

A photograph of two hands reaching towards each other in a field of tall grass under a clear blue sky. The hands are positioned in the center of the frame, with the fingers almost touching. The background is a vast field of golden-brown grasses, and the sky is a deep, clear blue. The lighting suggests a bright, sunny day.

Real-time supply chain analytics

V.Ermoshin
BDO Unikon

BDO IN RUSSIA

BDO UNICON CONSULTING

1989

We have been operating on the Russian market since 1989

2 000

Near 2 000 people work in our network

50%

50% of the Top 100 Russian companies are our clients

2 000+

More than 2 000 projects

300+

More than 300 ERP projects

1 10 000+

More than 110 000 users in 200+ cities

BDO Unicon

Consulting - the major business consulting and system integration company in Russia

BDO delivers services to companies of all the major economy

sectors in Russia

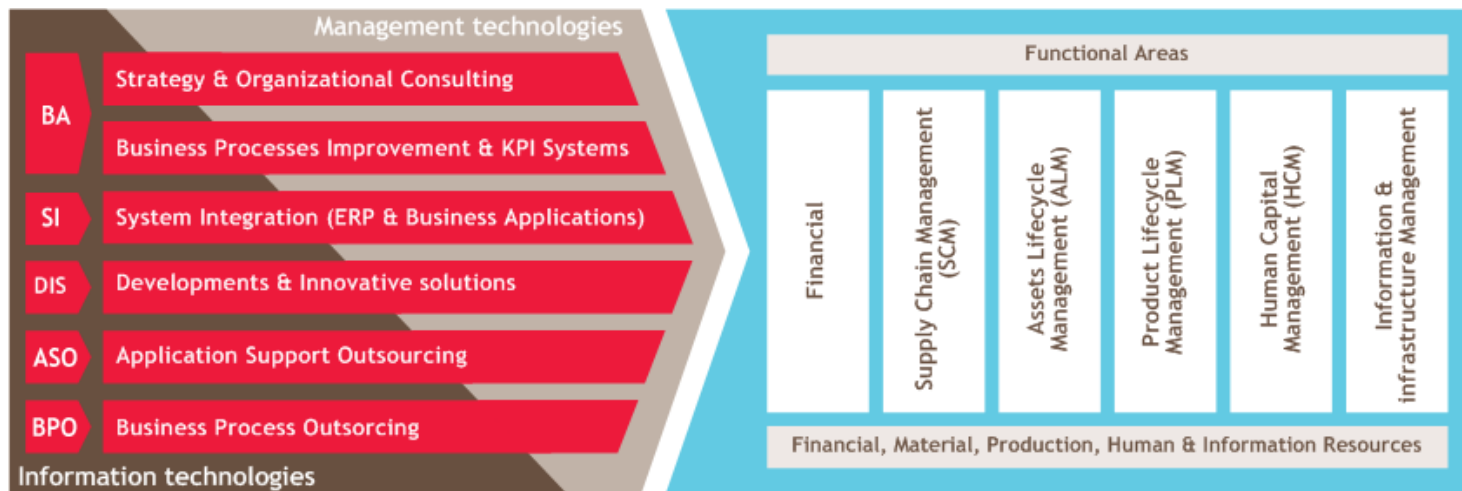


BDO UNICON CONSULTING

OUR SERVICES

We offer the widest range of services and solutions targeted at upgrading of elements of business management system

We offer our clients exceptional services in the following main areas:



- BA — Business Advisory, including, Strategy & Organization (S&O), Corporate Performance Management (CPM), Financial Performance Management (FPM), Supply Chain Management (SCM), CRM and Data Management, etc.
- SI — System integration, including SAP, Oracle, Microsoft, EMC, etc.
- DIS — Developments & Innovative solutions
- ASO — Application Support Outsourcing. Services are provided by BDO Unicon Application Outsourcing ZAO
- BPO — Business Process Outsourcing. Services are provided by BDO Unicon Business Services ZAO

We are the leading business consulting and system integration company specialized in implementation of such business applications as SAP, Oracle, EMC, etc.

TYPICAL CHALLENGES IN INBOUND SUPPLY CHAINS

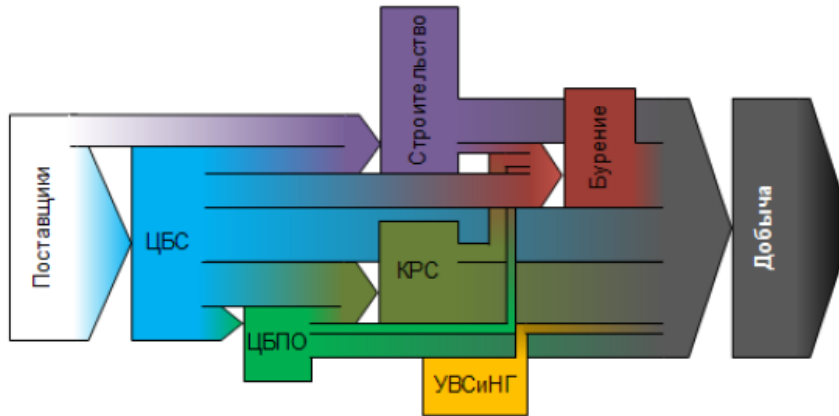
- Overstocks
- Slow moving inventory
- Poor quality of parts demand
- Poor quality of supply (in volume and delivery dates)
- Poor quality of information



A possible approach

- Production demand and purchasing planning in a system
- Material management and stock level optimization
- Supply Chain Analytics to identify critical areas and control KPI's

PECULIARITIES OF INBOUND SUPPLY CHAINS



- ✓ A complicated process of production demand formation
- ✓ Huge quantity of parts - some 100.000 SKU's
- ✓ Parts interchangeability with complex application conditions
- ✓ Big number of plants and warehouses, many of them are geographically far away
- ✓ Complicated supply chains
- ✓ Several supply channels - distribution through a central warehouse, consignment, etc.
- ✓ A possibility of parts production in own plants
- ✓ A possibility of refurbishment

