



Business Intelligence at Albert Heijn

**Information for
Competitive Advantage**



Egbert Dijkstra
Director Business Intelligence
Information Management Europe

Zaandam, April 2009



Personal background

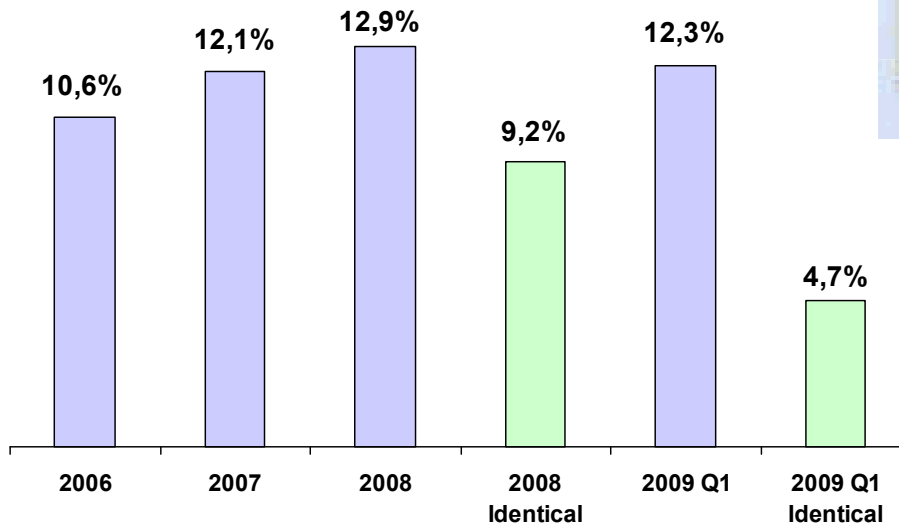
- 2008 - Ahold Europe – Responsible for BI Strategy & Analytics
- 2006 - 2008 Ahold Global – Director Business Intelligence
- 1997 - 2006 Albert Heijn
 - Manager Business Intelligence
 - Implementation Albert Heijn *Bonuscard*
 - Member of IT Management Team
- 1990 - 1997 Vroom&Dreesmann
 - Program manager BI / Category Management
 - Cobol Programmer, System Designer
- **Studies: Politics – Free University Amsterdam.**



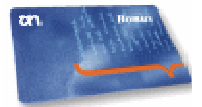
Characteristics Albe

2008 Sales: € 9 billion

Sales growth year on year



12 million weekly customers
8,5 million loyalty cards
100 million ticket-line items per week.



Characteristics Albert Heijn



Market leader in the Netherlands
60.000 employees
Founder of Royal Ahold

825 Stores in total
200 are run by franchisees

4 Types of stores

- Everyday Supermarket
- Albert Heijn XL – 4.000 square meters
- AH-to-Go - Convenience stores
- Albert - internet delivery.





