

Together we're a bestseller



OBIEE - The Rising Sun

Leaving stars and snow behind

Emiel van Bockel
Centraal Boekhuis





Introduction

Emiel van Bockel - *Manager Information Services*



- Bachelor Information Engineering
- Master in Management & ICT



- Mars / CHV / Digital
- Tulip Computers ('95)
- Campina Melkunie ('97)
- Aviko ('99)
- Centraal Boekhuis ('00)



- since 1997
- 1e - SAP
- Oracle
- Business Objects
- OBIEE



highlights

- BI Award (publics) winner 2007
- Best speaker Computable seminar 2008
- Keynote speaker European TDWI seminar 2008
- Speaker Web seminar Oracle BI SIG
- Articles: 'The success behind BI' / 'Enterprise Warehouse Architecture'
- Oracle Journal of Management Excellent issue 4

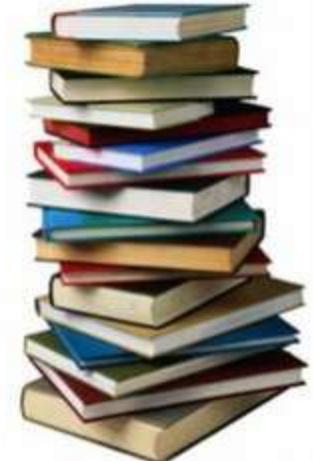


- What does information do to a user?
- What does a user do with information?



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Company impression



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Profile

Centraal Boekhuis

- » The leading logistic service provider (Dutch book market)
- » Linking pin between publisher and bookseller
- » Storage, distribution and transportation of books
- » Invoicing, accounting and information
- » More than 67 million books per year



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• Aiding our mission

- › Operational excellence in logistics for the supply chain
- › Supporting our customers (distribution and sales information)

• Internal Business Intelligence

- › The flow of goods (books)
- › Revenues (of our services)

• External Business Intelligence

- › Publisher
- › Bookseller

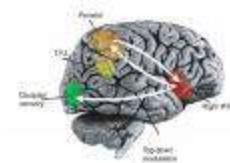


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Warning

Theory

Practice



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Introduction

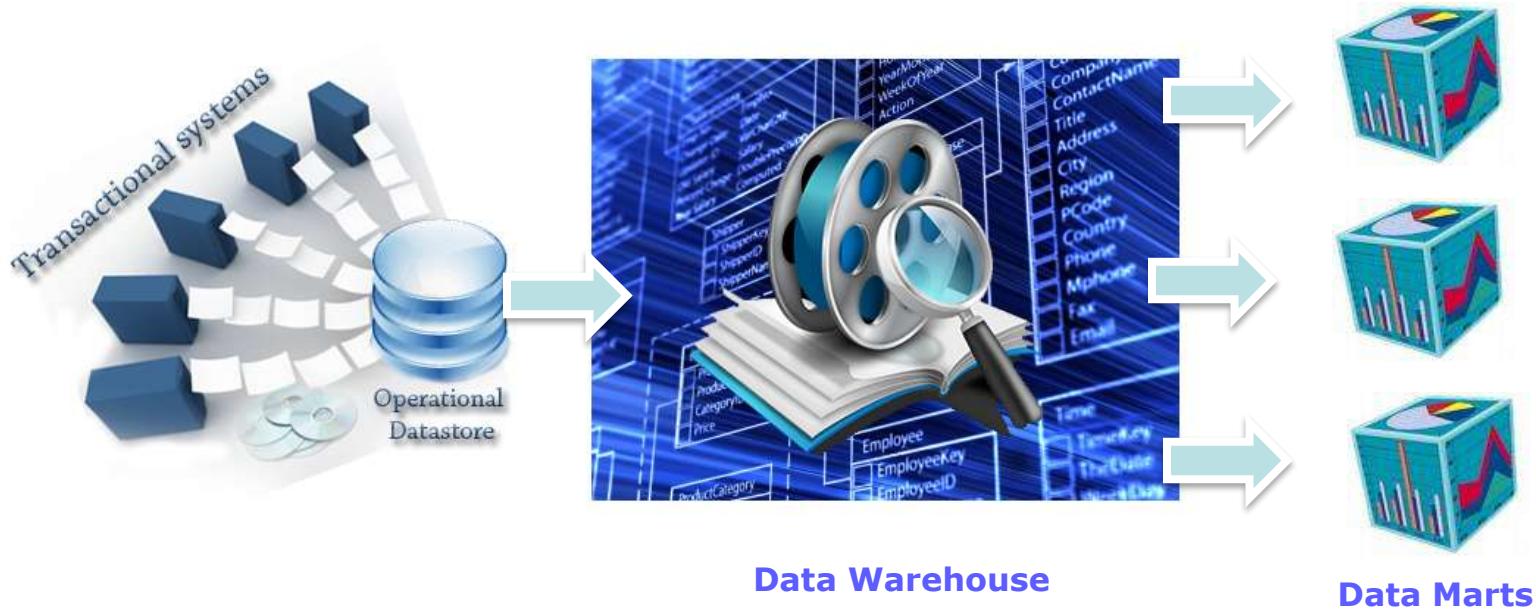
Lets talk about: how OBIEE federated query enables us to use different modelling techniques ("federated modelling?").

- Enterprise Architecture and Business Intelligence
 → 'the user'
- Star schema and snowflake modelling
- OBIEE as solution enabler for agile and flexible BI