Real-time supply chain analytics on the basis of SAP HANA

Project Name

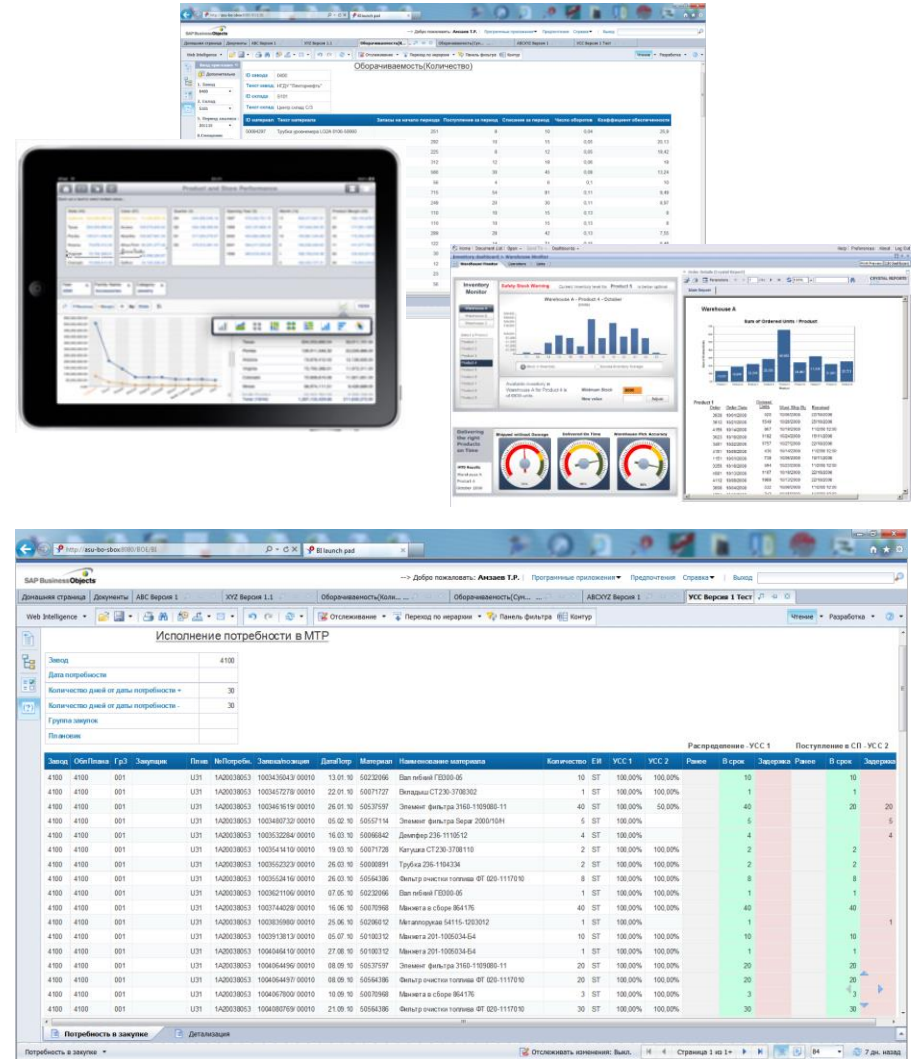
Real-Time Supply Chain Analytics

Project Goals

- To improve working capital turnover
- To get a system for a real-time analysis of KPI's related to Supply Chain - stock levels, supplier service levels, ABC/XYZ, turnover, lead-time
- To speed up response time of SAP reports on a big database volumes (150 mln. records, 80 ERP tables)

Project Results

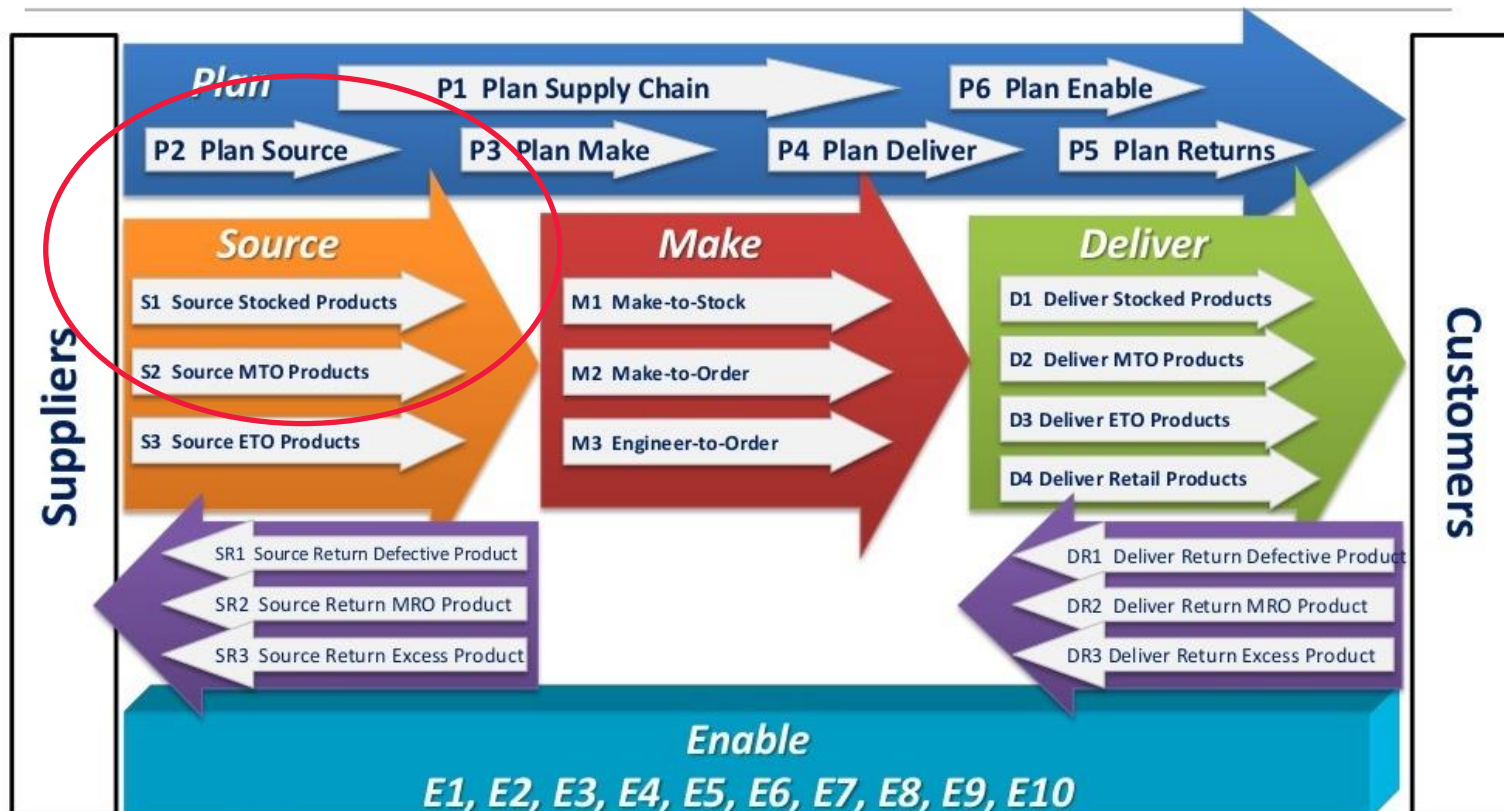
- Developed and implemented a system for a real-time analysis of KPI's such as stock level, service levels of suppliers for central and plant warehouses, ABC/XYZ, turnover
- Response time is reduces by orders to about 2 - 40 seconds



