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# Software features & functions

Architecture FLX - Multisite

**Learning objectives** | Software features & functions

At the end of this lesson, you will:

- Be familiarized with the dashboard.
- List all possibilities of Multisite.

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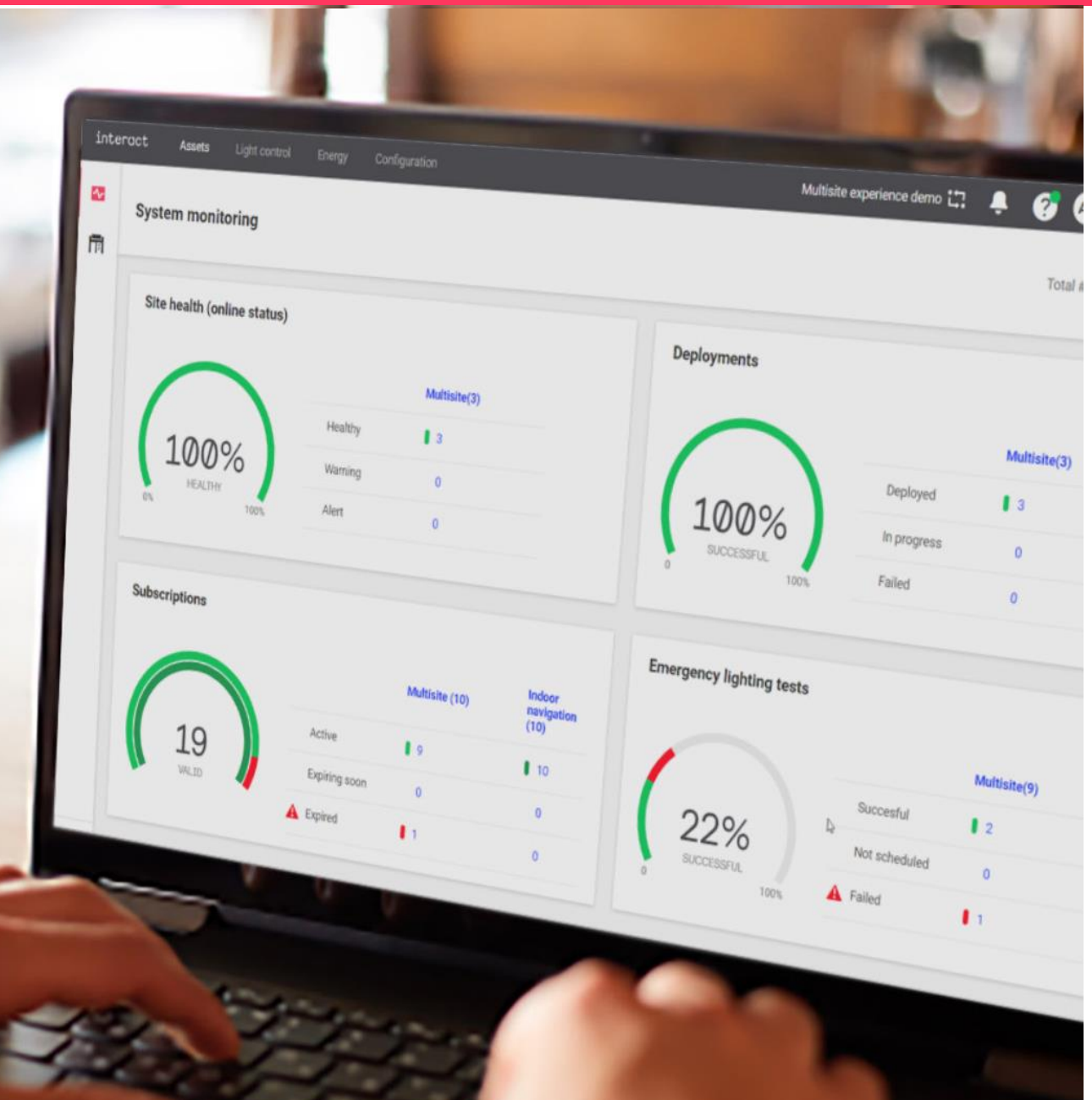
# Multisite System Manager

## Monitor and manage lighting remotely across all sites




### Multisite dashboard

- Our intuitive dashboard makes it easy to create versatile and attractive retail spaces, and allows you to manage, monitor and adjust the lighting remotely over all sites.

- At your glanceable dashboard, you will gain insight in energy consumption patterns of your store lighting, and energy savings of a site for a selected period.

- Use your dashboard to analyze the energy consumption of your stores, to define optimized lighting schedules and dimming settings and deploy these to all your stores in one go.

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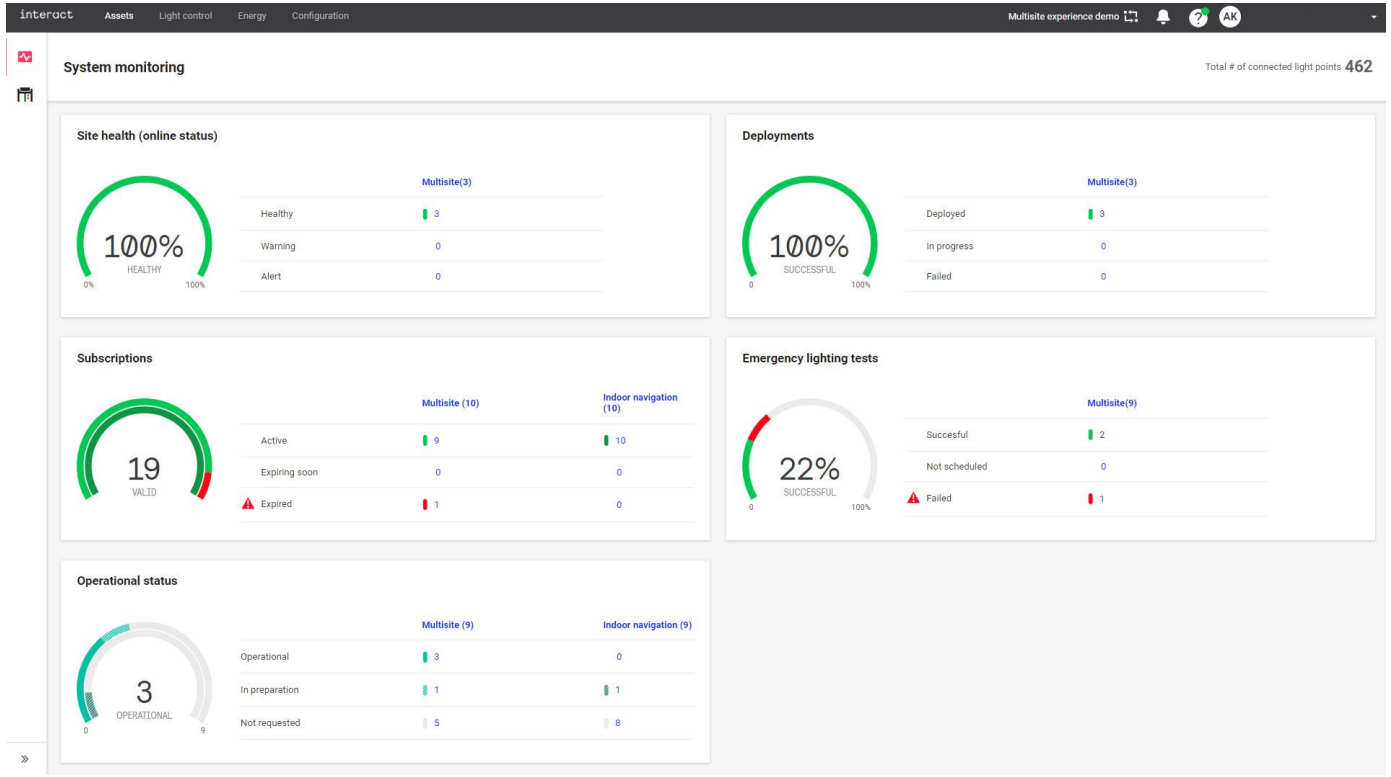
# Multisite System Manager

Real-time visibility & control

## Asset overview

- Single dashboard showing system health
- See all your sites in one overview
- Toggle between list view and detailed site view
- Includes the status of licenses and Subscriptions
- Know which sites are fully operational or upcoming
- Monitor live which scenes are running on every site
- Successful updates of light configurations




## Multilanguage support

Secure user authentication, profile-based management and multi-language support:

- Danish
- Dutch
- English
- French
- German
- Italian
- Japanese
- Polish
- Portuguese
- Russian
- Spanish

