

developing smart software solutions

# **Program**

- Welcome
- About d60 a/s
- Business Intelligence Definition and purpose
- Practical BI
- Life as a consultant
- Personal experiences education/background

# **History**

- Founded in 2007
- Mid 2008 the ownership structure is in place with four partners
- Clear focus on Business Applications and Business Intelligence solutions
- In 2009 the first two consultants are hired. One senior consultant, the other newly educated
- In Q3 and Q4 2010, 5 new employees are hired
- September 2010 > Office in Aarhus
- 34 employees per December 2011



# Philosophy

- Customers first, always
- Jutland temper
  - Great ambitions, small gestures
  - Organic growth
  - Diligence and moderation



### **Business**



# • Business Intelligence development • Business

- Business
   Applications to
   support customer
   business processes
- Solutions that merge the above
- Advice
- ProjectManagement



# Services

- IDA, Intelligent Detail Analysis
- Raptor Smart Advisor. Intelligent Recommendation



# **Products**

- Prophix, Financial Consolidation and Planning
- T.Rex, Timeregistrationsoftware, d60
- Targit, Business Intelligence frontend

## **Competences Business Intelligence**

#### Platform

- Dedicated Microsoft (Gold Partner Status)
- Partnership with third level vendors
  - Targit
  - Prophix
- Business Intelligence solutions.
  - Reporting
  - OLAP
  - Planning
  - Financial consolidation
  - Performance Management

#### Niche expertise in Data Mining:

- Behavioral targeting
- Recommendation
- Cross/up selling
- Fraud detection
- Forecasting
- Churn Prediction.

#### Cooperation

 With Aarhus study environment, including the Alexandra Institute and Aarhus University

# **Udvalgte referencer**



























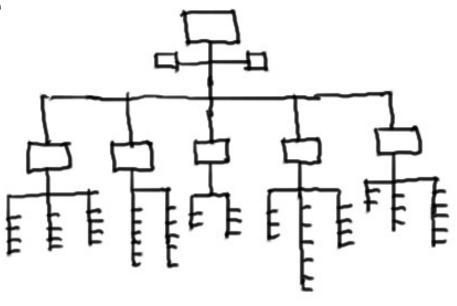




# What is Business Intelligence?

- Business Intelligence is about:
  - give the right people
  - the right knowledge
  - on the right time
  - in the right way





# What is Business Intelligence?

### give the right people

 Board, directors, product manager, product owner, head of development, salesmen etc.

### the right knowledge

 Income, revnue, sales, number of sales, number of development hours, etc.

### on the right time

Dayli, weekly, yearly

### in the right way

Predefinde report, spreadsheets, emails etc.



# BI in the organisation

#### At least 4 different levels of users

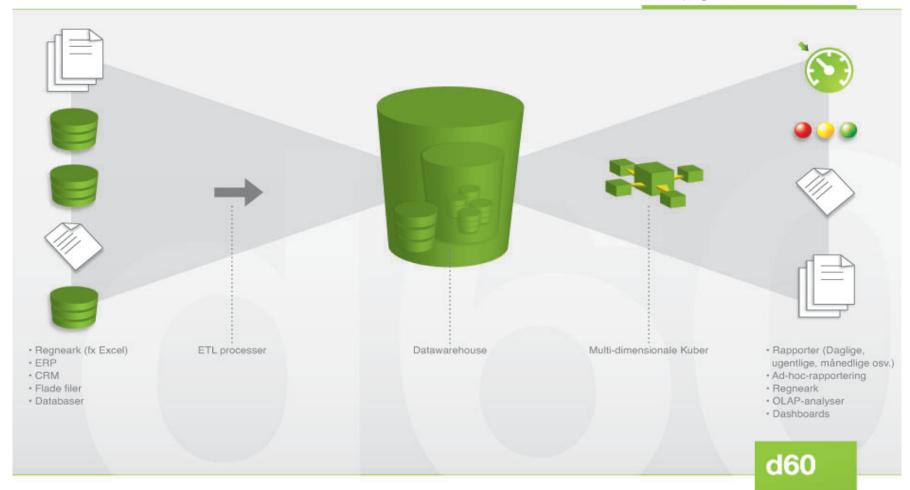
Organization Level	Overview/detail	Ad hoc analysis	Typical channel
Management	Overview	Low	KPI's, Scorecards, standard reports
Controlling/Analyst	Both	High	Pivottables, reports for "sanity check" (data mining predictions)
Middle managment	Local overview (own department or area)	Low/Medium	Standard pivottables and scorecards
"Man on the floor"	Detail	None/Low	Standard reports and warnings, operational BI

