

Together we're a bestseller

centraal  boekhuis

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

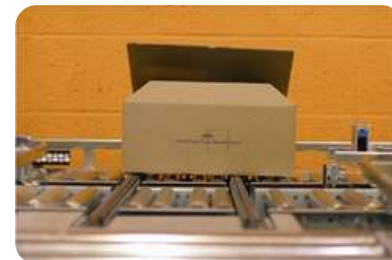


- What does information do to a user?
- What does a user do with information?



Company impression

centraal  boekhuis



Together we are a bestseller

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



- 🌐 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

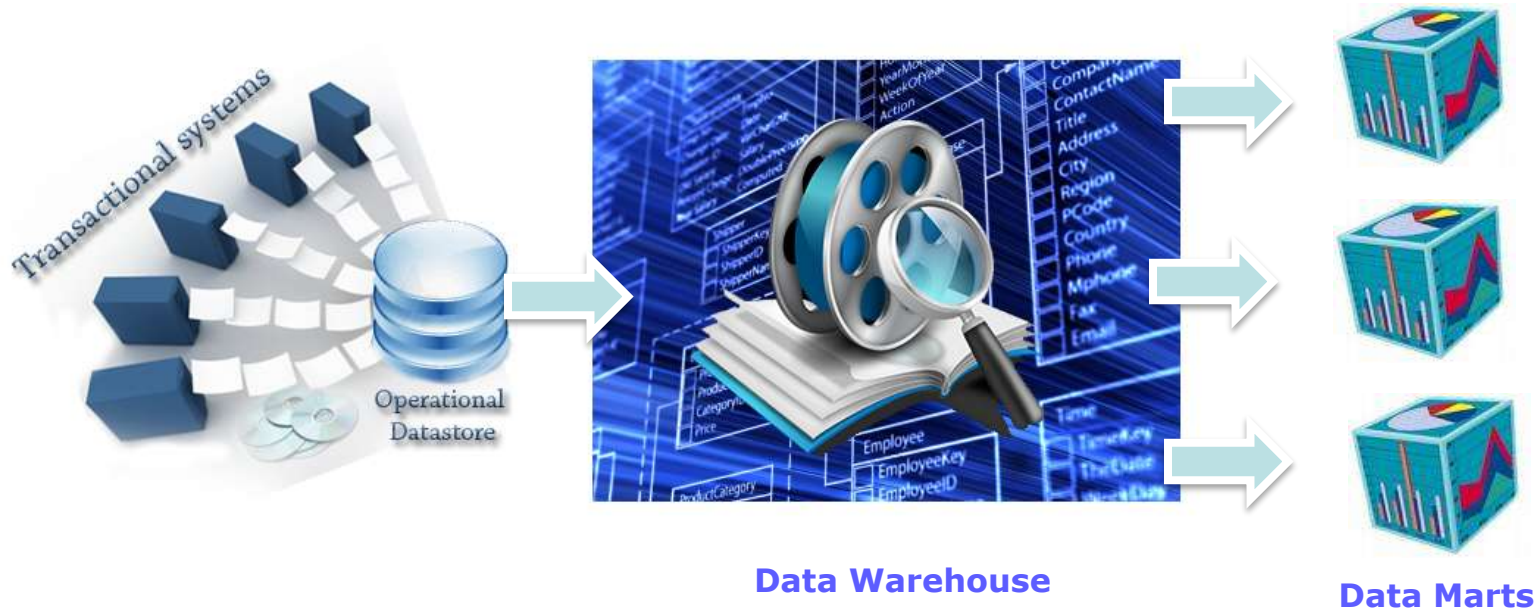


Lets talk about: how OBIEE federated query enables us to use different modelling techniques (“federated modelling?”).

