

SMART Lighting Control

Tesco Stores – Case Study



With investment from European Regional Development
Fund European Commission – Investing in your future





- Guaranteed Savings of Energy and Your Money
- The Easiest Way

We Put Brakes on Your Power Meter

„We approached the Seak company in 2009 to propose an energy saving system for our stores. In their case, the presented solution and ROIs matched our vision of effective energy savings for Tesco indoor and outdoor lighting.“

Vítězslav Mizera, MBA, Energy Conservation Manager for
Tesco Stores CZ and SK



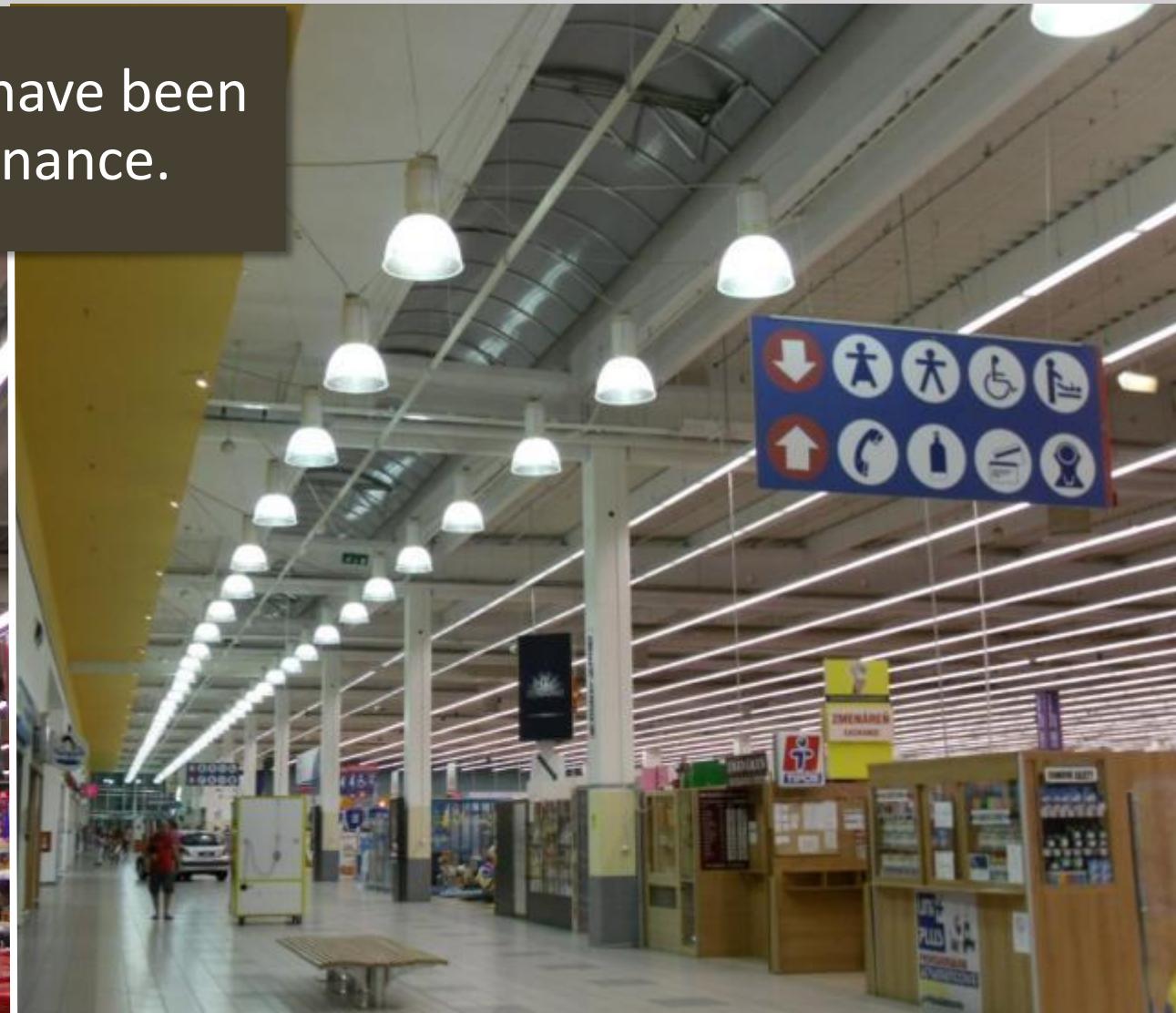
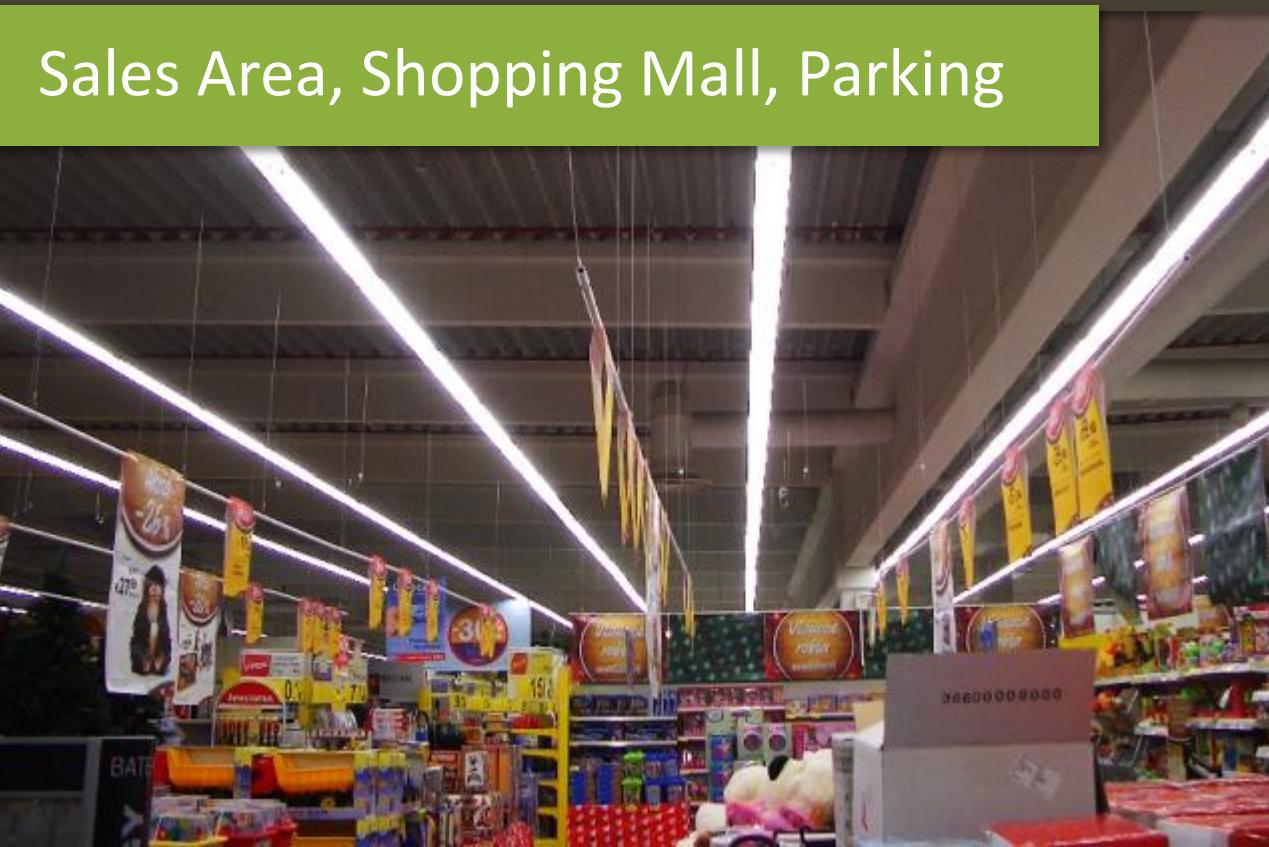


