



Data Driven Retail

Using Information for Competitive Advantage



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Information Management Europe

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Personal background

- 2006 - Ahold Global
 - Responsible for Business Intelligence
- 1997 - 2006 Albert Heijn
 - Responsible for Business Intelligence
 - Various management roles (Loyalty Card, SOx, Merchandising)
 - Member of IT Management Team
- 1990 - 1997 Vroom&Dreesmann
 - Program manager Category Management
 - Responsible for Business Intelligence
 - Cobol Programmer, System Designer
- Studies: Politics – Free University Amsterdam.



Albert Heijn - 1887



Gewoon bij Albert Heijn.

- 770 Stores
- 2007 Sales: € 8 billion
- Sales growth
 - 2006 - 10,6%
 - 2007 - 12,1%
 - 2008-HY - 14,4%
- 8,5 million loyalty cards
- 80 million ticket-line items per week.

“A store for everyone. Albert Heijn makes daily shopping affordable and at the same time provides customers with the more special products too.”



Plak je wild met Welpie



Gratis Welpie
Winks voor Windows
Live Messenger

→ DOWNLOADEN



Information is 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*.



Yahoo – appointed a *Chief Data Officer*



Usama Fayyad
Chief Data Officer
and Senior Vice President

“Leading all strategic data activities; represent Data as a strategic asset that DRIVES business; helping to lead the company in new directions”

Interview in KDnuggets, 24 Oct 2005



Reasoning for BI-development (2000)