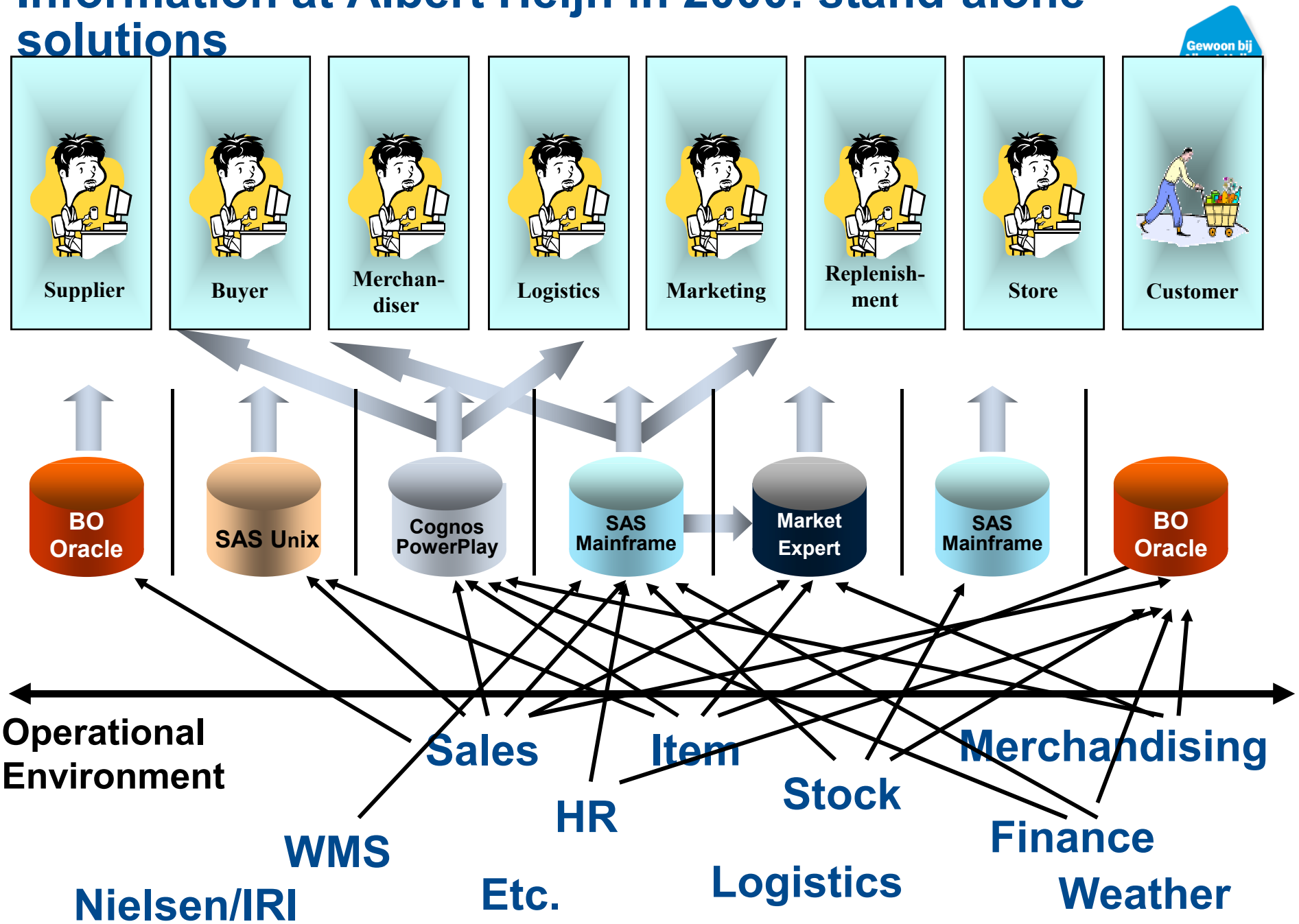


Information as a *corporate asset*

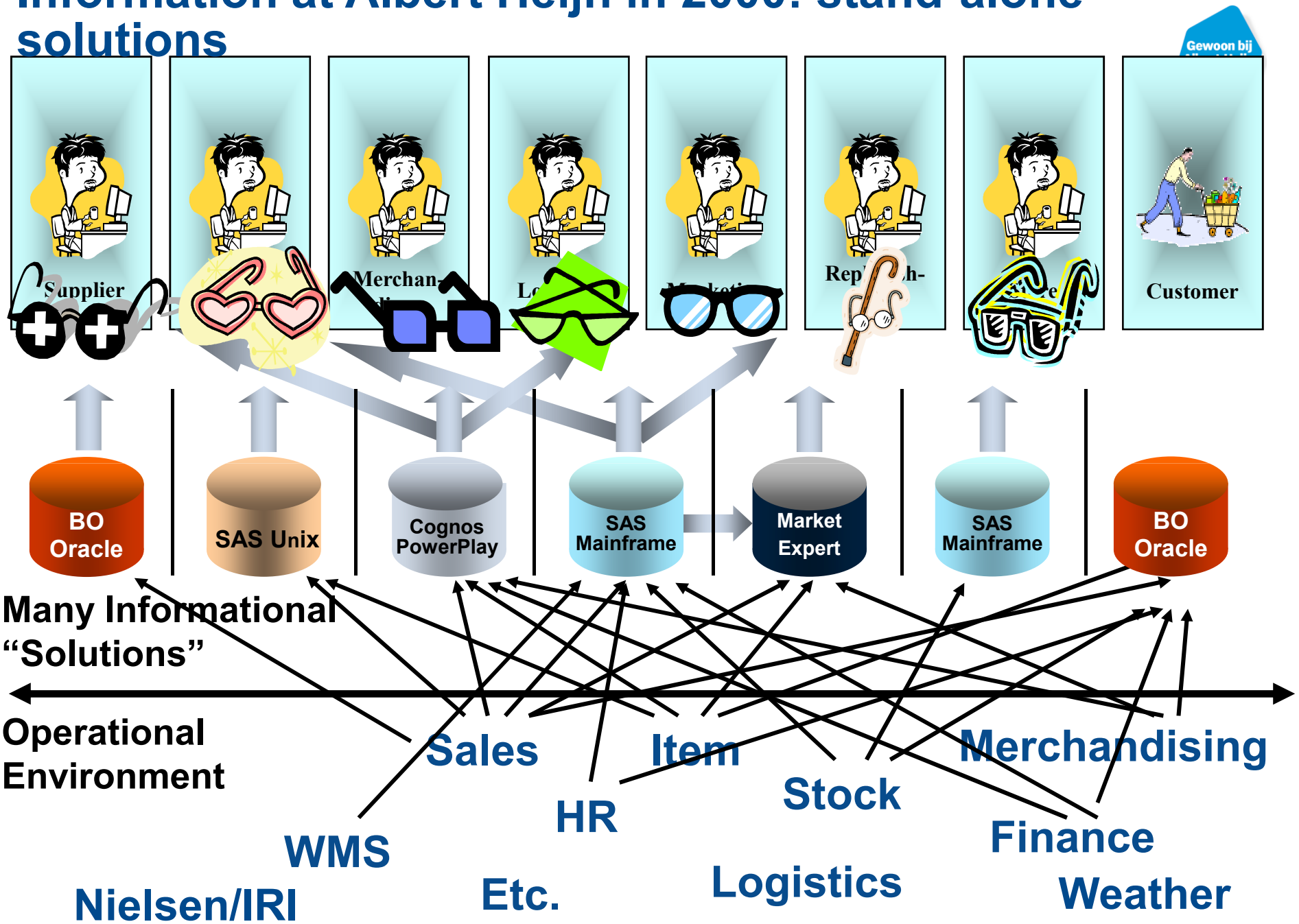
- Today companies offer similar products, using comparable technologies
- There is growing understanding that *Information is key factor* in achieving competitive advantage
- So, there is a need for better & faster business insight compared to our competitors
- As a result, Information must be regarded as a *corporate asset*.