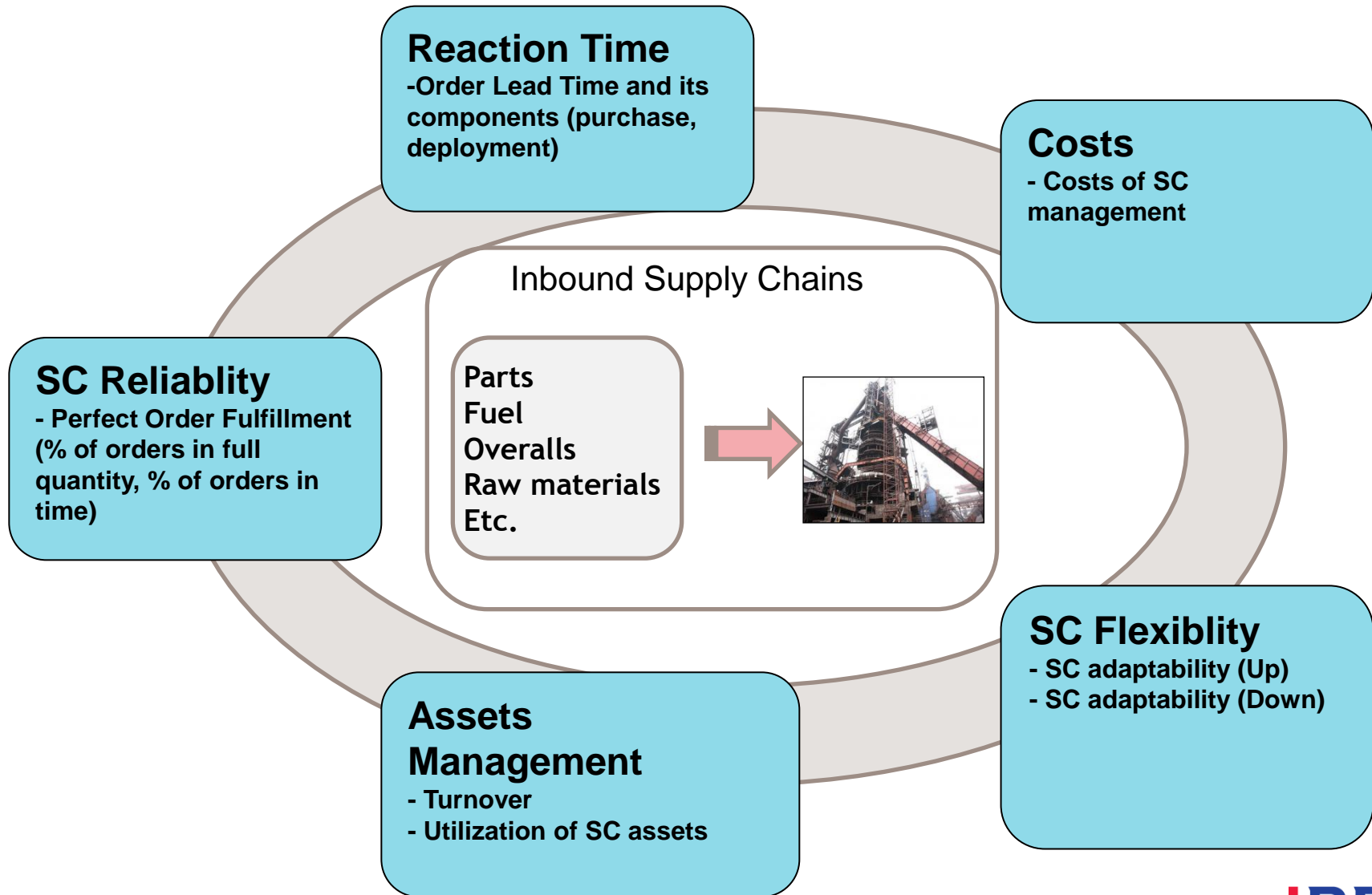
SCOR - SUPPLY CHAIN OPERATIONS REFERENCE MODEL

PROCESSES

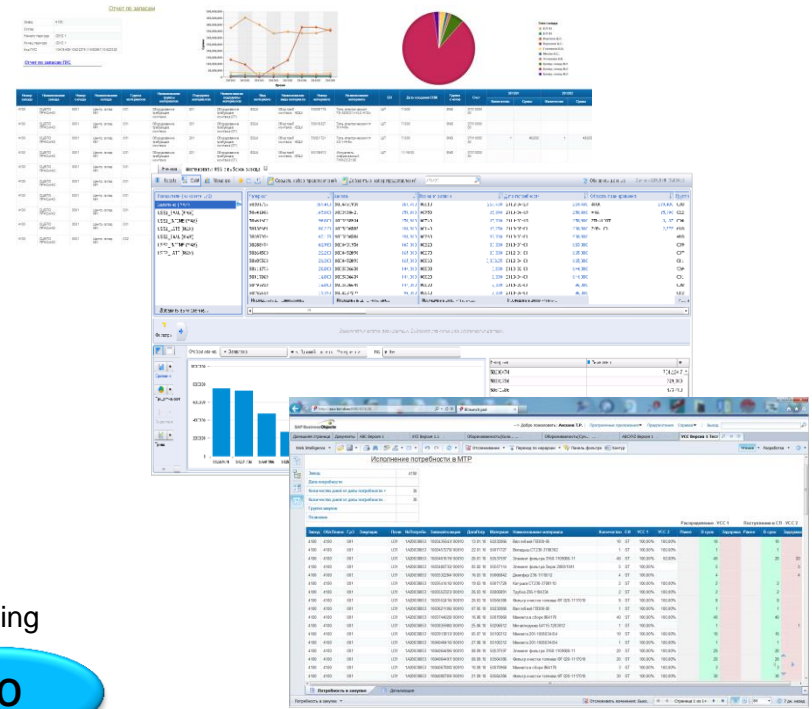