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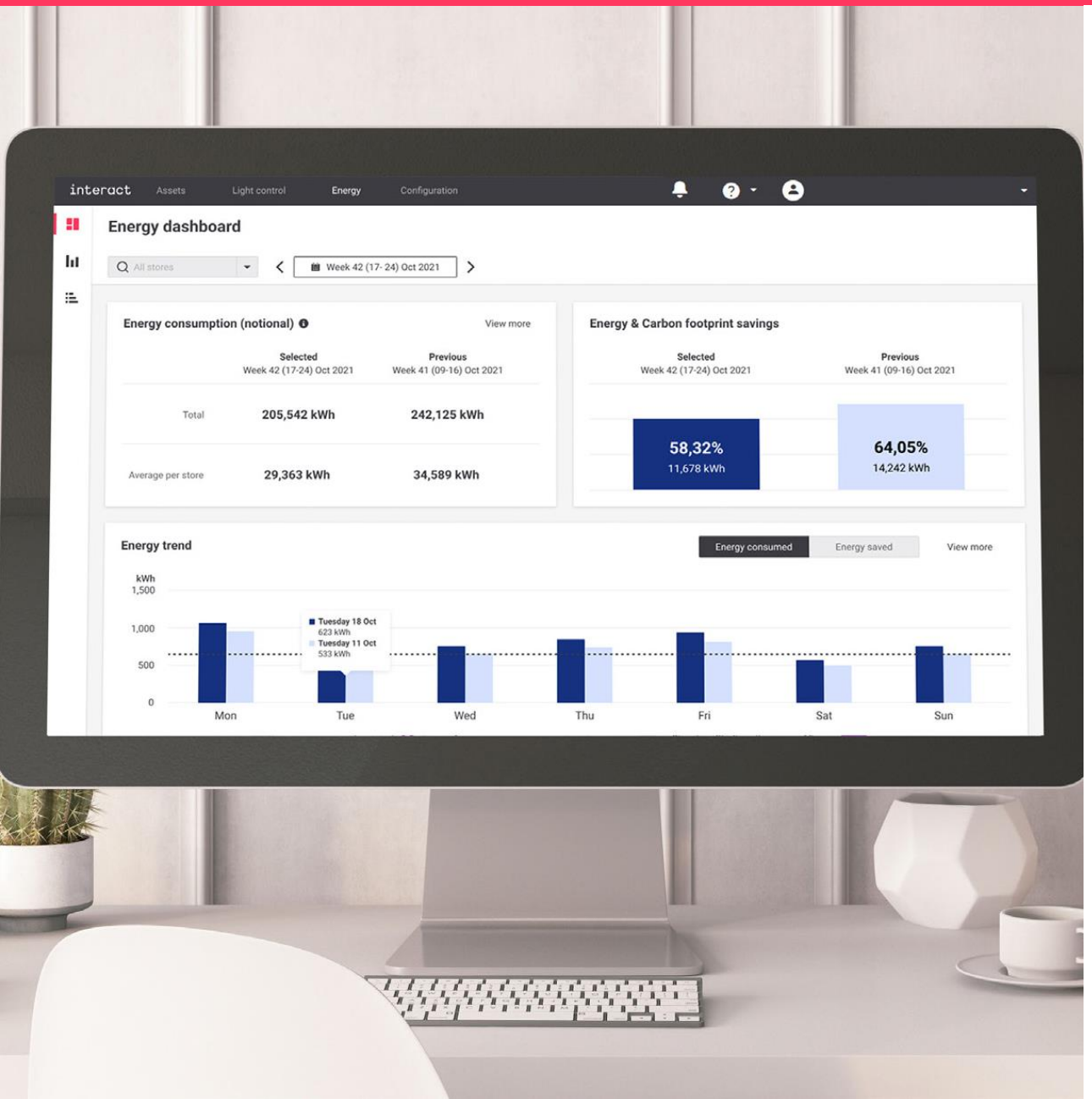
# Multisite System Manager

## Make informed decisions with Rich Energy Monitoring




### Energy Monitoring

- Gain insight in energy consumption patterns of your connected sites and implement best practices. At your glanceable dashboard, you will get a quick overview of the energy consumption and energy savings of one or all sites for a selected period.
  - Evaluate the savings with the intuitive weekly and monthly comparisons.
  - You can easily sort and rank all the sites in your portfolio using the site list.
  - Identify outliers and thereby bringing the quick wins to your fingertips.

- The energy dashboard visualizes both notional as well as metered energy data. Understanding energy consumption patterns helps you to optimize savings to maximize the benefits of your lighting refurbishment.

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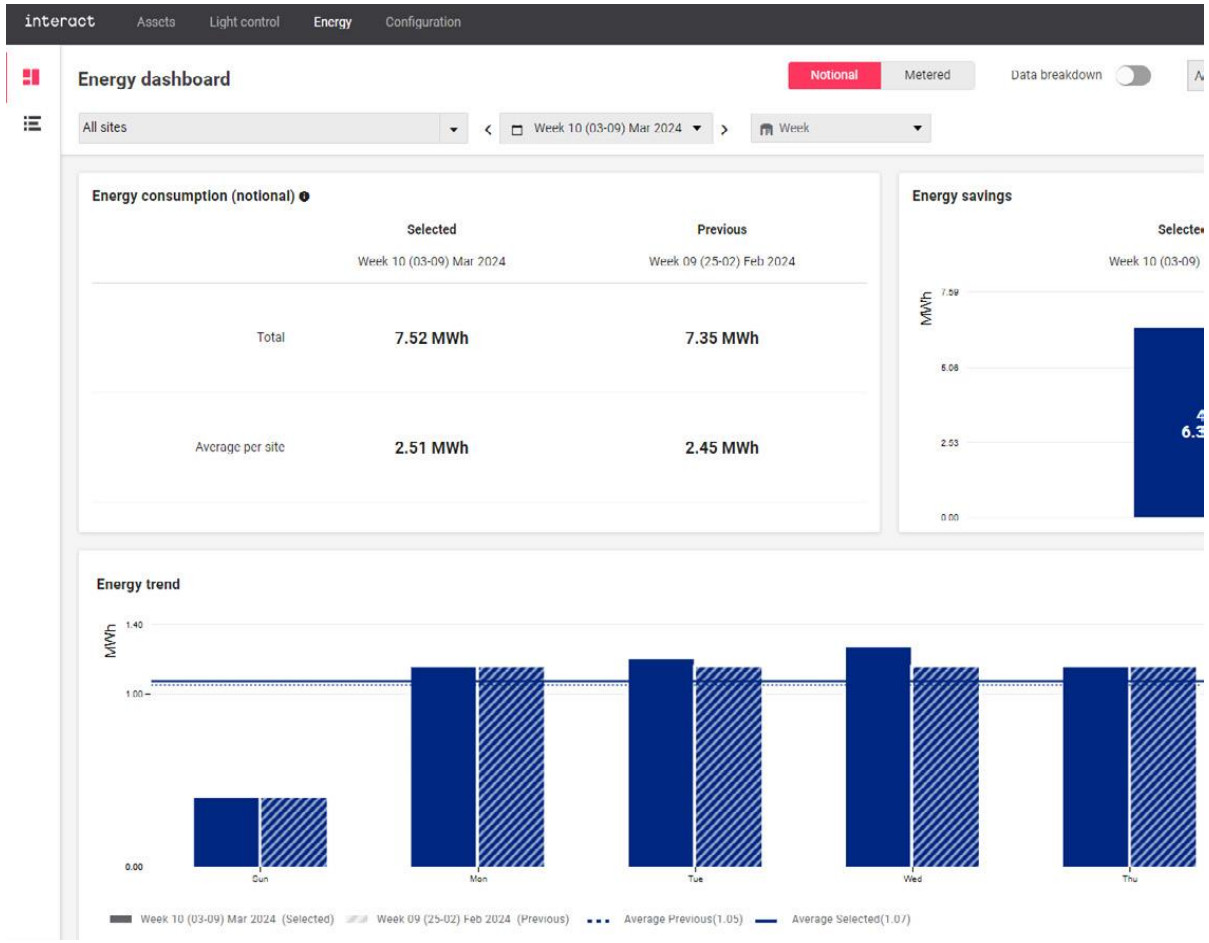
## Energy dashboard for notional energy

- The energy dashboard provides insights in the energy consumption and savings of the lighting of all your sites. It shows you the most relevant parameters, including:
  - Energy consumption and savings
  - Split: Dim savings and On/Off savings
  - Historical energy trend compared with the previous period