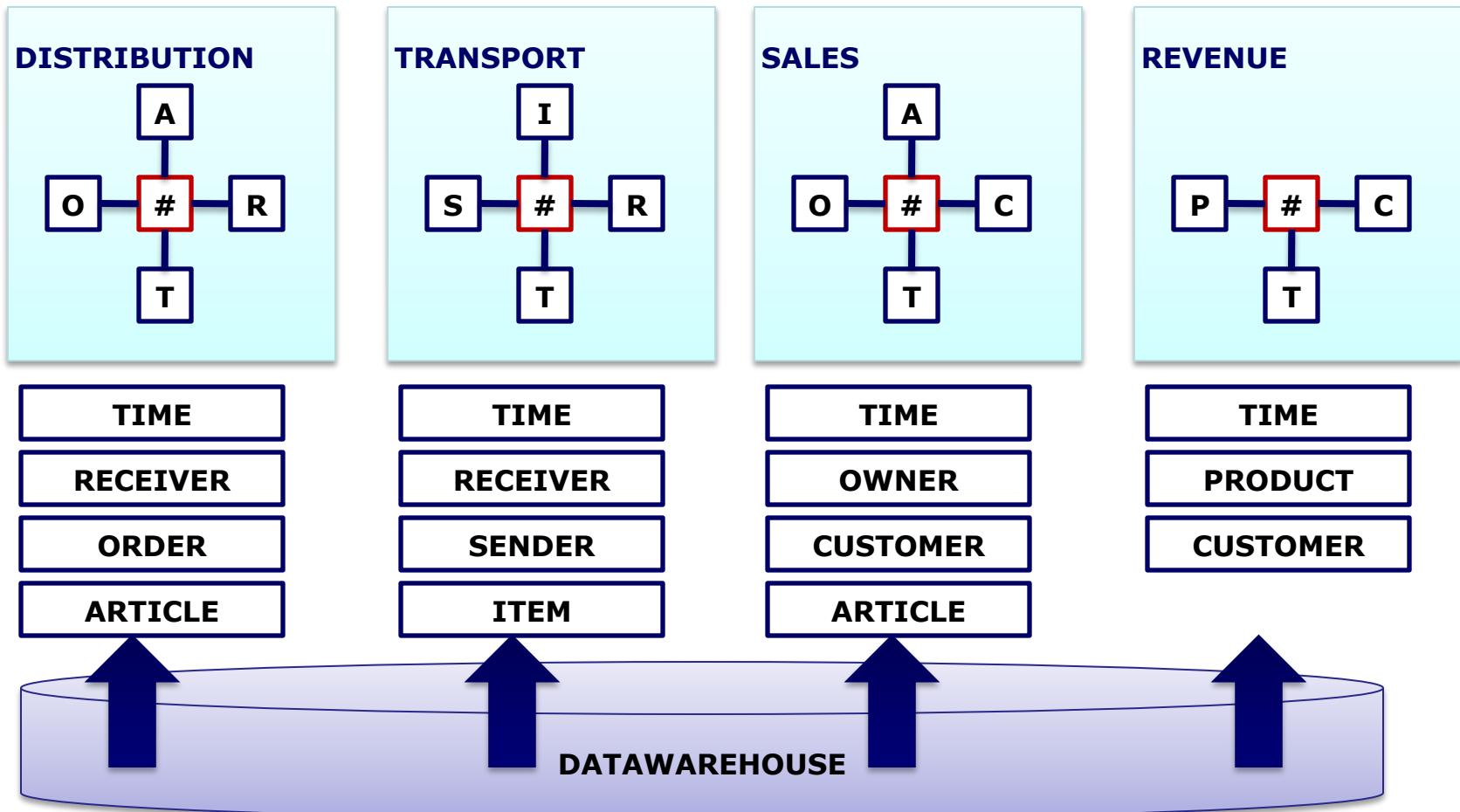


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DWH Architecture



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**How is a dimension related to
a Business Entity from an
Enterprise Architecture point of view?**



**Snowflake
Starschema**

**Why is everybody always discussing
about snowflaking and
starschema's?**

**Why are there so many
copies of dimensions?**

Dimensions



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Idea

Recipe - Flex & Agile BI

- fed. Dim conform EA
- Normalize dimensions
- Loosely couple facts
- OBIEE to combine all logically



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The User



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External Business Intelligence



publisher

Centraal
Boekhuis

bookseller



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Dutch publishers

- » Increasing competitive market
- » More need for information
- » CB delivers logistic as well as information services

Information

- » Managing primary processes
- » Insight in costs and cash flow
- » Analysis and forecasting
- » Stronger negotiation position with booksellers
- » Benchmarking



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Process and information

Additional (management- & market information)

Standard (reporting)



cbonline Utgever De (begeleider) ? Q centraal boekhuis

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uitgever analyse retour afnemer
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inzoomen op:	artikel:	imprint	fondsgroep	titel	afnemer:	groep	land	afnemer	opdracht:	twwc	vos		
Selecteren	kalender	verkoop (#)	retour (#)	saldo (#)	verkoop bruto (€)	retour bruto (€)	saldo bruto (€)	verkoop netto (€)	retour netto (€)	saldo netto (€)	korting (%)	retour (%)	gem. vk prijs
C	18-02-2007	4.265	54	4.211	51.292	892	50.400	26.196	480	25.716	45,9	1,3	11,97
C	september	93.331	4.275	89.056	1.524.838	68.169	1.456.669	737.663	30.235	707.427	48,4	4,6	16,36
C	2006 jan t/m sep	640.153	49.445	590.708	10.235.880	785.676	9.450.204	4.844.189	408.019	4.436.169	50,4	7,7	16,00
C	2006 totaal	831.952	70.056	761.896	13.463.833	1.128.309	12.335.524	6.474.804	591.939	5.882.866	49,7	8,4	16,19
C	2005 jan t/m sep	544.353	31.065	513.288	8.939.063	544.926	8.394.137	4.394.791	266.194	4.128.597	48,1	5,7	16,35
C	2005 totaal	747.100	51.796	695.304	12.596.078	986.701	11.709.377	6.194.357	448.175	5.746.183	48,3	6,9	16,84

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The success

Publishers

- » Very satisfied (enthusiastic)
 - » Score "good" to "very good"
 - » 75% of all publishers (500) live within 1 month
- » They say they are better informed

The commercial success for CB

- » the given target is realized 5 times faster
- » ROI < 1 year
- » 25% growth within the first year

Users

- » 500 Publishers
- » 1500 Named users



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What's behind the success



- Put the user in the middle
- The level of information
- “You don’t know, what you want to know.”
- “What decisions need to be made?”



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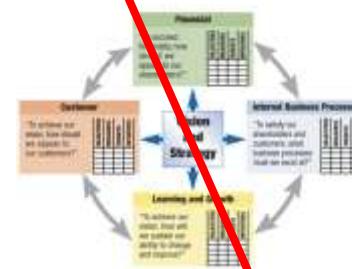
The user