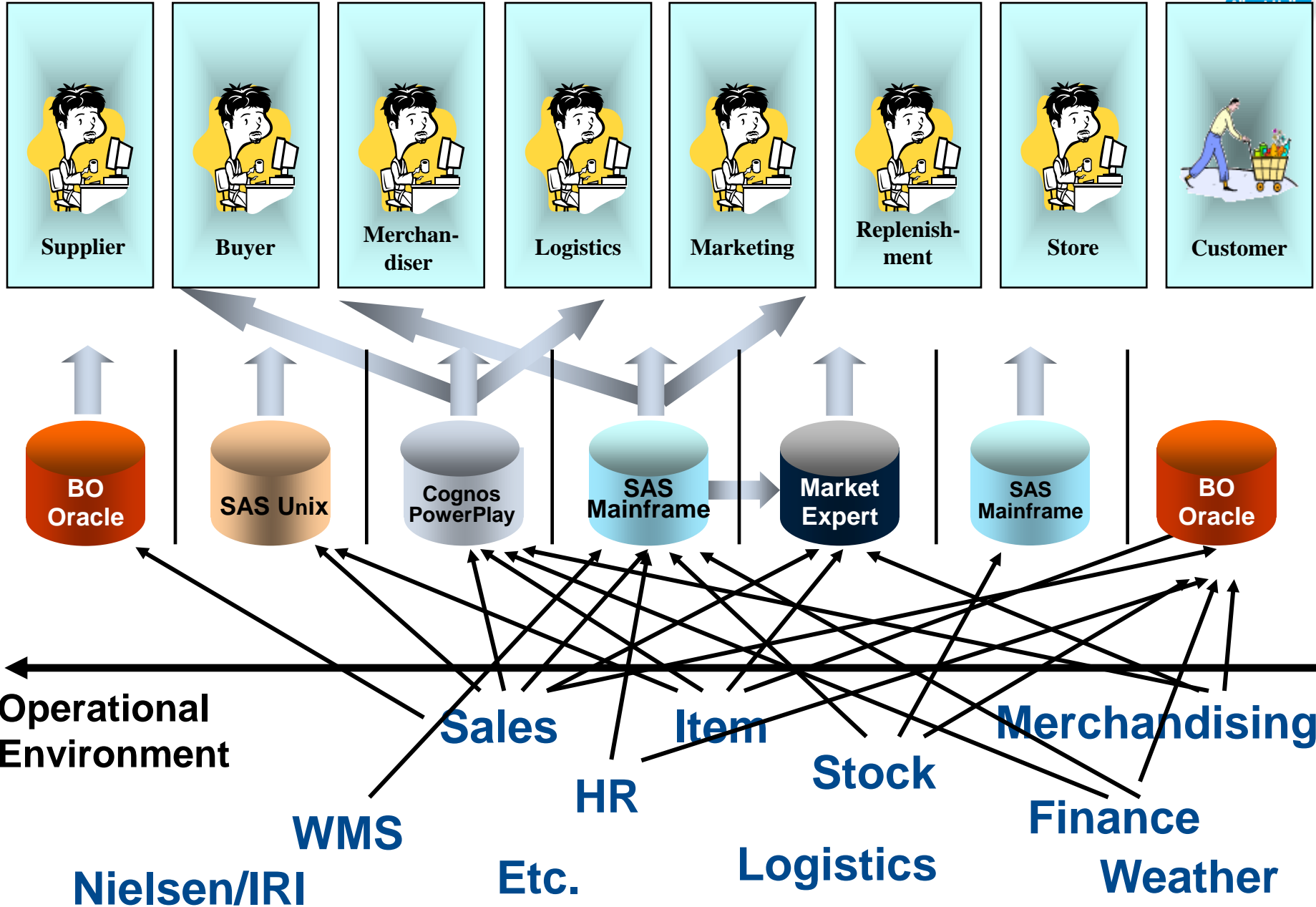


- The strategic approach concerning BI was driven by:
 - The need for an informational answer to Albert Heijn's differentiation strategy;
 - Increasing business requests for more detailed, accurate, timely and consistent information;
 - Increasing awareness about the value of information;
 - Understanding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