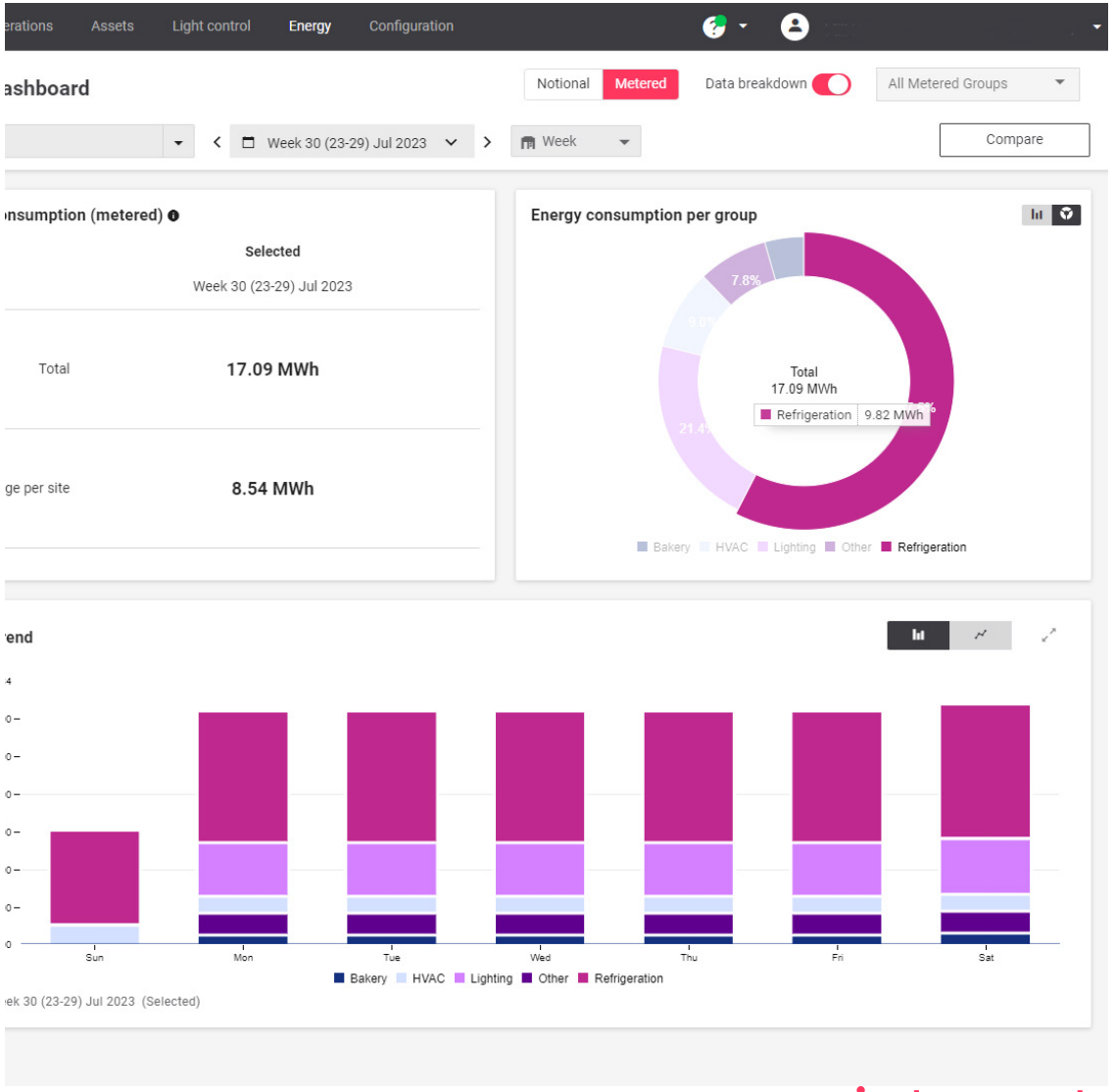
- On the dashboard, it's easy to select a more detailed notional energy trend, as well as a site list showing a ranking of all the sites in your portfolio.



## Energy dashboard for metered energy

- By adding smart meters, the energy dashboard allows you to monitor multiple power zones, also beyond lighting. Understand patterns in energy consumption for different groups, like lighting, refrigeration, bakery and HVAC.

- The dashboard provides insights in the energy consumption of all metered groups:
  - Total energy consumption
  - Data breakdown to show energy consumption per group
  - Select a single group to gain more insights of the energy consumption of this group

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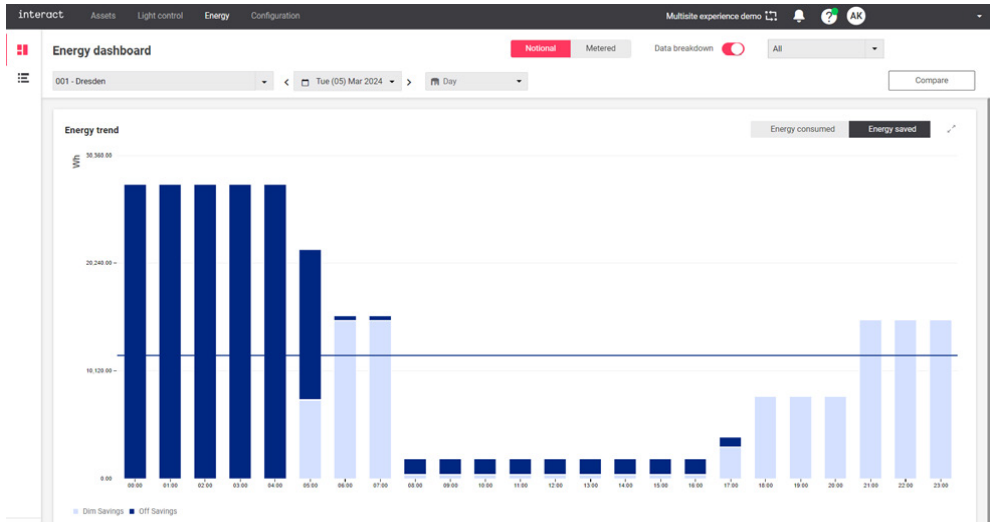
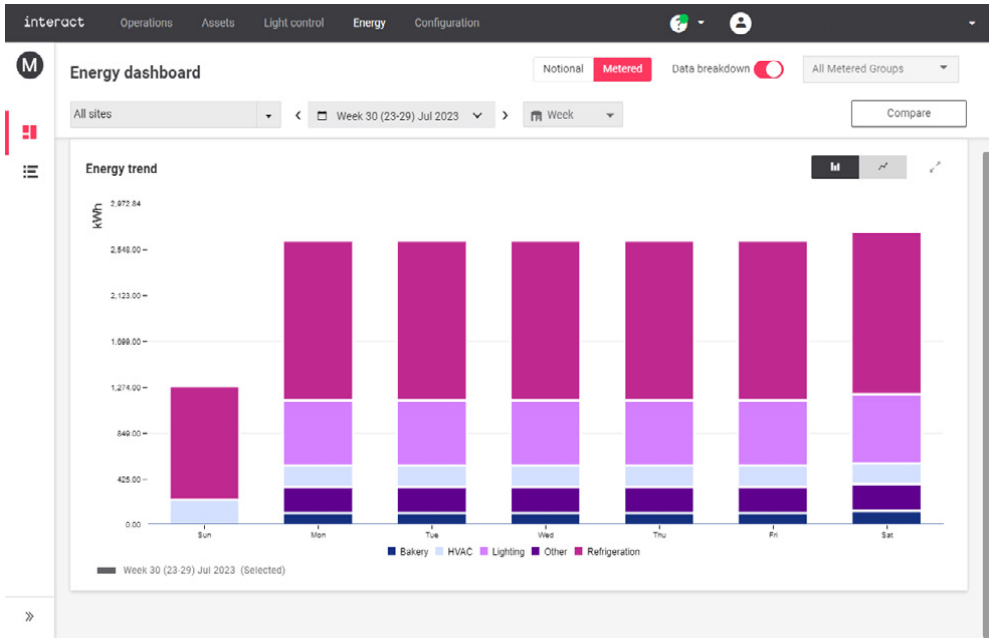
## Graphical representation of the energy trend

### Energy trend view

- Shows a detailed diagram of historical data of either energy consumption or energy savings.
- Analyze trends of one of your sites or select all sites
- Compare energy trend with a previous period to easily detect anomalies
- Investigate energy breakdown to gain further insights
- Study dim savings to derive insights.
- Drive down energy consumption to save cost and meet sustainability goals