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

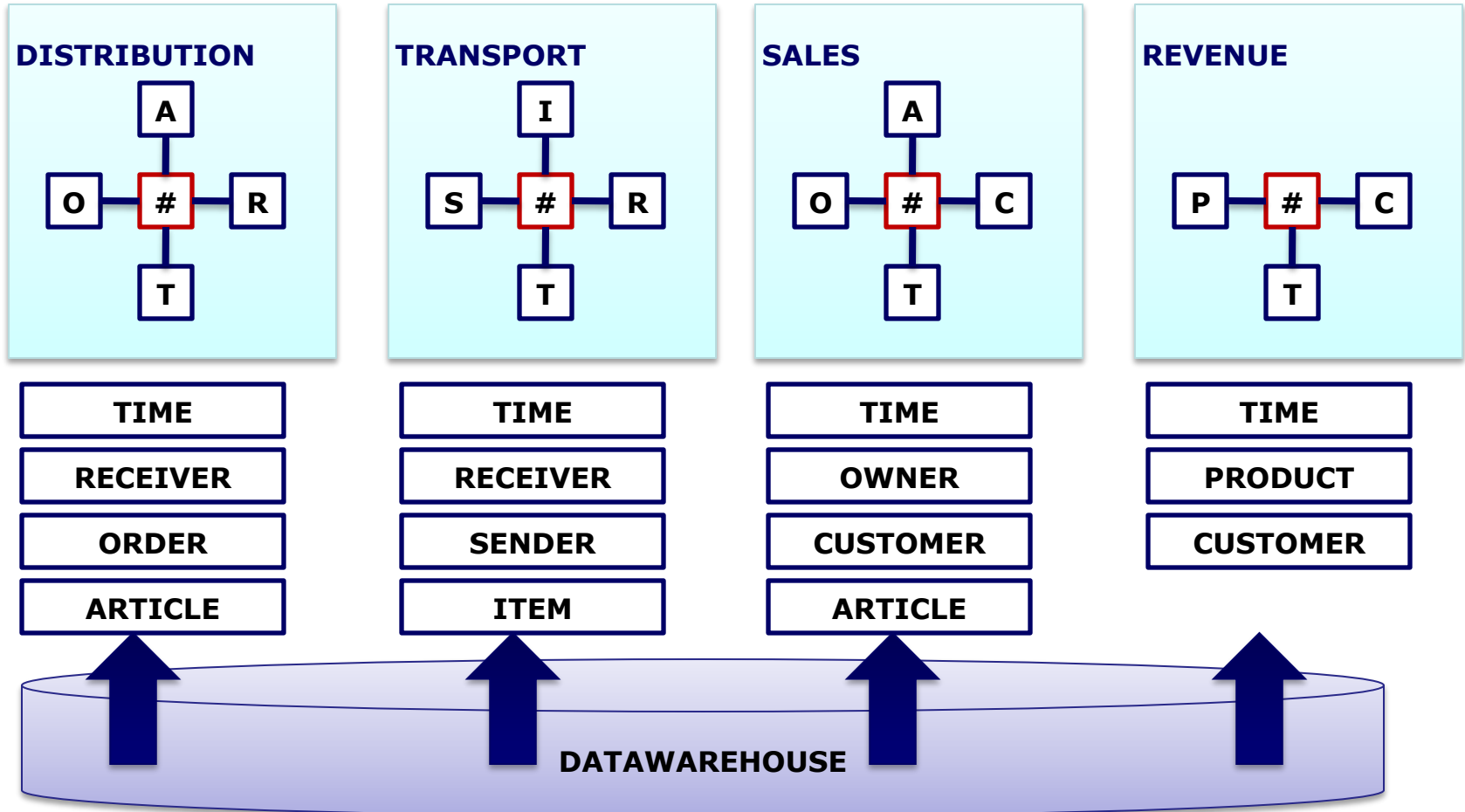


DWH Architecture



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DM View



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

Enterprise Architecture

Snowflake Starschema

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

Dimensions

Why are there so many copies of 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



Process and information

Additional (management- & market information)

Standard (reporting)



cbonline Uitgever De (begeleider) centraal boekhuis

voorraad **verkoop** markt financieel downloads systeem

uitgever analyse retour afnemer

jaar: 2006 maand: jan t/m: sep land: alle **tonen**

zoeken op:

inzoomen op: artikel: imprint **fondsgroep** titel afnemer: groep land afnemer opdracht: twvc vos

Selecteren	kalender	verkoop (#)	retour (#)	saldo (#)	verkoop bruto (€)	retour bruto (€)	saldo bruto (€)	verkoop netto (€)	retour netto (€)	saldo netto (€)	korting (%)	retour (%)	gem. vk prijs
<input type="radio"/>	18-02-2007	4.265	54	4.211	51.292	892	50.400	26.196	480	25.716	45,9	1,3	11,97
<input type="radio"/>	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
<input type="radio"/>	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
<input type="radio"/>	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
<input type="radio"/>	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
<input type="radio"/>	2005 totaal	747.100	51.796	695.304	12.596.078	886.701	11.709.377	6.194.357	448.175	5.746.183	48,3	6,9	16,84

printen **excel** **excel dag**

[voorraad](#) | [verkoop](#) | [markt](#) | [financieel](#) | [downloads](#) | [systeem](#)



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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



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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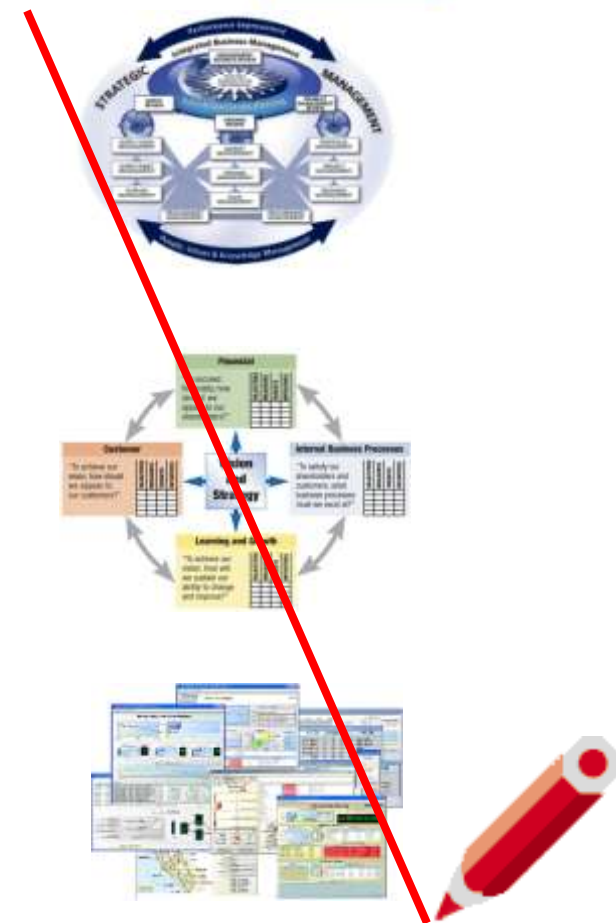
The user



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



"You don't know, what you want to know"

• What does a user want to know?