Information at Albert Heijn in 2000: stand-alone solutions

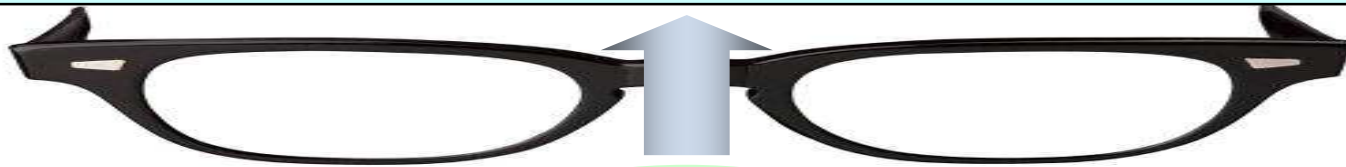


Information at Albert Heijn in 2000: stand-alone solutions

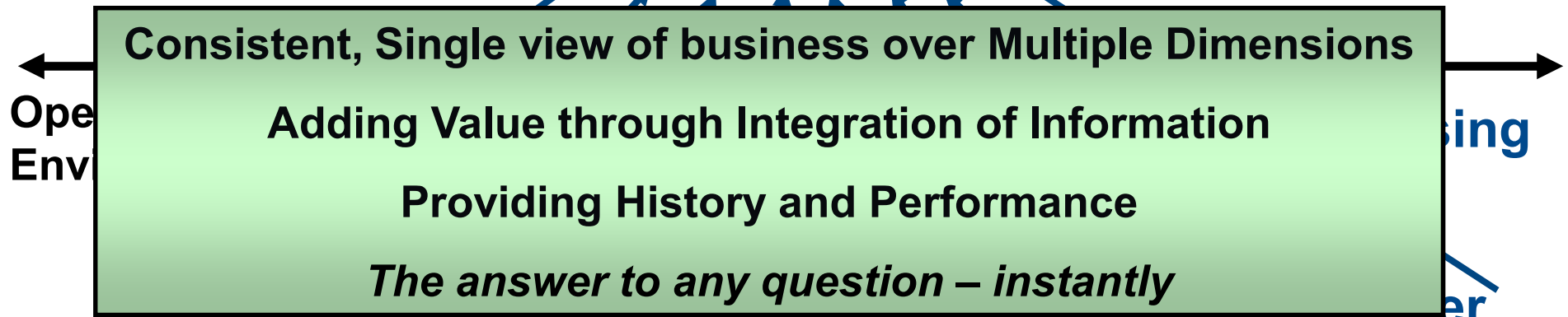


Today: one copy of the truth

Gewoon bij



One Informational Environment



Nielsen/ixi

Et...

weather

Today's situation

“Pallas” - Goddess of wisdom

- **One informational environment – one copy of the truth**
 - Sourcing 75% of transactional systems – real-time or batch
 - History (8 years data) and detail
 - Standardized reporting & analysis functionality
 - No more legacy, no more stove-pipe BI solutions
- **An Informational System “in it's own right”**
- **Servicing *all business processes and all departments***
 - From operational to strategic support
 - Internal & external (internet)
- **Available & used 24/7**
- **Usage on a weekly level**
 - 2.200 actual individual internal users
 - 170.000 reports (in total 2008: 7,8 million)
 - 60.000 customers
- **Total investment: € 30 mio.**

