

A photograph showing the silhouettes of several people sitting around a table in a meeting room, viewed through a large window. The scene is dimly lit, with light coming from the window, creating a professional and collaborative atmosphere.

# Data Refinement in a Market Research Applications' Data Production Process

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GfK Marketing Services, Nuremberg

# Agenda

- ① GfK Retail & Technology
- ② The S\*T\*A\*R\*T\*R\*A\*C\*K system
- ③ Data Refinement in Master Data Management
- ④ Data Refinement in Data-In
- ⑤ Data Refinement in Analysis & Production
- ⑥ Data Refinement in Reporting



# GfK Retail & Technology

## GfK Mission Statement

Companies need to make decisions,  
Knowledge is the best for decision-making.

Our business information services provide the essential knowledge that industry, retail and service sectors and the media need in order to make their decisions.

As a knowledge provider, we aim to be at the top in all the global markets in which we operate – in the interest of our clients, our employees, our company, our shareholders and the general public.

## GfK Group: key features (I)

### Sales

in 2004: EUR 672 million

Previous year: EUR 595 million

Increase on the previous year: approx. +12,8 %

### Employees

5,539 full-time staff

nearly 75 % of which outside Germany

### Services

Comprehensive information services on consumer goods, healthcare and services markets

Research know how

Marketing consultancy

### Network

About 120 subsidiaries, branches and participations in 61 countries on five continents

## GfK Group: key features (II)

### Core business

Pure market research player delivering information services to major global players in the consumer goods, services and healthcare industries.

### Market position

Largest market research company in Germany, 4th largest in Europe and 5th in the world.

### USP

Synergies across our business divisions: out of the top 50 clients 39 are consulting GfK in more than one business division.

## GfK Historic stages

September 1999

GfK shares start trading on the Frankfurt stock exchange

1990

Conversion into a joint stock company

1967

Start of internationalization

1949

Re-opening of GfK

1934

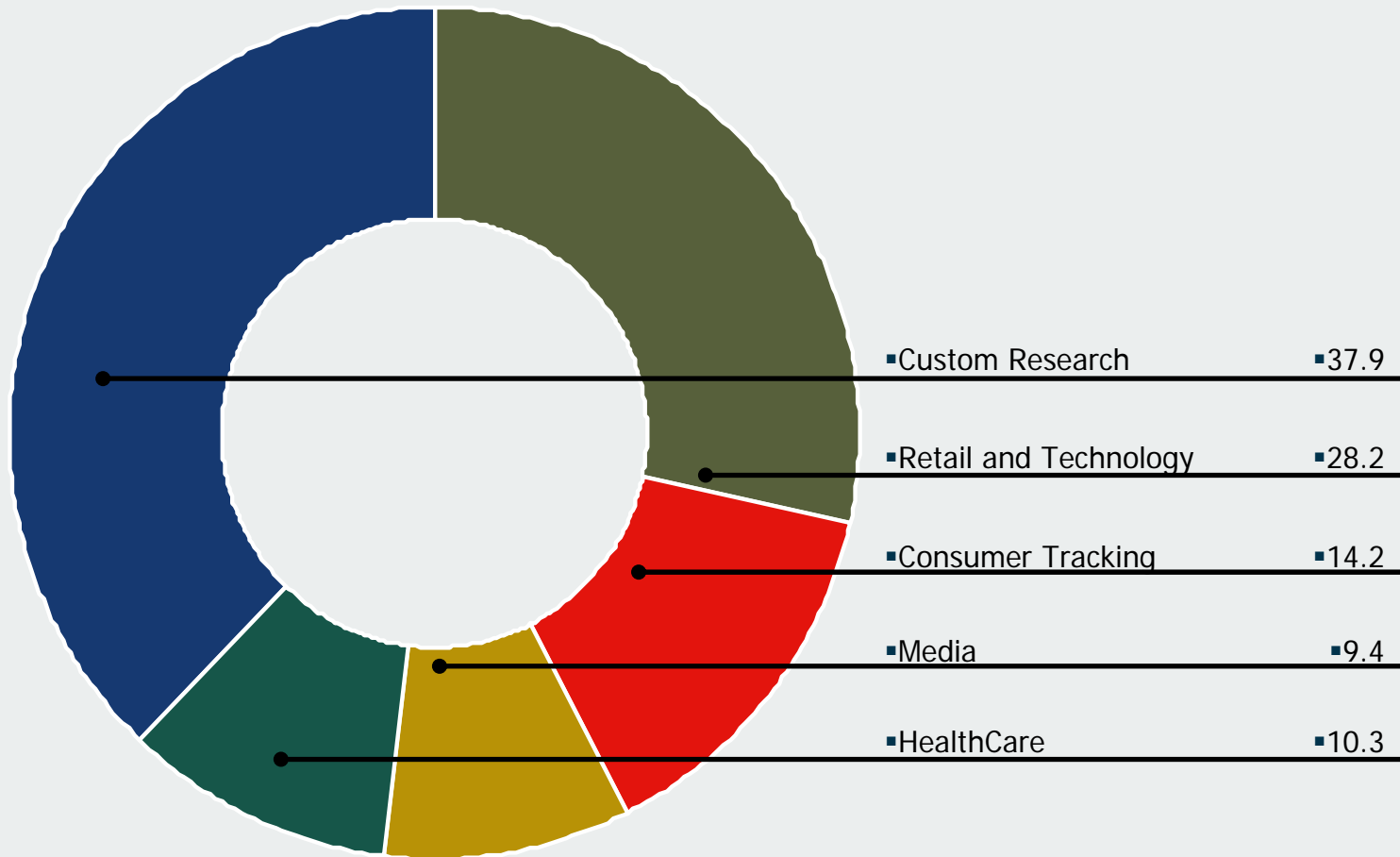
Founded as GfK-Nürnberg e.V.