‣ Everything

‣ Especially, **NOW!**

• sql prompt> select all from database;

Yes



Oh no



• Nice report, but can it be changed ...

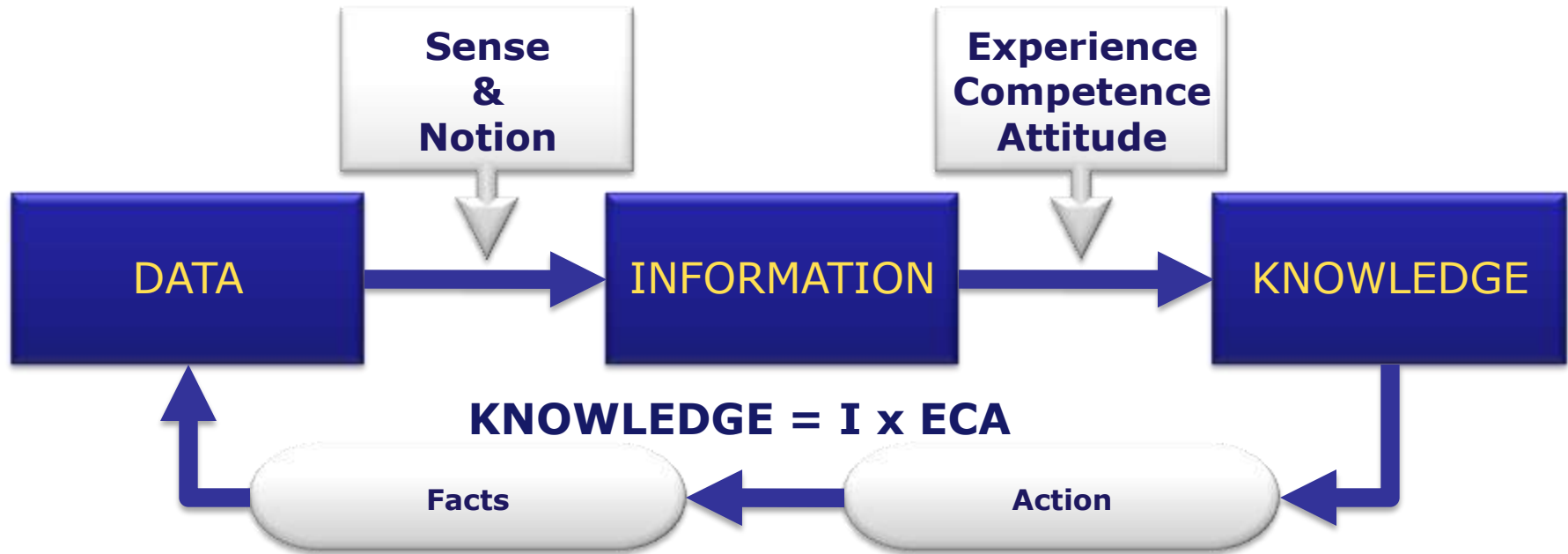
• Nice report, but I don't really need it ...



“Which decisions need to be made?”

Business Intelligence

- Business \approx doing business
- Intelligence \approx it's about knowledge
- Doing business aided by knowledge



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“Which decisions need to be made?”

