



Adding value to business

# BI for Utility

Fatta snabbare och bättre beslut



# David Bergling

**Senior Business Consultant, Digital Solutions  
EG Sverige AB**

+46 (0)720 60 50 25

[daber@eg.se](mailto:daber@eg.se)



# Sven Lantz

**Senior BI-Consultant, Digital Solutions  
EG Sverige AB**

+46 (0)703 66 72 29

[svlan@eg.se](mailto:svlan@eg.se)





# Simplify Decision

*Connect the dots and  
solve the puzzle*



# Where is the data today?



Xellent

CRM

Customized Databases



# Most data never gets analyzed





# Value of BI

Decisions based on facts

Faster decision process

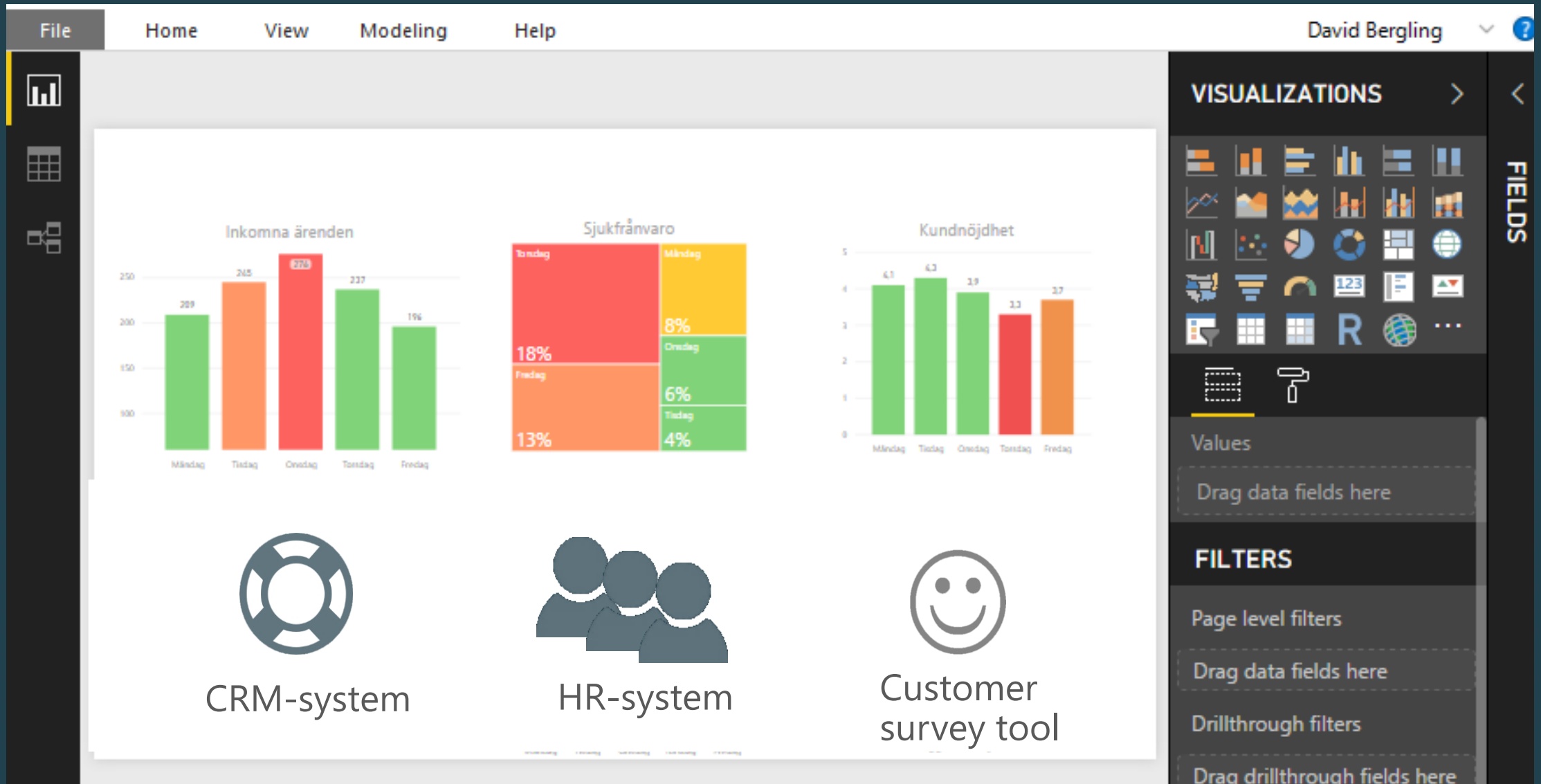
Decisions can be decentralized



