liệu thời gian thực và toàn diện  
để cải thiện hiệu suất hoạt động của nhà máy

Present

Contextualize

Aggregate and Integrate

Structured /  
Spreadsheets

MS-SQL Server  
Oracle

SAP

PCS7

Batch

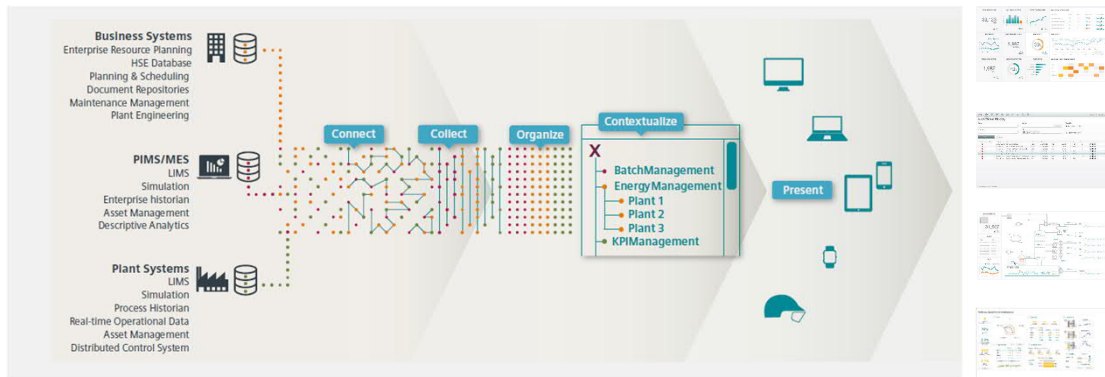
Realtime

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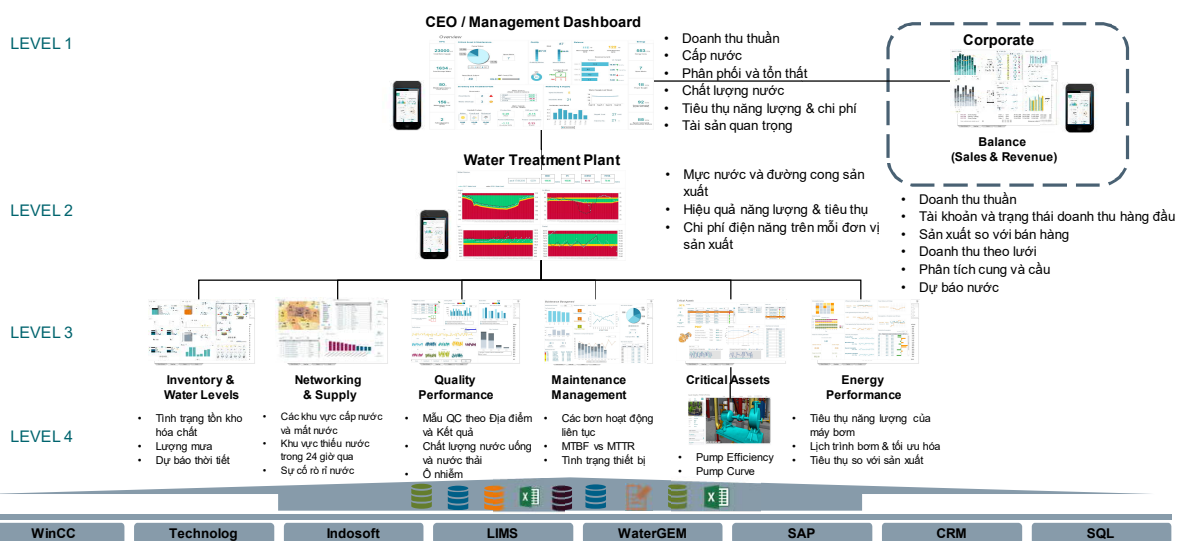
# XHQ Operations Intelligence Tổng quan



Với tích hợp dữ liệu thời gian thực, XHQ chuyển dữ liệu thành thông tin có ý nghĩa để cải thiện hiệu suất hoạt động của hệ thống