Publisher

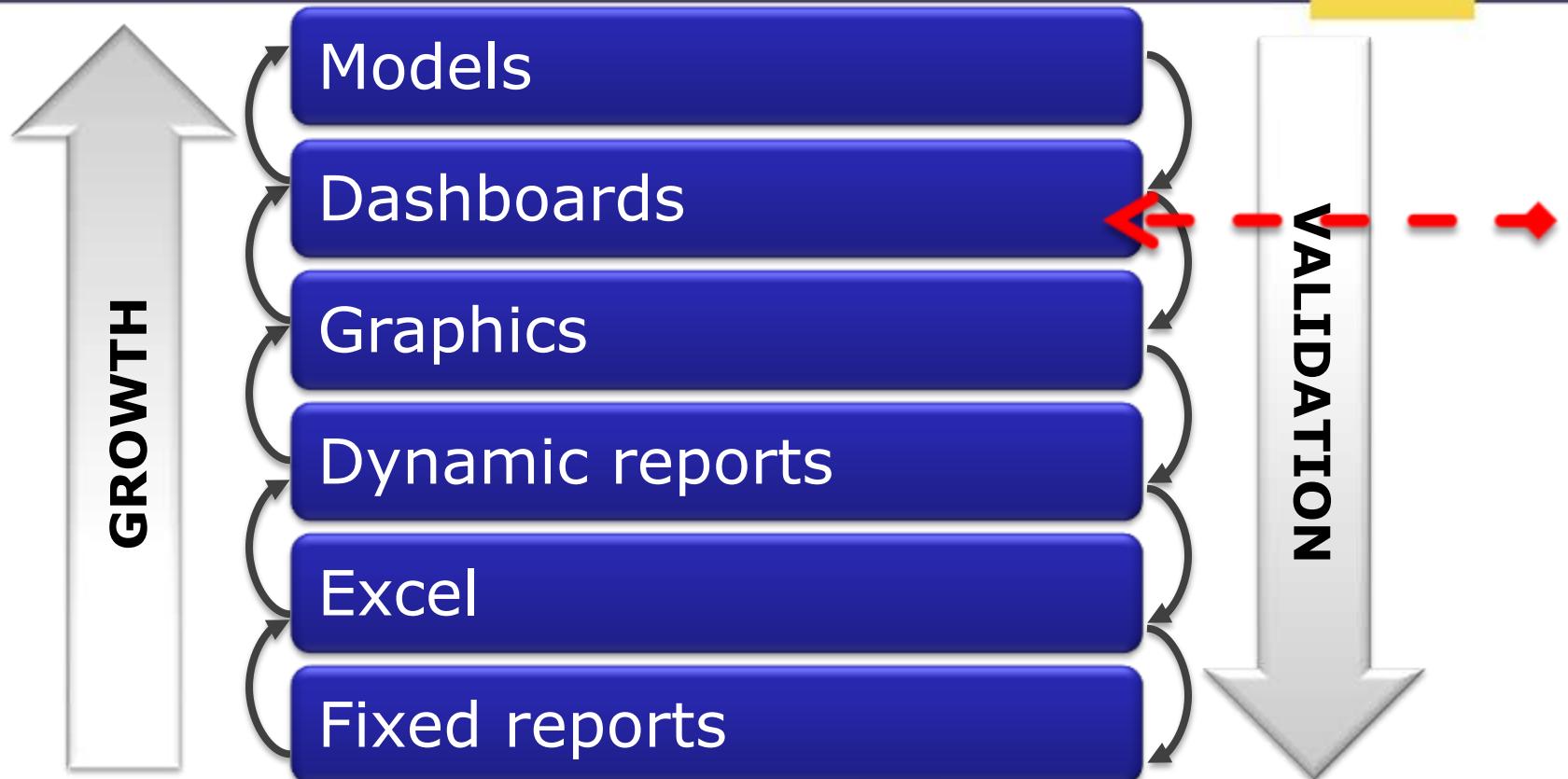
Simplicity

- » Clear overview
- » Consistency 
- » Flexible (*filters & zoom in*)



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Level of information



- Everybody walks through every level
- You can't start at an upper level



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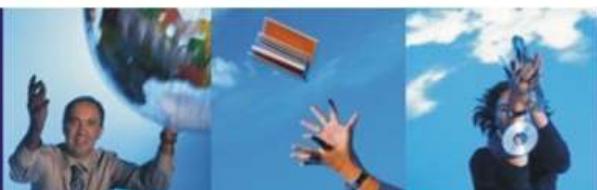
What does a user want to know?

- › Everything
- › Especially, **NOW!**

sql prompt> select all from database;



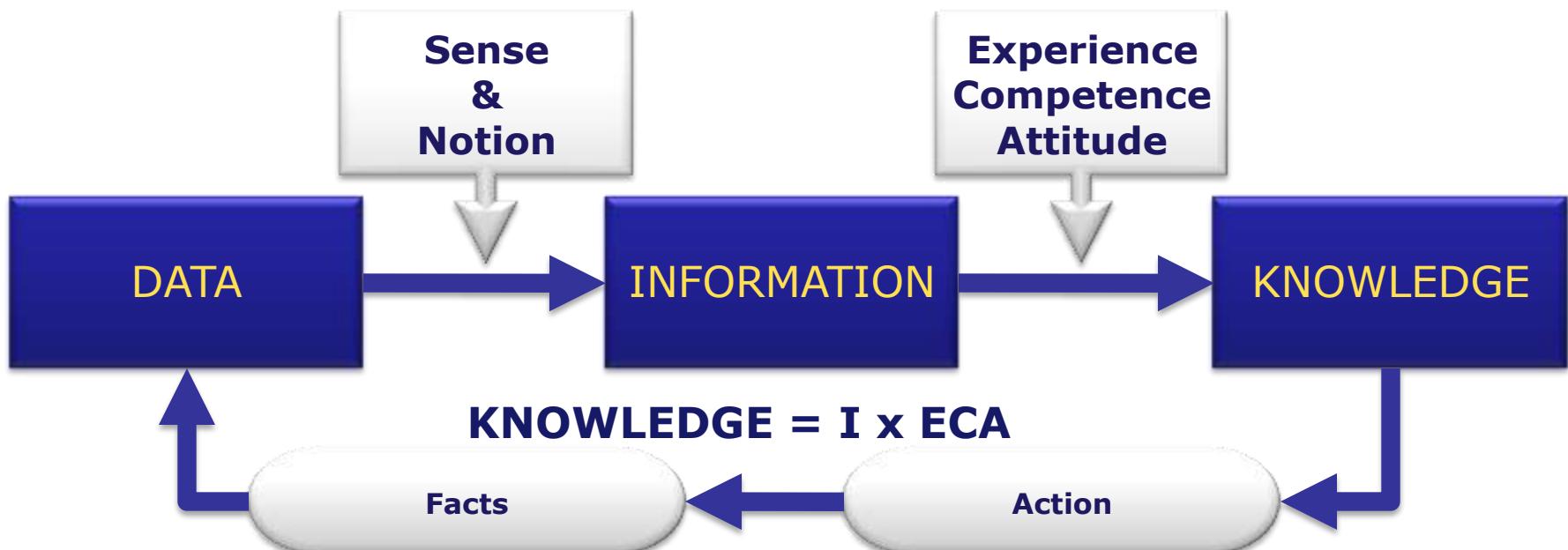
- › Nice report, but can it be changed ...
- › Nice report, but I don't really need it ...