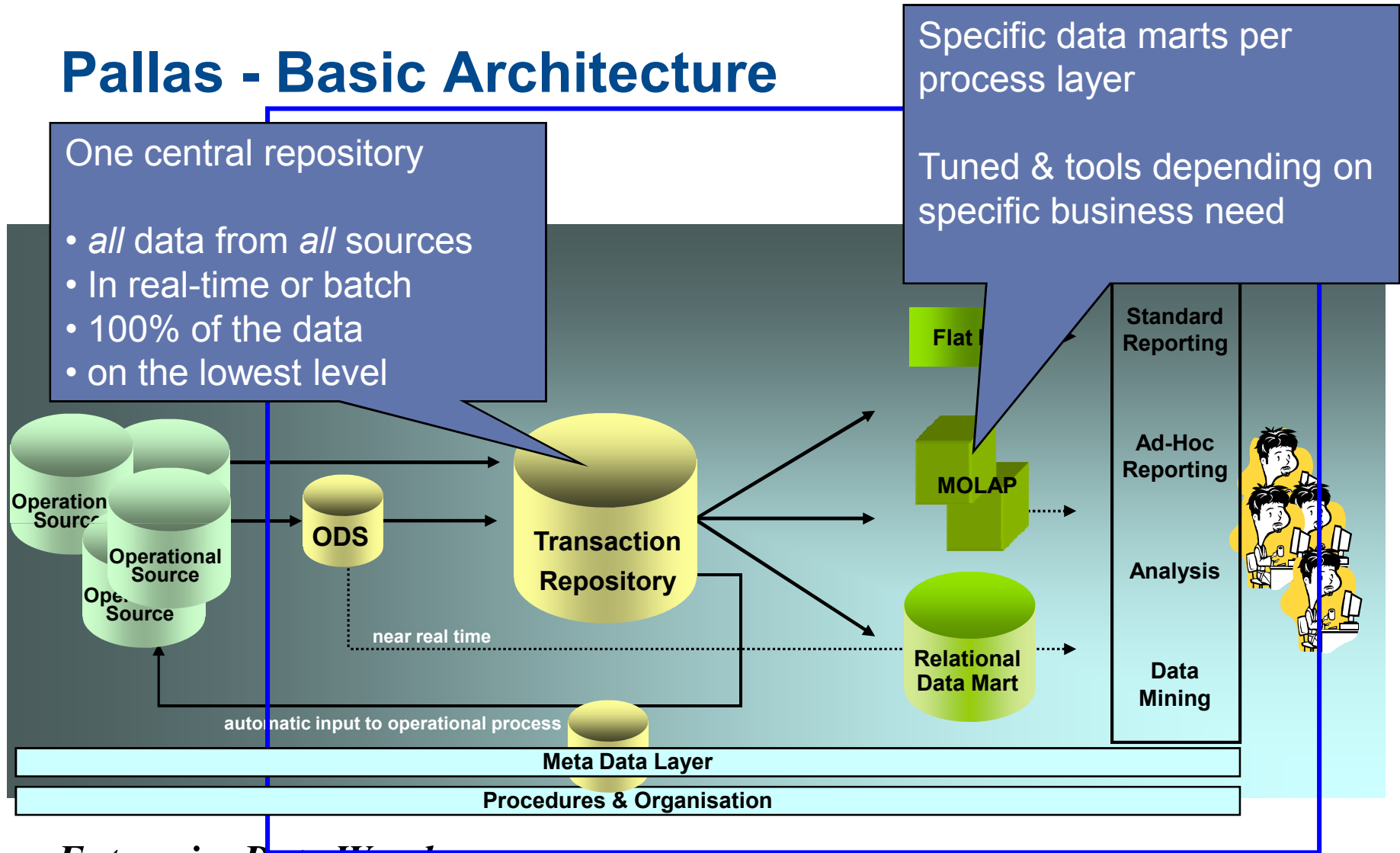


Reasoning for BI-development

- The strategic approach concerning BI was driven by:
 - Differentiation strategy;
 - Increasing business need for more detailed, accurate, timely and consistent information;
 - Increasing awareness about the value of information;
 - Understanding that further proliferation of multiple non-integrated, and costly stove-pipe BI solutions was not the way to go.



Pallas - Basic Architecture



Enterprise Data Warehouse
Multi-subject oriented; total value chain



Impression size & complexity Pallas

<h2>Oracle</h2> <ul style="list-style-type: none"> ■ # Databases: 16 ■ # Tables: 4.189 ■ # Columns: 59.381 	<h2>MicroStrategy (Reporting)</h2> <ul style="list-style-type: none"> ■ # metrics (facts): 1.600 ■ # reports & documents: 1.350 ■ # weekly users: 2.300
<h2>Powercenter ETL</h2> <ul style="list-style-type: none"> ■ # folders: 177 ■ # mappings: 2.179 ■ # workflows: 1.512 	<h2>Essbase (Analysis)</h2> <ul style="list-style-type: none"> ■ # metrics (facts): 450 ■ # Cubes: 21 ■ # Users: 150