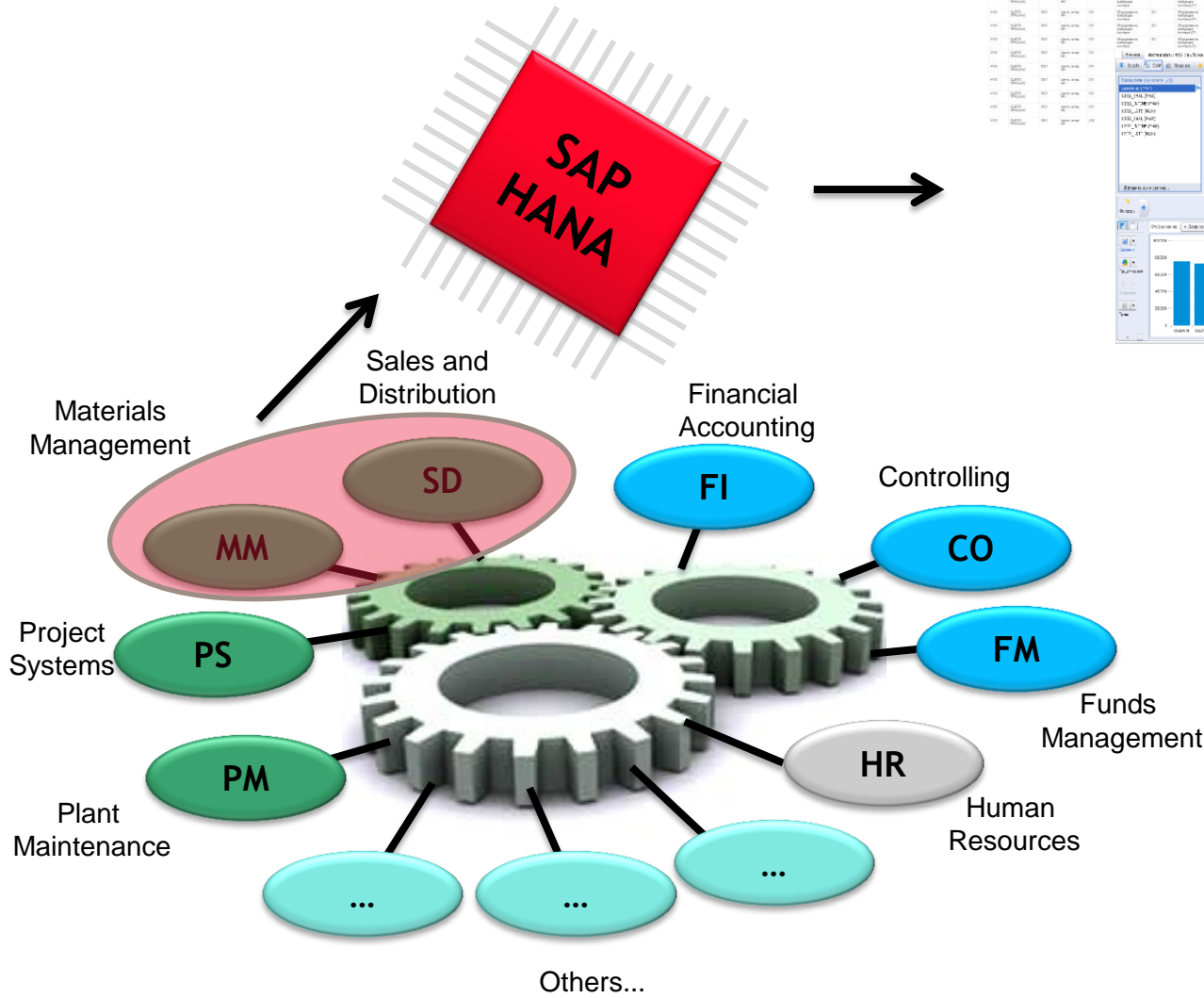
Supply Chain Operations Reference model SCOR® V11.0 – Processes