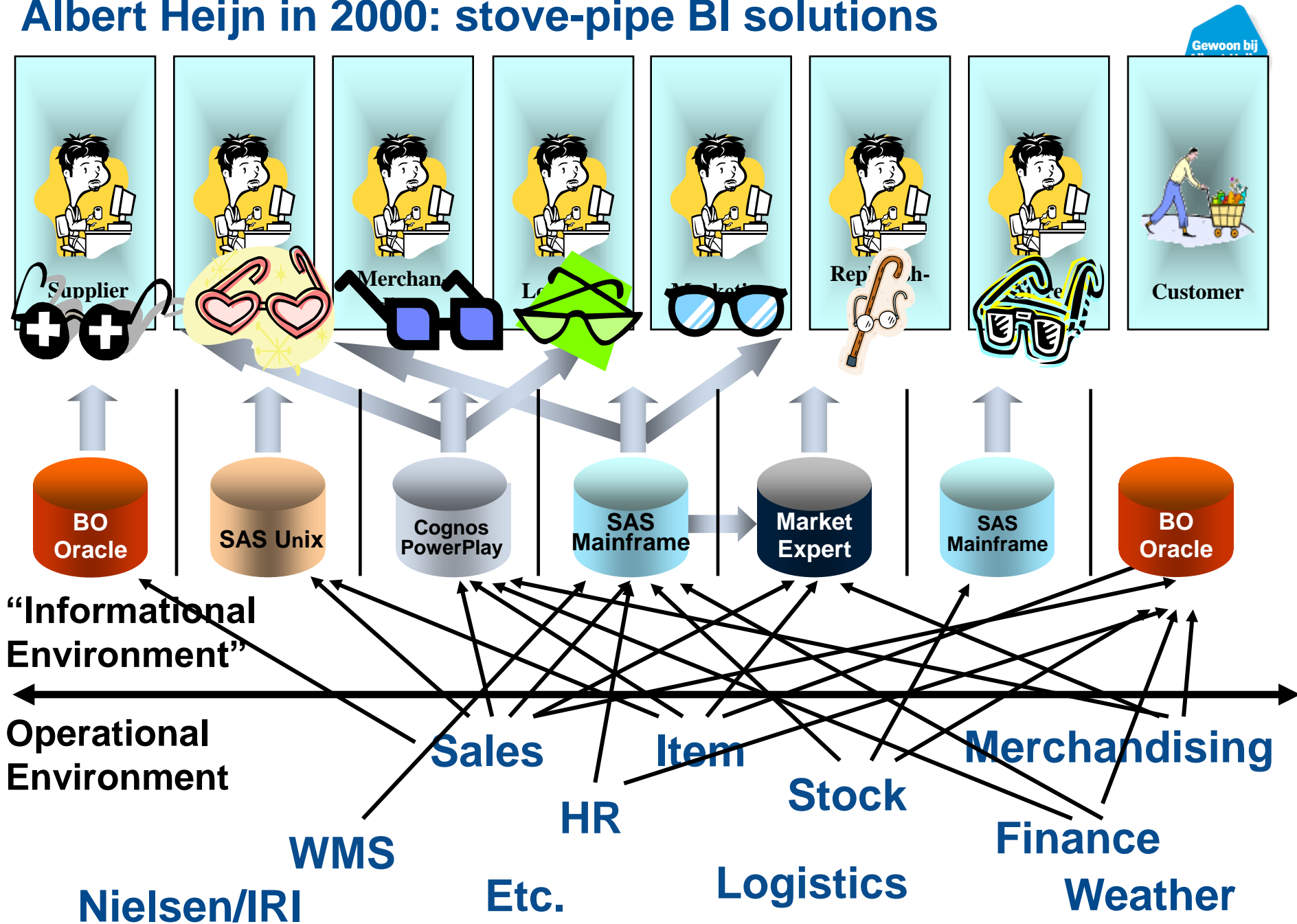


Albert Heijn in 2000: stove-pipe BI solutions

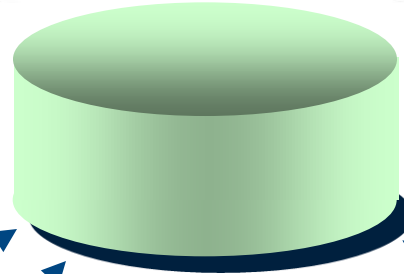
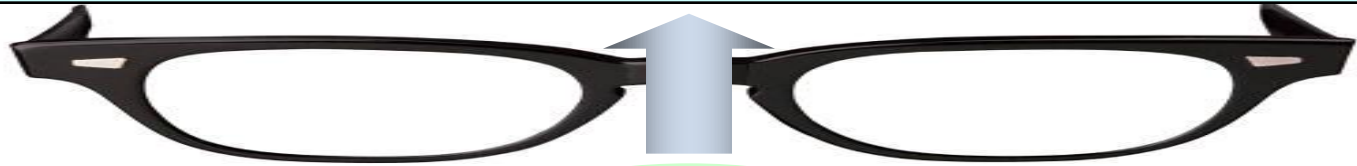
Gewoon bij



Albert Heijn in 2000: stove-pipe BI solutions



Today: "Pallas"- Providing One Single Integrated View



Informational Environment

← Open Environment →

Consistent, Single view of business over Multiple Dimensions
Adding Value through Integration of Information
Providing History and Performance
The answer to any question – instantly

ing
er

Today's situation

“Pallas” - Goddard

- **One information system**
 - “Pallas” – The Ahold Group