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Business Intelligence

- » Business ≈ doing business
- » Intelligence ≈ it's about knowledge
- » Doing business aided by knowledge



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"Which decisions need to be made?"

- ➊ Sales manager
 - › Hurry up, I am late!
- ➋ Racing driver
 - › With oversteer it will be ok!
- ➌ Courier
 - › Can I park my truck?
- ➍ Employee
 - › I am going to fill up my car first..



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My advise

- ~20% information

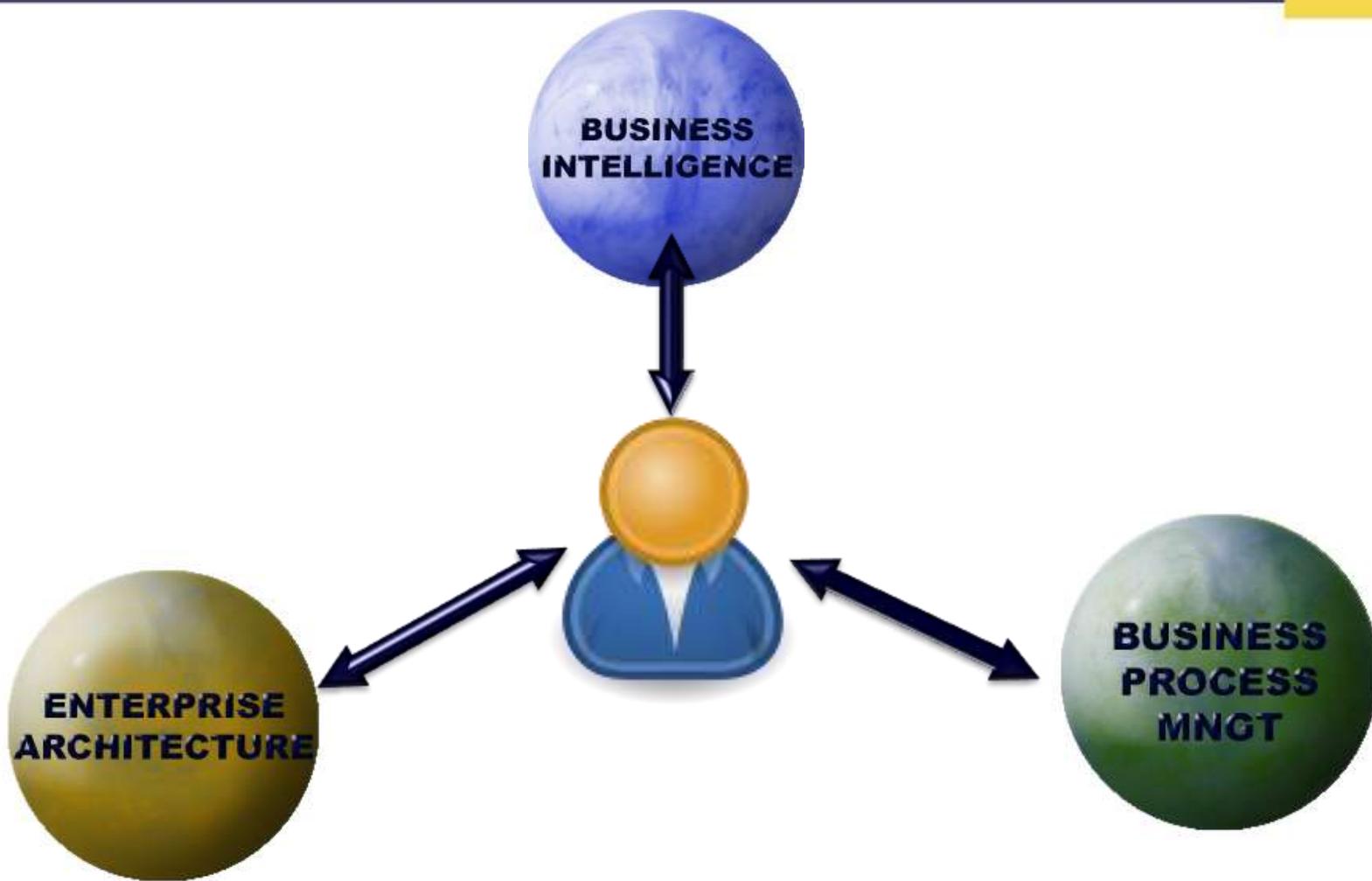
- ~80% ECA

1. Put the user in the middle
2. Define your business processes
3. Decide which decisions need to be made
4. Relate the information to it
5. Don't change your course of action!