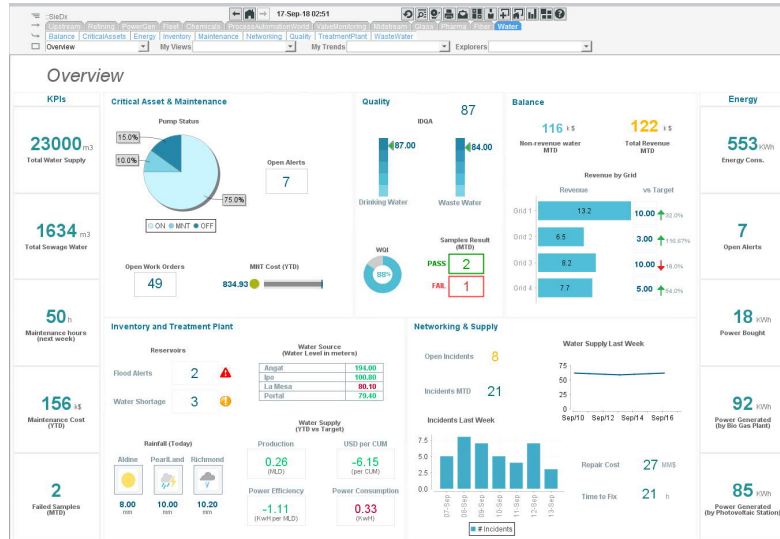
3

# XHQ Operations Intelligence Giải pháp tổng quan | Công nghiệp nước và nước thải



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# XHQ Operations Intelligence W&WW | Màn hình cho Ban giám đốc



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# XHQ Operations Intelligence W&WW | Màn hình tồn kho

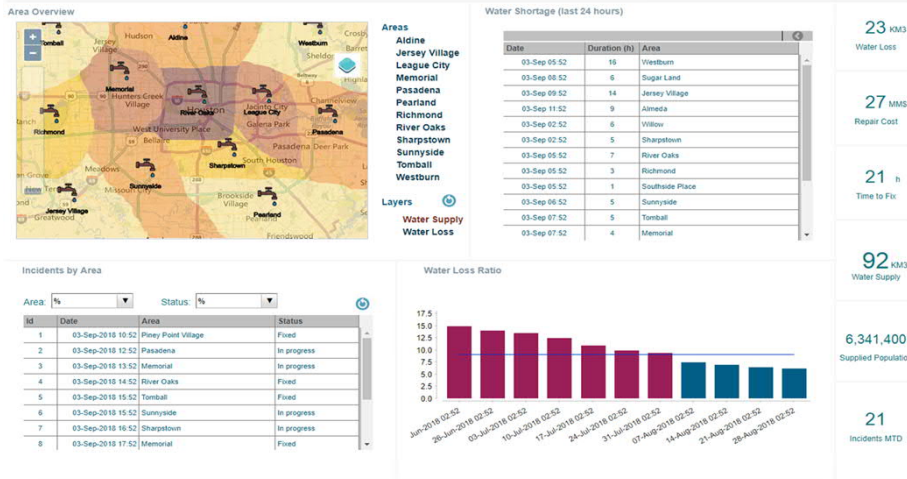


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# XHQ Operations Intelligence W&WW | Mạng lưới cung cấp nước



## Networking & Supply



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# XHQ Operations Intelligence W&WW | Màn hình quản lý chất lượng nước



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# XHQ Operations Intelligence W&WW | Màn hình quản lý bảo trì bảo dưỡng



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# XHQ Operations Intelligence W&WW | Đơn đặt hàng và chi tiết công việc