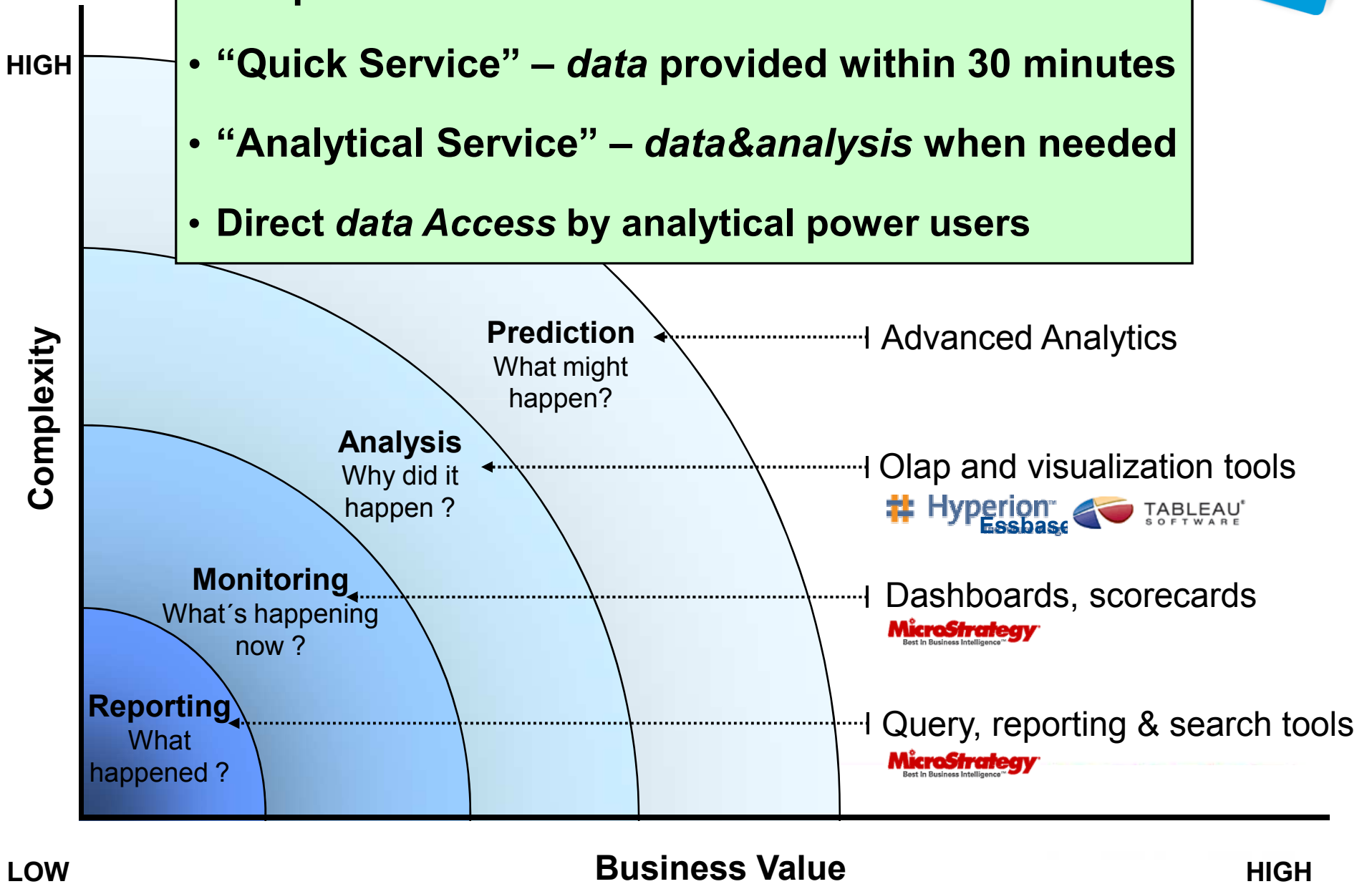
User data: 20 TB, adding 300 GB per month - Metadata: 220 GB

“Pallas” is responsible for app. 50% of the company’s total IO



On top of that: three ad-hoc services:

- “Quick Service” – *data* provided within 30 minutes
- “Analytical Service” – *data&analysis* when needed
- Direct *data Access* by analytical power users



Spin-off

- Given the architecture and presence of data in Pallas additional solutions are cheap and fast to implement
 - Dedicated Data Mart for Albert.NL € 4.000
 - Historical data for EMS Ranking tool € 10.000
 - PI Ratio Analysis € 3.200
- Ad-hoc questions (1.500 Quick Service calls in 2008) can be answered within minutes
 - The answer is available when needed
 - Against minimal cost.



So, let's give an example: sales



Functional Coverings (1)

- Customers
 - Customer Analyses
 - Customer Level Purchases (“Mijn AH.NL”)

- Supply Chain
 - EDI Process Monitoring
 - Replenishment KPI – dashboard
 - Replenishment Monitoring

- Warehouse Performance Monitor
 - Distribution Center Stock-level Monitoring
 - Supplier Stocklevel
 - Monitoring “Emballage” flow

- Warehouse Management Information
- Distribution Center Stock-level Monitoring
- Distribution Center Replenishment Monitoring

- Store Monitoring (Store level)
 - Week, Trend, Forecast monitoring
 - Planning
 - Sales, Transaction, Mark downs, Stock etc (all item level)
 - Financial (incl cost) & Scorecard



Functional Coverings (2)

- Merchandising
 - Sales Reporting
 - Forecasting
 - Category Performance Improvement
 - Supplier Performance
 - Promotion Analysis
 - Market Analysis
- Information Management
 - Daily and YTD IT Production overview
 - IT Server (Hardware) Monitoring
 - IT Helpdesk Calls Reporting
- Warehouse Execution - Operational
 - Employee
 - Production
 - Warehouse Logistics
 - Transport
 - Replenishment
- Warehouse Transport Monitoring – Operational
- AH Masterdata (Store and Article information) – operational



Functional Coverings (3)

- HR Reporting & analysis
- Competition information (Nielsen, IRI)
- External Information (Weather, CBS)
- Employee Discount Calculation
- Shelf Optimization
- Supplier Access (Pallas For Internet)
- Store Location Analysis
- Monitoring quality stock-level management
- Supplier Contract Management Monitoring

- Ahold Real Estate Reportal
- Gall&Gall Sales Reporting
- Albert.nl Sales Reporting

- Pallas Metadata
 - Calls & incidents
 - Usages abd Servicve Reporting
 - Timelines & availability
 - Data Quality & Performance



Now it's time to climb the top...