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Worlds around the User



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Business Intelligence

Information prior to process

Business Process Management

Process prior to information

Enterprise Architecture

Their own way

Very structured



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Business Process

Definition
of activities
and processes

Enterprise Architecture

Definition
of structure
and
requireme
to combii
both

Business Intelligence

Definition
of data
and
rmation

INFORMATION

Granularity
Inconsistent
Ambiguity

Workflow
presentation

Listening

Modeling
& Analyses

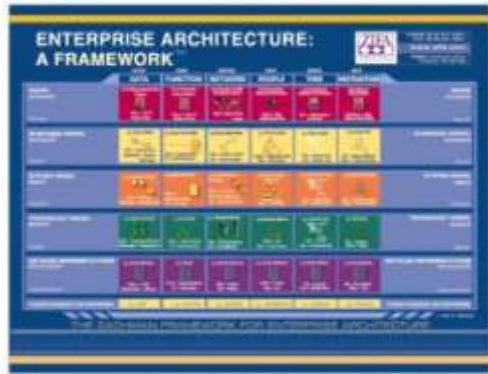
Business
knowledge

Information
presentation



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Enterprise architectuur

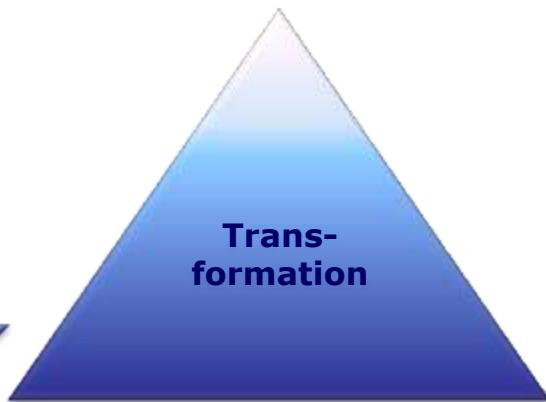


Business architecture
System architecture
Technical architecture



Business - Information

One definition



Technical implementation