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Large majority of Tesco stores in CZ and SK have been saving over 50% of energy costs and maintenance.

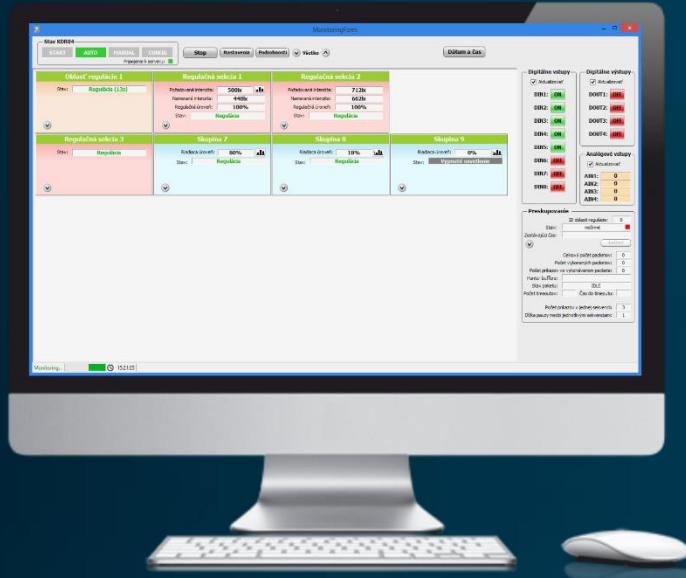
Sales Area, Shopping Mall, Parking





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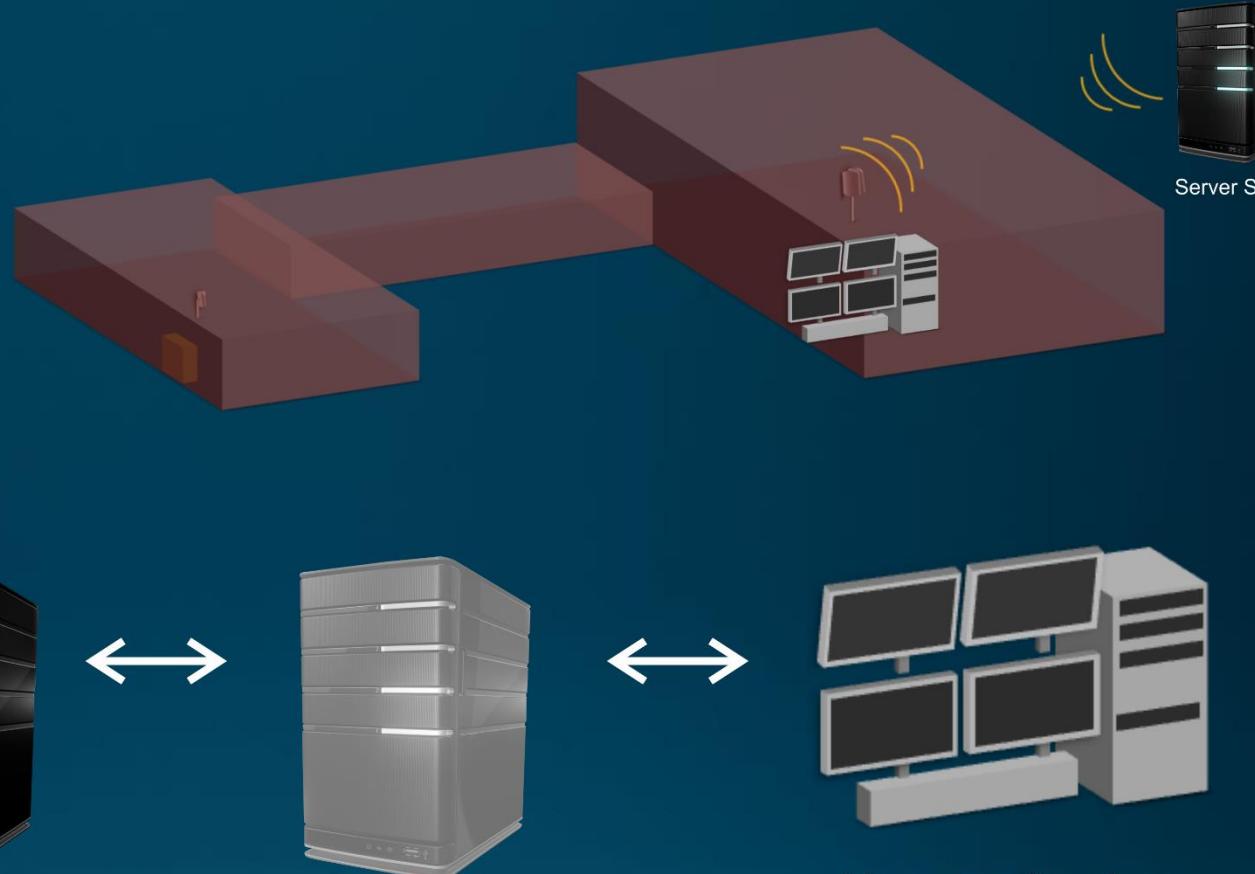
Remote management SEAK SMART system and AISYS