Realize *all* potential value

Albert Heijn will take action in order to become a real analytical champion

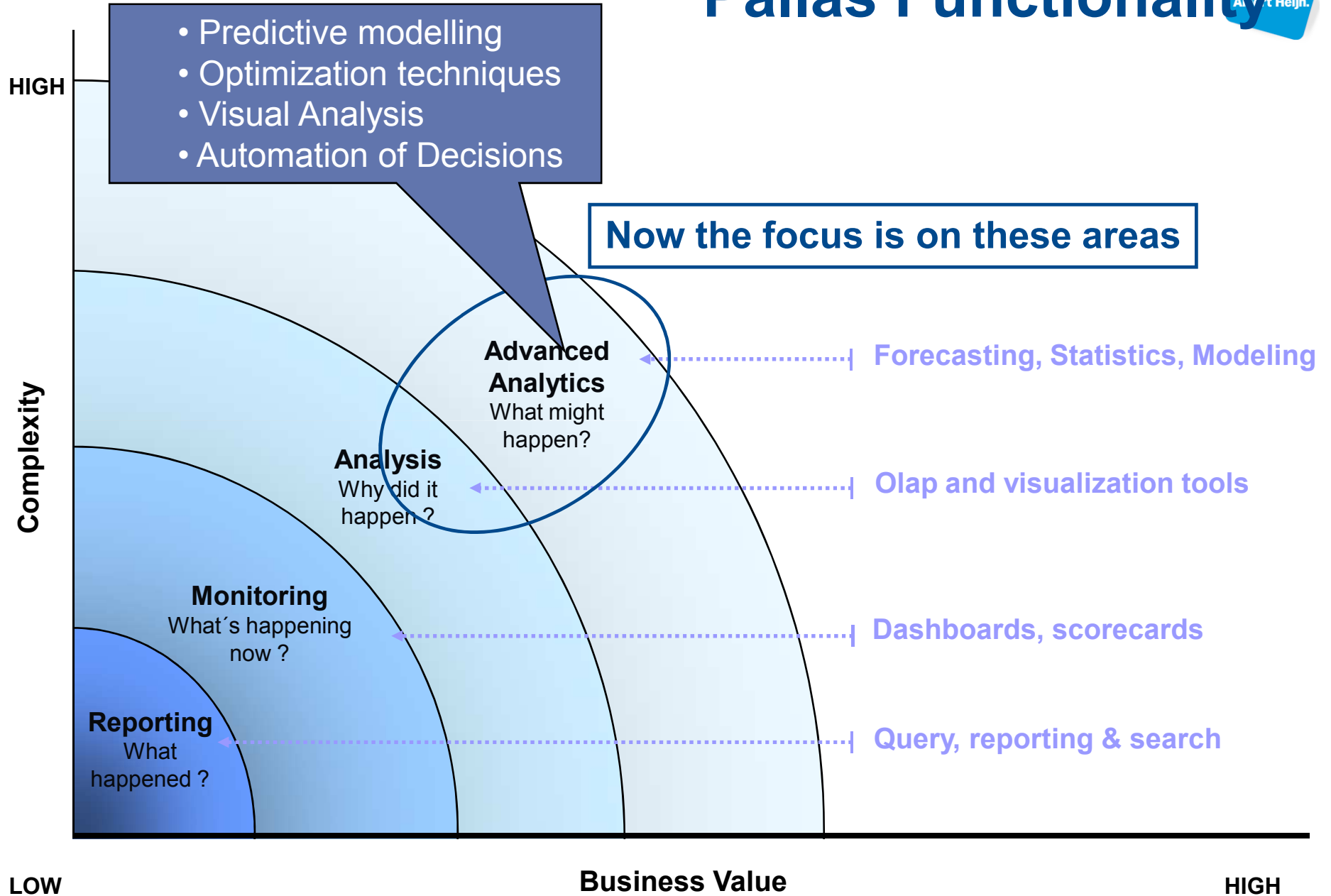
Foundation is now in place

80% of sources, mature and stable environment, Supporting all business Processes.