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



My advise

🌐 ~20% information

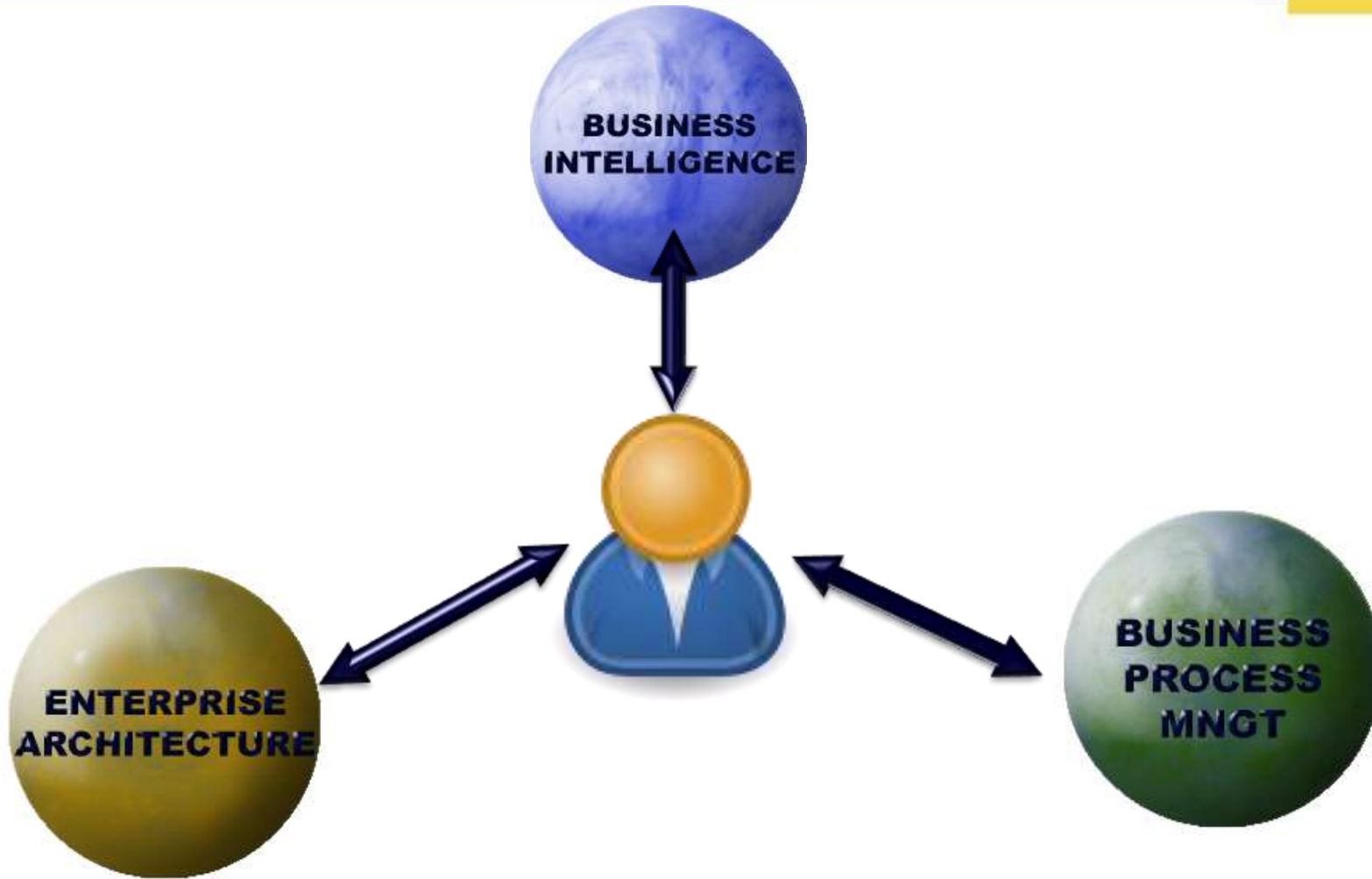
🌐 ~80% ECA

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

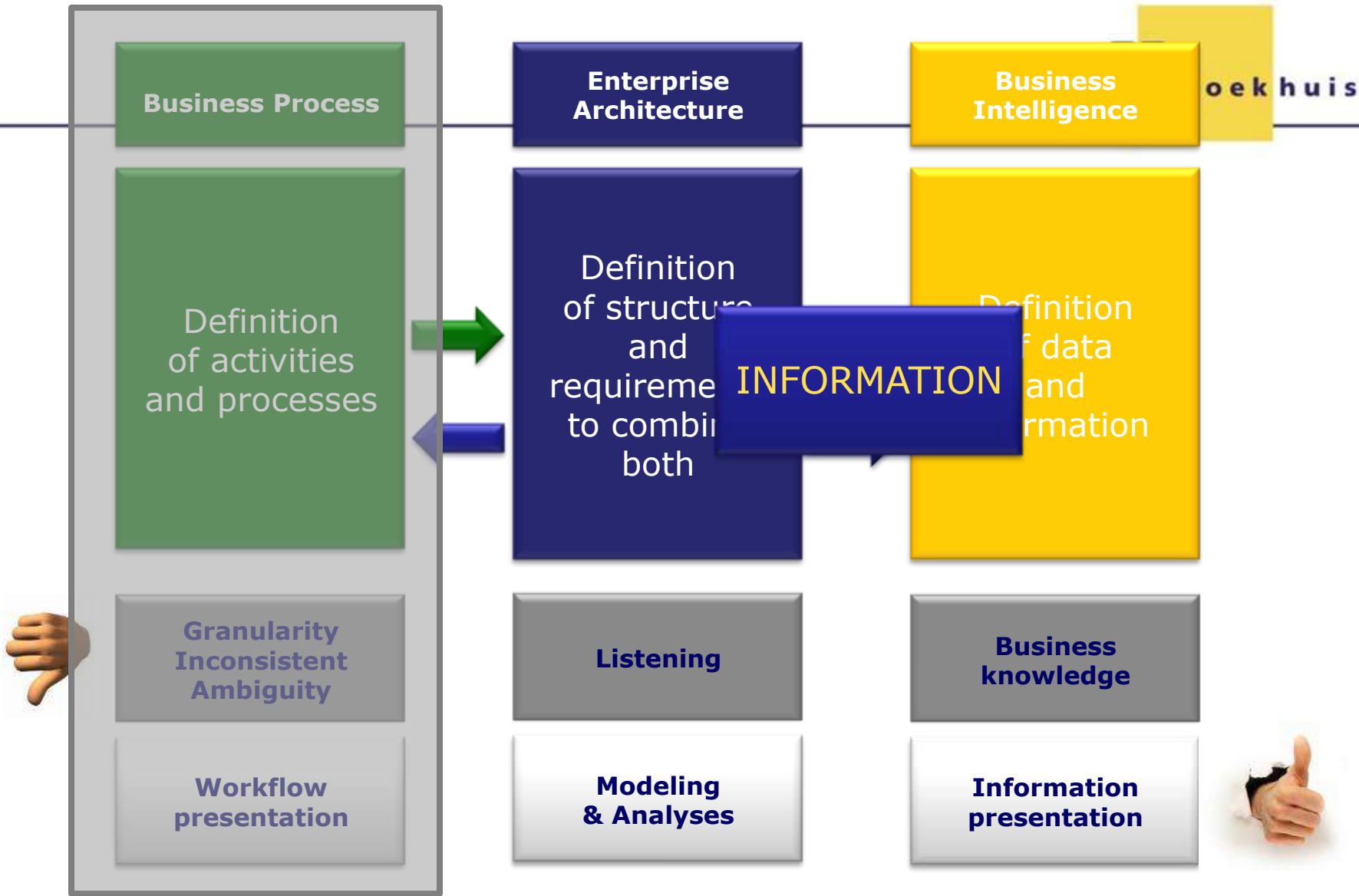
Enterprise Architecture

Their own way

Very structured

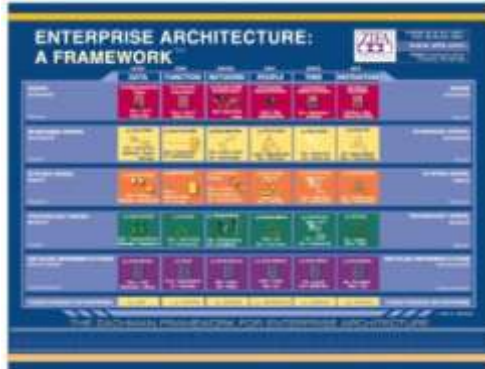


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Enterprise architectuur



Business architecture
System architecture
Technical architecture

Business - Information

One definition

**Trans-
formation**



Technical implementation

Multiple applications and tables



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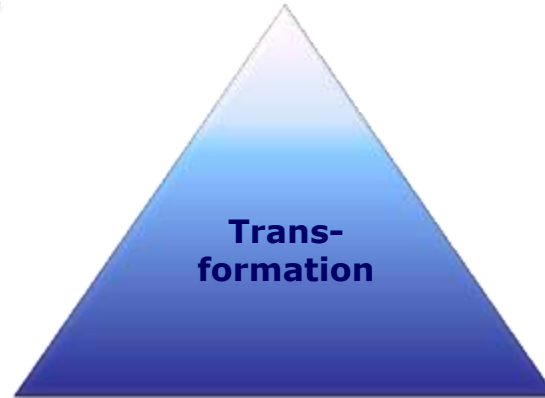
Business Intelligence