# How does BI simplify decisions?

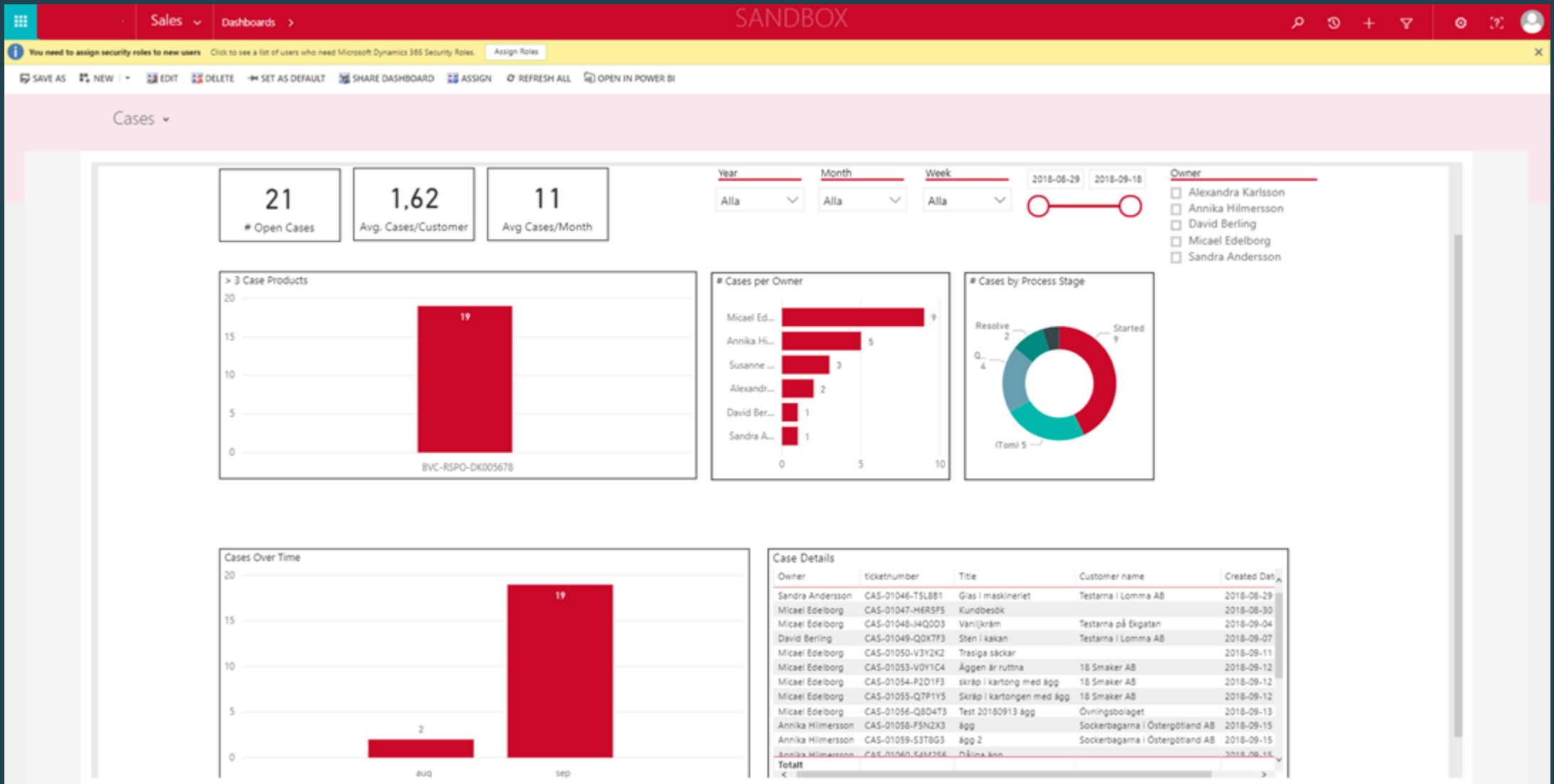
- By collecting and combining different data sources, for example from ERP-systems, CRM-systems, Excel etc.
- By linking, structuring and quality assured information from the different data sources so that everyone uses the same information. "One truth of information"
- By making the information available and easy to understand for different persons and roles in the business
- By enabling dynamic reports where you can look at information from different angles, dig deeper into the information and see relationships and trends
- By making it easy to make decisions from facts instead of just one feeling