 - Sourcing 80% of the Ahold Group
 - History (8 years)
 - Standardized reports
 - No more legacy systems
- **Servicing *all* business units**
 - Supply Chain
 - Merchandising
 - Head office support
 - Suppliers & Customers
 - Stores

Usage in 2007

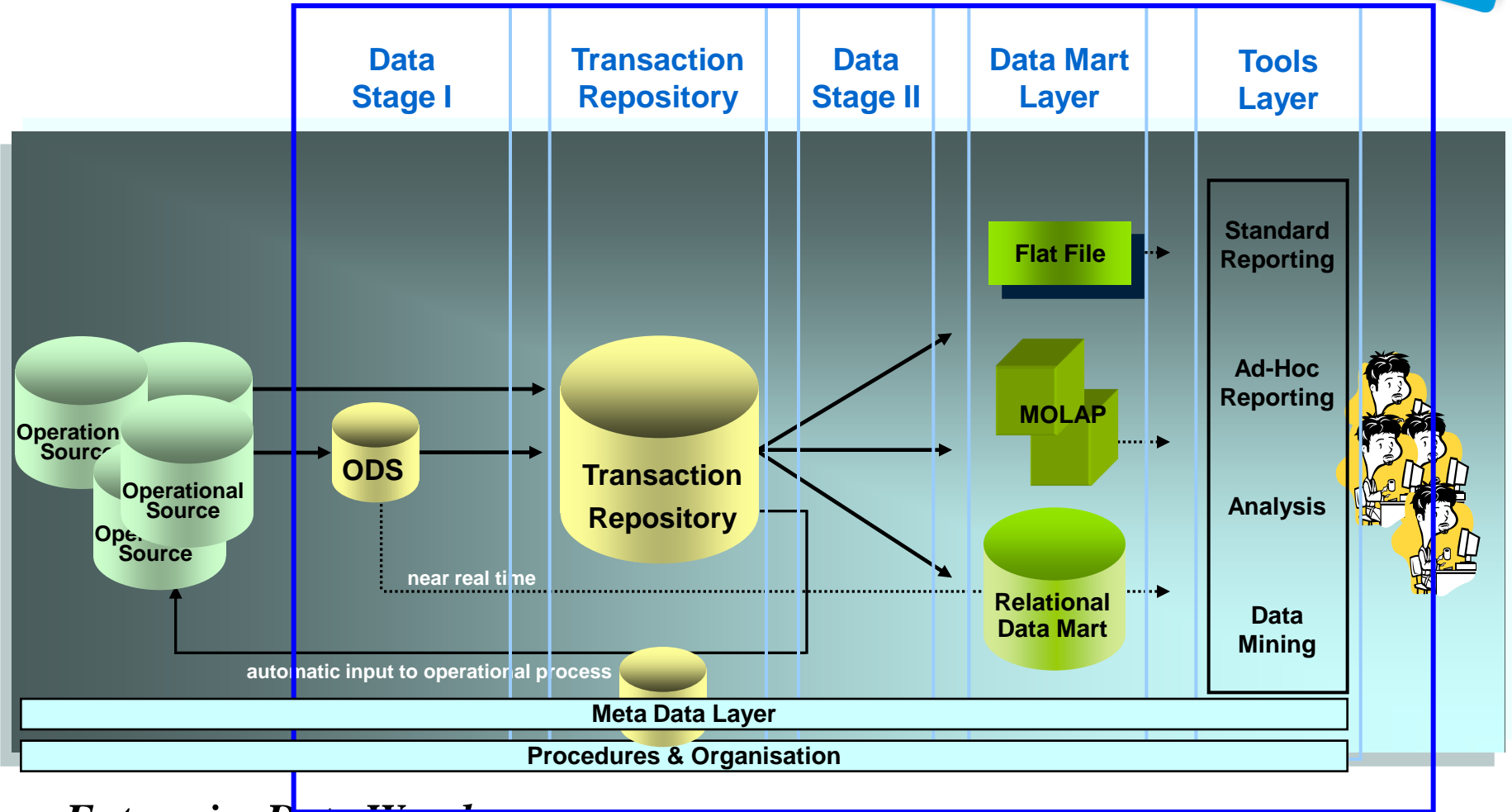
| | Users | Reports |
|------------------------|--------------|------------------|
| Supply Chain | 1.400 | 2.400.000 |
| Merchandise&MF | 400 | 600.000 |
| Head Office Support | 100 | Analyses |
| AH IM | 250 | 20.000 |
| Suppliers | 50 | 10.000 |
| Stores | 1.600 | 3.000.000 |
| Other (Gall, AVG, GSO) | 200 | 150.000 |
| Total | 4.000 | 6.000.000 |