SCM KPI'S IN SCOR MODEL

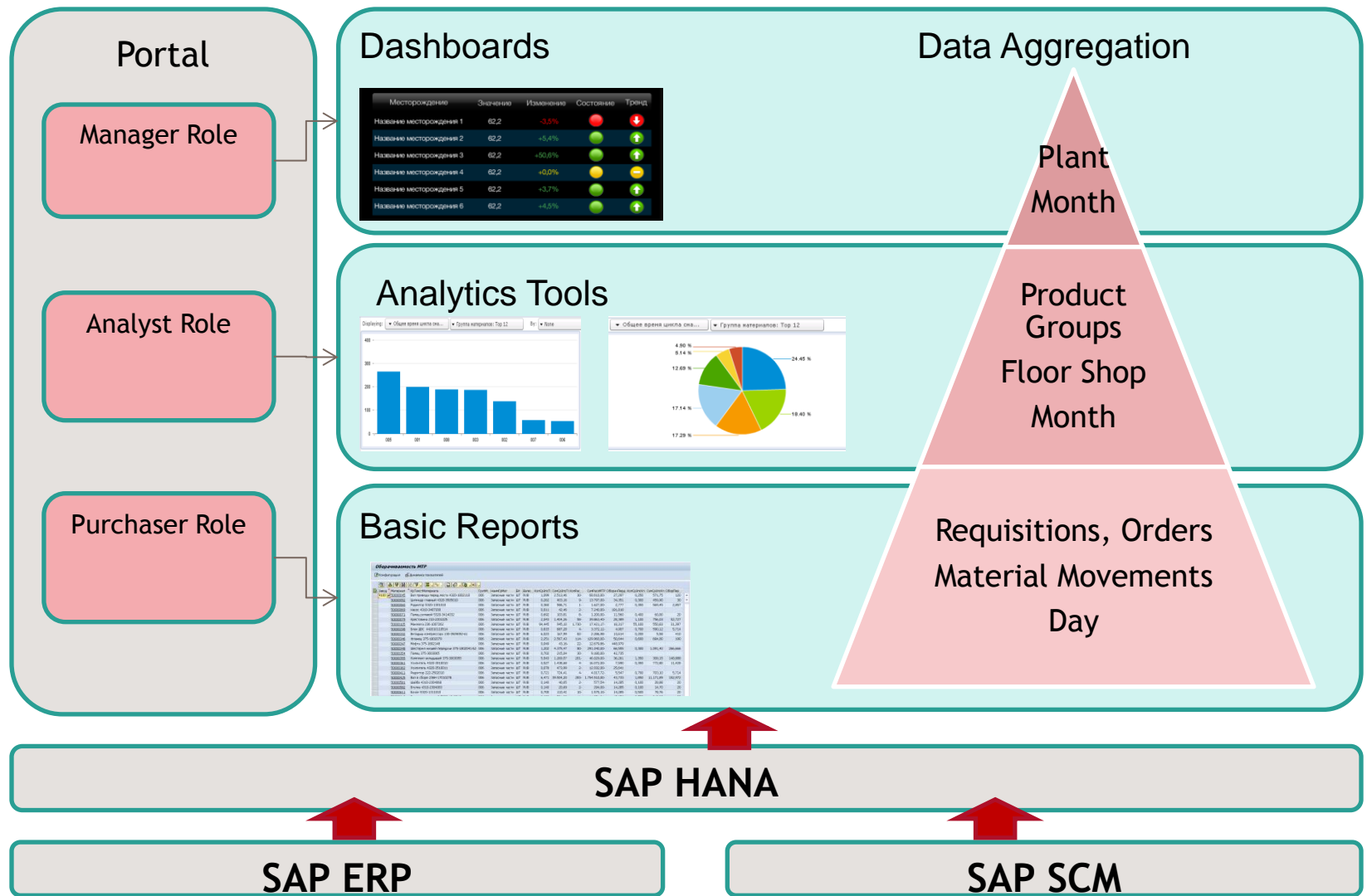


SAP HANA technological platform for supply chain analytics



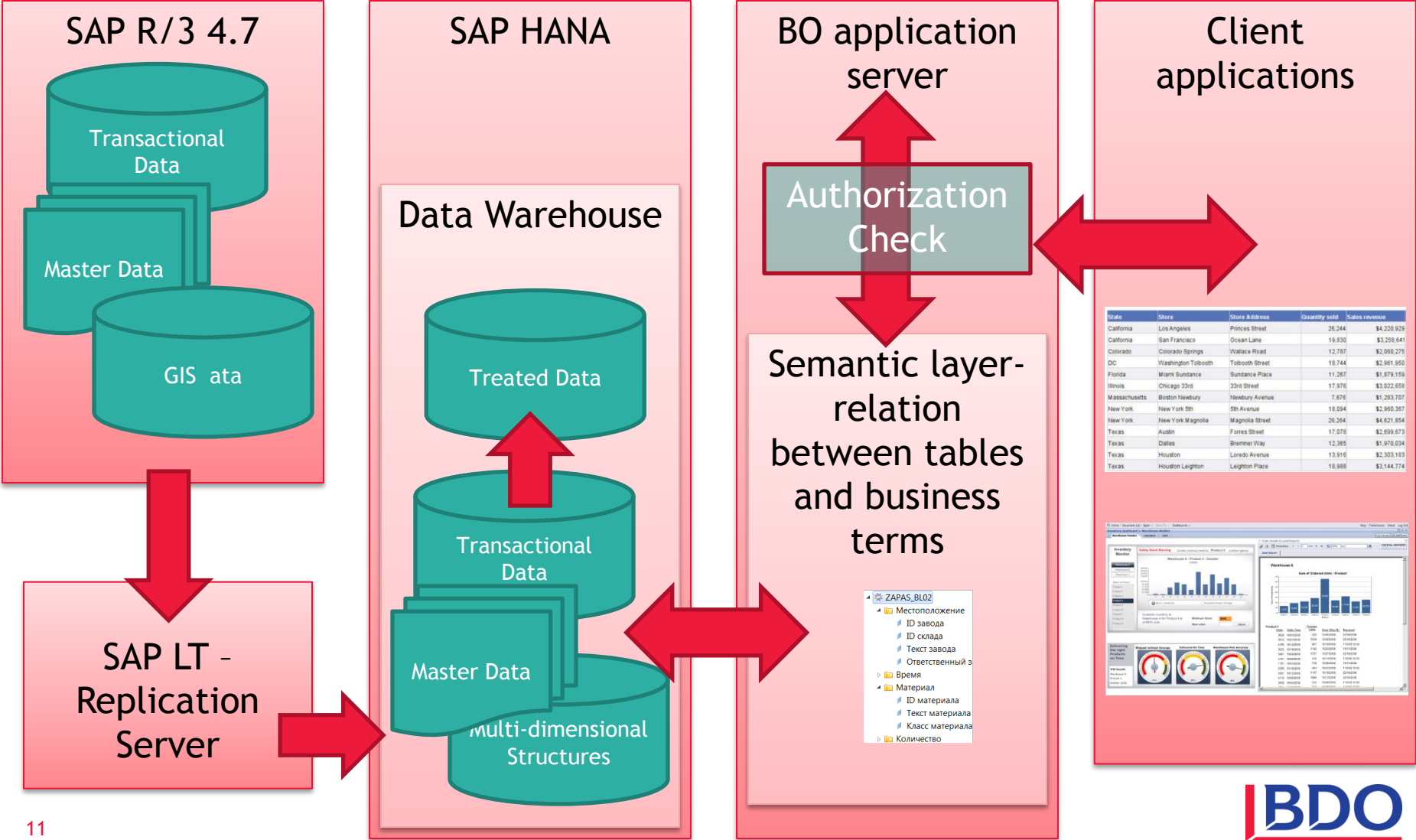
REAL-TIME SUPPLY CHAIN ANALYTICS ON SAP HANA

FUNCTIONAL ARCHITECTURE



Solutions

Common technical architecture

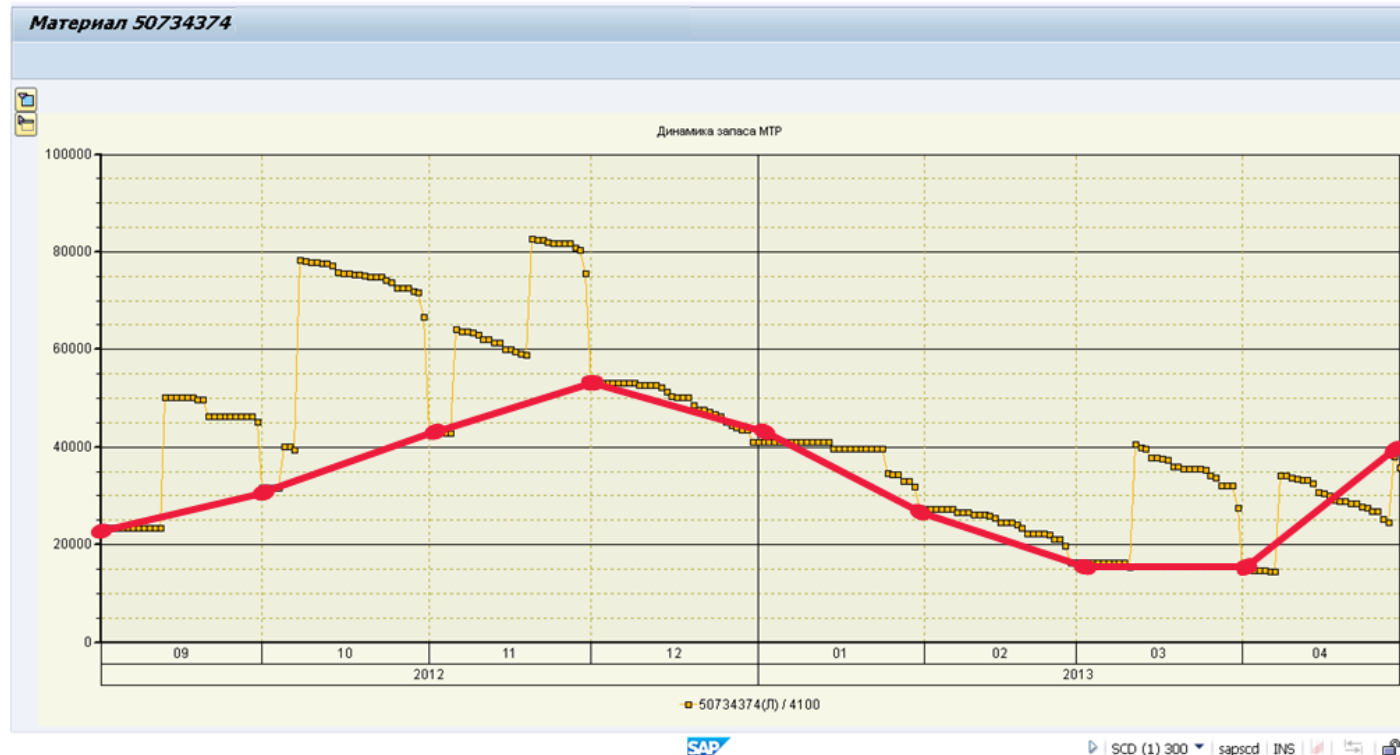


Developed Solutions

Наименование	Описание
ABC	•ABC-analysis – a method to classify stocks on the value
XYZ	•XYZ-analysis - a method to classify materials and resources on the consumption behavior
ABC/XYZ	•ABC/XYZ matrix is an informative tool for material management
Turnover	• Stock Turnover is an important criterion of SC efficiency
Order Cycle Lead Time	• Supply Cycle Lead Time influences stock levels through safety stock and is also an important KPI of SC efficiency
Supply Service Level	• Supply Service Level in inbound logistics is an important KPI that describes the quality of inbound deliveries with respect to orders
Stock Levels	•Report on stock levels in real time

KPI CALCULATION

STOCK TURNOVER



$V = \frac{D}{\bar{Z}}$, где D – потребление в периоде, \bar{Z} – средний запас в периоде

$\bar{Z}_{\text{кв}} = \frac{1}{2}Z_0 + \sum_{i=1}^{N-1} Z_i + \frac{1}{2}Z_N$, где Z_i – запас на начало месяца i

$\bar{Z}_{\text{т}} = \sum_{i=1}^{N-1} Z_i$, где Z_i – запас на дату i

ANALYST'S WORKPLACE- SAP BUSINESS EXPLORER

STRUCTURAL AND COMPARATIVE ANALYSIS

Welcome: Ermoshin_VA | Manage Spaces | Log Off | Help | Feedback | Tutorials | About

Home | Explore: Lead Time | Explore: Отчет по запасам (все заводы + вид материала) | Explore: Общее время цикла снабжения (Lead-Time)

Facets | Split | Visualize | Create View set | Add to View set | Find | Records 5,000 (0.186s)

Measures (2/3 max)
 Среднеквадратичное откл...
 Общее время цикла снабж...