# Visualization of several data sources



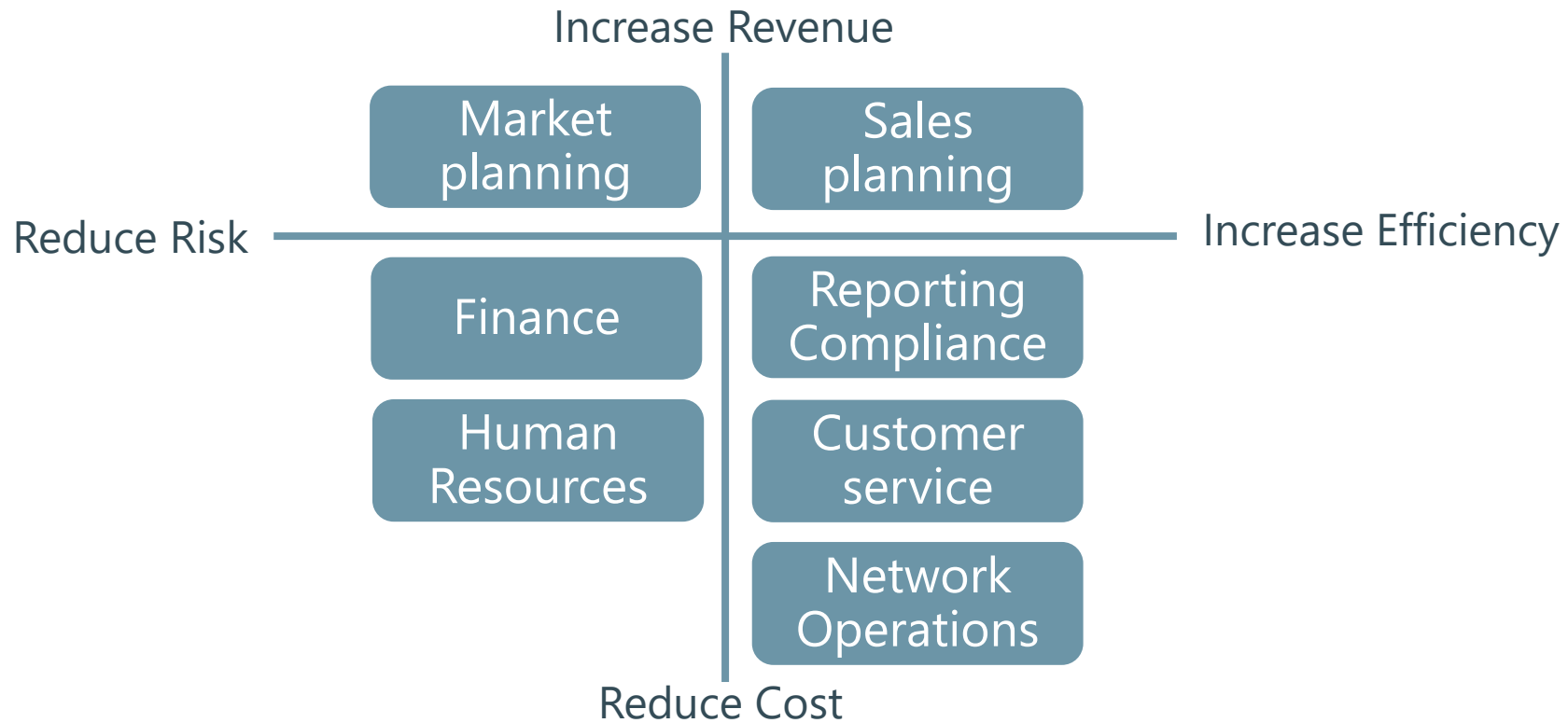


# Embedded Analytics



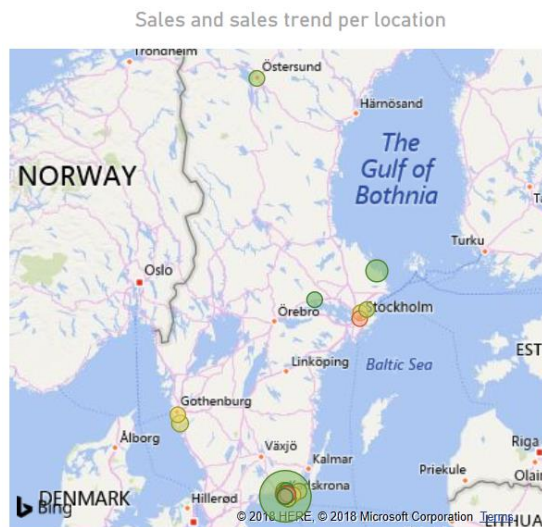
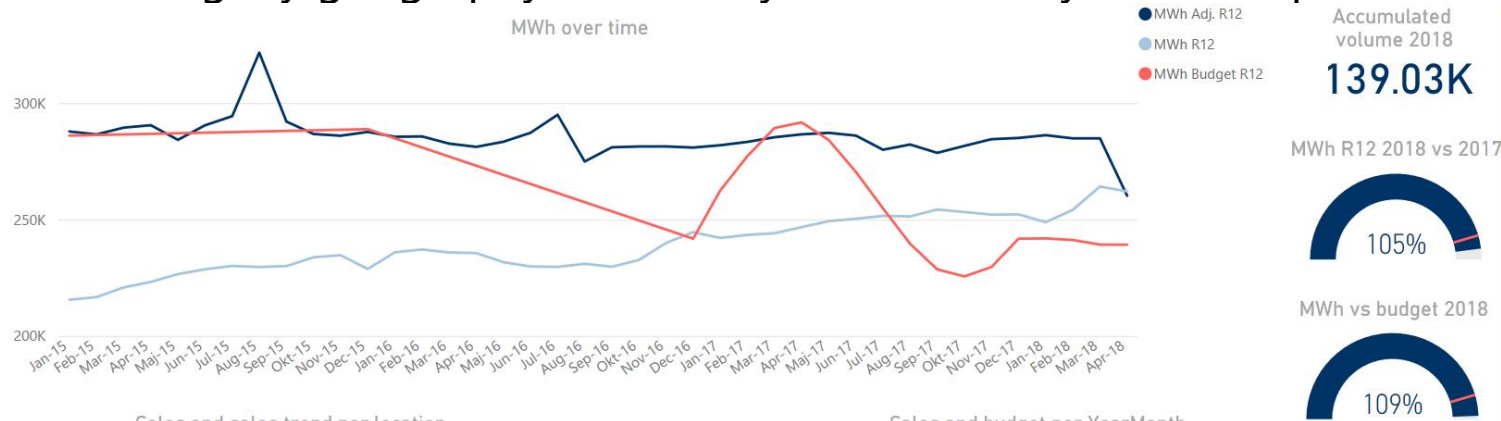


# BI Add value examples



# 1. Validate budget and forecasts

- Comparing your budget/forecast to the outcome helps you to do a better forecast next time
- Drill down, e.g. by geography, to identify areas where you can improve