Multiple applications and tables



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Business Intelligence



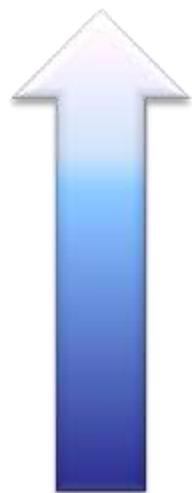
Datawarehousing
ETL

Business - Information

One definition



Trans-
formation



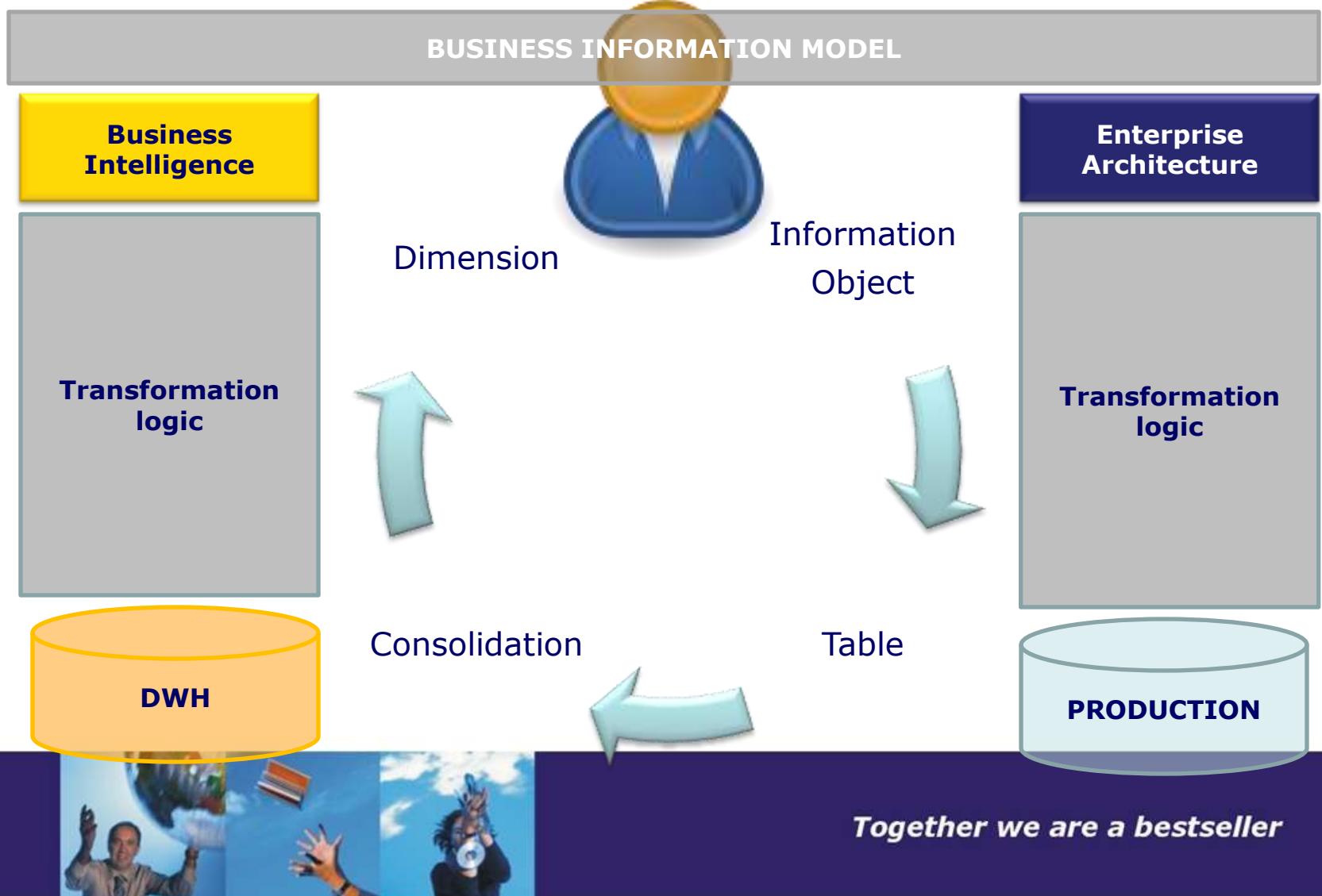
Technical implementation

Multiple applications and tables

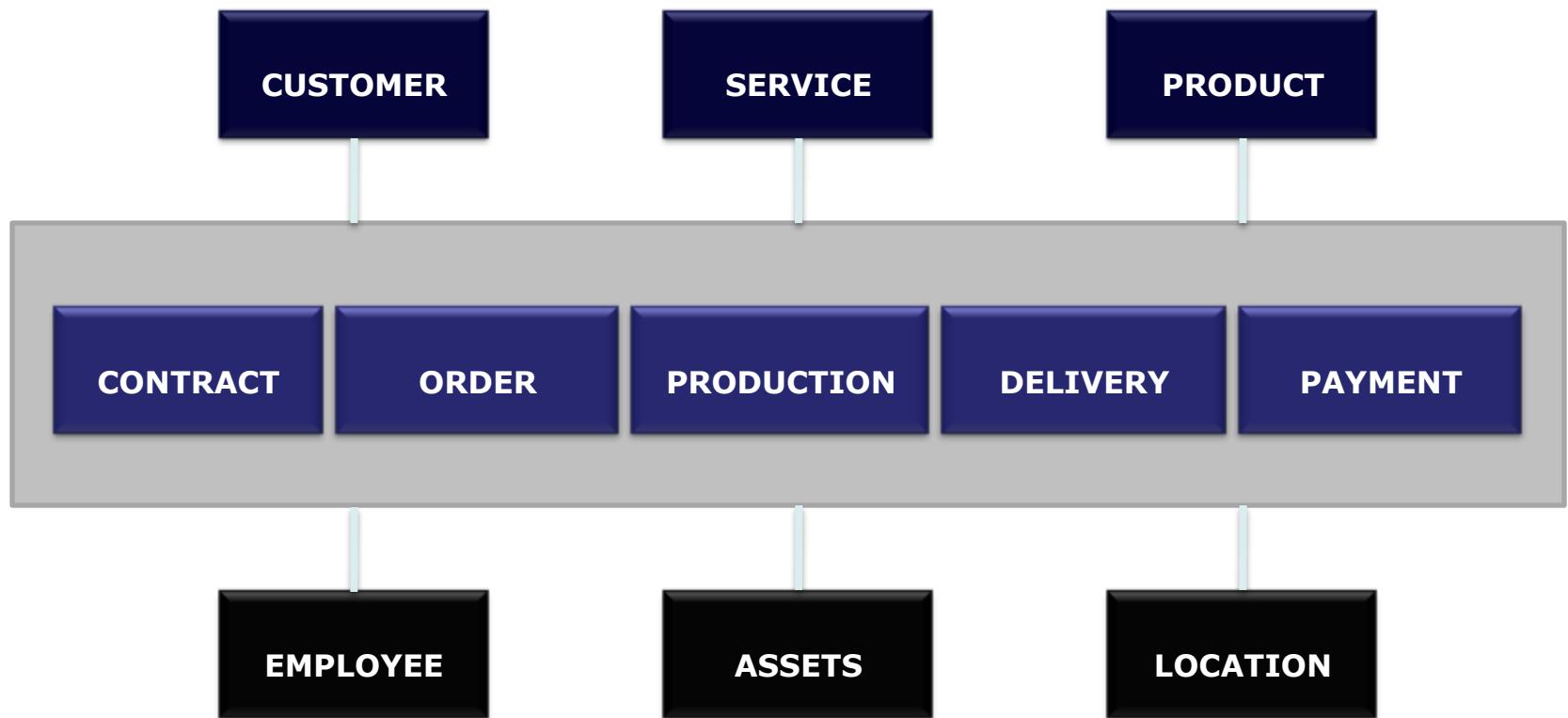


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Business Information Model



Business Information Model



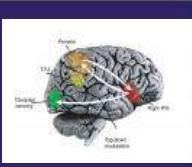
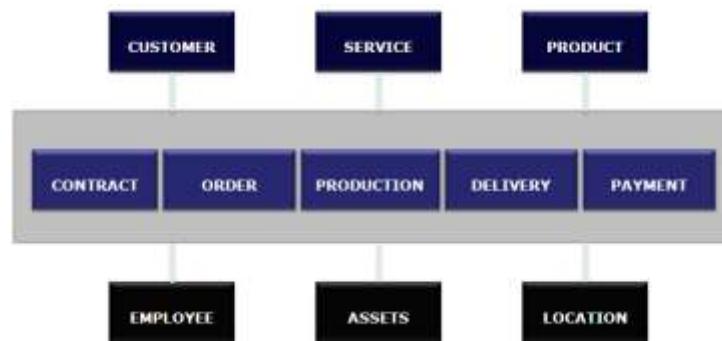
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Enterprise Architect

- › Use Business Information Model as base (*communication*)
- › Think how to implement using the rules of modeling
- › ERD / 3NF

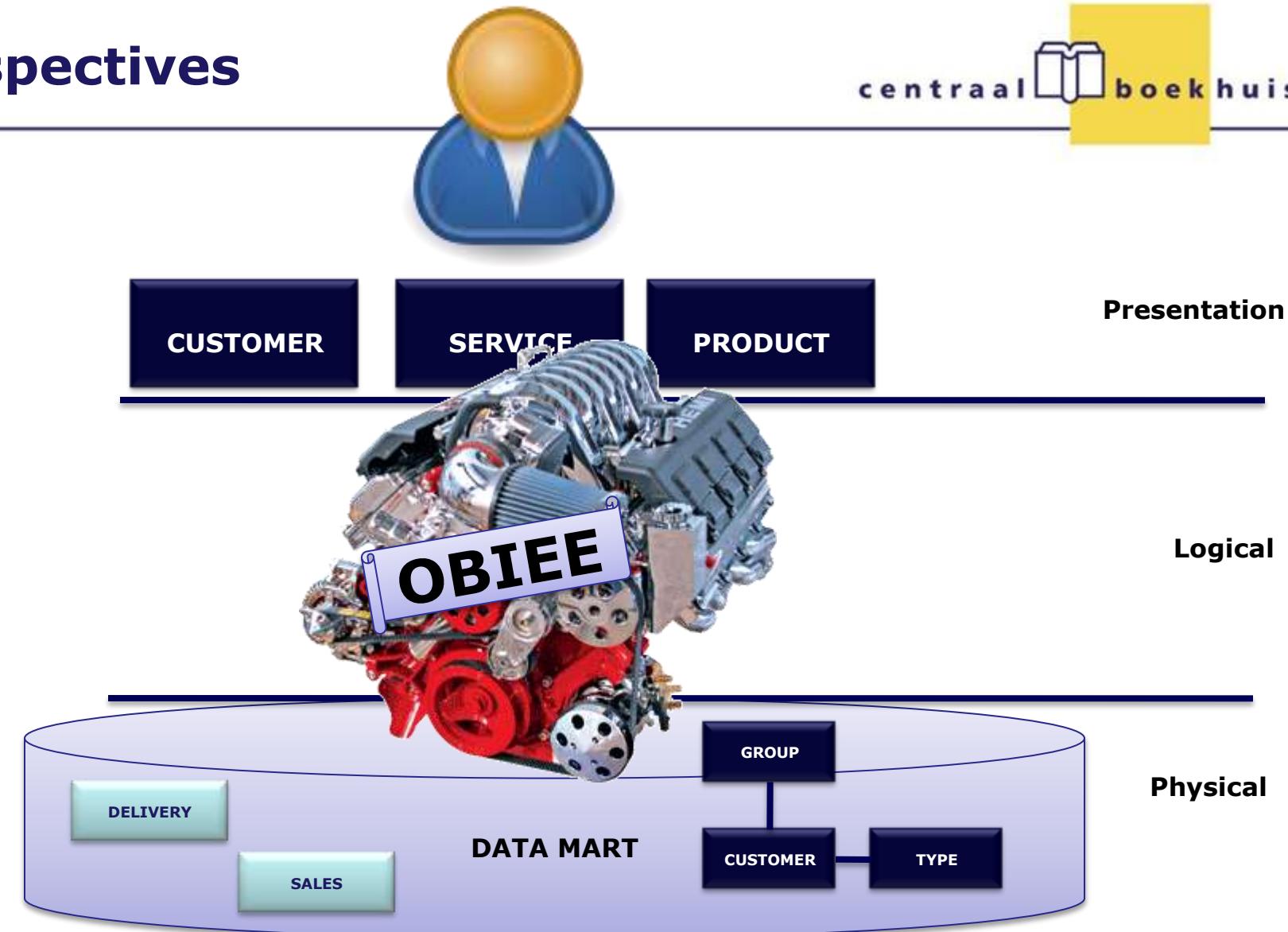
Business Intelligence Engineer

- › Use Business Information Model as base (*communication*)
- › Think how to implement using the rules of modeling
- › No Starschema's, no Snowflakes, let's call it the sun