Also 50.000 weekly customers – www.ah.nl



Pallas - Basic Architecture

Gewoon bij Albert Heijn.



Enterprise Data Warehouse

Multi-subject oriented; total value chain



Key Design Decisions – still leading

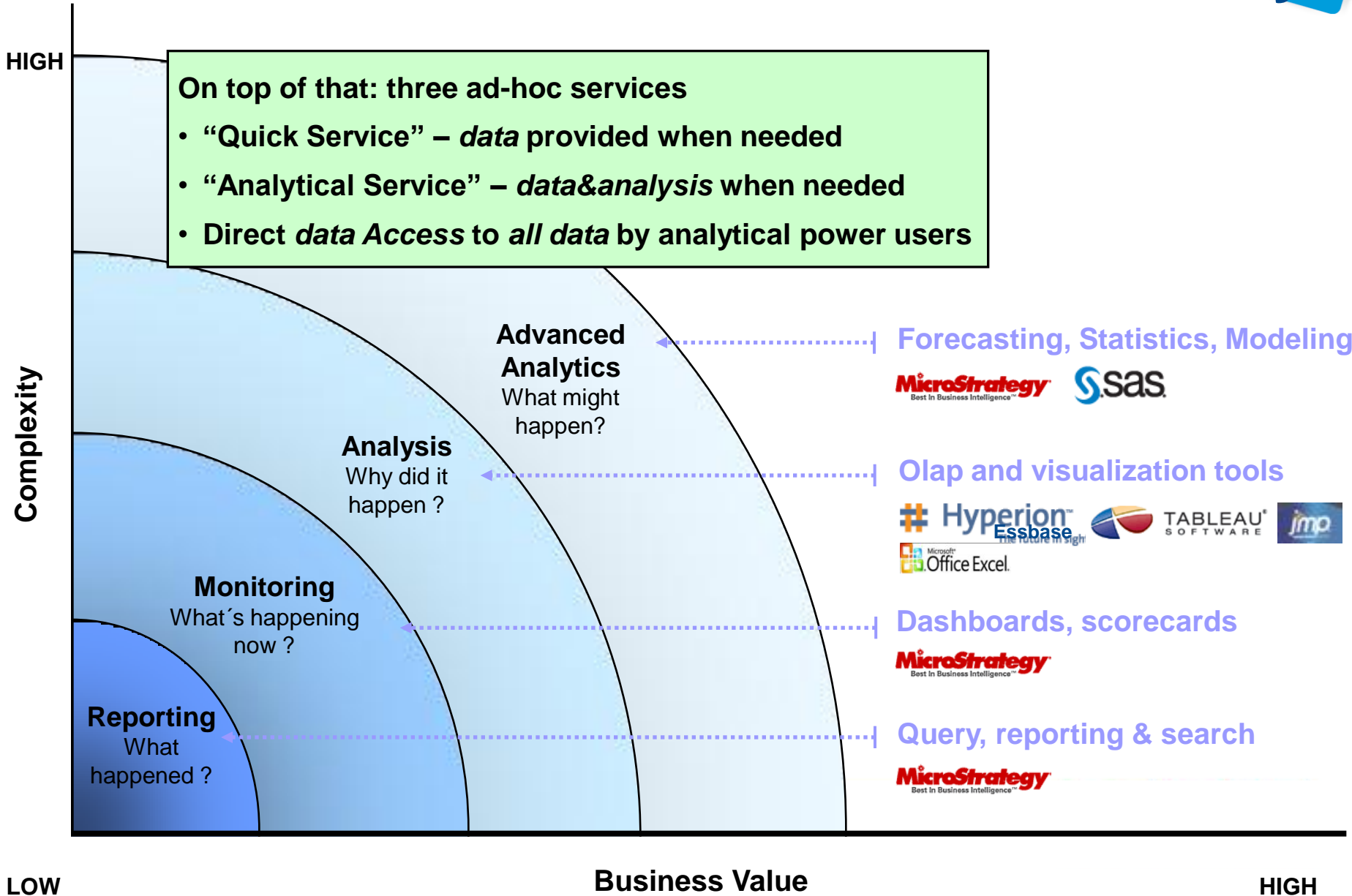
- Get *all* data from *all* sources
- 100% of the data
- Data on the lowest level available
- Directly from the source