Sales and budget per YearMonth

Month	MWh	MWh R12	MWh Budget	Degree Day Factor	MWh Adj.	MWh Adj. R12	MWh Adj.	MWh Adj. R12	Sales vs Budget
Jan-14		23,833	23,833	96	40,326		630,880.26		162%
Feb-14		23,833	23,833	82	37,339		628,324.10		128%
Mar-14		23,833	23,833	80	33,895		568,801.05		114%
Apr-14		23,833	23,833	81	28,693		18,623,529.89		81%
May-14		23,833	23,833	56	20,033		401,166.80		47%
Jun-14		23,833	23,833	30	0		0.00		23%
Jul-14		23,833	23,833	6	0		0.00		14%
Aug-14		23,833	23,833	0	0		0.00		19%
Sep-14		23,833	23,833	19	39,809		832,846.47		32%
Oct-14		23,833	23,833	55	25,070		487,425.14		58%
Nov-14		23,833	23,833	76	39,829		537,707.36		95%
Dec-14		23,833	23,833	93	37,361		641,654.80		146%
Jan-15	35,645	215,206	24,083	87	40,974	287,995	854,569.35	17,584,117.40	148%
Feb-15	31,762	216,995	24,083	88	36,094	286,755	1,159,497.84	17,570,281.21	132%
Mar-15	31,276	221,115	24,083	85	36,795	289,655	617,099.12	17,635,579.23	120%
Apr-15	24,523	223,447	24,083	97	24,739	290,791	467,802.28	5,479,851.66	89%
May-15	14,562	226,881	24,083	106	13,757	284,426	265,708.78	5,344,391.84	61%
Jun-15	7,990	228,889	24,083	120	6,242	257,566	130,949.01	5,475,240.55	31%
Jul-15	4,719	230,319	24,083	121	3,834	254,562	88,095.40	5,554,236.05	20%
Total	865,257	2,622,296	1,303,896		1,254,627	2,604,474	15,272,258.97	5,258,573.28	83%

# 2. Facilitate reporting, internal and to authorities

- Create bespoke reports that can be automatically updated
- Reduce the need for manual work, e.g. by assembling reports in Excel

Månadsrapport SCB elhandel, antal avtal per avtalsform

ÅrMånad	Anvisat avtal	Rörligt avtal	1-års avtal	2-års avtal	3-års avtal	Övriga avtal	Total
Jan-2014	393	8,336	285	11	613	683	10,321
SE1		137					137
SE2	1	568	1			4	574
SE3	25	4,794	12	5	26	40	4,902
SE4	367	2,837	272	6	587	639	4,708
<b>Total</b>	<b>393</b>	<b>8,336</b>	<b>285</b>	<b>11</b>	<b>613</b>	<b>683</b>	<b>10,321</b>

Omförhandlade avtal

ÅrMånad	Hushållskunder	Övriga kunder	Total
Jan-2014	3002	1997	4999
<b>Total</b>	<b>3002</b>	<b>1997</b>	<b>4999</b>