**Datawarehousing
ETL**

Business - Information

One definition



**Trans-
formation**

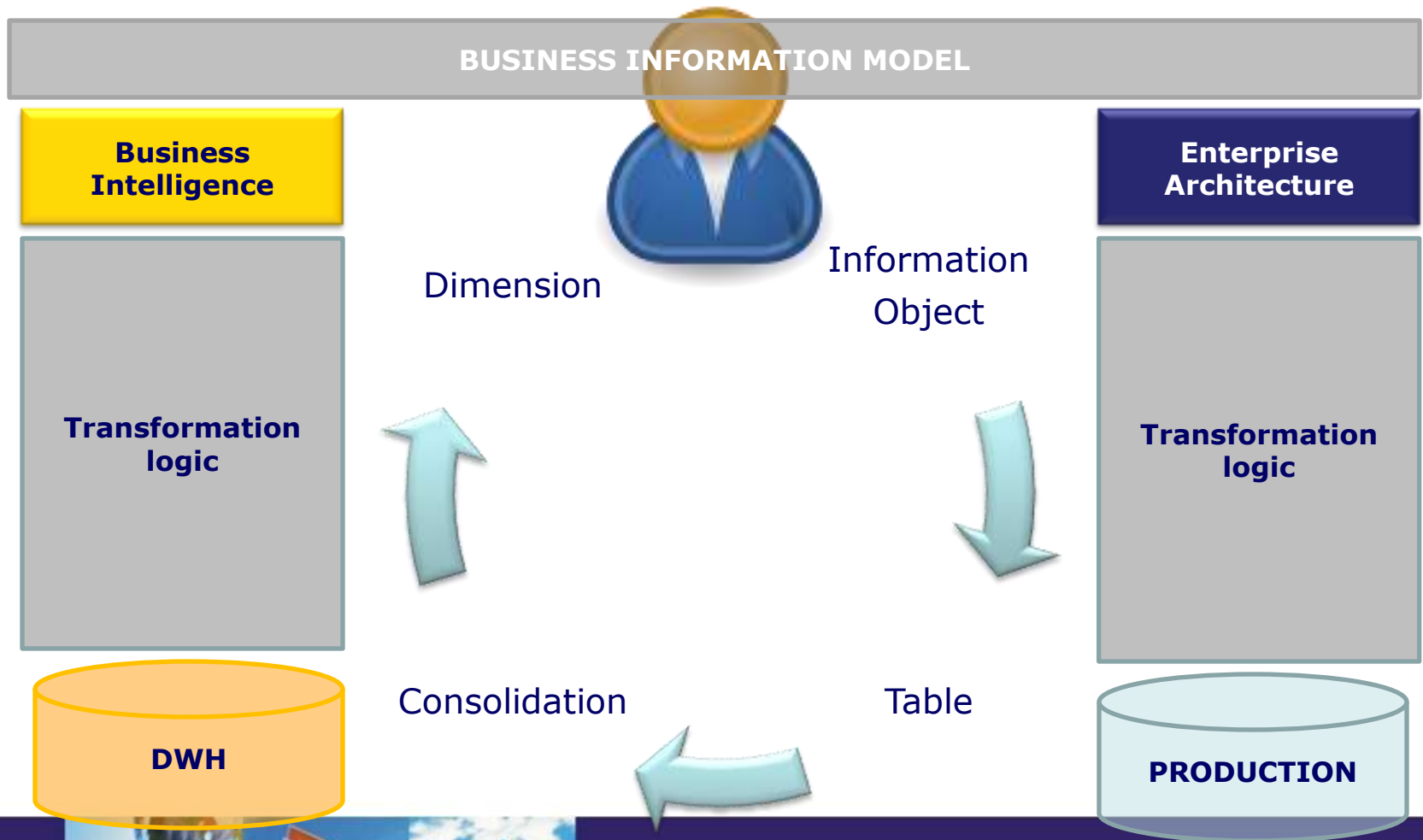
Technical implementation

Multiple applications and tables



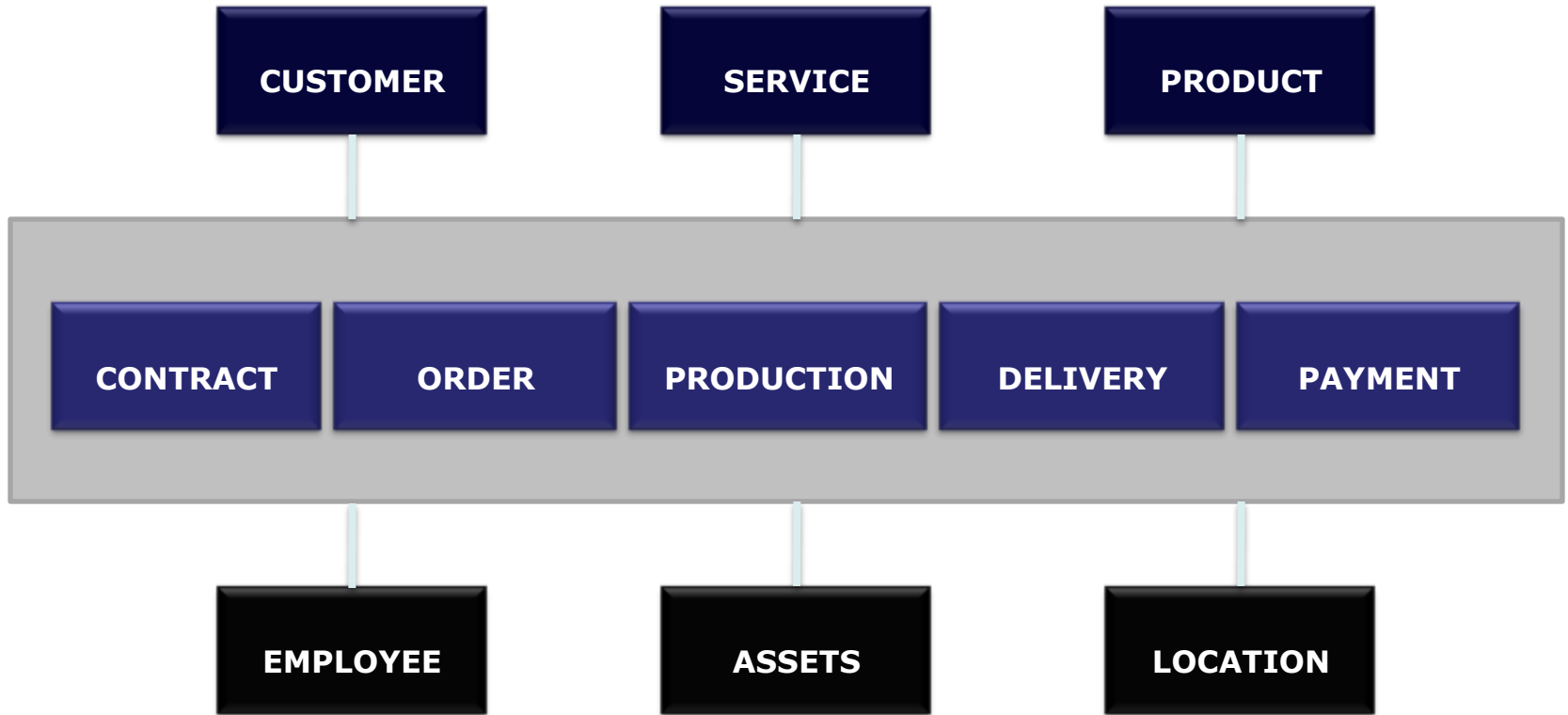
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Business Information Model



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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