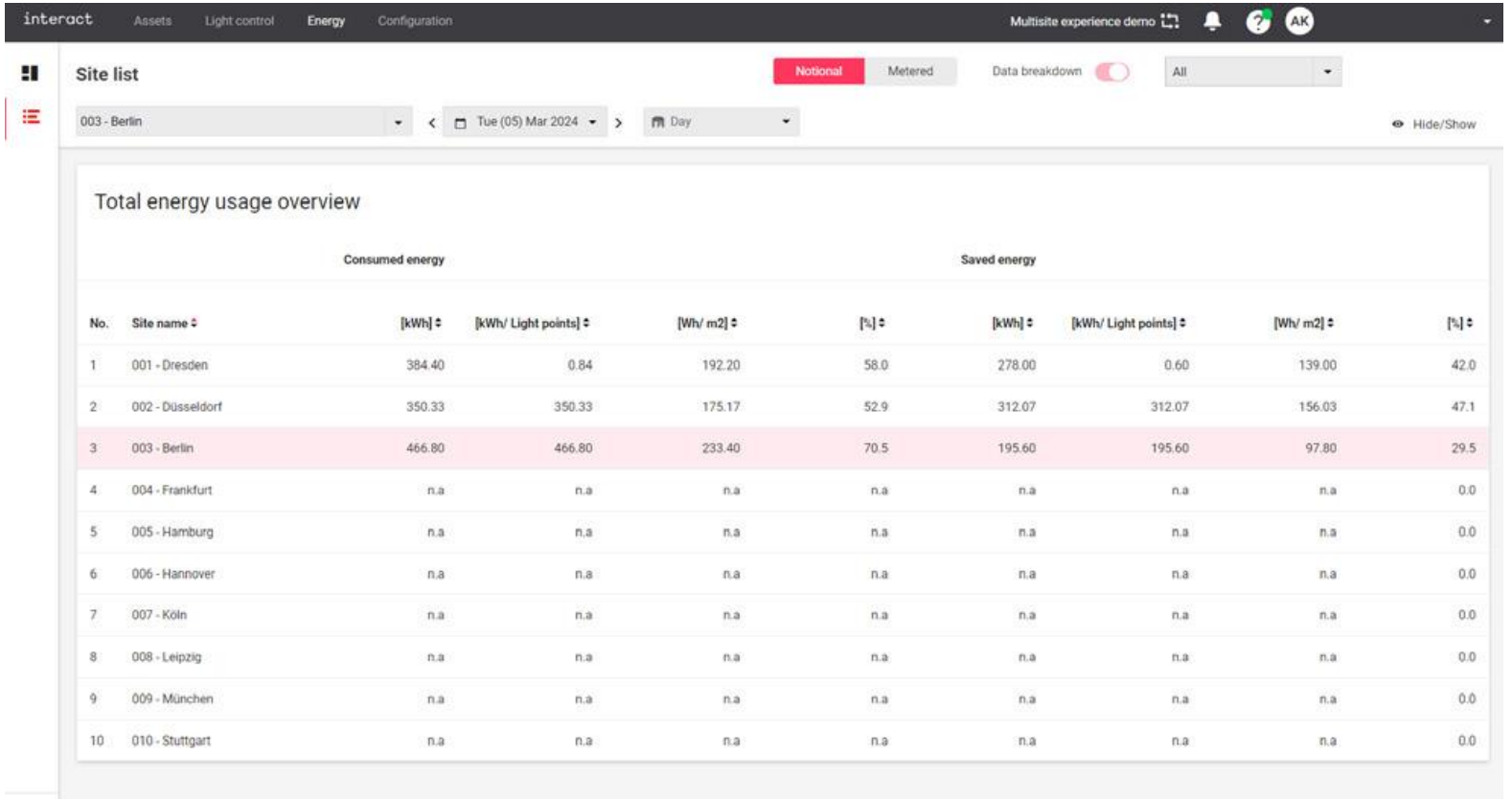


## Compare sites with the site list

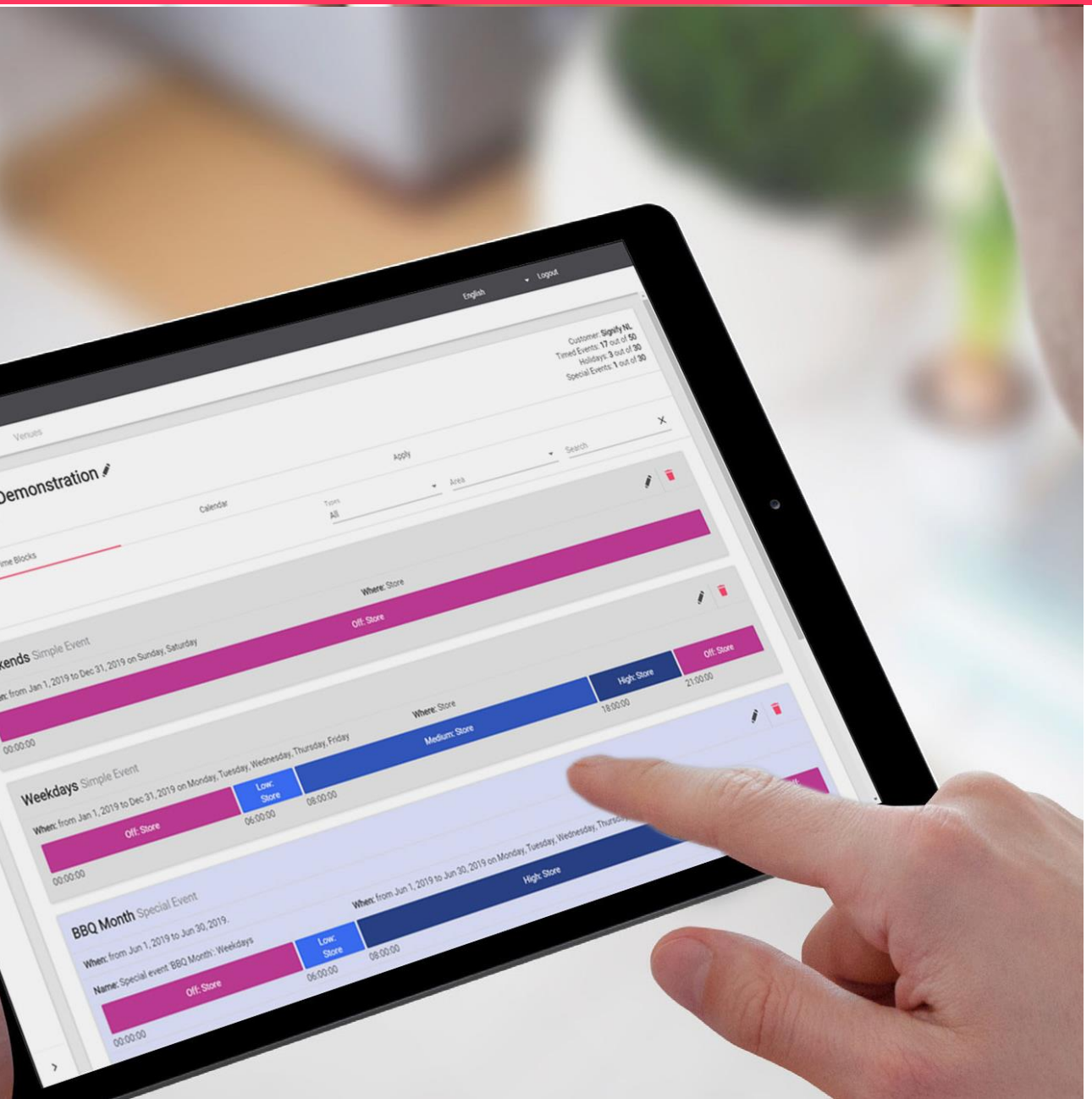
### Site list view

- Shows the ranking of a selected site in comparison with all other sites
- Easy sorting on various energy parameters (absolute or normalized)
- Find outliers, best and worst performing sites, easily and act on it.
- Analyze a specific period of interest



# Multisite System Manager

Achieve reliable energy savings and enhance customer experience




## Light management: Scene & schedule adjustment

- Through a single intuitive dashboard, Multisite makes it easy to create stunning and flexible retail spaces. You can monitor and control the lighting remotely over all sites by adjusting centralized scheduling and scene settings for extra energy Savings.

- Simply adjust the lighting to your needs within the same day and deploy to any number of sites, for example when the opening hours change.

- Save site visits through remote lighting adjustments. Create seasonal schedules and save additional energy by dimming during winter when it gets dark earlier.

- Help reducing operational expenses based on meaningful insights of your energy consumption and meet your sustainability targets too.