### Work Order Explorer

OrderID	Priority	Equipment	Status	Created Date	Created By	Start Date	Description
10001	1	P001	Closed	2018-08-23	Venki	2018-08-23 21:00:00.0	Overheating - Motor failure
10002	1	P004	Closed	2018-08-23	Paul	2018-08-23 21:00:00.0	Valves are mechanical/blogged
10023	1	P002	Closed	2018-08-24	Jim	2018-08-24 21:00:00.0	Valves are mechanical/blogged
10043	1	P004	Closed	2018-08-26	Kim	2018-08-26 21:00:00.0	Overheating - Motor failure
10173	1	P002	Closed	2018-08-06	Jordan	2018-08-06 21:00:00.0	Valves are mechanical/blogged
10193	1	P002	Closed	2018-09-07	Vicky	2018-09-07 21:00:00.0	Overheating - Motor failure
10215	1	P003	Closed	2018-08-09	Geo	2018-08-09 21:00:00.0	Valves are mechanical/blogged
10227	1	P002	Closed	2018-09-10	Paul	2018-09-10 21:00:00.0	Valves are mechanical/blogged
10229	1	P002	Closed	2018-09-11	Jim	2018-09-11 21:00:00.0	Valves are mechanical/blogged
10257	1	P002	Closed	2018-08-13	Kim	2018-08-13 21:00:00.0	Valves are mechanical/blogged
10277	1	P004	Closed	2018-08-14	Jason	2018-08-14 21:00:00.0	Overheating - Motor failure
10299	1	P005	Open	2018-08-16	Annie	2018-08-16 21:00:00.0	Valves are mechanical/blogged
10300	1	P002	Open	2018-08-16	Steehan	2018-08-16 21:00:00.0	Overheating - Motor failure
10305	1	P002	Closed	2018-08-18	Paul	2018-08-18 21:00:00.0	Valves are mechanical/blogged
10003	2	P008	Closed	2018-08-23	Jordan	2018-08-24 05:00:00.0	Overheating - Motors need more power
10004	2	P001	Closed	2018-08-23	Vicky	2018-08-24 05:00:00.0	Overheating - Fan not running
10005	2	P002	Closed	2018-08-23	Geo	2018-08-24 05:00:00.0	Blades full of dirt and is not connected to the heating cyclinders any more
10006	2	P001	Closed	2018-08-23	Annie	2018-08-24 05:00:00.0	pump failure
10012	2	P002	Closed	2018-08-23	Venki	2018-08-24 05:00:00.0	blades full of dirt and is not connected to the heating cyclinders any more
10013	2	P001	Closed	2018-08-23	Paul	2018-08-24 05:00:00.0	pump failure
10018	2	P001	Closed	2018-08-24	Jim	2018-08-25 05:00:00.0	Overheating - Fan not running
10019	2	P002	Closed	2018-08-24	Kim	2018-08-25 05:00:00.0	blades full of dirt and is not connected to the heating cyclinders any more
10020	2	P001	Closed	2018-08-24	Jason	2018-08-25 05:00:00.0	pump failure
10024	2	P003	Closed	2018-08-24	Annie	2018-08-25 05:00:00.0	Overheating - Motors need more power
10025	2	P004	Closed	2018-08-24	Venki	2018-08-25 05:00:00.0	Overheating - Fan not running
10026	2	P005	Closed	2018-08-24	Paul	2018-08-25 05:00:00.0	blades full of dirt and is not connected to the heating cyclinders any more
10027	2	P001	Closed	2018-08-24	Jim	2018-08-25 05:00:00.0	pump failure
10033	2	P005	Closed	2018-08-25	Kim	2018-08-26 05:00:00.0	blades full of dirt and is not connected to the heating cyclinders any more
10034	2	P001	Closed	2018-08-25	Jason	2018-08-26 05:00:00.0	pump failure
10039	2	P001	Closed	2018-08-26	Annie	2018-08-27 05:00:00.0	Overheating - Fan not running
10040	2	P002	Closed	2018-08-26	Steehan	2018-08-27 05:00:00.0	Blades full of dirt and is not connected to the heating cyclinders any more
10041	2	P001	Closed	2018-08-26	Jordan	2018-08-27 05:00:00.0	pump failure
10044	2	P002	Closed	2018-08-26	Vicky	2018-08-27 05:00:00.0	pump failure
10045	2	P001	Closed	2018-08-26	Geo	2018-08-27 05:00:00.0	Overheating - Motors need more power

#### Work Order Detail: 10002

PRIORITY 1 2 3 4 5

WO Type:	Setup	Cost Center:	Plant	CC:FBER26 MACHINE	Status:	Closed
Equipment Name:	P004	Plant:	Location:	P004	Date Created:	2018-08-23
Problem Code:		Plant:	Plant:	P004	Date Changed On:	
Reported By:	Paul	Plant Loc:	Plant:	P004	Completion Date:	
Description:		Plant:	Plant:	P004	Act Start Date:	2018-08-23
		Plant:	Plant:	P004	Act Comp Date:	2018-08-23

Values are mechanical/blogged

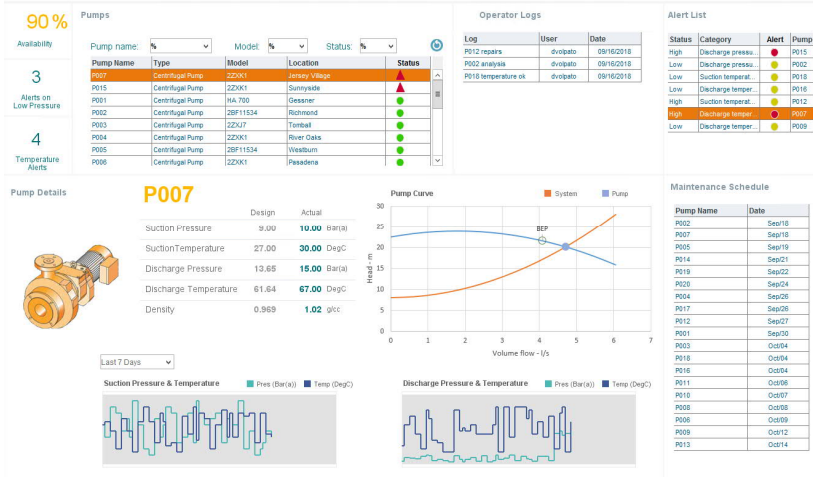
WOID	Description	Type	Func Loc	Equipment	Status
There are no Workorder tasks associated with this Work Order					