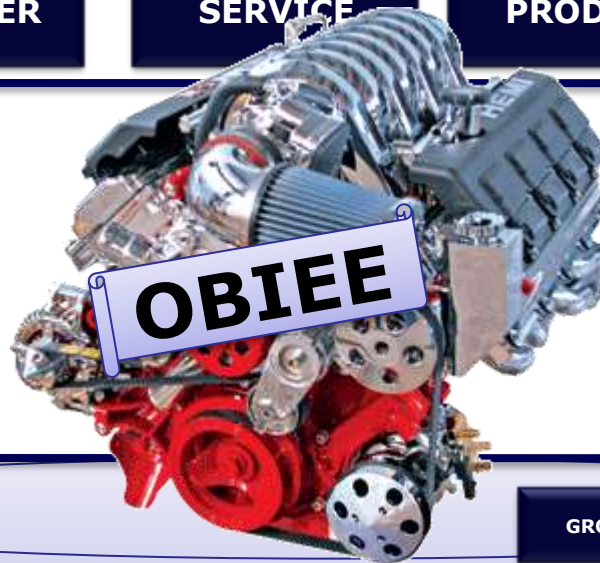
- ▶ Use Business Information Model as base (*communication*)
- ▶ Think how to implement using the rules of modeling
- ▶ No Starschema's, no Snowflakes, let's call it the sun



Perspectives



Presentation



Logical



Physical



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Star versus Snow

CUSTOMER
FRANCHISE

Create table customer

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

EFFECTIVE   date (SCD3)
```

-  Discussion
- History
 - Granularity

CUSTOMER

Create table customer

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

FRANCHISE

Create table franchise

```
ID          number(3),
FRANCHISE   varchar2(20)
```

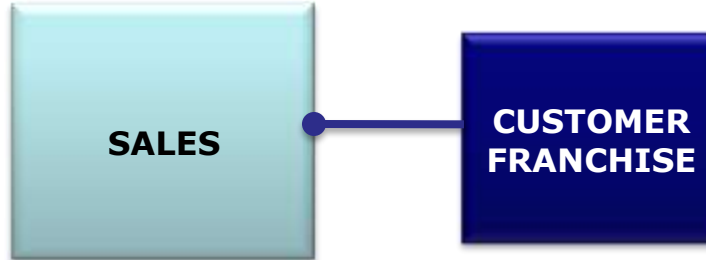


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History tracked in fact table

Create table sales

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



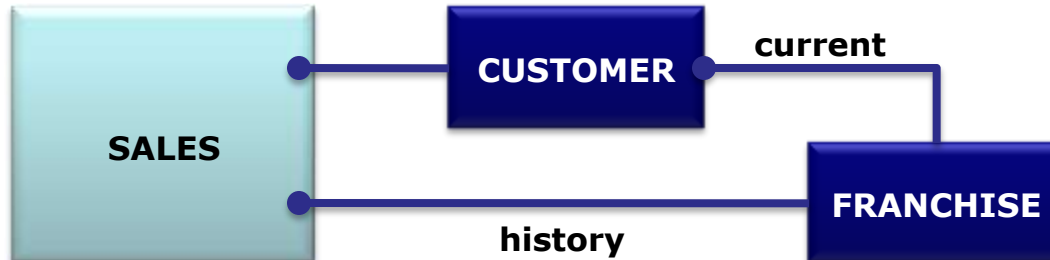
Create table sales

```
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

Recipe - Flex & Agile BI
- fed. Dim conform EA
- Normalize dimensions
- Loosely couple facts
- OBIEE to combine all logically



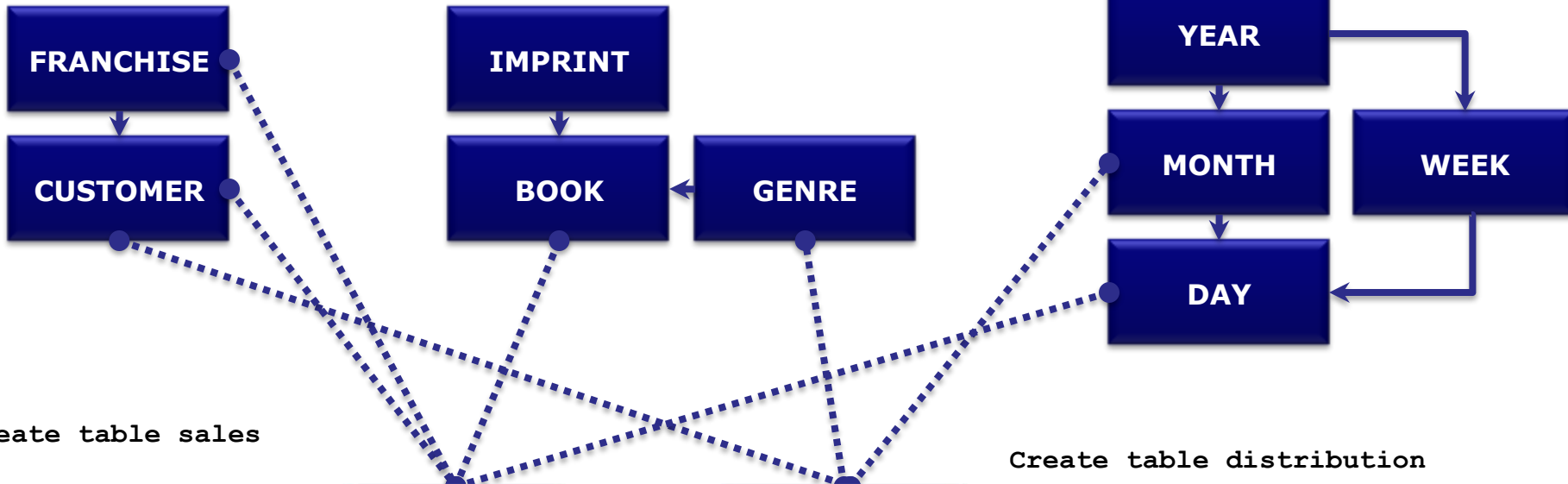
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Federated dimensions / Loosely coupled facts