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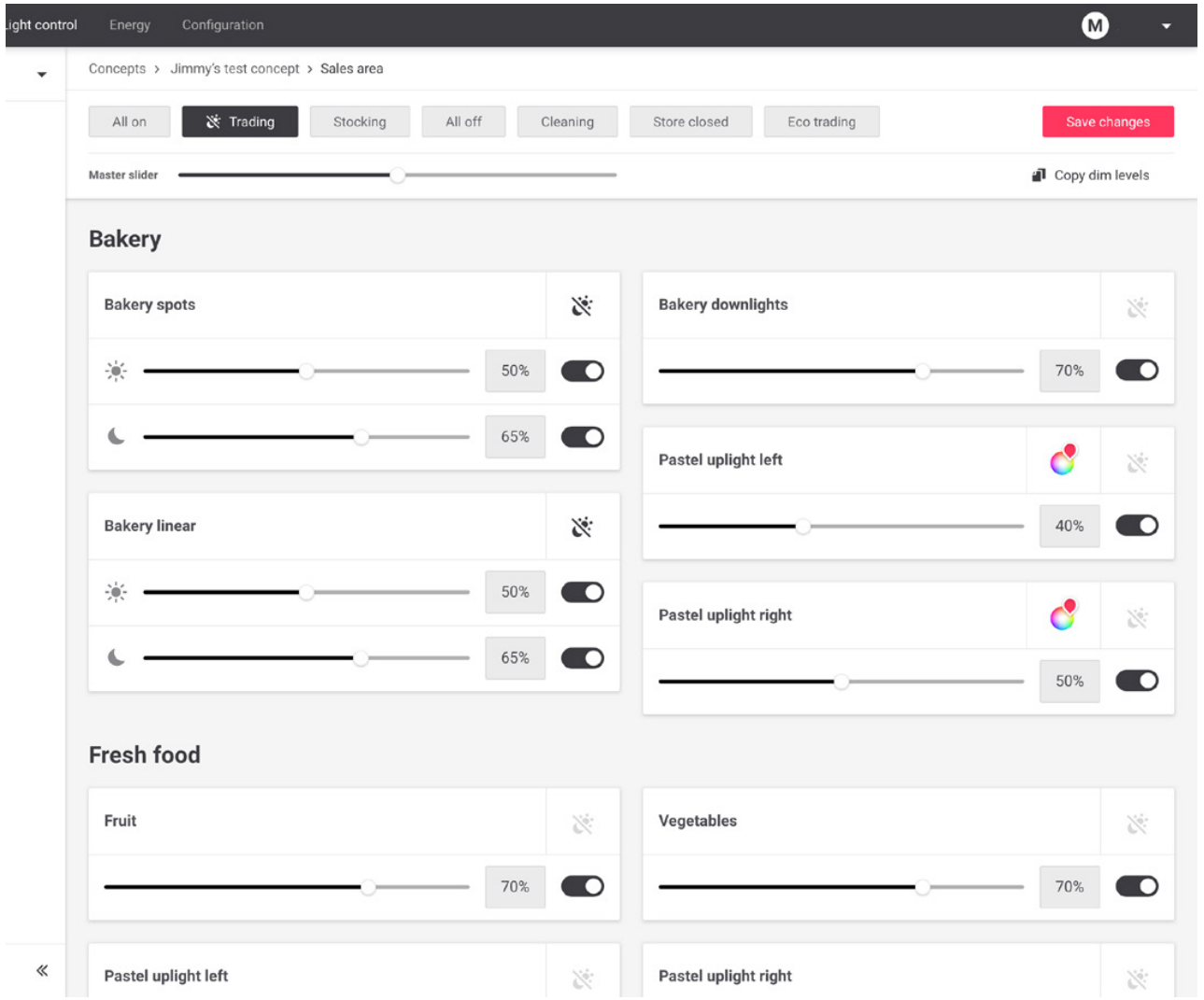
## Scene adjustment

- Remotely adjust light levels to your needs
- Live validation to preview the changes on an actual site
- Zoning
- Day/night mode to support the astronomical clock feature
- Adjust fade time*



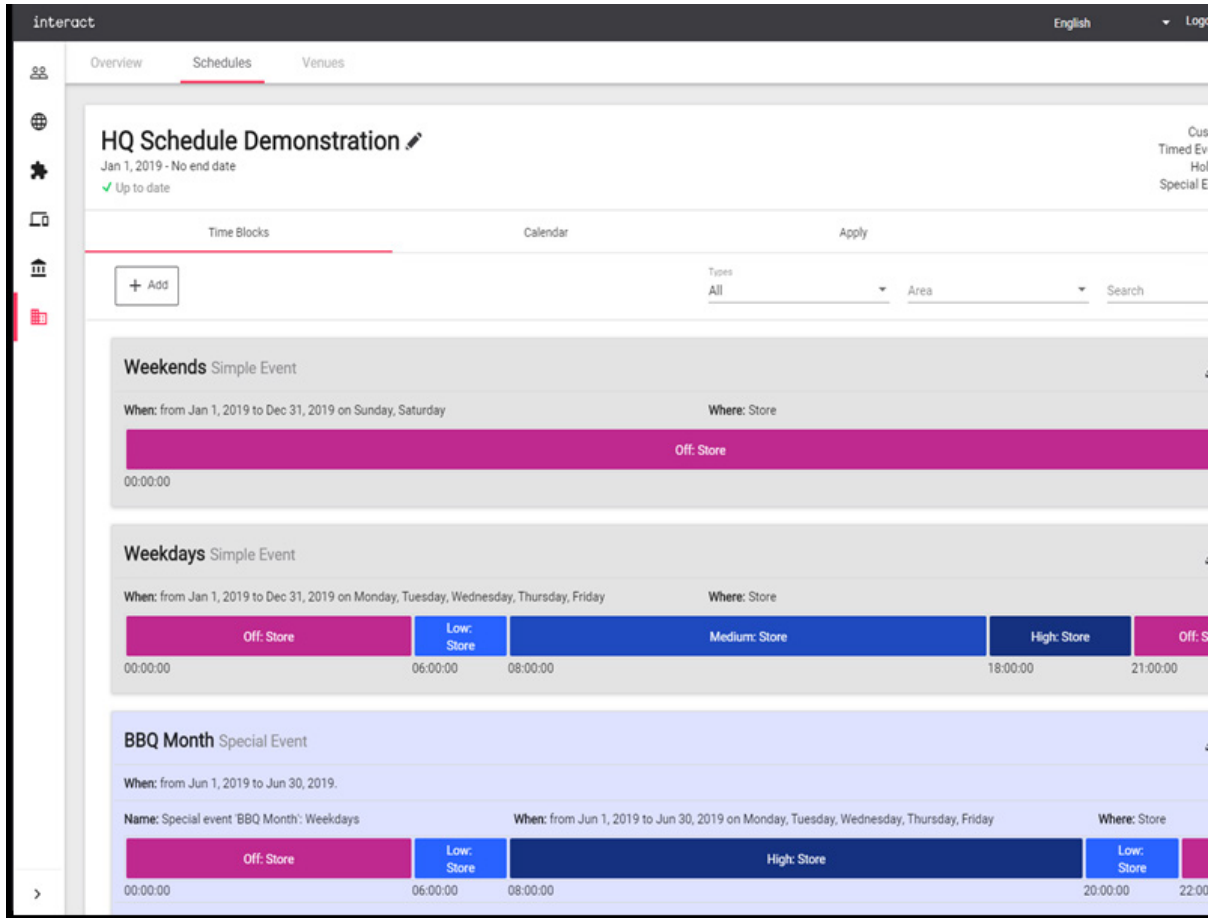

* Adjust fade time is part of schedule

## Schedule adjustment

- Intuitive wizard that helps with schedule creation and calendar adjustments

- Guided steps to deploy your adjustments to all sites or the correct subset of your sites (batch updates)

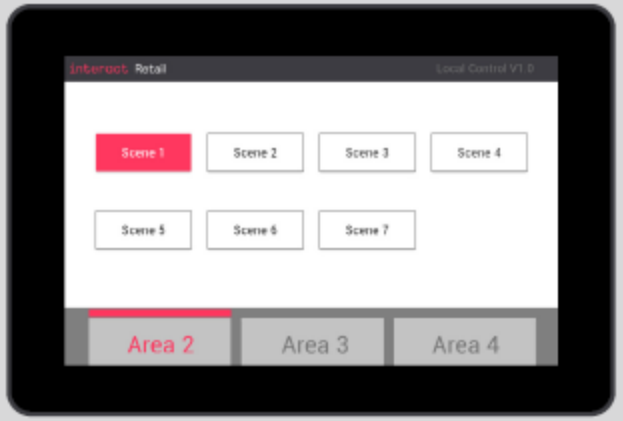
- Zoom in to view individual stores: see what is running & upcoming scenes