Завод	Вид материала	Наименование вида мат...	Группа материалов	Наименование группы м...	Подгру
4100	46.51 SP10	107.16 СП/спецодежда	107.16 002	60.15 Сырьё и основн...	60.15 224
	GWG2	102.81 Спецодежда (по...	102.81 001	57.95 Оборудование т...	57.95 223
	BREN	70.88 Топливо/покупн...	70.88 008	55.79 Инвентарь и коз...	55.79 208
	ROH	60.36 Сырье и матери...	60.36 003	49.7 Топливо	49.7 202
	EQUI	57.95 Оборот.треб монт...	57.95 007	35.36 Прочие материа...	35.36 201
	REST	48.61 Прочие материа...	48.61 006	32.39 Запасные части	32.39 218
	GWG5	41.62 Инструмент (по...	41.62 005	7.78 Тара и тарные м...	7.78 226
	GWG0	40.61 Инвентарь/Хоз...	40.61		221
	ERSZ	32.41 Запасные части...	32.41		215
	LEER	7.78 Тара -LEER	7.78		213
	ROH1	3.18 Химреагенты -...	3.18		206
	Explore more...	Explore more...			Explor

Filters + You are currently exploring all data. Select values to narrow it down.

Displaying: Среднеквадратичное от... | Группа материалов: Top 12 Сре... | By: None

Группа материалов	Среднеквадрати...	Общее время ци...
002	60.15	137.28
001	57.95	199.04
008	55.79	187.04
003	49.7	185.42
007	35.36	55.63
006	32.39	53.06
005	7.78	264.5
Average (7)	46.51	109.08

Integration of reports with maps

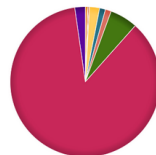
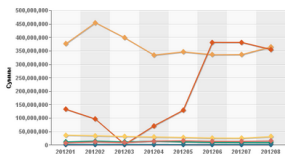
Call of a route on a map from a report

Call of a report from a route node on a map

Отчет по запасам

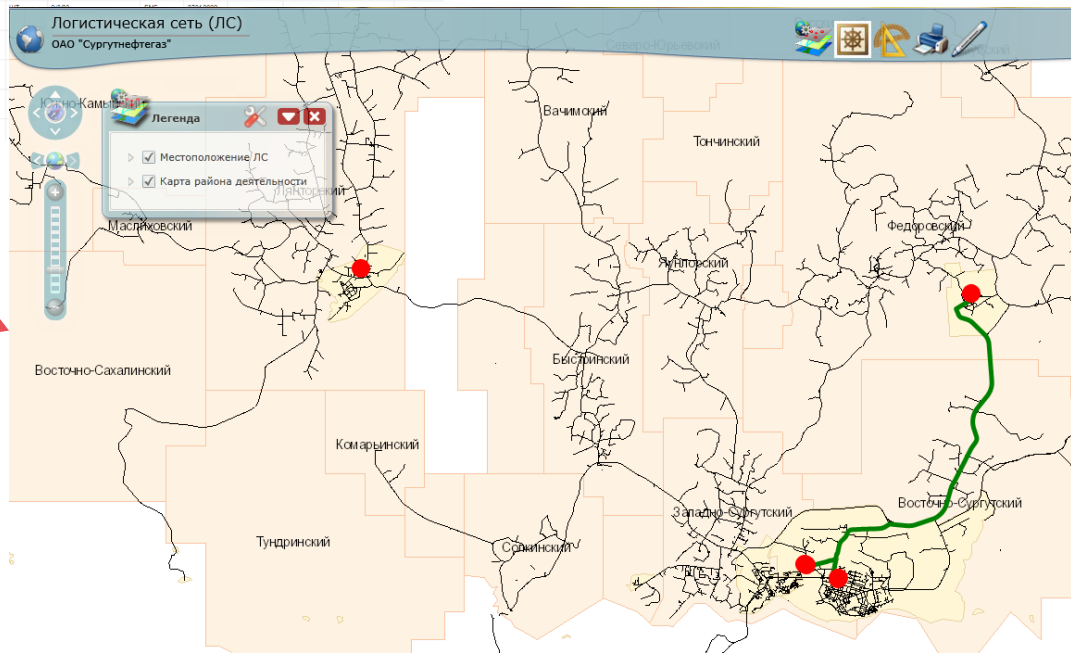
Заказ	4100
Склад	
Начало периода	2012 1
Конец периода	2012 1
Код ГИС	1 0410439;10422279;11052897;10422128

[Отчет по запасам ГИС](#)