### So where is the value?

- The company implement a tool that gives them the oppurtunity to analyze, activate and visualize the knowledge in their data
- A huge drop in "Ad hoc"-reports
  - Availability for the organization!
- On set of numbers
  - Data quality, one defined standard, central definitions!
- One point of view on the performance of the organization
- Away from single spreadsheets to one central reporting platform

### **Business Intelligence**

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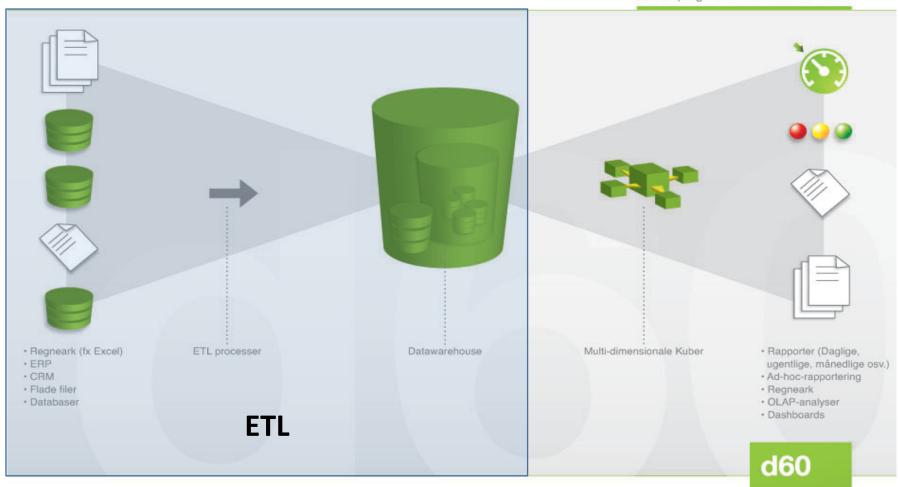
# Phases in a BI project

- Feature Requirement Specification (end users)
- Data and source systems
- Data transformation
- Reporting (current and future)
- Security (roles)



## Data process in BI (ETL)

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### **ETL - Extract**

### Data extraction from source systems

- Import data to a Staging DB
- Full extract or incremental extract\*
- Often data is extracted during the night to minimize load on the source systems.

\* Requeries an identifier or an changed/created date

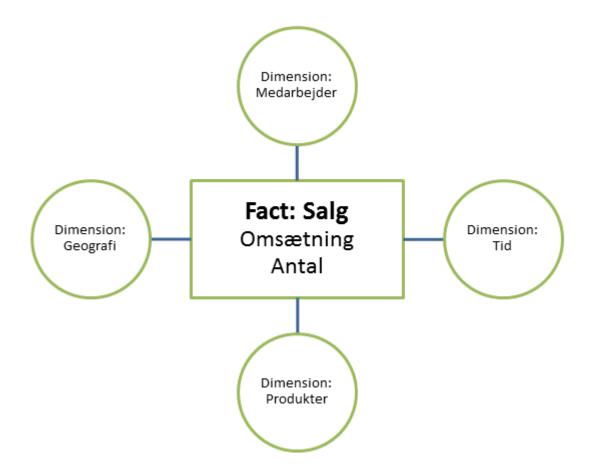
### ETL – Transform & Load

Transforms raw data from Staging DB and loads it to EDW (Enterprise Data Warehouse)

#### **Transformations**

- Business logic
- Calculations
- Add value (ex. Manual segmentation)
- Align data between the different systems
- Aggregations
- Normalizing