Service application
SEAK SMART



Server SEAK

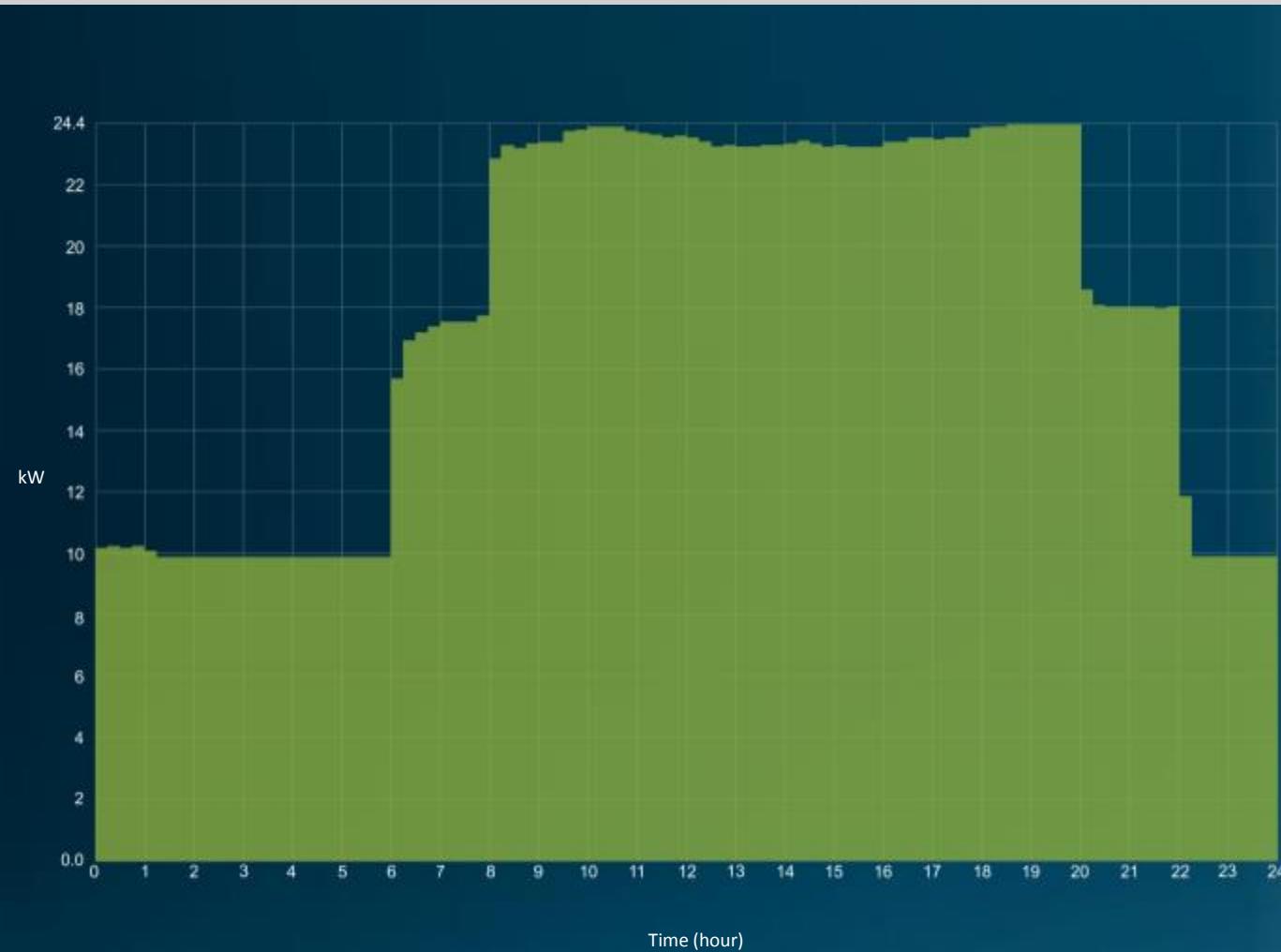


Server AISE

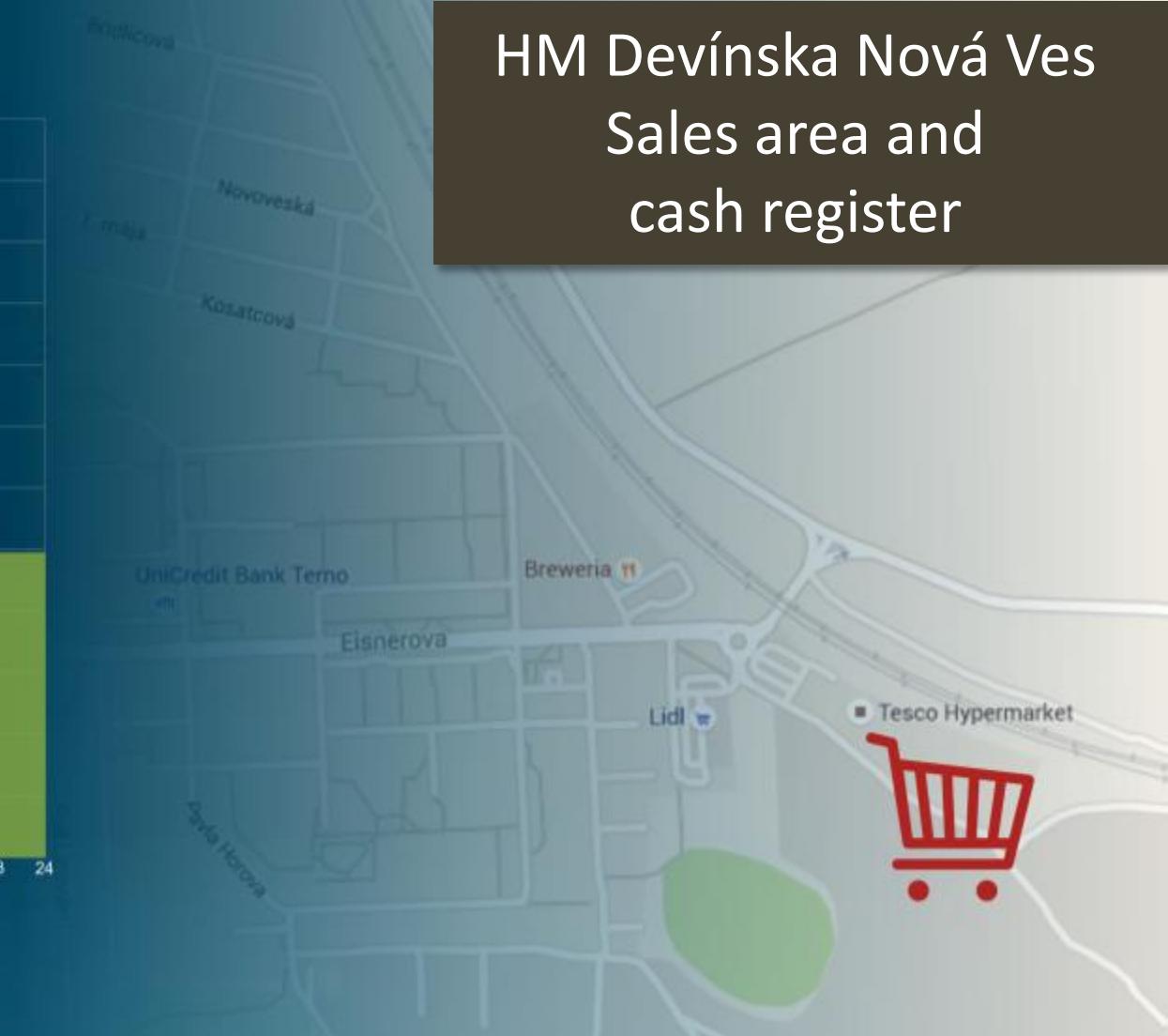
User application
AISYS

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Lighting control – the amount of electricity during one day