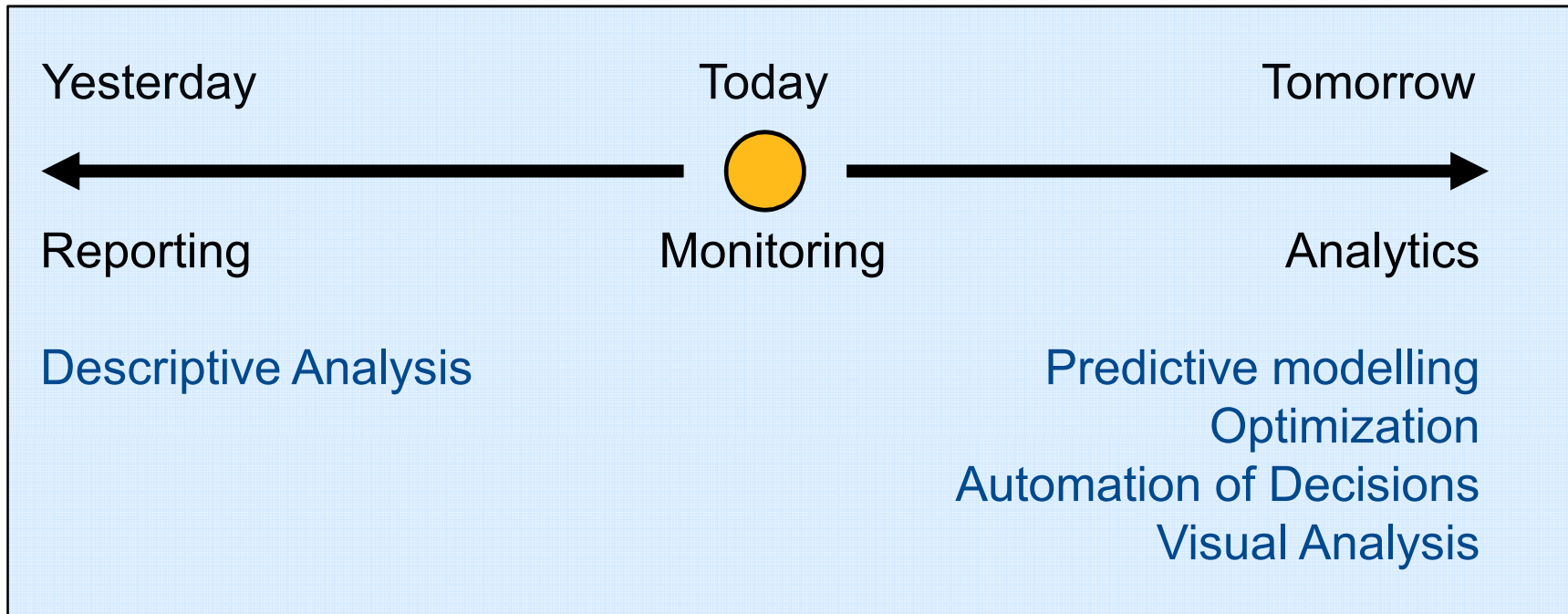


Pallas Functionality

Gevoonden bij Albert Heijn.



From “one copy of the truth” to “one copy of the future”



“Analytics” predicts what will happen tomorrow. The better the prediction, the better the actions of today are in line with what will actually happen. The better the business results will be.



Our Ambition: An Analytical Culture

- No more: “We could have known this”
- “Analytics” as core capability
- Intelligent use of information has become explicit, instead of implicit
- Do we think, or do we know?
- Fact-based decision making at every level of the organization.



Analytics - characteristics

- People with the right skills
 - Expertise in math, statistics, data analysis
 - Speaking also the language of the business
 - Doing their own internal marketing
 - Open mindset
- Enterprise approach, cross-functional (not departmental)
- Strong leadership

- Mature business intelligence environment
- Using internal and external data
- Structured and non-structured data
- Common technology and tools.