- One central repository – on line, all history

- Set of data marts per process layer.



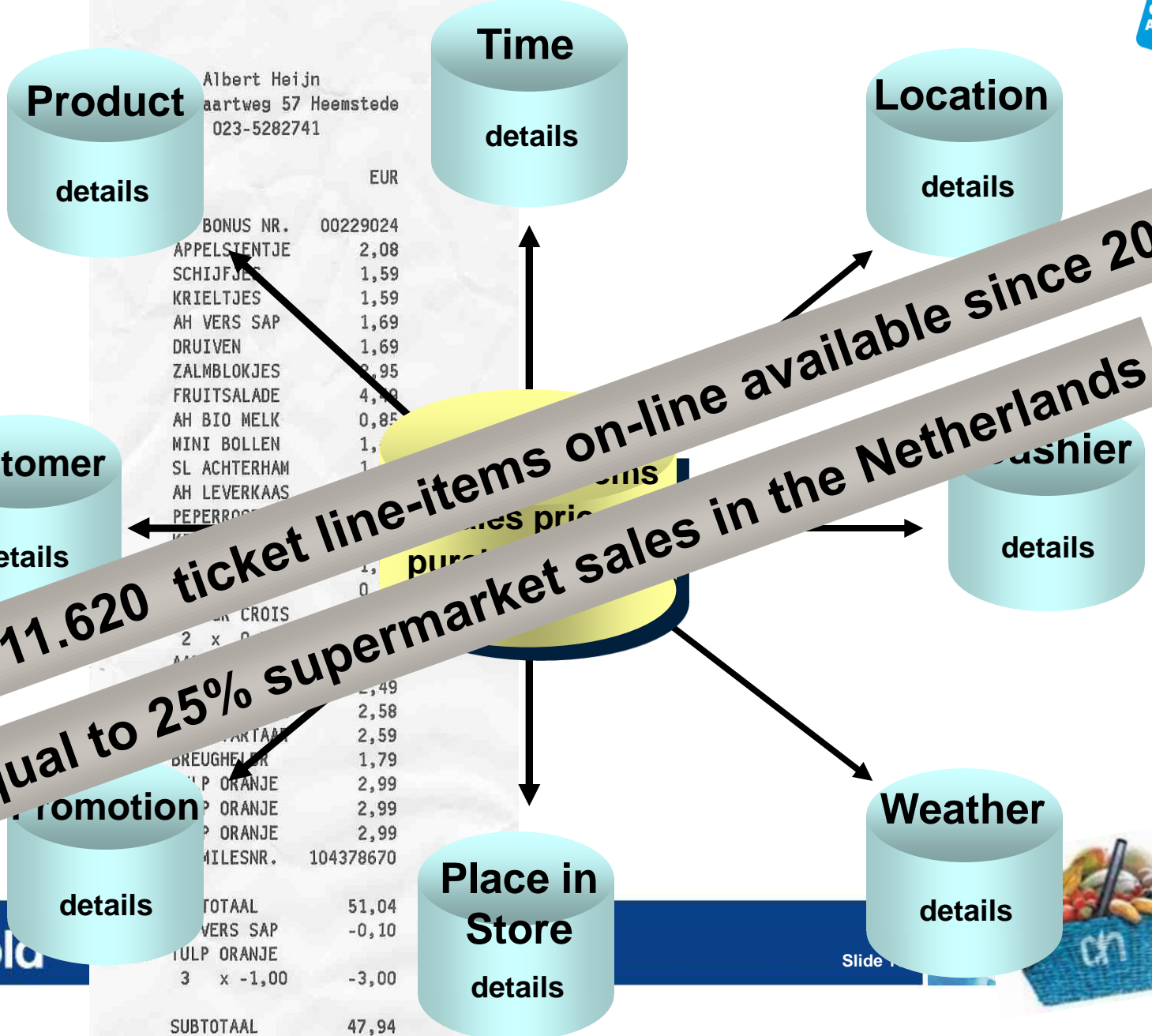
Pallas Functionality



So, what do we know about sales?



32.373.911.620 ticket line-items on-line available since 2000
equal to 25% supermarket sales in the Netherlands



Albert Heijn
Maartweg 57 Heemstede
023-5282741

EUR

BONUS NR. 00229024

| | |
|---------------------|-------|
| APPELSTENTJE | 2,08 |
| SCHIJFJES | 1,59 |
| KRIELTJES | 1,59 |
| AH VERS SAP | 1,69 |
| DRUIVEN | 1,69 |
| ZALMBLOKJES | 2,95 |
| FRUITSALADE | 4,40 |
| AH BIO MELK | 0,85 |
| MINI BOLLEN | 1,00 |
| SL ACHTERHAM | 1,00 |
| AH LEVERKAAS | 1,00 |
| PEPERROOS | 1,00 |
| ... CROIS | 2,49 |
| ... 2 x 0,49 | 2,58 |
| ... KARTAAN | 2,59 |
| BREUGHELOER | 1,79 |
| ... ORANJE | 2,99 |
| ... ORANJE | 2,99 |
| ... ORANJE | 2,99 |
| MILES NR. 104378670 | |
| TOTAAL | 51,04 |
| ... VERS SAP | -0,10 |
| ... ULP ORANJE | |
| 3 x -1,00 | -3,00 |
| SUBTOTAAL | 47,94 |
| TOTAAL | 47,94 |



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 Heldesk 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)

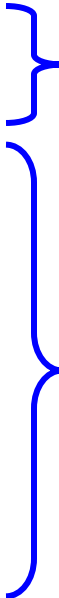
- HR Reporting & analysis
- Competition information (Nielsen, IRI)
- External Information (Weather, CBS)
- Employee Discount Calculation
- Shelf Optimization
- Supplier Access (Pallas For Internet)
- Store Location Analysis
- Monitoring quality stock-level management
- Supplier Contract Management Monitoring

- 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.