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)

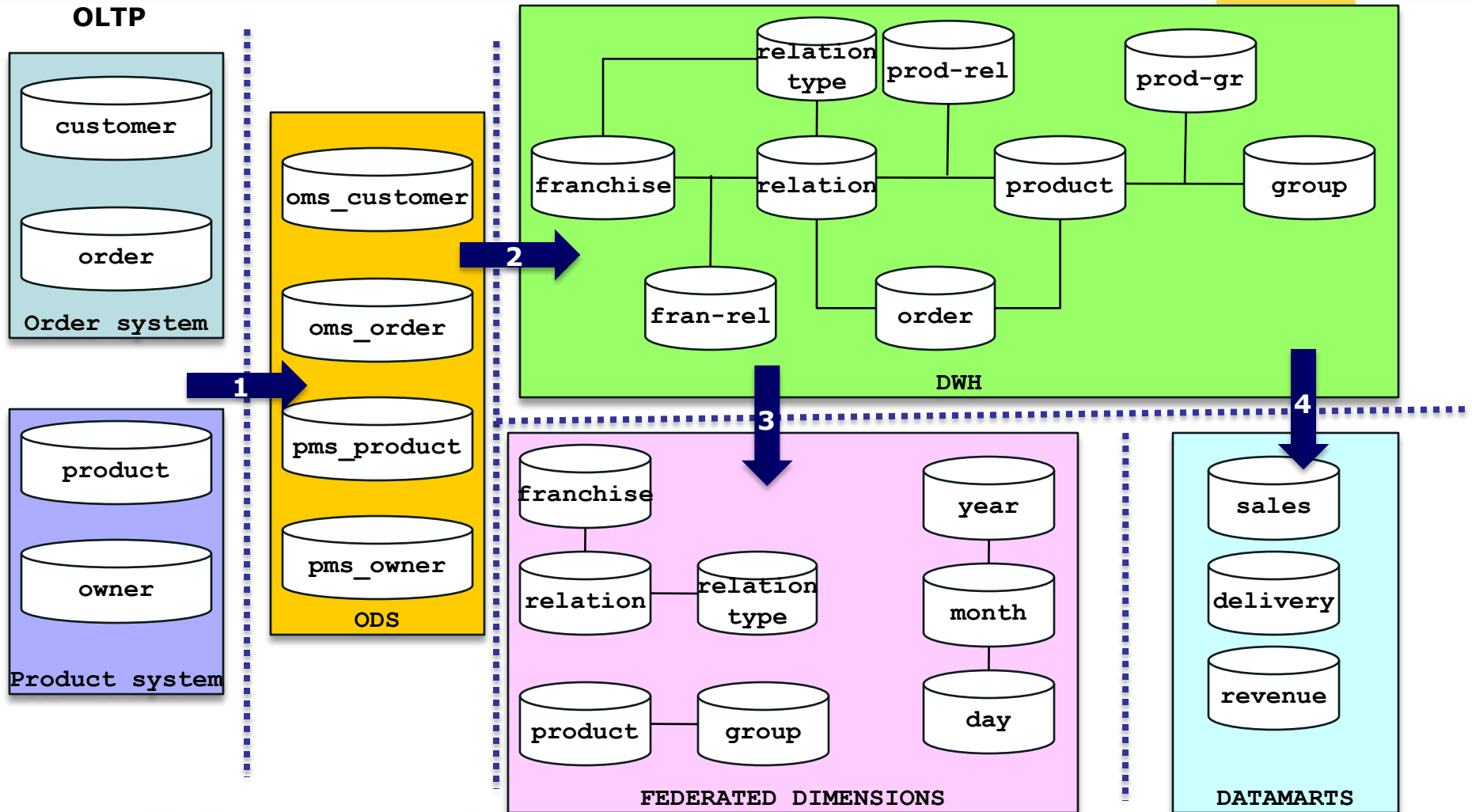
Create table distribution

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
 - Calendar
 - Sales
 - Customer
 - Delivery

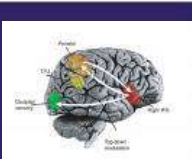
Business Model and Mapping

- DEMO
 - CalendarDim
 - Calendar 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

Legend: Calendar, 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



OBIEE

The Rising Sun

Leaving

Stars & Snow

Behind

- Use federated dimensions
- Normalize your dimensions
- Normalize your DWH
- Keep track of history in DWH
- Generate loosely coupled facts
- Put history (if needed) into facts

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



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

Suggested reading: Oracle Journal Management Excellent #4



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