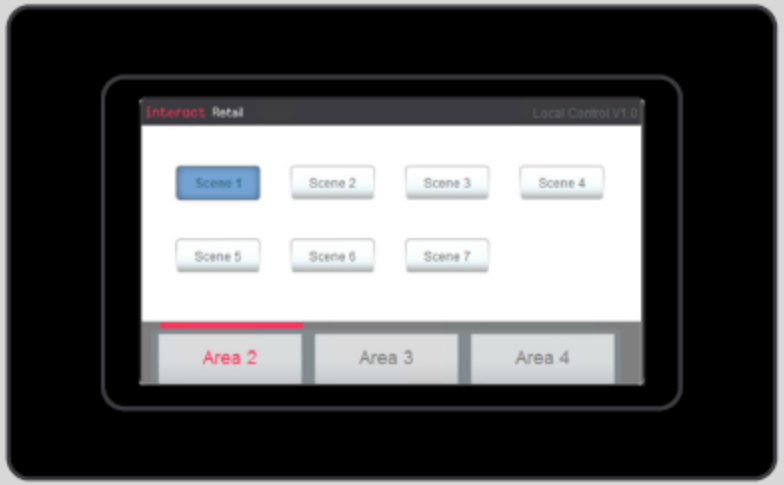
## Let your staff take control

### Local manual override

- Touch panel for local manual override provides the store owner flexibility by adjusting lights quickly on the spot:
    - Allows to select one of the presets per area
    - Lighting switches automatically back to the schedule after two hours
    - Easily upgrade your existing Store Kit or Store Flex (StoreWise) to Multisite
    - Reusing existing lighting controls infrastructure and adding a new site gateway



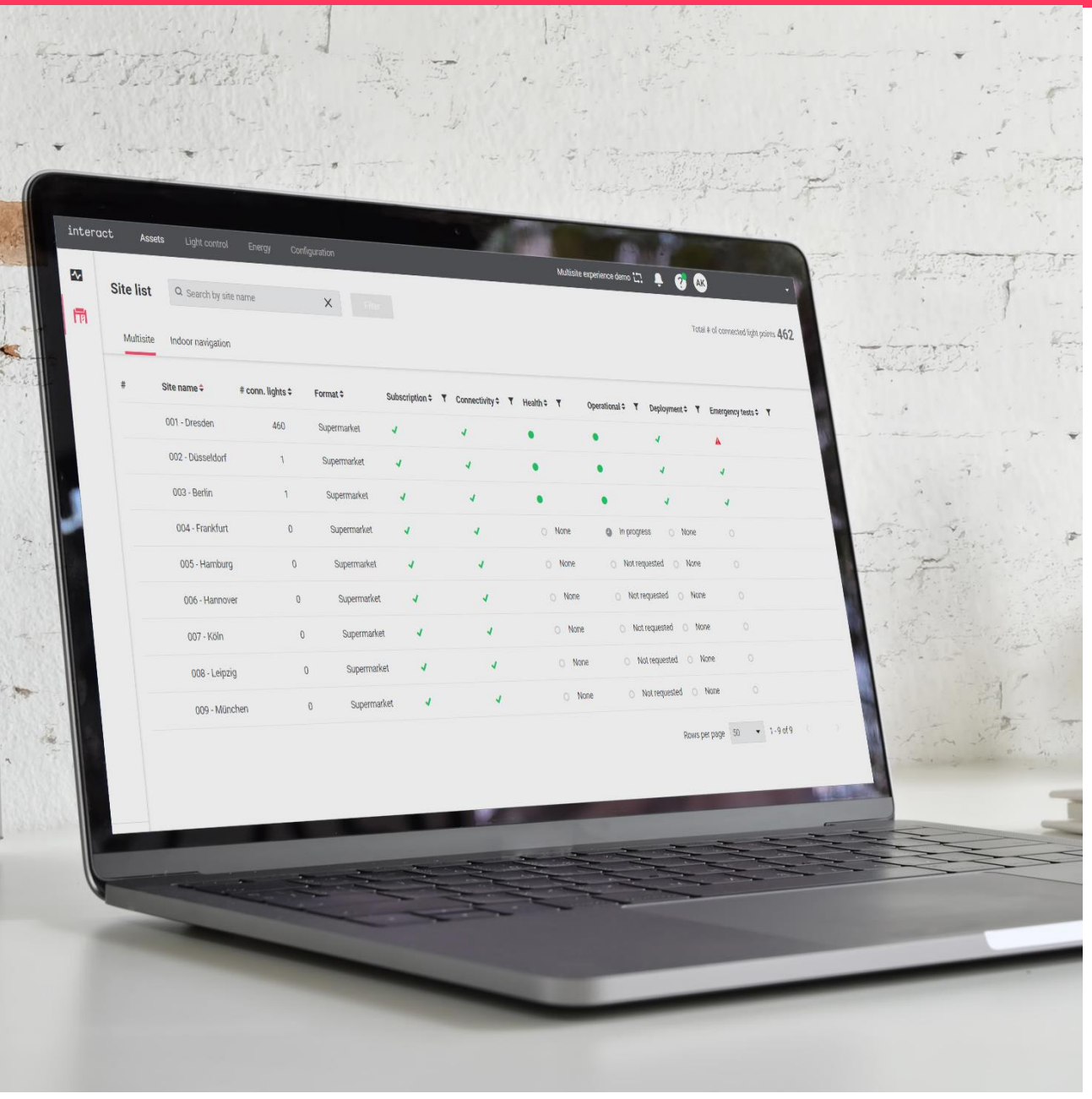

PDTS touch panel




Upgrading installed DTP100 touch panel

# Multisite System Manager

## Quarterly reports unlock the data that all your sites generate




### Performance report

An insightful quarterly report summarizes the performance and system health data of all your connected sites as generated by Multisite System Manager.

This report contains rich historical data allowing you to follow trends over the last three months. It also shows the best and least performing sites indicating whenever anything requires your attention and to take corrective action.

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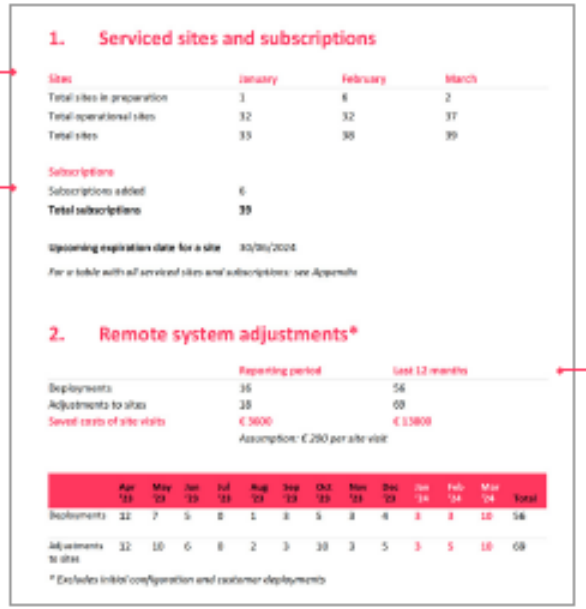
Overview of all your sites and active services

Subscriptions expiring soon



1. Serviced sites and subscriptions

| Sites | January | February | March |
|---|---|---|---|
| Total sites in preparation | 1 | 6 | 2 |
| Total operational sites | 32 | 32 | 37 |
| Total sites | 33 | 38 | 39 |

| Subscriptions | |
|---|---|
| Subscriptions added | 6 |
| **Total subscriptions** | **39** |

**Upcoming expiration date for a site** 30/06/2024

*For a table with all serviced sites and subscriptions: see Appendix*

2. Remote system adjustments*

| | Reporting period | Last 12 months |
|---|---|---|
| Deployments | 16 | 56 |
| Adjustments to sites | 18 | 68 |
| Saved costs of site visits | € 3600 | € 13808 |