Rapportfilter

ÅrMånad

Jan-2014  
 Feb-2014  
 Mar-2014  
 Apr-2014

Förbrukningsmönster

All

Priskod

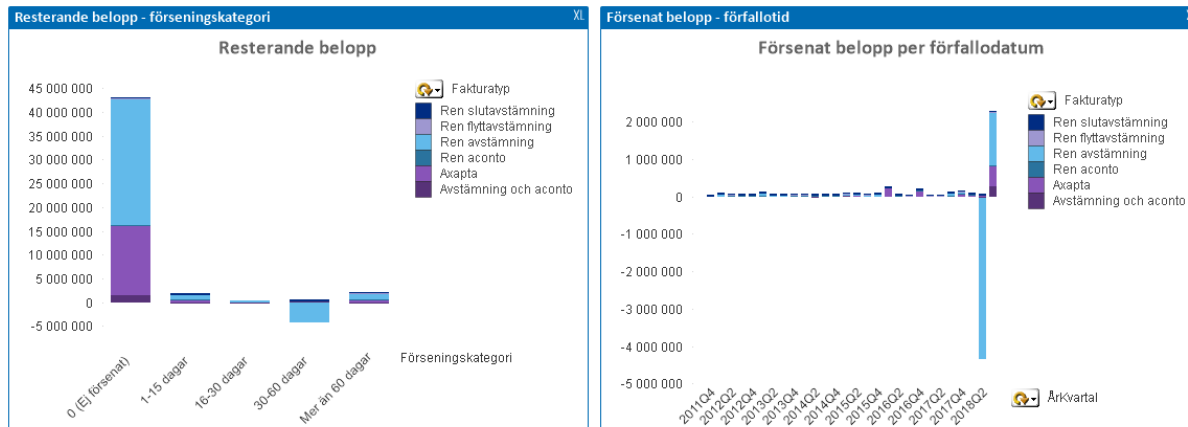
All

Prognosrapport detaljer, elhandel

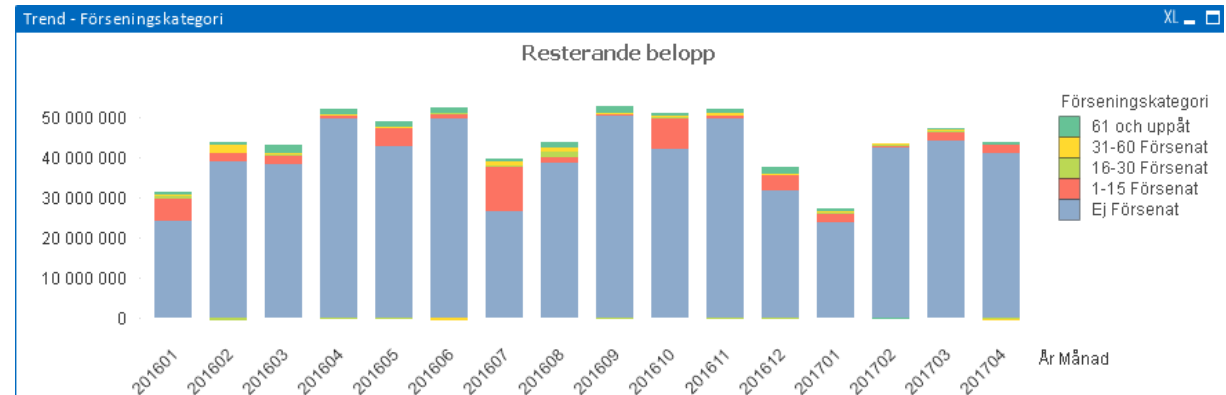
Rapport	Näringsområde	Näringslag/Leverantör	Konsumtionskod	Namn	Produkt	Månads	Avtalsbeteckning	Slutdatum	Förväntad årsförbrukning	Konsumtionsnummer	Faktisk förbrukning
5156 - 2014 och 2015 Elhandel Q1K	ABB	16400	EN	Jillyn AB	DEGENS	Portfölj Eneas D	Wednesday, December 31, 2014	24354	569665	2,84	
5156 - 2014 och 2015 Elhandel Q1K	ABB	16400	EN	Alfson AB	BCENENS	Portfölj Eneas BC	Wednesday, December 31, 2014	5654	563269	4,31	
5156 - 2014 och 2015 Elhandel Q1K	ABB	16400	EN	Nian AB	BCENENS	Portfölj Eneas BC	Wednesday, December 31, 2014	9986	563269	1,38	
5156 - 2014 och 2015 Elhandel Q1K	ABB	16400	EN	Nian AB	BCENENS	Portfölj Eneas BC	Wednesday, December 31, 2014	28284	563269	9,40	
5156 - 2014 och 2015 Elhandel Q1K	ABB	16400	EN	Nian AB	BCENENS	Portfölj Eneas BC	Wednesday, December 31, 2014	230178	563269	39,43	
5156 - 2014 och 2015 Elhandel Q1K	ABB	16400	EN	Ursidae Lys AB	BCENENS	Portfölj Eneas BC	Wednesday, November 5, 2014	25029	1000349	48	
5156 - 2014 och 2015 Elhandel Q1K	ABB	16400	EN	Ursidae Lys AB	BCENENS	Portfölj Eneas BC	Wednesday, November 5, 2014	203644	1000349	16,69	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400		Hellström Micael	FPF		Wednesday, December 31, 2014	10814	1000073	3,05	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400		Hirek Miha-Lena	FPF		Wednesday, August 31, 2014	4316	153957	6,4	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400		Jansson Per-Olof	FPF		Tuesday, September 30, 2014	31196	158671	46,32	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400		Nordahl Per	FPF		Wednesday, August 31, 2014	9108	153270	1,63	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400		Sigurdsson Jan	FPF		Friday, January 31, 2014	1305	1523559	2,85	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400	EN	Arvson AB	DENE	Portfölj Eneas D	Sunday, November 20, 2014	46056	1000313	7,17	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400	EN	Arvson AB	DENE	Portfölj Eneas D	Wednesday, December 31, 2014	85864	1000313	14,2	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400	EN	Alergon AB	EENERS	Portfölj Eneas E	Sunday, August 31, 2014	30069	1002845	3,93	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400	EN	Alergon AB	EENERS	Portfölj Eneas E	Sunday, August 31, 2014	963277	1002845	160,19	
5156 - 2014 och 2015 Elhandel Q1K	AHB	40400	EN	Alergon AB	EENERS	Portfölj Eneas E	Sunday, August 31, 2014	1159765	1002845	78,53	

# 3. Get control of your accounts receivable

- Get a quick overview of outstanding amount and how delayed the payments are
- Identify customers with large outstanding amounts and that need attention
- See how Accounts receivable changes over time