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# XHQ Operations Intelligence W&WW | Tài sản quan trọng và hiệu suất bơm



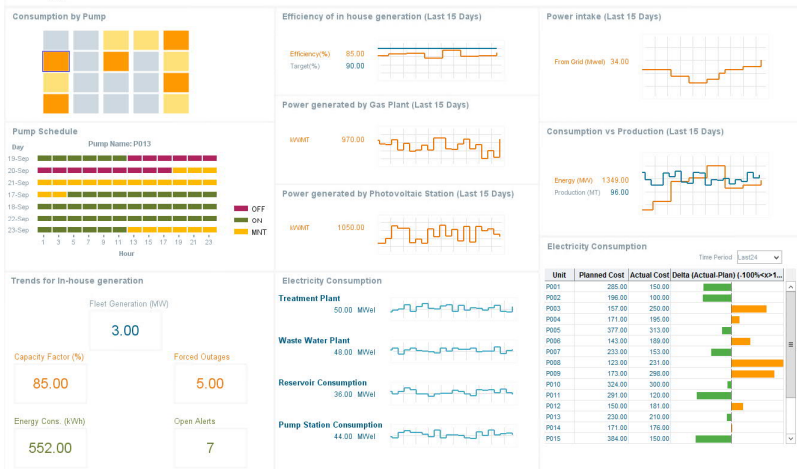
## Critical Assets



# XHQ Operations Intelligence W&WW | Màn hình tổng quan về năng lượng

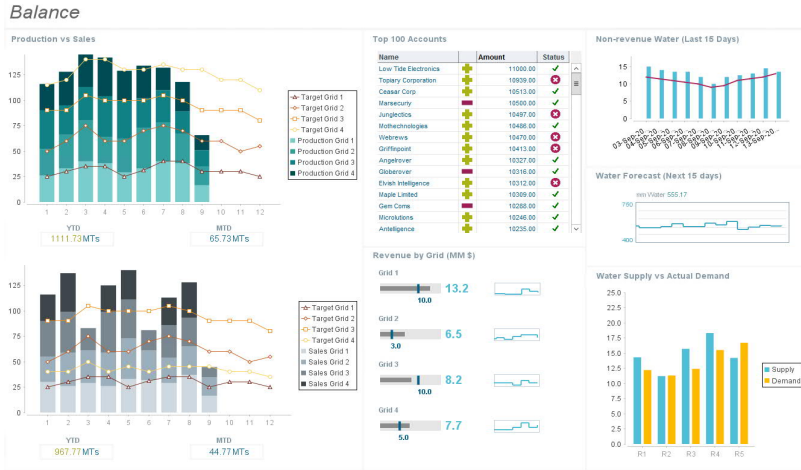


## Energy Overview



# XHQ Operations Intelligence

## W&WW | Bảng cân đối (Đơn hàng & Doanh thu)



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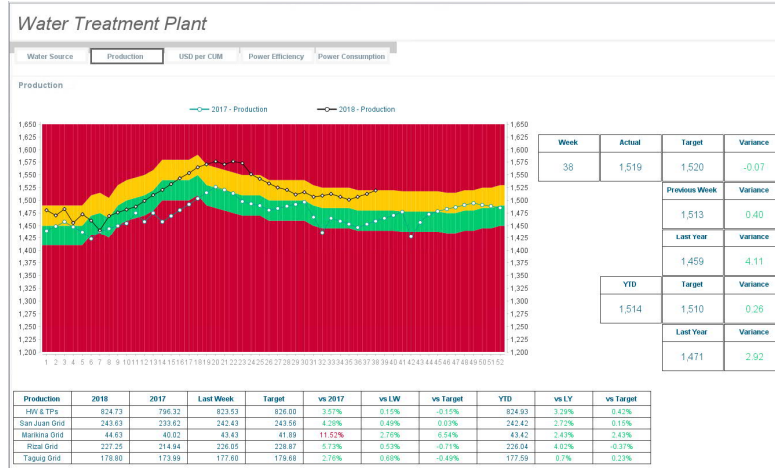
# XHQ Operations Intelligence