1925

Founded: "Institut für Wirtschaftsbeobachtung der deutschen Fertigware"

## GfK Group Sales by division<sup>1)</sup>

8



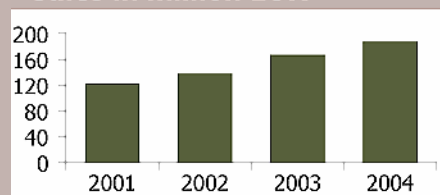
1) in per cent



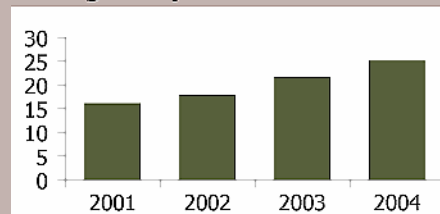
## GfK Retail and Technology: key services

9

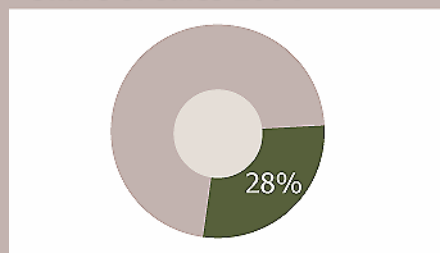
Sales in million EUR



Margin in per cent



Share of sales 2004



### Focus

Information services in 61 countries regarding marketing, logistics and sales in industry and retail for companies operating in the consumer technology markets