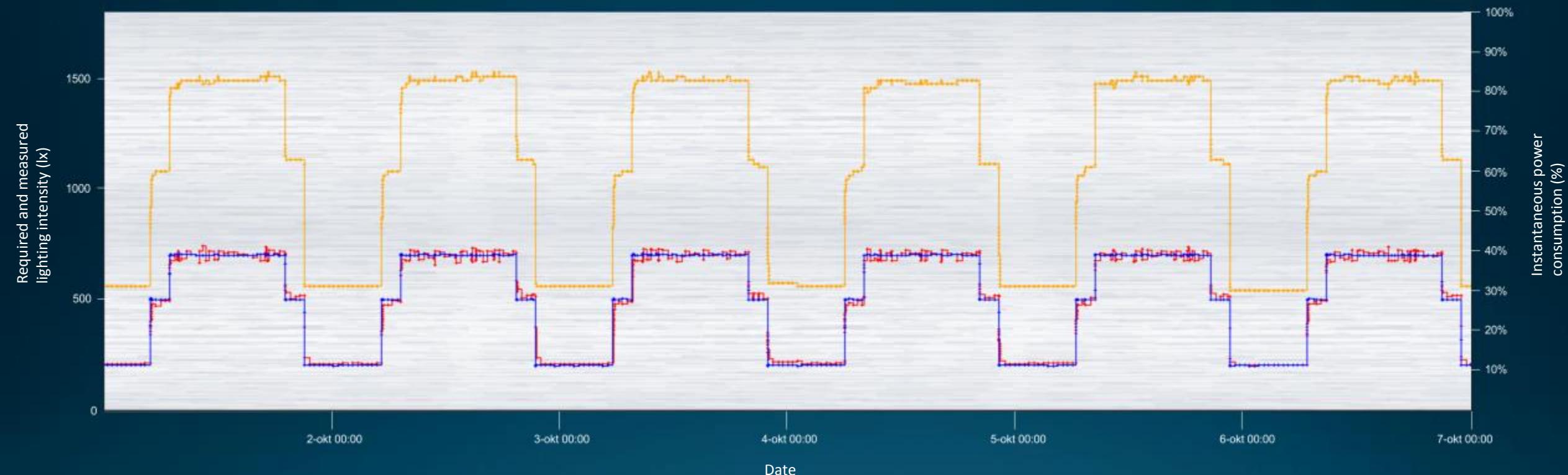
HM Devínska Nová Ves
Sales area and
cash register



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Visualisation of SEAK regulation record

HM Devínska Nová Ves
Sales area and cash register



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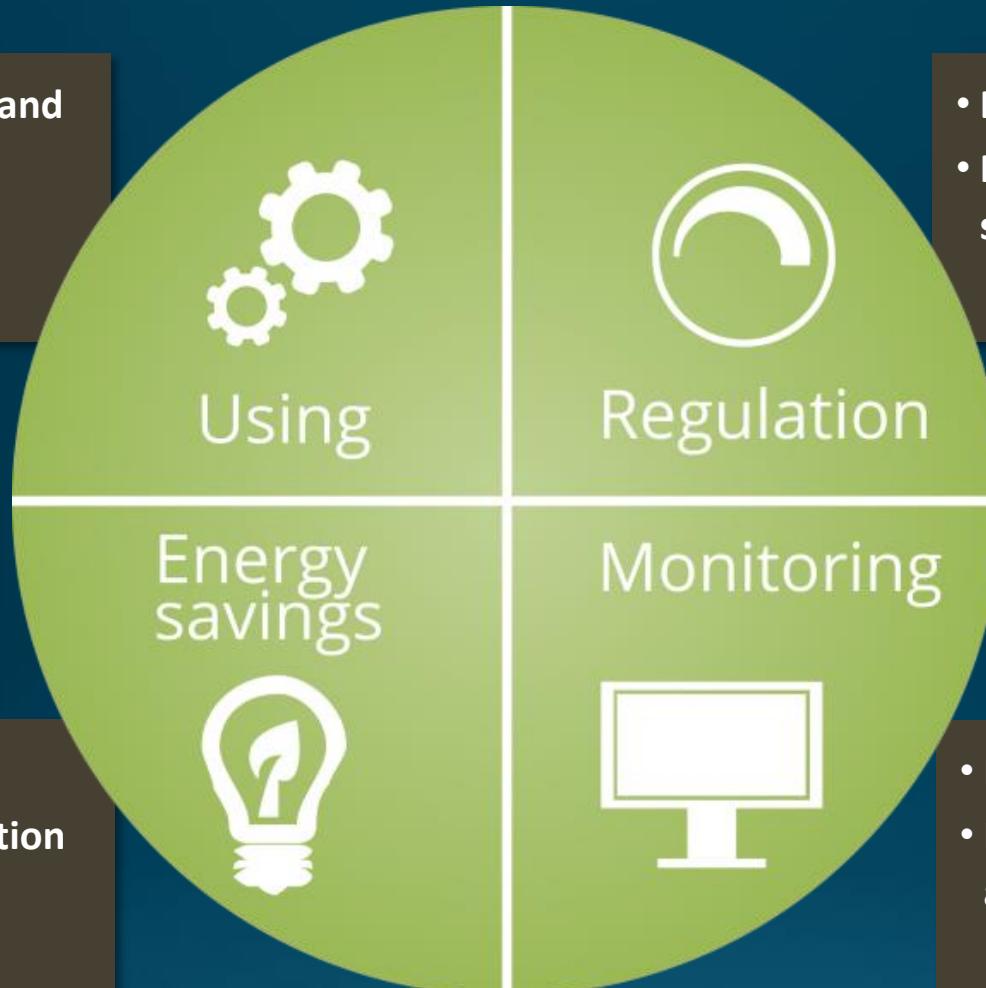
SEAK SMART SYSTEM