*Assumption: € 200 per site visit*

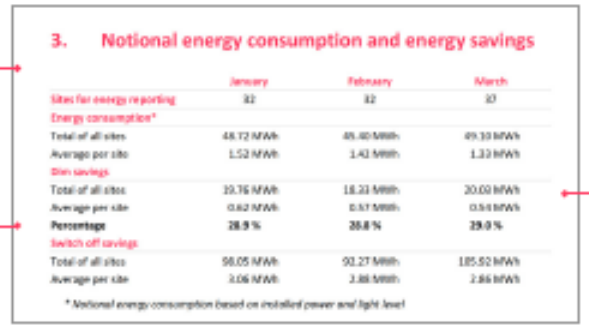
| | Apr '23 | May '23 | Jun '23 | Jul '23 | Aug '23 | Sep '23 | Oct '23 | Nov '23 | Dec '23 | Jan '24 | Feb '24 | Mar '24 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Deployments | 12 | 7 | 5 | 8 | 1 | 3 | 5 | 3 | 4 | 3 | 3 | 10 | 56 |
| Adjustments to sites | 12 | 10 | 6 | 8 | 2 | 3 | 10 | 3 | 5 | 3 | 5 | 10 | 68 |

** Excludes initial configuration and customer deployments*

Number of saved site visits by remote (batch) updates of scenes and schedules

Notional energy consumption

Energy savings achieved by dimming your light



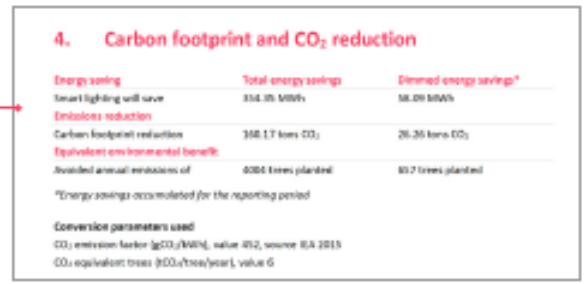
3. Notional energy consumption and energy savings

| Sites for energy reporting | January 32 | February 32 | March 37 |
|---|---|---|---|
| **Energy consumption*** | | | |
| Total of all sites | 48.72 MWh | 45.40 MWh | 49.10 MWh |
| Average per site | 1.52 MWh | 1.42 MWh | 1.33 MWh |
| **Dim savings** | | | |
| Total of all sites | 19.76 MWh | 18.23 MWh | 20.09 MWh |
| Average per site | 0.62 MWh | 0.57 MWh | 0.54 MWh |
| **Percentage** | **28.9 %** | **28.8 %** | **29.0 %** |
| **Switch off savings** | | | |
| Total of all sites | 98.05 MWh | 92.27 MWh | 185.52 MWh |
| Average per site | 3.06 MWh | 2.88 MWh | 2.86 MWh |

** Notional energy consumption based on installed power and light level*

Energy savings by scheduling and dimming versus installed power

Carbon footprint reduction achieved by adjusting the lighting properly



4. Carbon footprint and $CO_2$ reduction

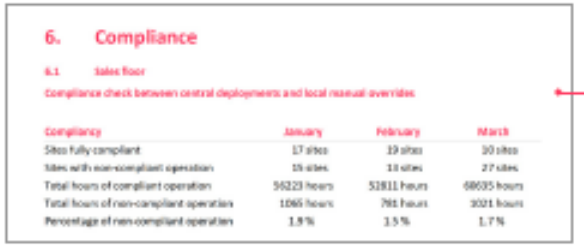
| Energy saving | Total energy savings | Dimmed energy savings* |
|---|---|---|
| Smart lighting will save | 314.85 MWh | 58.09 MWh |
| **Emissions reduction** | | |
| Carbon footprint reduction | 168.17 tons $CO_2$ | 26.26 tons $CO_2$ |
| **Equivalent environmental benefit** | | |
| Avoided annual emissions of | 6301 trees planted | 857 trees planted |

**Energy savings accumulated for the reporting period*

**Conversion parameters used**

$CO_2$ emission factor [$gCO_2$/MWh], value 452, source IEA 2015

$CO_2$ equivalent trees [$tCO_2$/tree/year], value 6



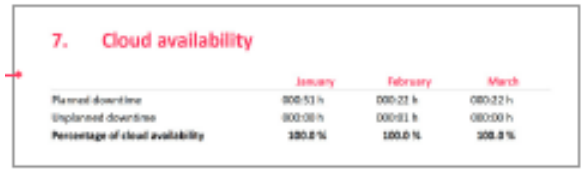
6. Compliance

6.1 Sales floor

Compliance check between central deployments and local manual overrides

| Compliancy | January | February | March |
|---|---|---|---|
| Sites fully compliant | 17 sites | 19 sites | 30 sites |
| Sites with non-compliant operation | 15 sites | 13 sites | 27 sites |
| Total hours of compliant operation | 56223 hours | 52811 hours | 68635 hours |
| Total hours of non-compliant operation | 1065 hours | 765 hours | 1021 hours |
| Percentage of non-compliant operation | 1.9 % | 1.5 % | 1.7 % |

Usage of local manual override versus centrally deployed scenes



7. Cloud availability

| | January | February | March |
|---|---|---|---|
| Planned downtime | 000:51 h | 000:22 h | 000:22 h |
| Unplanned downtime | 000:08 h | 000:01 h | 000:00 h |
| **Percentage of cloud availability** | **100.0 %** | **100.0 %** | **100.0 %** |

Historical cloud availability

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# Multisite System Manager

## Service that help to keep your site up-to-date

Powerful remote lighting control includes remote monitoring services. You are entitled to helpdesk & service ticketing.

Regular software security and feature updates via cloud ensures that your system is always up to date.

### Optional services

1. **4G connectivity service:** Taking away the hassle of integrating with your IT by including a 4G router into the installation.

2. **Remote operations:** Peace of mind - we manage and monitor your lights remotely upon your needs.

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Lighting management

# 4G mobile connectivity service (optional)

**In case fixed line connectivity is not possible, we can offer powerful wireless connectivity from the day of commissioning**

- ✓ Hassel free installation and commissioning
- ✓ Includes a secure 4G IoT router delivered in partnership with Vodafone
- ✓ Managed data bundle
- ✓ Broad coverage: 3 different preconfigured 4G routers depending on country of project

SW913705110004
Multisite connectivity EU/US - license

913701058603
LCN5323/00 12V DC PSU INDOOR 4G ROUTER

913701058503
LCN5320/00 INDOOR 4G ROUTER eSIM EU/META

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- United Kingdom

913701058613
LCN5321/00 INDOOR 4G ROUTER eSIM US/CAN

- United States and Canada
- Bolivia
- Mexico
- Peru

913701058703
LCN5322/00 INDOOR 4G ROUTER eSIM AUS/NZL

- Australia and New Zealand
- Chile
- Colombia
- Ecuador
- Japan



More details in “System guide” and “Commissioning guide” @ Partner portal

## Optional Services (defined and executed in market)

**Remote emergency lighting testing service**

Store safety is key, and regular health checks of emergency lighting is mandatory. Save precious time by triggering emergency light tests remotely via our experts.

- Trigger functional and duration tests remotely
- Query emergency test results remotely
- Get report with historical test results to plan replacement efficiently if needed
- Get confirmation that your emergency lighting operates correctly on battery

**Remote post install site tuning service**

Remote expert support to facilitate post install fine tuning and adjustment of your configuration.

- Supports fast and more reliable project execution
- Robust commissioning process to safeguard delivery on time
- No need for additional onsite visits after project handover

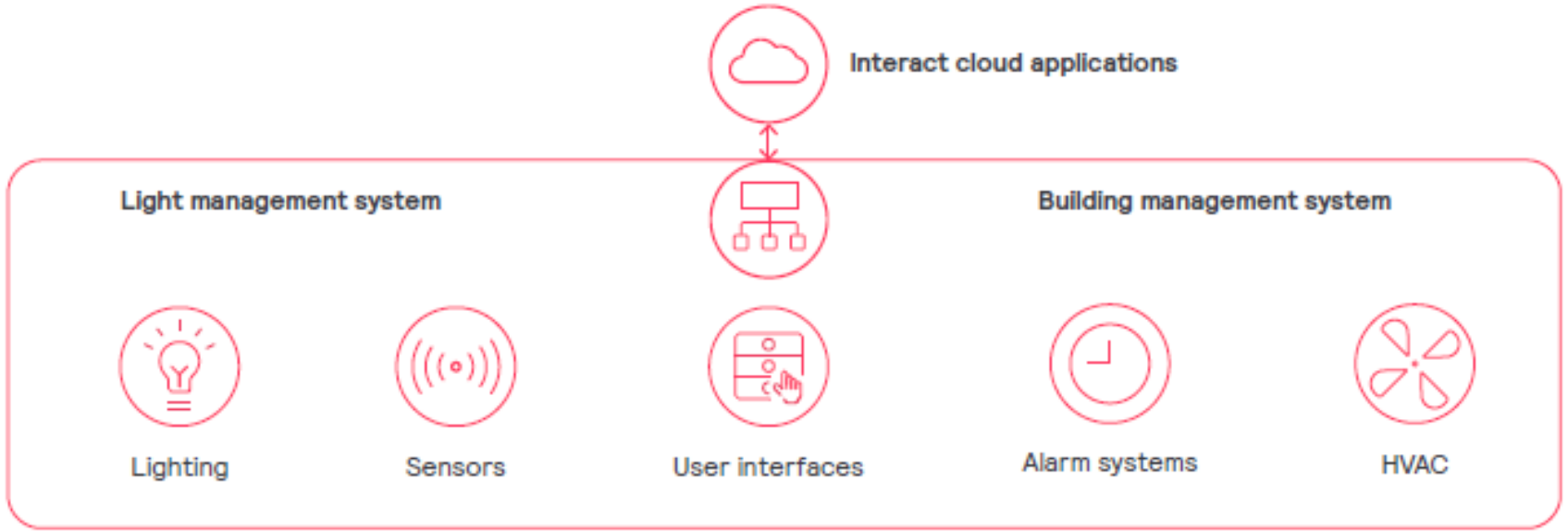
## Integration with other systems in the building