## Star schema



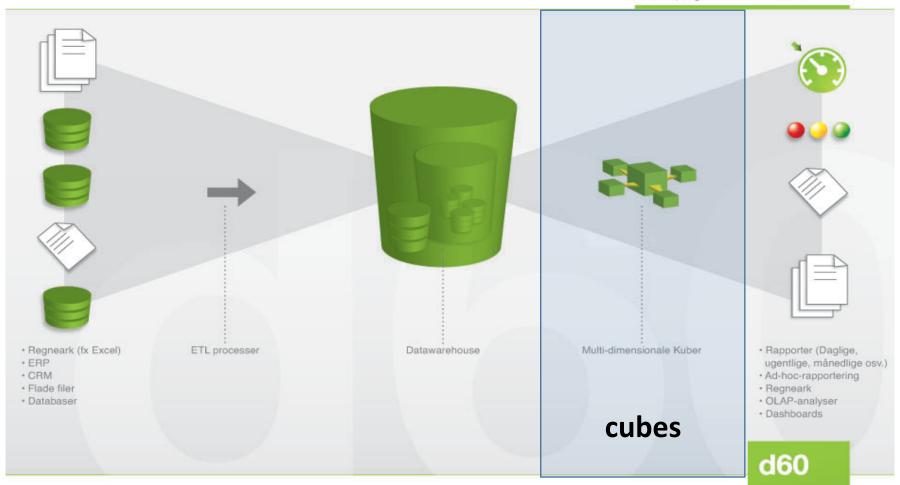
# Why extract?

Why not do the reporting directly in the source systems?

- Only data from a single system
- Load on source systems
- Need for change history ex. Employes changing departments
- Performance
- Calculation of key figures that isnt in source system
- Reporting on alternative hierarchies

## Data process in BI (ETL)

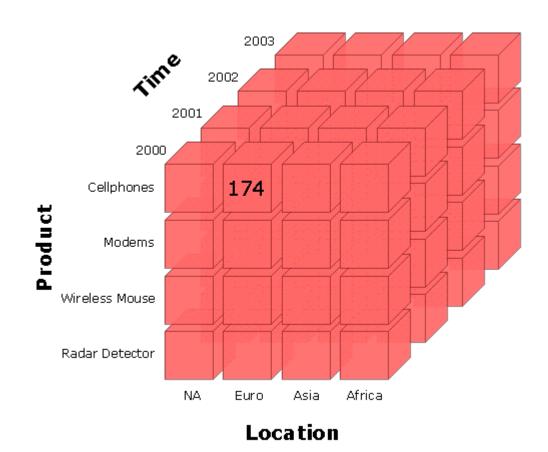
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### Cubes

#### What is a cube?

- Aggregated data with precalculated values.
- Ex.:
  - 10 different "Cellphones"
  - 12 different countries in "Europe"
  - 365 days in year "2000"
  - 43.800 numbers summarized.
- When the cube is processed the numbers are calculated
- In this case 43.800 numbers can be precalculated to 1.



Kilde: http://gabrielgb.wordpress.com

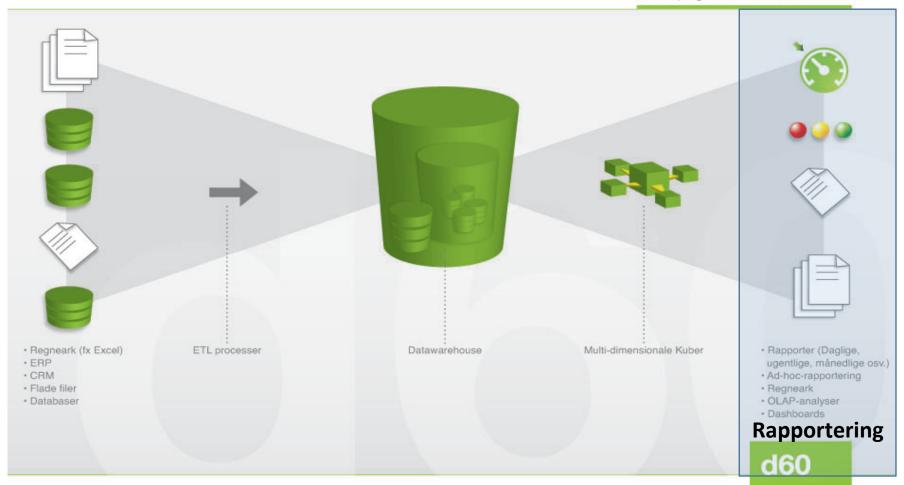
# Why this extra layer?