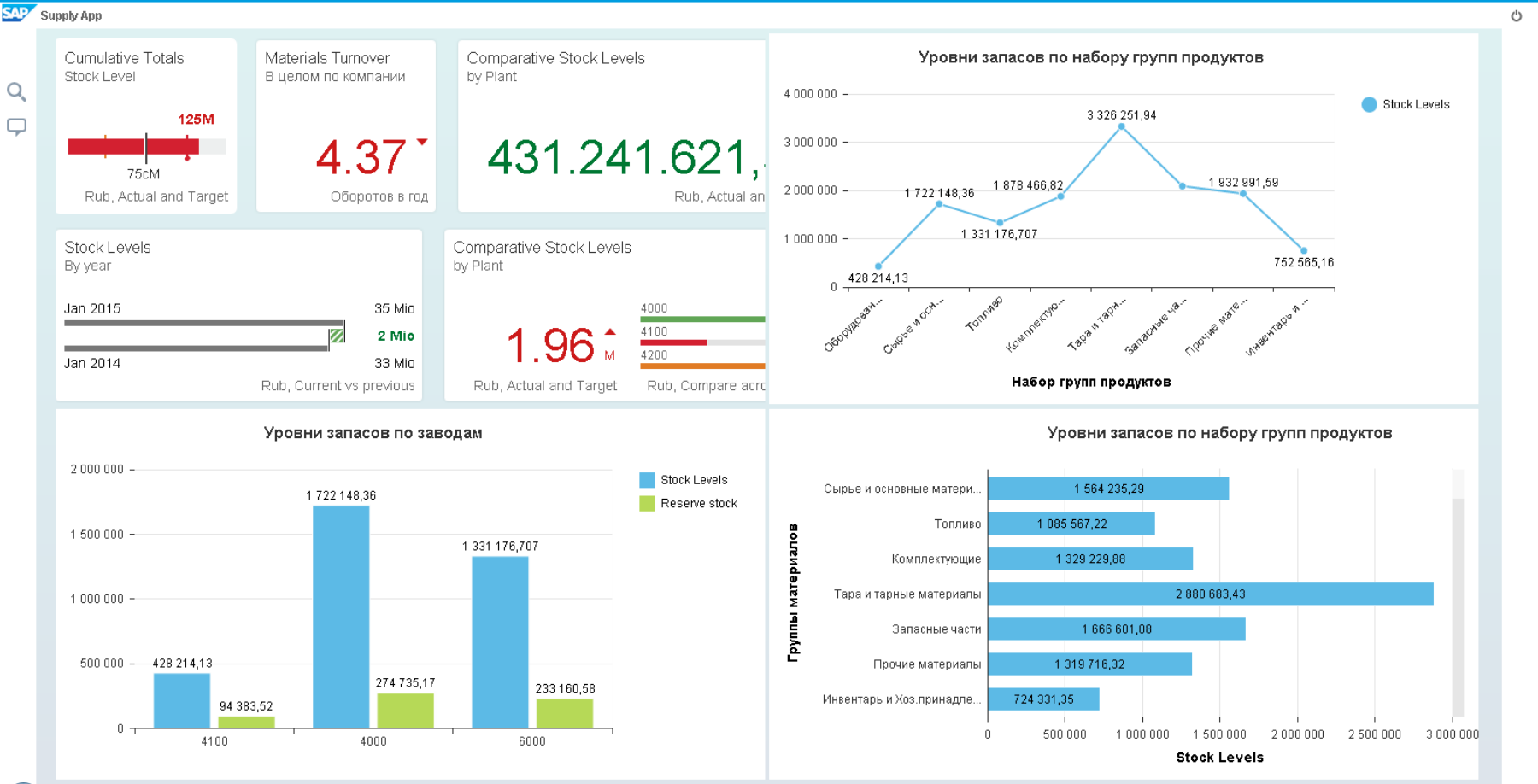
- Типы складов
- БУ 01
 - БУ 05
 - Восточный С.С.
 - Восточный А.С.
 - Голубовский В.А.
 - Мельный А.С.
 - Успенский А.В.
 - Центр. склад ВЛ1
 - Центр. склад ВЛ2
 - Центр. склад ВЛ3

Номер заказа	Номенклатурный код	Номер склада	Номенклатурный код склада	Группа на складе	Номенклатурный код группы	Подгруппа	Номенклатурный код подгруппы	Единица измерения	Номенклатурный код единицы	ЕИ	Дата создания ОСМ	Группа Счета	Счет	201201		201202		
														Кол-во	Сумма	Кол-во	Сумма	
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50000775	Таль электроталевая ТЭ-320521110,2 Н10м	ШТ	7,000	00				
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50018327	Таль электроталевая 5т1м5м	ШТ	7,000	00				
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50021721	Таль электроталевая 0,5 т1м5м	ШТ	7,000	00	1	49,000	1	49,000
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50139813	Иглоуказатель радиационный ГР102021108	ШТ	11,000	00				
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50225433	Выключатель радиационный ВАР-31 ТРА	ШТ	2,000	00	2	2,000		
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50241309	Выключатель радиационный ВАР-208	ШТ	2,000	00				
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50035744	Консультатор NetBackup RB-208	ШТ	1,000	00				
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50051040	Источник питания ИР-4224	ШТ	1,000	00				
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	001	Оборудование трубопроводных насосов	201	Оборудование трубопроводных насосов (07)	EQUI	Обор.траб насоса -EQUI	50739243	Служба централизации ИКС0301FAN1	ШТ	1,000	00				
4100	ОБЛО ПРНСИНО	0001	Центр. склад ВЛ1	002	Сырье и основные материалы	202	Сырье (погрузочн.)	ROUN	Сырье и материалы -EQUI	50002252	Корпус 220мм от 40 мм-отверстия	ШТ	1,000	00				



SAP-SOLUTIONS FOR DASHBOARDS

EXAMPLE



COMPETENCE CENTER «SUPPLY CHAIN MANAGEMENT» AT BDO

BDO UNIKON IS A LEADER ON THE RUSSIAN MARKET OF SAP SCM SOLUTIONS IMPLEMENTATIONS

Among our clients are the most successful companies from leading industries of the Russian economy - metals, oil and gas, mining, pulp and paper.

Our main competitive edges in SCM area are :

- ✓ Rich experience in SAP SCM implementations gained in successful projects
- ✓ Strong team of experts including business consultants, SAP consultants, software developers
- ✓ Understanding of Russian specific planning and accounting methodology
- ✓ Deep knowledge of functional possibilities of SAP SCM solution to make an optimal choice of solution architecture for the Client
- ✓ Experience in integration of SAP SCM with SAP ERP and production MES systems, budgeting systems and business analytics systems
- ✓ Project Experience in new SAP Solutions such as SAP HANA, FIORI, etc.

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