- Universal use for interior and exterior
- Solutions SMART Basic/Server

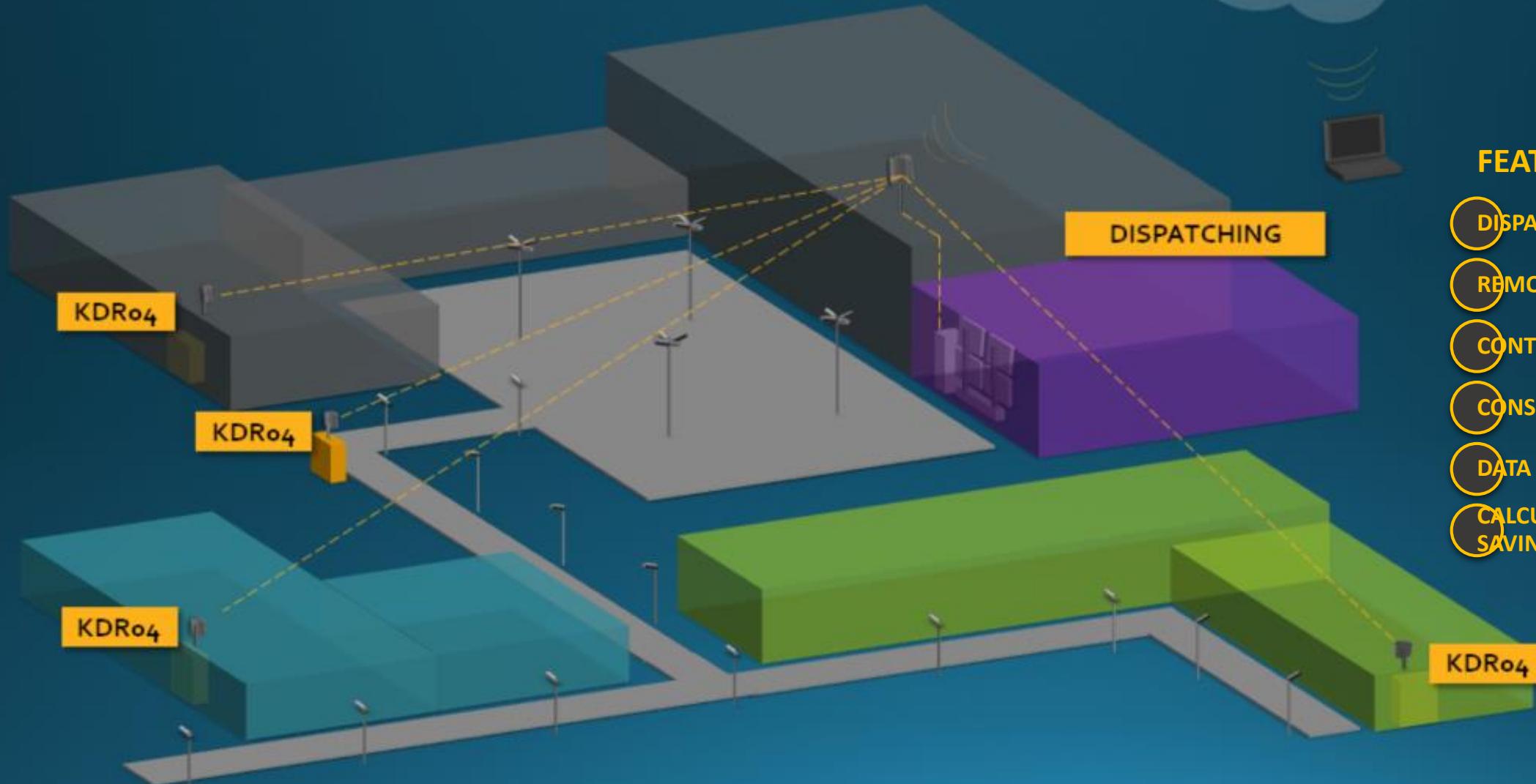
- Different regulation modes
- Regulation parameters settings