Almost all business area's will profit

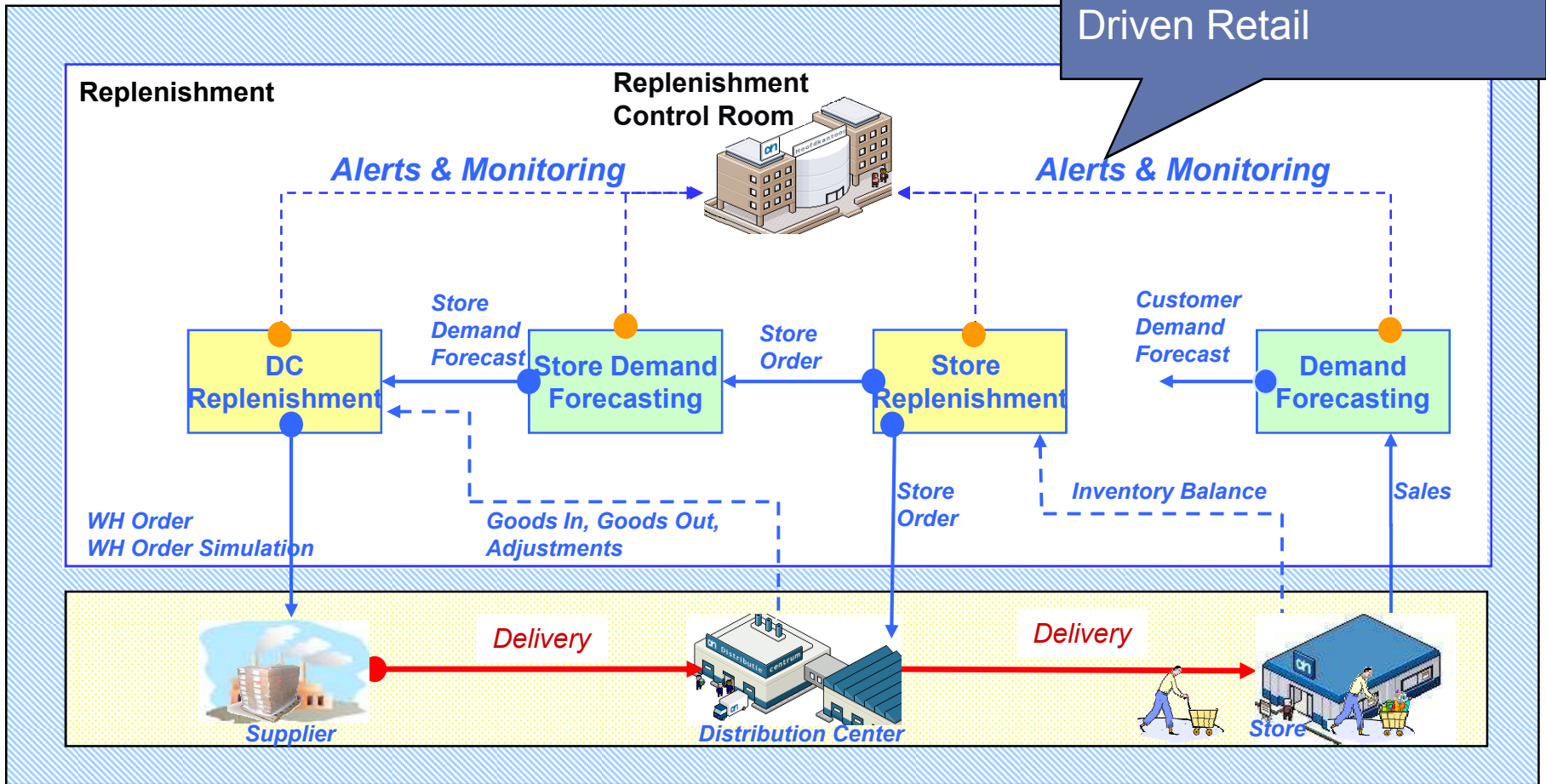
- Product introductions
- Reduction of customer churn
- Marketing/media effectively
- Forecasting finance
- Fraud detection
- Workforce Planning
- Assortment differentiation
- Loyalty management/Consumer Insight
- Price optimization
- Promotion Management
- Mark Downs
- Predict cross-sell or up-sell opportunities by customer segment
- Replenishment forecasting
- Supply Chain Optimization
- Employee
- Inventory M
- Workforce

Fact-based decision making at every level of the organization to drive superior performance



Example: Replenishment Process

Real time sales forecast every 5 minutes
 Continuous Customer Driven Retail

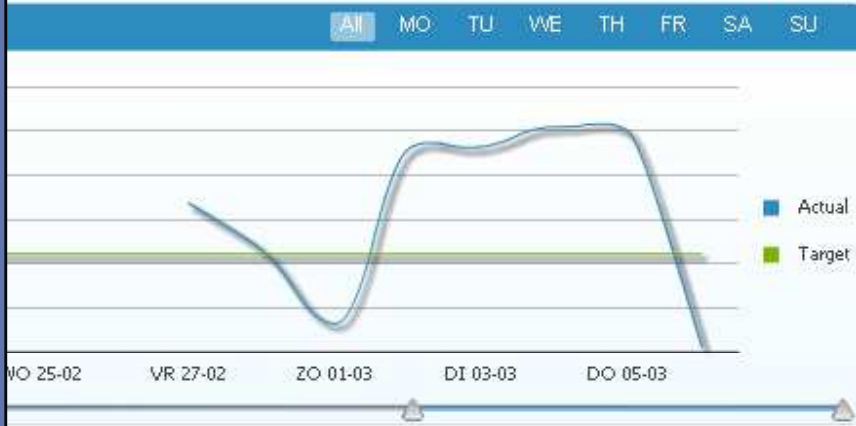


Key Performance Indicators 6-3-2009

Peer Performance

- Monitored by KPI's over five dimensions
- AH-total, region, store
 - Assortmentgroup to article
 - year, period, week, day
 - Responsible manager
 - Format

Actual	Target	WTD	Dev. Target
98,6	95,8	98,8	2,8
95,4	91,1	96,8	4,3
99,0	99,4	97,4	5,2



Performance Ranking Day WTD

	Actual	Dev. Target
Albert Heijn 41 Suikerwerk Seizoen	73,0	-24,0
AHXL 41 Suikerwerk Seizoen	74,4	-22,6
AHXL 140 Noten Toast	80,4	-18,6
Albert Heijn 140 Noten Toast	80,5	-18,5
AHXL 304 Speelgoed	82,8	-13,2
Albert Heijn 125 Gekoelde sappen	92,4	-5,6

ROM-Flow Manager ROM-Formule





Thank You