Kund	Fakturanr	Verifikationsnr	Förseningskategori	Förfallodatum	Fakturabelopp	Inbetalt belopp	Resterande belopp	Föränsat belopp
3172076 - Tmpbztz UL	20255131813	202551318	1-15 dagar	2018-09-06	448 465	0	448 465	448 465
603689 - Bvdo1 Dkhengp CW	20252112311	202521123	30-60 dagar	2018-08-02	276 009	0	276 009	276 009
000114 - Qncndy Krmzgf	20172685115	201726851	Mer än 60 dagar	2016-04-01	202 348	0	202 348	202 348
029467 - Dheb Qpndtgf Qyilwdi QK	20255156117	202551561	1-15 dagar	2018-09-06	129 957	0	129 957	129 957
259878 - Aqaáricfgnl Duldnh UH	20257141612	202571416	1-15 dagar	2018-08-30	56 897	0	56 897	56 897
981934 - WAE b Zckofkwwid SC	20049265216	200492652	Mer än 60 dagar	2013-03-15	48 478	990	47 488	47 488
604544 - Dbyrxqj RG	20255068619	202550686	1-15 dagar	2018-09-05	40 438	0	40 438	40 438
029467 - Dheb Qpndtgf Qyilwdi QK	20255068211	202550682	1-15 dagar	2018-09-05	39 674	0	39 674	39 674
652888 - Lsomatjvustgfálacqxpmtgfz	20254979113	202549791	1-15 dagar	2018-09-03	35 343	0	35 343	35 343
284964 - Phstjrvohrnfahq T Xktoudymz RH	20254932617	202549326	1-15 dagar	2018-08-24	31 250	0	31 250	31 250
036083 - IMJ Polgcaruuq GA	20254256017	202542560	16-30 dagar	2018-08-08	31 080	0	31 080	31 080
0614918 - Yáytaeiq Zvqzwqnrzmmndwd VL	20252280811	202522808	30-60 dagar	2018-08-06	28 985	0	28 985	28 985
115018 - Bcviwh Pfwgokhua	20254297318	202542973	16-30 dagar	2018-08-08	28 976	0	28 976	28 976
036083 - IMJ Polgcaruuq GA	20254260415	202542604	16-30 dagar	2018-08-08	28 834	0	28 834	28 834
2037194 - Dzehymrb VI	20084108511	200841085	Mer än 60 dagar	2014-01-14	23 892	0	23 892	23 892
760041 - Viltgppöd Xcqi	20254946716	202549467	1-15 dagar	2018-08-31	19 900	0	19 900	19 900
4353223 - Gnwrvqudgbnj Dbin	20254947318	202549473	1-15 dagar	2018-08-31	19 900	0	19 900	19 900
777414 - WNU Teoydarhacqn 9 ZZ	20254253410	202542534	16-30 dagar	2018-08-08	19 426	0	19 426	19 426
346772 - Geq Xgnjs ZZ	20165169614	201651696	Mer än 60 dagar	2016-01-07	18 952	0	18 952	18 952
074787 - Wáydj Jdóvèdgdoph Pecruht EW	20223680818	202236808	Mer än 60 dagar	2017-09-08	17 971	0	17 971	17 971
8347380 - Cfdhzcwcp PX	20153101017	201531010	Mer än 60 dagar	2015-09-07	35 809	19 541	16 268	16 268
639838 - Gwfa Wcrgmrtpxid KK	20254964016	202549640	1-15 dagar	2018-08-31	15 127	0	15 127	15 127
031201 - Pmsesid Eotsom	20254945619	202549456	1-15 dagar	2018-08-31	14 990	0	14 990	14 990

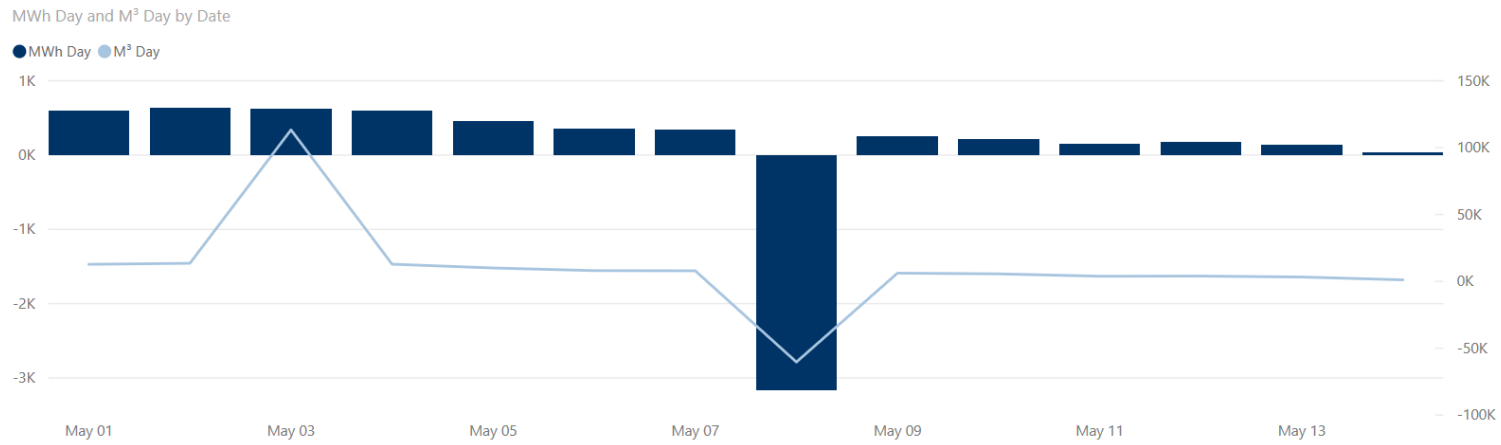


# 4. Human resources



# 5. Identify disturbances in your network

- Look at daily meter readings and find outliers that need further investigations