- Consumption charts
- Electricity savings calculation

- Dispatching
- Interactive graphic application



SEAK SMART SERVER – block diagram

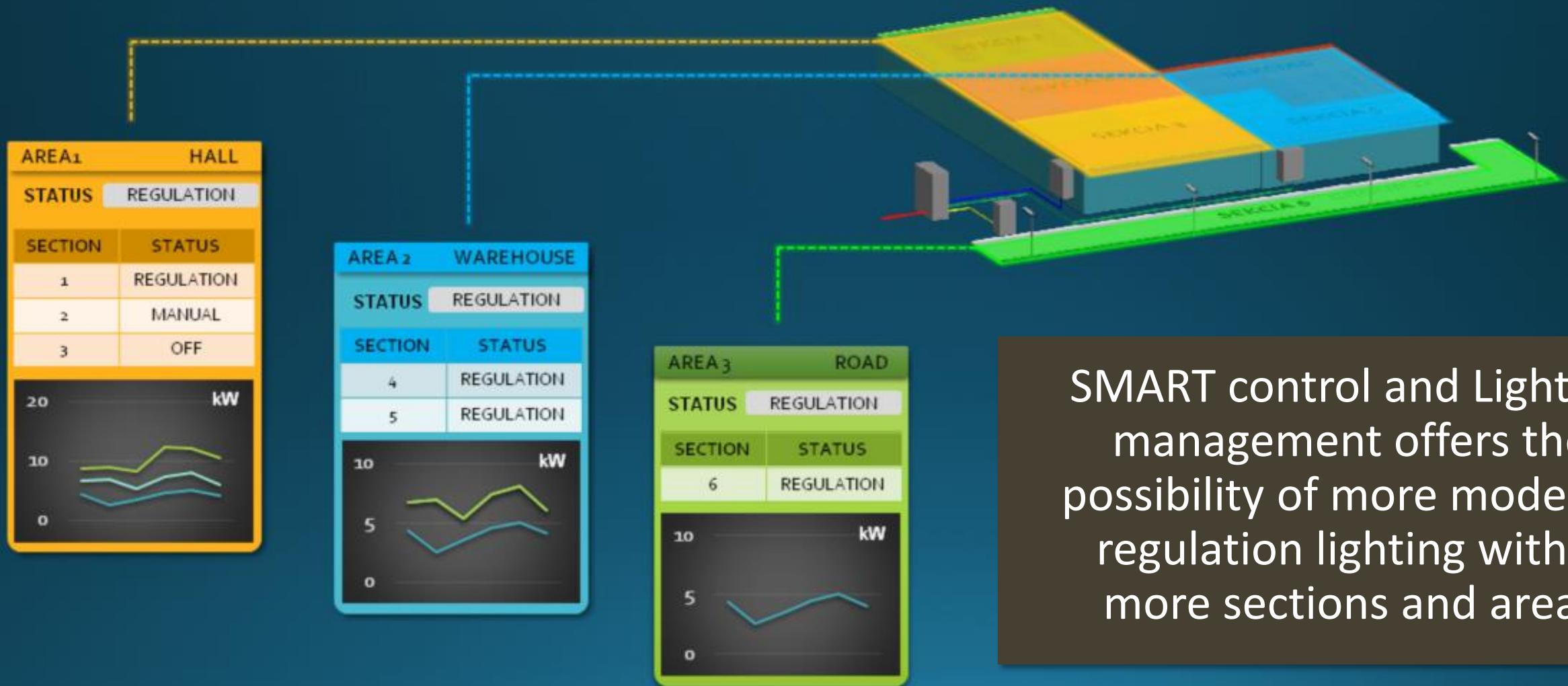


FEATURES

- DISPATCHING
- REMOTE CONTROL
- CONTROL CHARTS
- CONSUMPTION CHARTS
- DATA ARCHIVE
- CALCULATION OF ENERGY SAVINGS

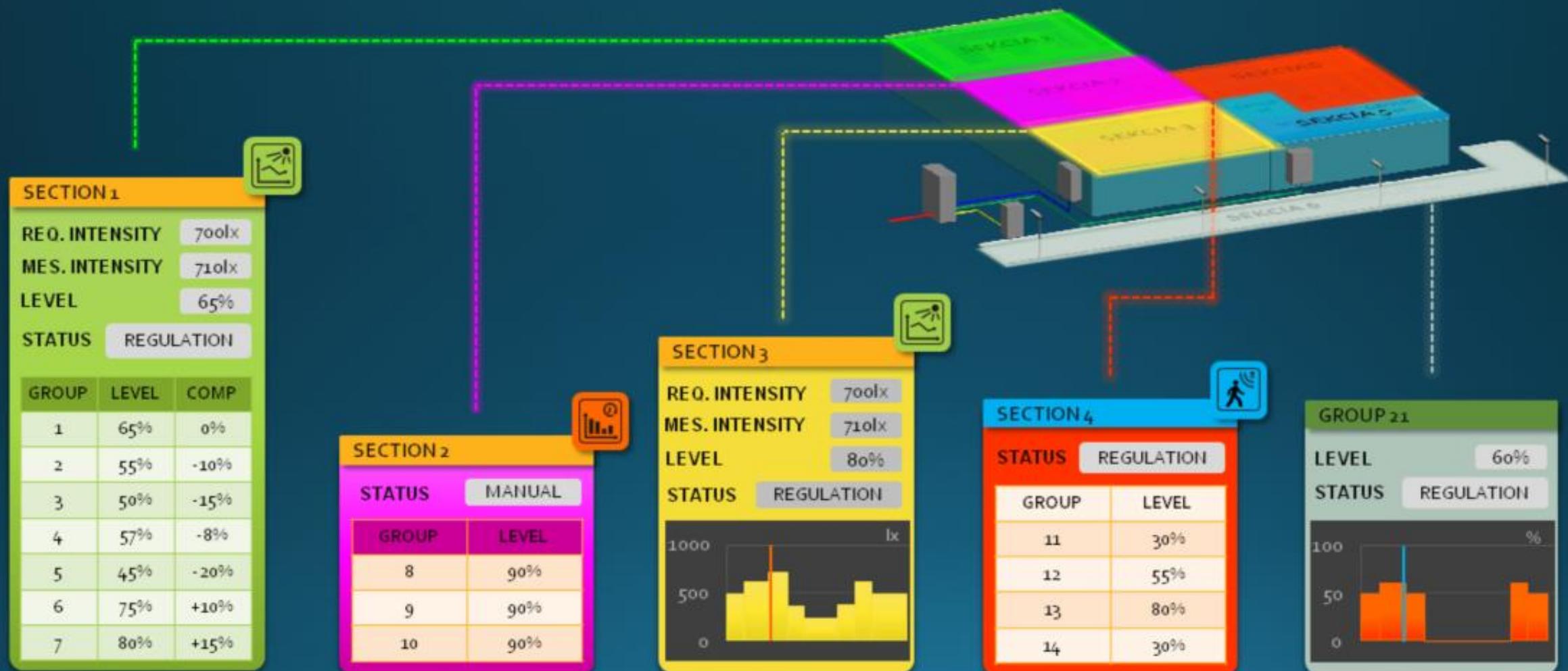
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SEAK SMART application



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SEAK application - control by intensity sensors, motion sensors, direct management by schedule



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Tesco Shopping area and Cashiers

	Value	Area		Area (CoreLine)		Area (Clarus)	
Country	-	SK	CZ	SK	CZ	SK	CZ
Number of objects	-	44	14	11	-	11	15
Luminaires	pcs	55 720	23 880	6 109	-	1 485	2 164
Input power(before)	kW	3 207	1 375	1 088	-	81	163
Input power (after)	kW	2 026	500	530	-	47	69
Difference	%	37	36	51	-	42	58



Total energy savings after installation in shopping area and cashiers is 2 367 kW.



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Tesco Mall

	Value	Slovakia	Czechia
Number of objects	-	12	16
Luminaires	pcs	416	386
Input power(before)	kW	162	142
Input power (after)	kW	102	70
Difference	%	37	50



Total energy savings after
installation is 131 kW.



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Tesco Warehouse

	Value	Slovakia	Czechia
Number of objects	-	-	14
Luminaires	pcs	-	1 692