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Perspectives



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Star versus Snow



Create table customer

ID number(10),
NAME varchar2(30),
FRANCHISE varchar2(20)

EFFECTIVE date (SCD3)

- ➊ Discussion
 - › History
 - › Granularity



Create table customer

ID number(10),
NAME varchar2(30),
FRC_ID number(3)

Create table franchise

ID number(3),
FRANCHISE varchar2(20)

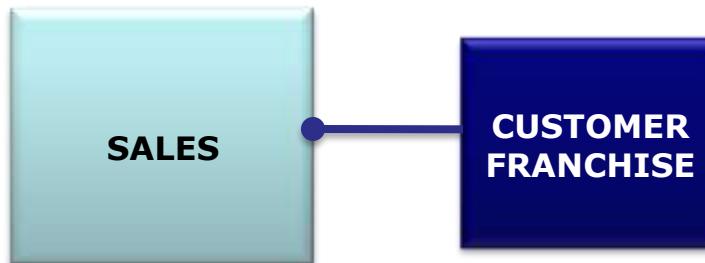


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History tracked in fact table

```
Create table sales
```

```
TIME_ID      number(8)  
CUST_dim_ID number(10)  
SALES        number(10)
```



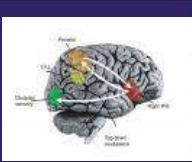
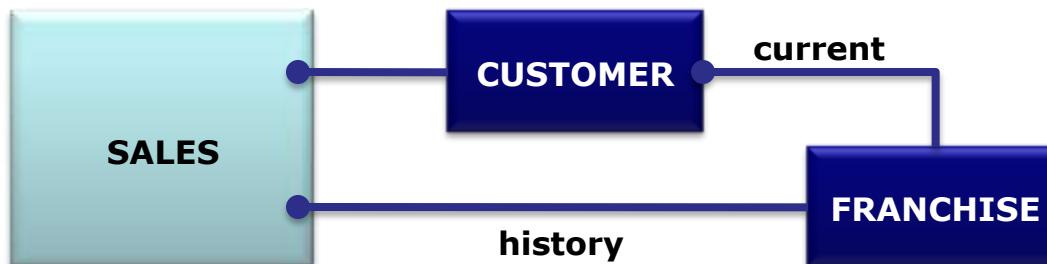
```
Create table sales
```

```
TIME_ID      number(8)  
CUST_ID      number(10)  
SALES        number(10)
```



```
Create table sales
```

```
TIME_ID      number(8)  
CUST_ID      number(10)  
FRC_ID       number(3)  
SALES        number(10)
```



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Let's Cook



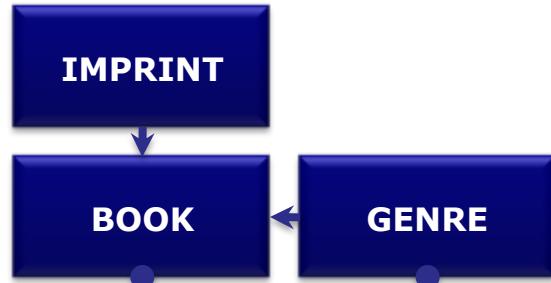
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Federated dimensions / Loosely coupled facts

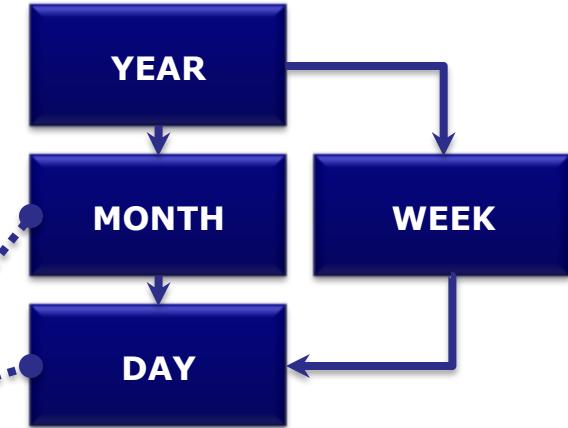
SIMPLE FDIM



MUTIPLE FDIM



COMPLEX FDIM



Create table sales

DAY_ID	number(8)
CUST_ID	number(10)
FRC_ID	number(3)
BOOK_ID	number(10)
SALES	number(10)