## W&WW | Nhà máy xử lý nước - Hiệu suất nguồn nước

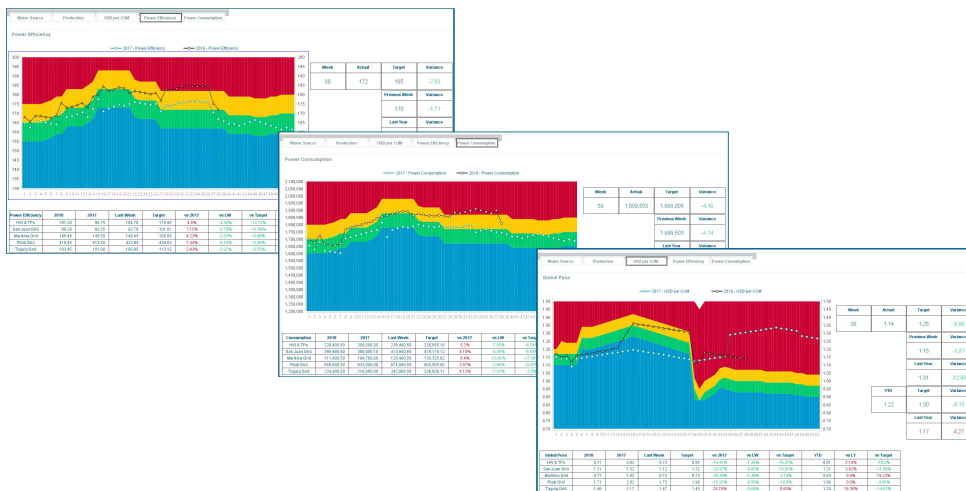


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# XHQ Operations Intelligence W&WW | Nhà máy xử lý nước - Hiệu suất sản xuất



# XHQ Operations Intelligence W&WW | Nhà máy xử lý nước – Chỉ số đánh giá năng lượng điện





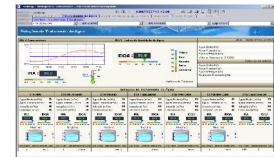
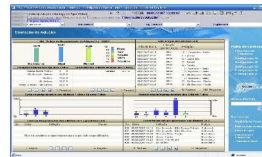
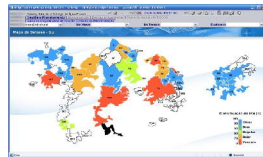
## Dự án tiêu biểu tham khảo Sabesp / Brazil

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Ingenuity for Life



SOCA stands for Supply Operational Control System and it manages the processes of adduction and storage of treated water from the water treatment plants to the reservoirs; SOCA runs inside Sabesp's Operational Control Center (OCC) and monitors in near Real-Time the following infrastructure:

- 8 water treatment plants
- 258 reservoirs, with level/volume measurement
- 2.7 million cubic meters capacity
- 516 automated / remotely monitored pumps
- 207 pressure measurement points
- 214 flow measurement points
- 1270 km of Piping above 20" diameter



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## Lợi ích mang lại với hệ thống tích hợp XHQ

Toàn cảnh thời gian thực



Tương quan &  
Dữ liệu chuẩn



Phân tích sâu  
để tìm ra nguyên nhân gốc rễ



Truy cập vào tất cả các thông tin

Thông tin trong bối cảnh

Quyết định trao quyền



**8%**  
Reduction in the  
operating costs



**9%**  
increase in  
facility utilization



**2.5%**  
increase in operational  
availability



**11%**  
increase in  
production

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## Global Footprint

30% of the world's refining capacity is visualized in XHQ

3 of 8 largest US refineries use XHQ

5 of 13 largest refineries in the world use XHQ

100.000+ Users world-wide

175+ Refineries

350+ Chemical/Petrochemical Plants

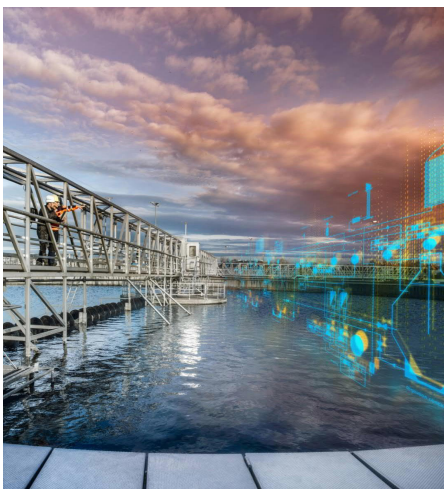
100+ Upstream Sites

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## Thank you for your attention

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