Input power(before)	kW	-	196
Input power (after)	kW	-	57
Difference	%	-	71



Total energy savings after installation is 138 kW.



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Tesco Outdoor parking

	Value	Slovakia	Czechia
Number of objects	-	9	9
Luminaires	pcs	451	521
Input power(before)	kW	148	165
Input power (after)	kW	92	105
Difference	%	38	36



**Total energy savings after
installation is 115 kW.**



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Tesco Underground parking

	Value	Slovakia	Czechia
Number of objects	-	1	2
Luminaires	pcs	752	1 810
Input power(before)	kW	43	160
Input power (after)	kW	26	96
Difference	%	40	40



**Total energy savings after
installation is 81 kW.**



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Tesco

Warehouse freezer

	Value	Slovakia	Czechia
Number of objects	-	37	-
Luminaires	pcs	1 247	-
Input power(before)	kW	92	-
Input power (after)	kW	52	-
Difference	%	43	-



**Total energy savings after
installation is 39 kW.**



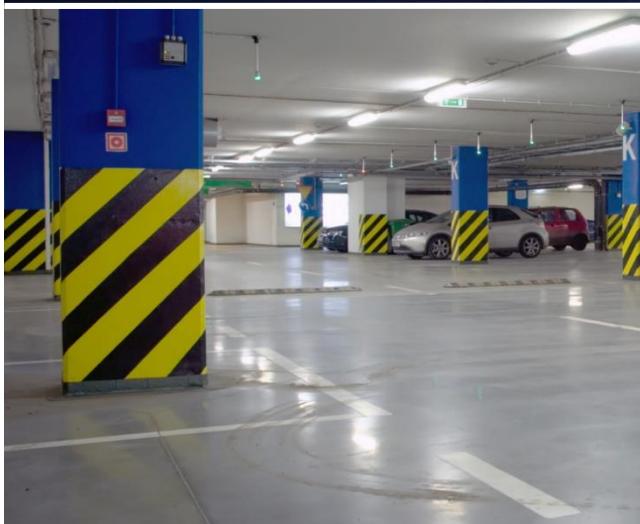
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Tesco Summary

	Value	Tesco
Number of objects	-	195
Luminaires	pcs	96 633
Input power(before)	kW	7 028
Input power (after)	kW	4 153
Difference	%	41



Total energy savings after
installation (2009 – 06/2016)
is 53 178 MWh.





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SEAK

has saved TESCO over 5,3 mil.€. So far.

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