Our Ambition: An Analytical Culture

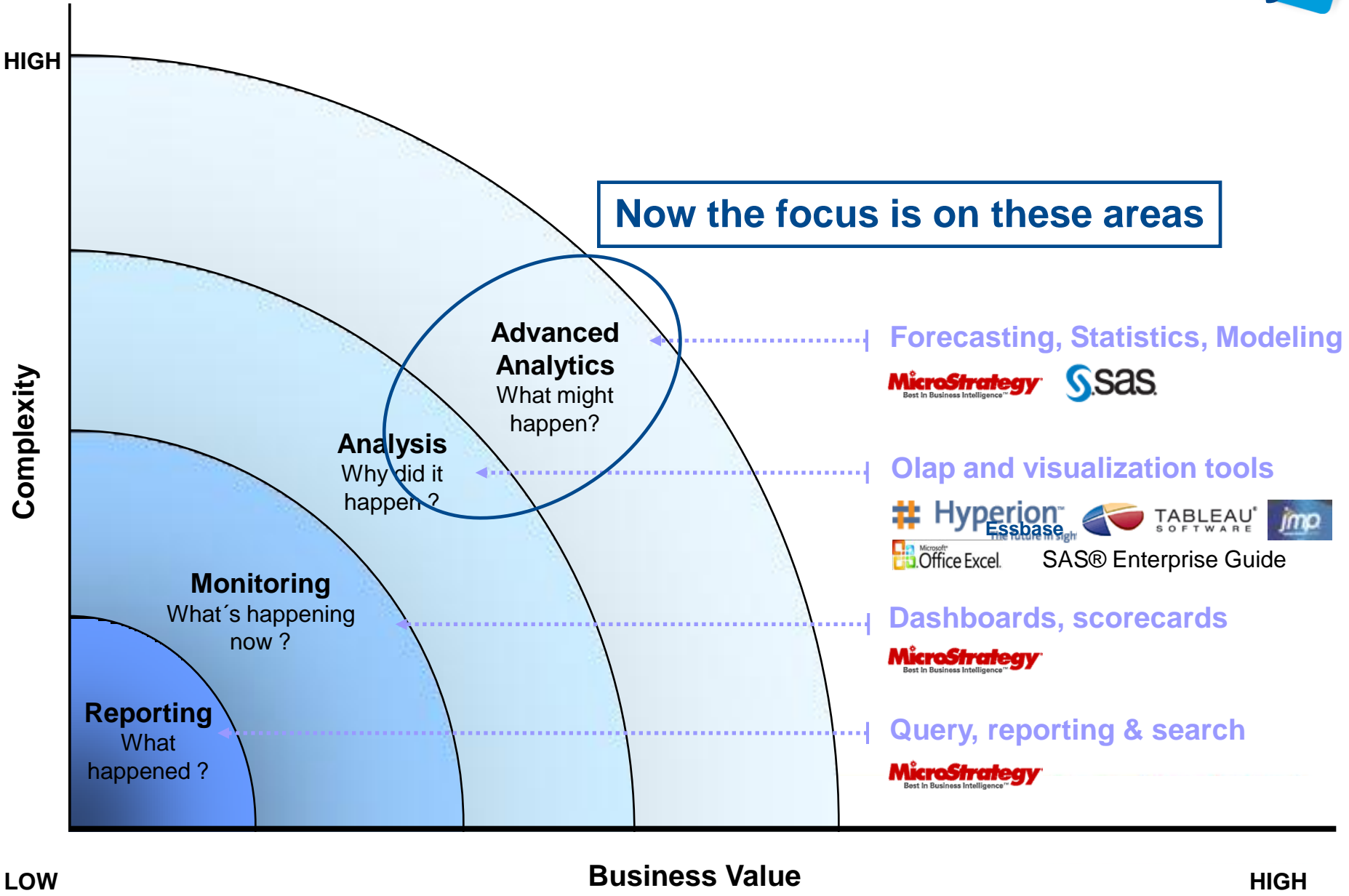
- No more: “We could have known this”
- The right answer to any question – instantly
- “Analytics” as core capability
- Intelligent use of information has become explicit, instead of implicit
- Decisions based on facts
- Do we think, or do we know?



An Analytical Culture.