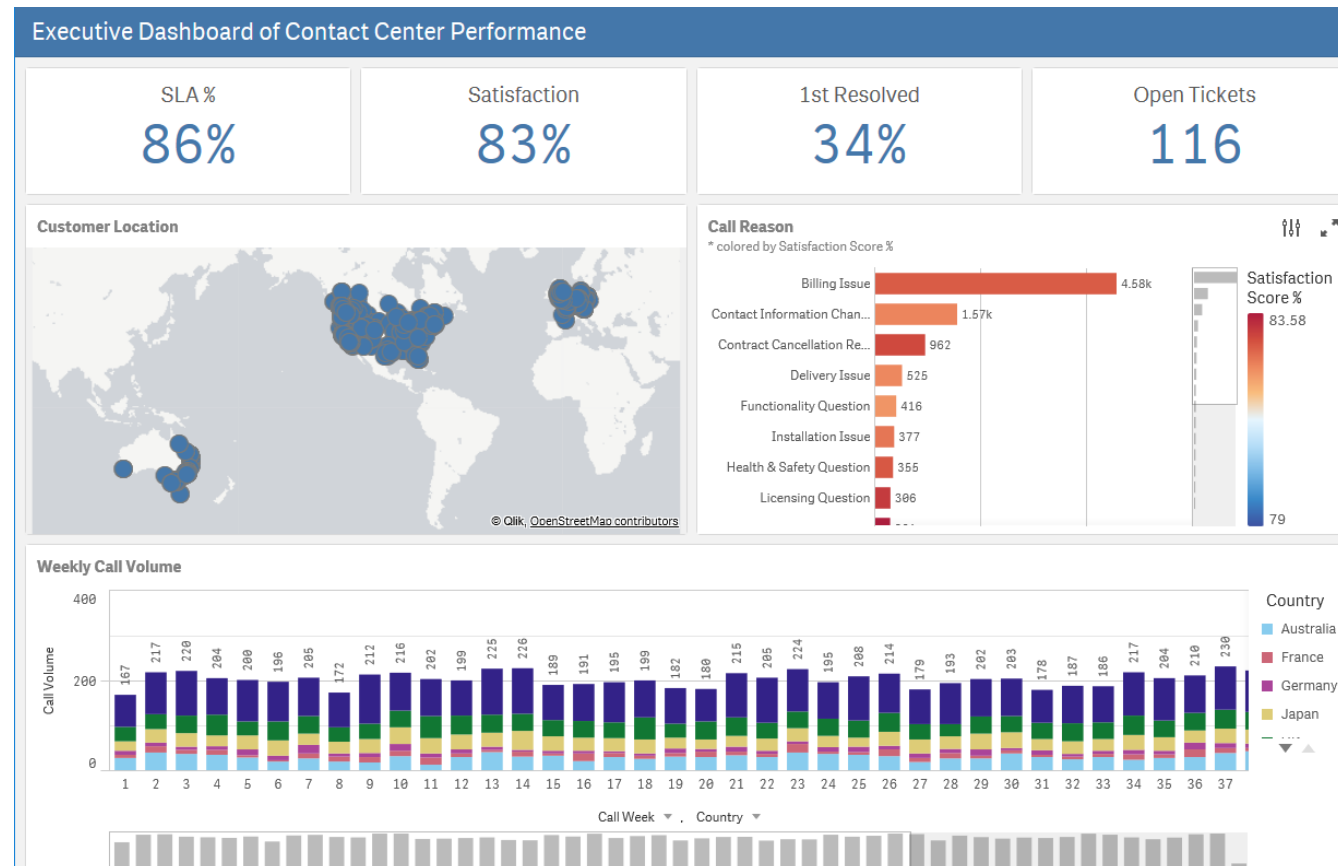


Inst. borough	Installation	Inst. category	Meter no.	Inst. address	Date	Temp in	Temp out	MWh Day	M³ Day	Avg output	Avg M³
Trossö	30344 Rådhusgatan 2	005KA	F819	Rådhusgatan 2	2018-05-08	78	31	-3451.18	-67,040.93	-143,799.00	-2,793.37
Trossö	30063 Arklimästaregatan 30	003KA	F531	Arklimästaregatan 30	2018-05-12	27	25	0.00	0.07	0.04	0.00
Trossö	30063 Arklimästaregatan 30	003KA	F531	Arklimästaregatan 30	2018-05-13	26	25	0.00	0.08	0.04	0.00
Trossö	30065 Skepparegatan 18	003KA	FK1729	Skepparegatan 18	2018-05-02	45	53	0.00	0.19	0.04	0.01
Trossö	30065 Skepparegatan 18	003KA	FK1729	Skepparegatan 18	2018-05-03	41	52	0.00	0.20	0.04	0.01
Trossö	30065 Skepparegatan 18	003KA	FK1729	Skepparegatan 18	2018-05-05	38	52	0.00	0.20	0.04	0.01
Trossö	30065 Skepparegatan 18	003KA	FK1729	Skepparegatan 18	2018-05-06	41	52	0.00	0.21	0.04	0.01
Trossö	30065 Skepparegatan 18	003KA	FK1729	Skepparegatan 18	2018-05-08	44	52	0.00	0.21	0.04	0.01
Trossö	30065 Skepparegatan 18	003KA	FK1729	Skepparegatan 18	2018-05-09	43	52	0.00	0.21	0.04	0.01
Trossö	30065 Skepparegatan 18	003KA	FK1729	Skepparegatan 18	2018-05-12	85	104	0.00	0.32	0.03	0.01
Trossö	30065 Skepparegatan 18	003KA	FK1729	Skepparegatan 18	2018-05-14	76	72	0.00	0.32	0.03	0.01
Trossö	30245 Norra Skepparegränd 7	002KA	FK1372	Norra Skepparegränd 7	2018-05-10	38	31	0.00	0.05	0.04	0.00
Trossö	30245 Norra Skepparegränd 7	002KA	FK1372	Norra Skepparegränd 7	2018-05-12	41	33	0.00	0.06	0.04	0.00
Trossö	30245 Norra Skepparegränd 7	002KA	FK1372	Norra Skepparegränd 7	2018-05-13	51	33	0.00	0.06	0.04	0.00
<b>Total</b>						<b>5276.58</b>	<b>5062.15</b>	<b>1414.51</b>	<b>141,858.89</b>	<b>4.45</b>	<b>0.45</b>