#### Cubes:

- Fast reporting and calculations
- Key figure calculations (ex. percentages, indexes etc.)
- Security (can be dynamic)
- Hierarchies with drilldown/drillup

### Data process in BI (ETL)

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# Reports, Analysis, Dashboards

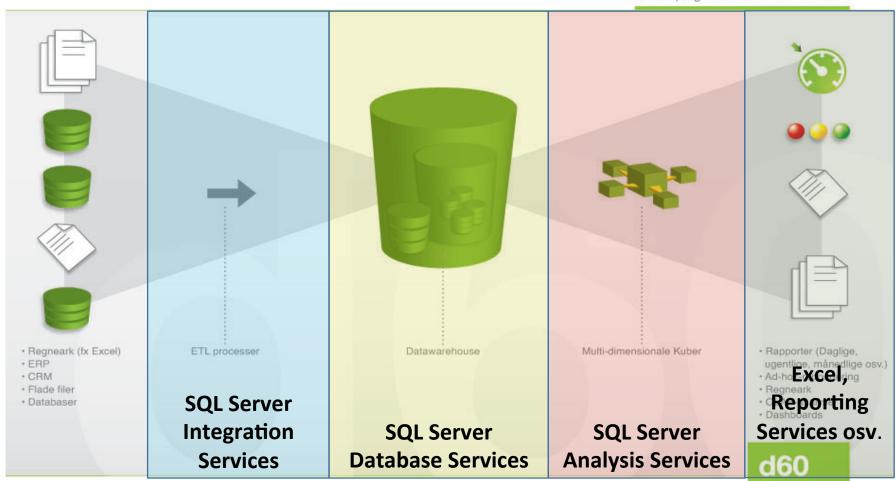
Same data but different formats for different purposes.





## Teknikken

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# BI example/demo

### Setup:

Small company with Navision as financial system, Lessor as payroll system and a hosted system for hour registration.

# **Example**

### **Current reporting:**

- Basic revenue reports from Navision.
- Basic payroll reports from Lessor (module for Navision)
- Simple time reports from the time registrations system.
- Reporting across systems are done manually by copying data to Excel spreedsheets.

# **Example**

### Problems and limitations with current setup:

- Time consuming manual updates
- All reporting comes from one key employee.
  - Limited ressource
  - All know-how is with one employee
  - Risk of human mistakes



# **Example**

### **Requirements:**

- Automatic updates
- Dynamic and self serviced reporting
- Cross system key figures:
  - Revenue per work hour
  - Hours per sales
  - Revenue/Pay index
  - Sickness (absence) index

### Demo

- Short demo based on the example
- MS SQL Server BI platform + Excel and Targit

### Life as a consultant

- How's the life as a consultant
  - Everyday business
  - A working year
- Business insights compared with a technical and economical insight
- The customer
  - Get to know the customers business
  - Get to know the people
  - Working together with people with different backgrounds
- Internal vs. External consultant
  - A part of the customers organization
  - A part of d60 organization
  - Long time projects vs. short time projects

# Personal experiences – education/background

- How do we use our education in our everyday life?
  - Jeppe: Cand.merc.(dat) (2004)
  - Niels: Cand.it, Informationsvidenskab (2009)
- What competency do you need for having a job like ours:
  - Focus on the customers value not the technical issues of the solution
  - A deep technical knowledge
  - A good understanding of the business

# So what's the job in d60 a/s

- 2009: 5 employees 2011: 35 employees
- Be a part of projects which have huge strategic importance for the customer
- A job that focus on building innovative solutions
- A job that never are the same