Hassle free operations with local integration
- With alarm, refrigeration, and BMS systems
- Leverage BMS routines to trigger scenes

Large variety of local manual override options
- Using touch screens, touch panels or
- Daylight- and presence sensors

Support of common interfaces
- Dry contact
- BACnet
- CGI

Multisite System Manager seamlessly integrates with various types of building management systems including alarm systems using different interfaces.



# Multisite System Manager

## End-to-end encryption & granular permissions keep your system secure

Best-in-class security is provided for all your connected systems, services and data. Interact supports security on every interface, while data, both in transit and at rest, are end-to-end encrypted.

The Multisite system is based on a modular on-premises Philips Dynalite controls architecture with a secure connection to the Interact cloud platform, managed by Signify, built on top of it.

The site gateway provides a secure cloud connection and manages all lighting at your site. The site gateway (PDDEG-S) connects securely over the internet to the cloud, and via RS-485 or Ethernet to the controllers on Site.

Our cloud dashboard and API interfaces are SSL encrypted with token-based authentication.

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## Role based permissions

• Access rights and privileges are managed by simple role-based permissions (least privileges) for the following user roles:

| Activities / Roles | Facility manager | Format manager | Site manager/Staff |
|---|---|---|---|
| User management (e.g. workorders, etc) | ✓ | | |
| Assets and health | ✓ | ✓ | |
| Light control (Concepts and Schedules) | ✓ | ✓ | (✓) |
| Configuration (Design) | ✓ | | |
| Energy monitoring | ✓ | ✓ | |

Explanation of the symbols ✓ Possible (✓) Local temporary override only

## Azure active directory identity management

• Simplify account and password management by allowing users to securely log in to the Interact dashboard using their existing company email address and password.

• Federating with your existing Azure active directory tenant to invite authorized users and assign corresponding roles. State of the art security measures ensure that your system is protected, and your data is secure.

• Our policies are in accordance with ISO 27001 and IEC 62443-4-1, a security certification for product development processes which ensures that all identified security requirements are implemented, verified, tested, and documented with traceability.

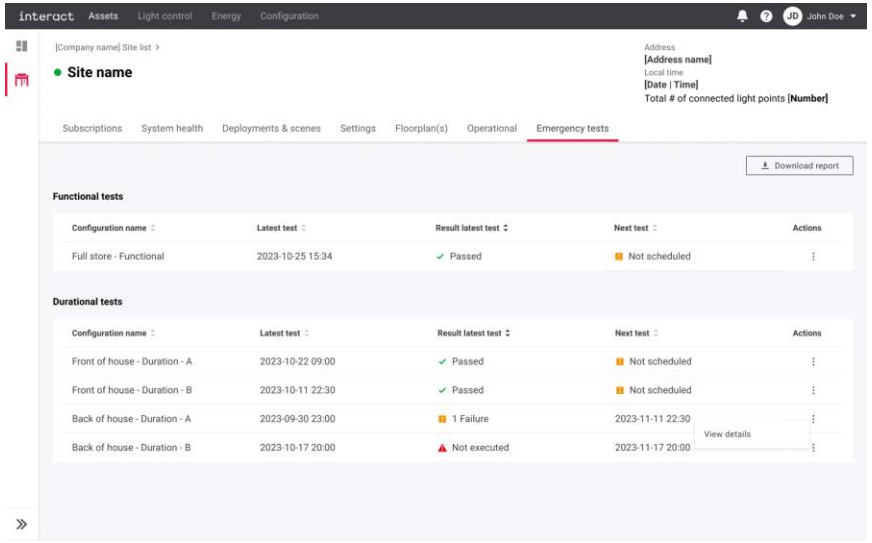
Azure Active Directory

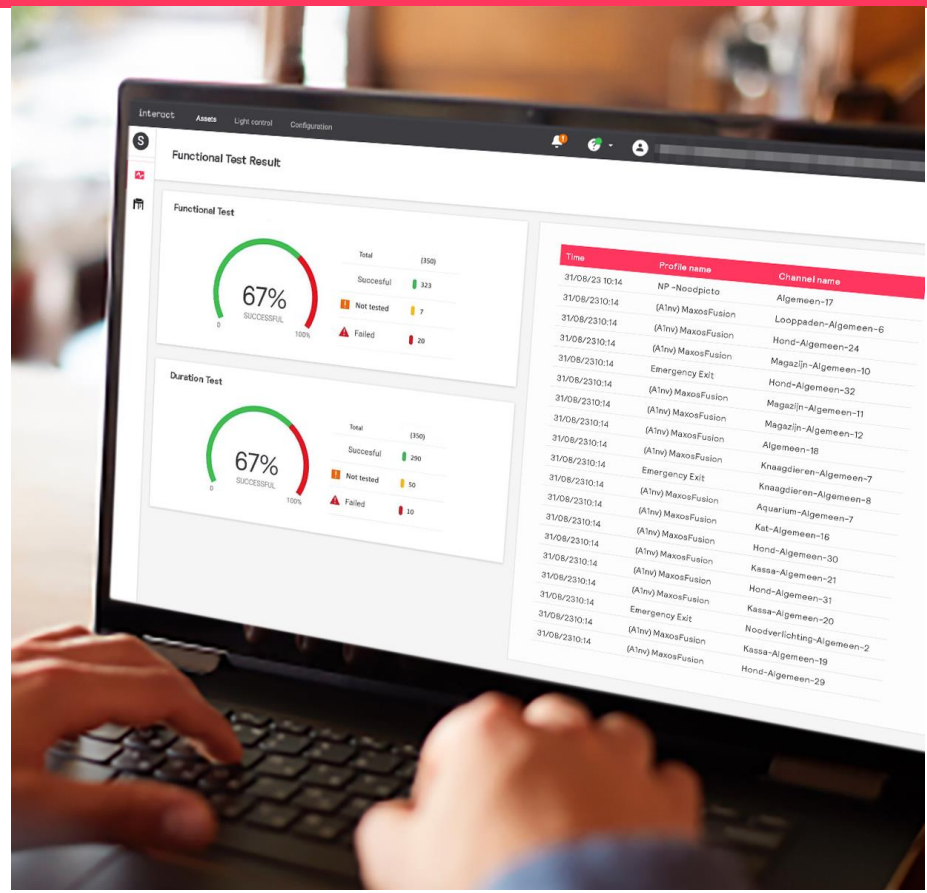
# Multisite System Manager

Upcoming emergency light testing feature

## Remote emergency light testing

- Phase 1: PPC Passed, CR Dec 2024
- Reduces maintenance time and cost
- Functional and duration tests
- Actionable test results including failures




**Phase 2:**
**Scheduling and report on dashboard**

- Facility manager can adjust test schedules on dashboard
- Historic test report repository

**Phase 1:**
**Report on dashboard**

- Facility manager: Can see and download reports on dashboard
- System Engineer: Can schedule all future tests with System Builder
- Scheduled tests are executed from PDDEG-S and collects results

**Phase 0:**
**Manual remote ELT using SB**

- System Engineer: Can collect reports with System Builder
- System Engineer: Can trigger test using System Builder

Sample test report

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**Learning objectives** | Software features & functions

In this lesson, you learnt that:

- Concept is a set of scenes
- Multisite dashboard shows all the sites in one single view
- Main system features include:
  - Day & Night modes
  - Schedule and calendar creation
  - 2 hours manual override
  - Energy monitoring and reports
  - Emergency lighting checks

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