DISTRIBUTION

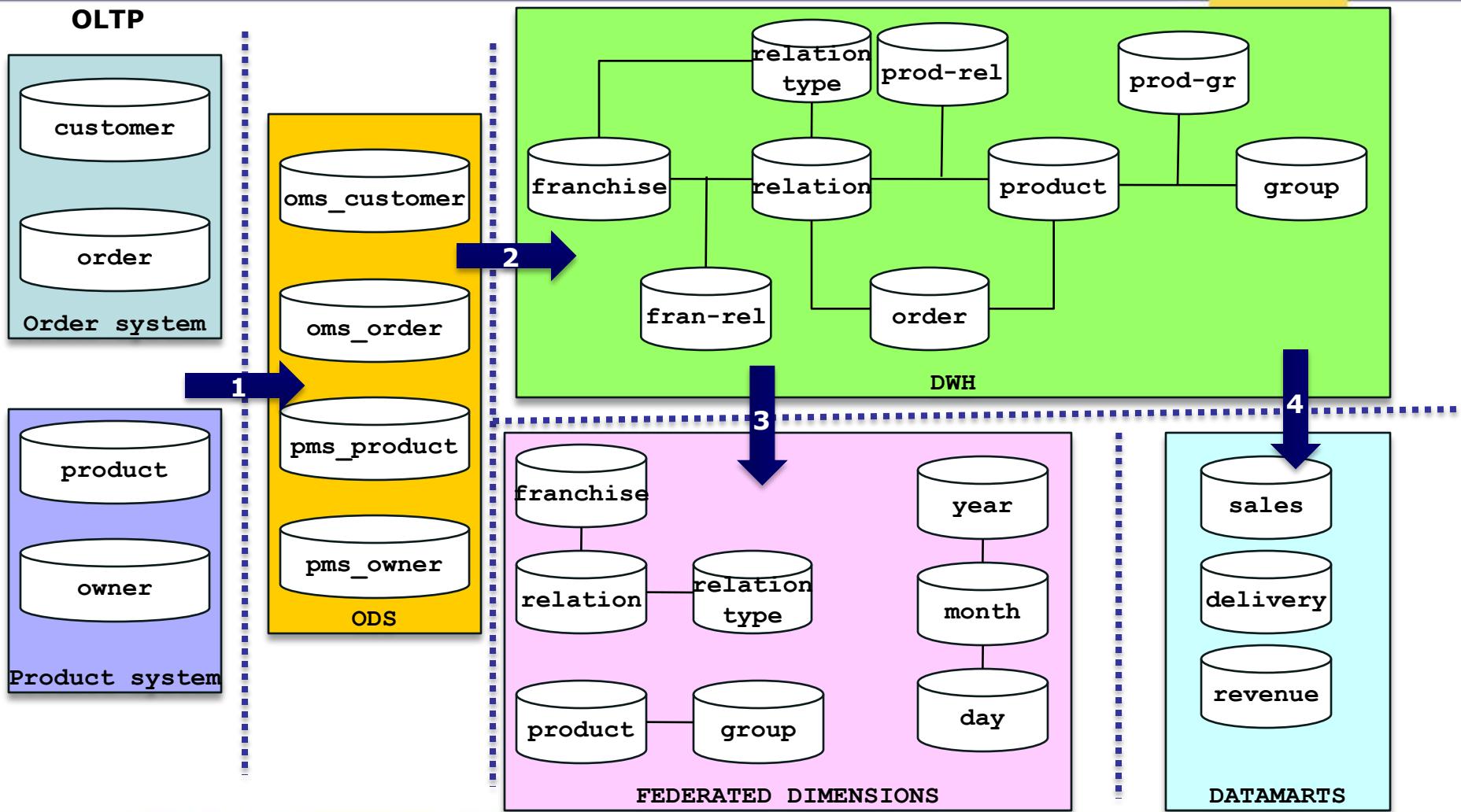
Create table distribution

MONTH_ID	number(6)
CUST_ID	number(10)
GENRE_ID	number(4)
DISTR	number(10)



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Total view



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OBIEE – Federated query



Online Oracle BI Administration Tool - AnalyticsWeb

File Edit View Manage Tools Window Help

Presentation

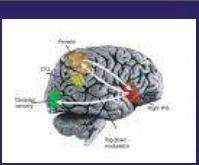
- Demo
 - Calender
 - Sales
 - Customer
 - Delivery

Business Model and Mapping

- DEMO
 - CalenderDim
 - Calender Total
 - Year
 - JAAR_NR
 - KORT_JAAR_NR
 - SCHRIKKEL_JAAR_IND
 - VORIGE_JAAR
 - Quarter
 - KWARTAAL_VORIGE_JAAR
 - VORIGE_KWARTAAL
 - JAAR_KWARTAAL_NR
 - KWARTAAL_NR
 - Month
 - JAAR_MAAND_NR
 - MAAND_NAAM_KORT
 - MAAND_NAAM_LANG
 - MAAND_NR
 - MAAND_VORIGE_JAAR
 - MAAND_VORIGE_KWARTAAL
 - VORIGE_MAAND
 - Day
 - Week
 - CustomerDim
 - Customer Total
 - CustomerGroup
 - MRGR_ID
 - GROUPNAME
 - Customer Detail
 - HANDELS_NM
 - LAND_KD
 - MDVC_ID
 - RELATIE_ID
 - RELATIE_NR
 - WOONPLAATS
 - Calender
 - Customer
 - Delivery
 - Sales

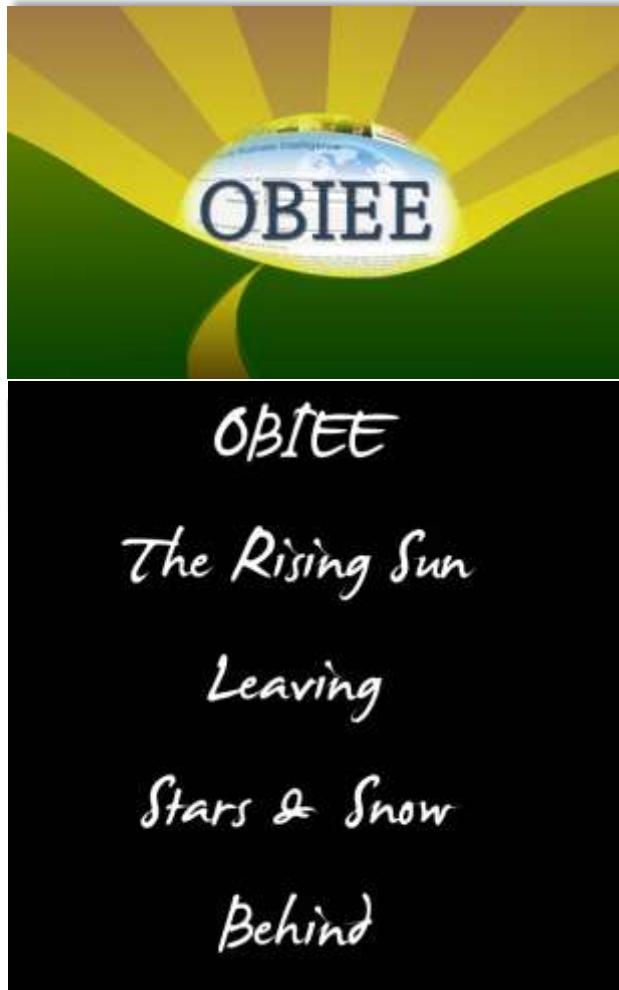
Physical

- DEMO-Facts
 - Connection Pool
 - D2_BOCKE
 - FACT_AFZET
 - FACT_AFZET_MAGO
 - FACT_AFZET_YAGO
 - FACT_LEVERING
- DEMO-Kalender
 - Connection Pool
 - MIST
 - DM_DAG
 - DM_JAAR
 - DM_KWARTAAL
 - DM_MAAND
 - DM_WEEK
- DEMO-Relatie
 - CP_MAAS
 - MAAS
 - MAAS_RELATIE
 - MAAS_RELATIE_GROEP



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Conclusion



- ➊ Use federated dimensions
- ➋ Normalize your dimensions
- ➌ Normalize your DWH
- ➍ Keep track of history in DWH
- ➎ Generate loosely coupled facts
- ➏ Put history (if needed) into facts

*This will lead to agile flexible BI
ready for the future*



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e.van.bockel@centraal.boekhuis.nl

Blog: www.bifacts.com / www.obiee.nl

Suggested reading: Oracle Journal Management Excellent #4



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