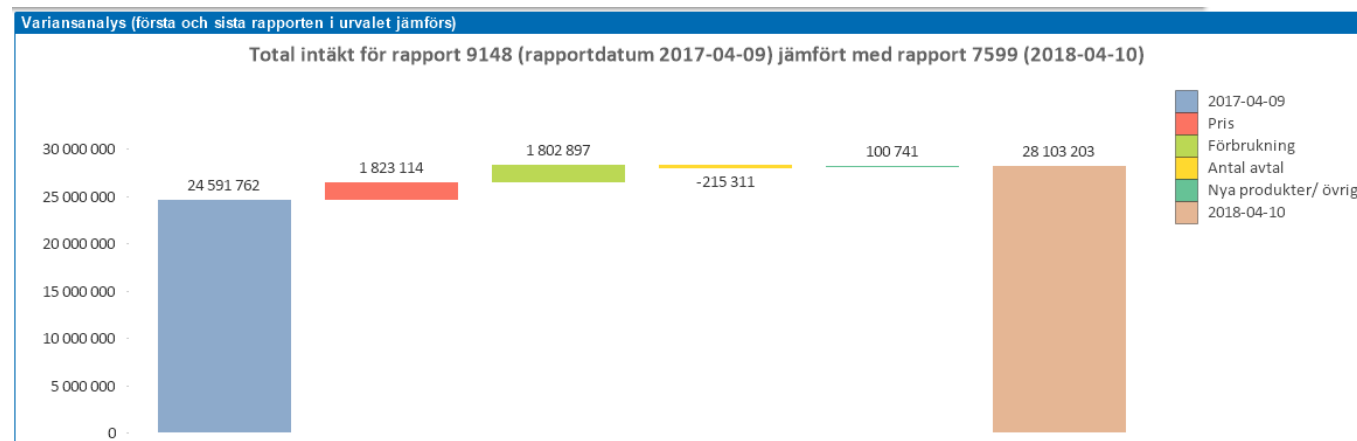
# 6. Improve efficiency of customer service

- Plan staffing of customer service based on the need (e.g. weekdays, hours etc)
- Identify most common issues to see where operation scan be improved



# 7. Find the REAL reason behind your increased sales

- Isolate factors where you can make a difference



Variansanalys

Nätområde	Kundgrupp	Produkt	Rapport 7599 2017-04-09	Pris	Förbrukning	Antal avtal	Övrigt	Rapport 9148 2018-04-10
			<b>24 591 762</b>	<b>1 823 114</b>	<b>1 802 897</b>	<b>-215 311</b>	<b>100 741</b>	<b>28 103 203</b>
AHB	F	AXFEM	43 359	7 880 409	8 529 888	9 184 026	-25 596 688	40 995
AHB	F	HINM	827	739 901	688 448	751 175	-2 179 440	911
AHB	F	POTLM	3 497	944 770	763 459	957 061	-2 669 656	-868
AHB	F	RPIL	694	531 629	386 714	360 991	-1 280 029	0
AHB	F	TETLM	1 251	979 067	911 451	931 980	-2 822 076	1 672
AHB	F	TEULM	1 160	744 685	660 296	754 608	-2 159 381	1 369
AHB	P	FKF	0	65 518	98 227	609 996	-772 210	1 531
AHB	P	FNF	1 213	1 759 959	2 514 263	933 388	-5 208 823	0
AHB	P	TEN	701	18 413	15 058	15 079	-48 318	932
AJB	F	KOLNS	88	774	60	324	-1 169	77
AJB	F	MSBUNSM	530	35 290	26 875	23 899	-85 705	889
AJB	F	TEULM	0	745 845	661 456	755 769	-2 162 712	359
AKB	F	50NTF	1 377	4 186	7 881	3 052	-14 259	2 237
AKB	F	AXFEM	53 250	7 870 519	8 519 997	9 174 136	-25 581 845	36 057
AKB	F	HINM	14 865	725 863	674 410	737 137	-2 136 639	15 636
AKB	F	MT	-93	-3 876	-1 795	-2 850	8 591	-22
AKB	F	TEULM	17 464	728 381	643 992	738 304	-2 108 523	19 619

# Summary

- One common source of information for all decision makers
- Combine data from several data sources and updated automatically
- Visualisation and analytics allows better insight into the data
- Intergrate with Xellent and CST/Zynergy (e.g. using EG BI)
- Increase revenue/ decrease cost
- Improve operational efficiency/ reduce risk
- Applies to business areas



# Demo i Expot!