Pallas Functionality



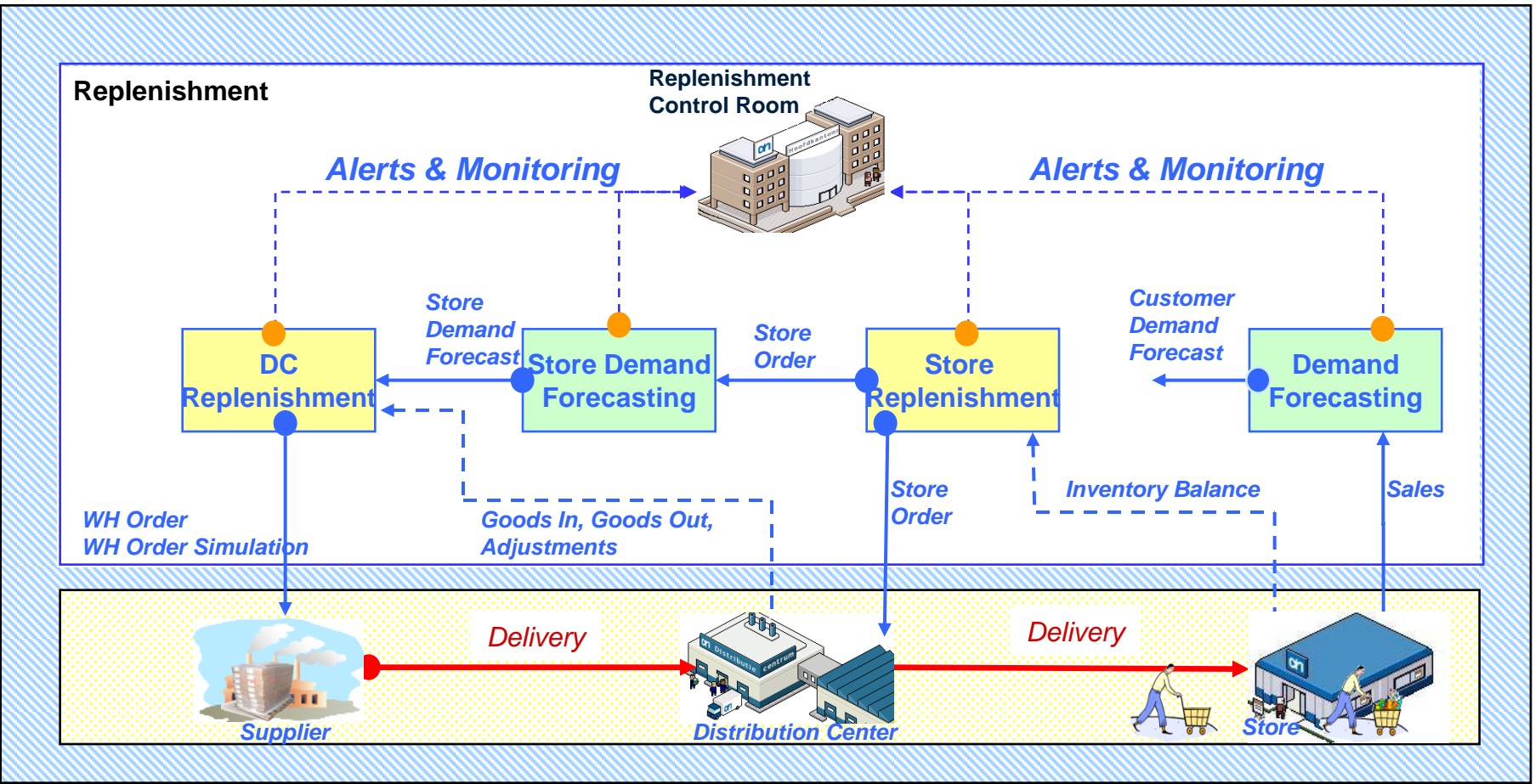
Analytics – What's needed ?

- 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

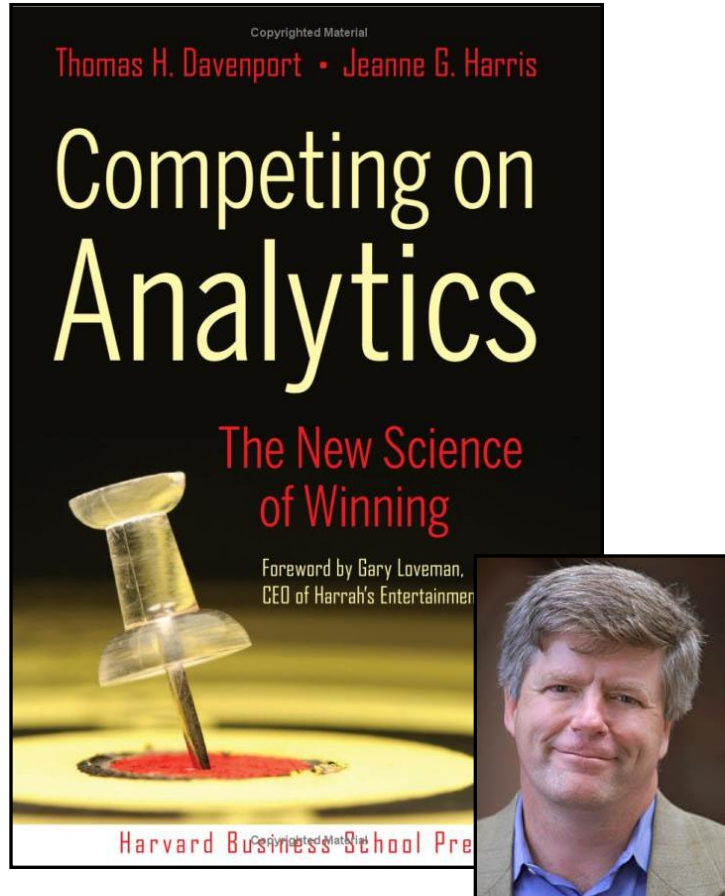
- Mature BI environment
- Higher level of analytics
- Using internal and external data
- Structured and non-structured
- Common technology and tools.



Albert Heijn's integrated Replenishment Process



Additional Reading





Thank You



**Do we think,
or do we know?**

**Using Information for
Competitive Advantage**