### The advantage for clients

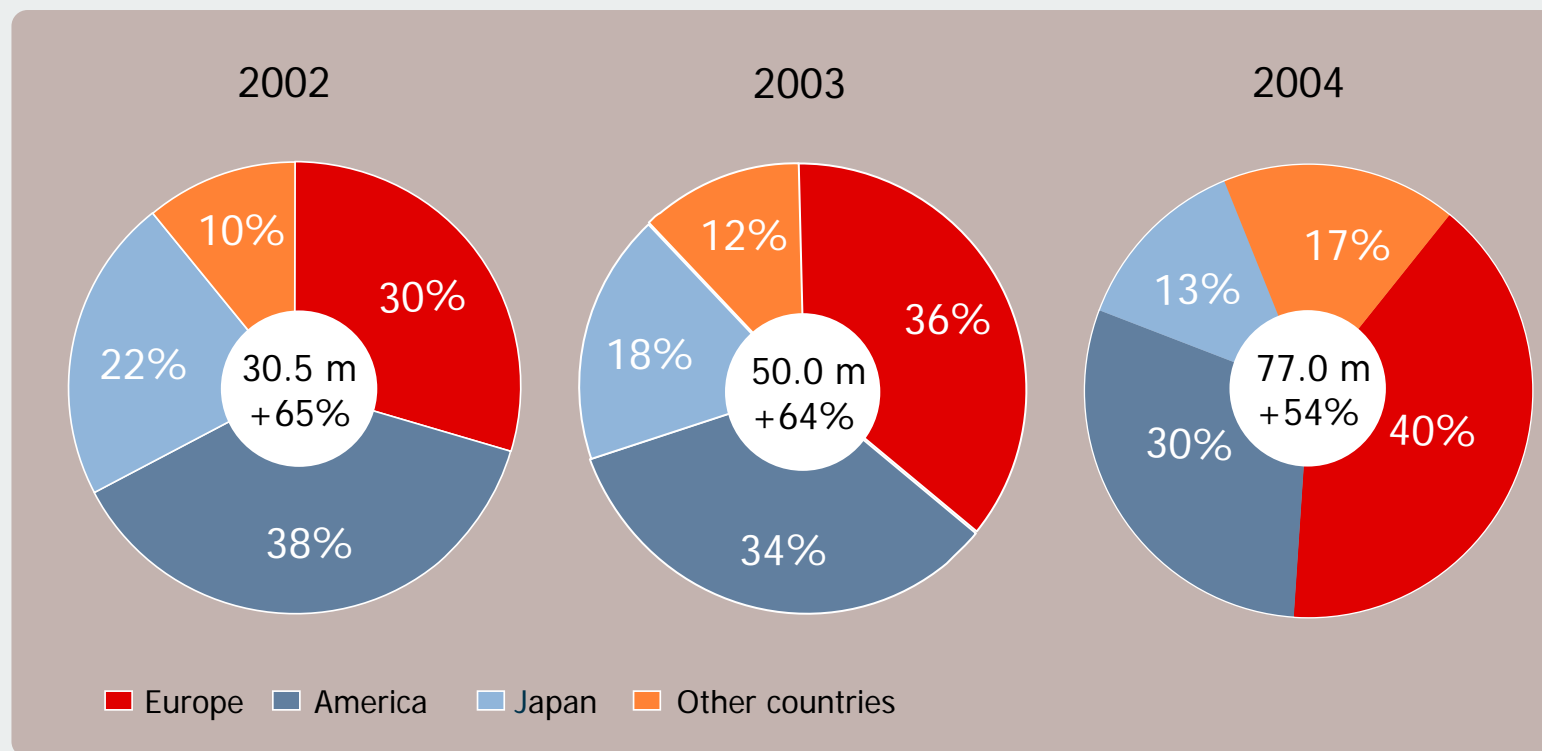
Direct access to databases and/or transmission of standard analyses used to support, track and manage short, medium and long-term planning of product and pricing policies, advertising, distribution, sales and logistics

### Market position

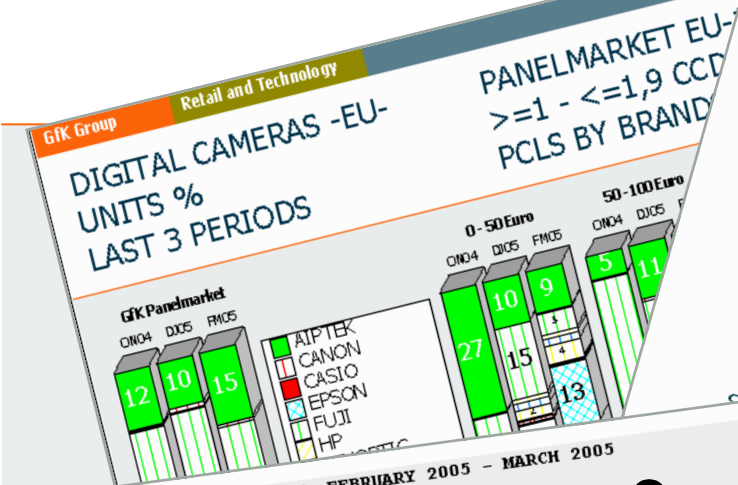
Market leader in Europe, Asia and the Pacific as well as in the Arab countries; market leader in the US, in conjunction with our partner NPD Intelect

## Example: Number of digital cameras sold by region

10



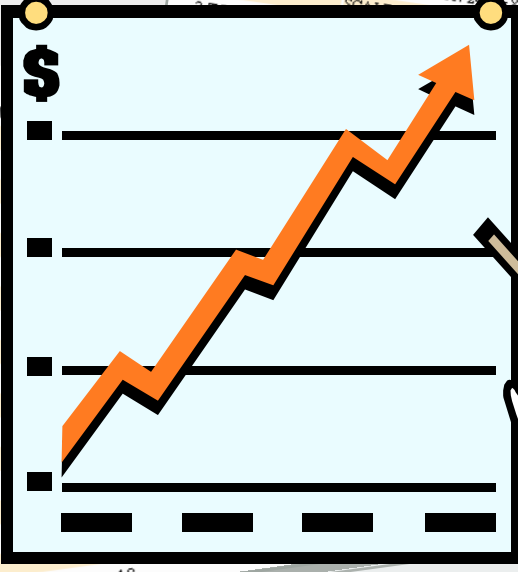
# Our Product



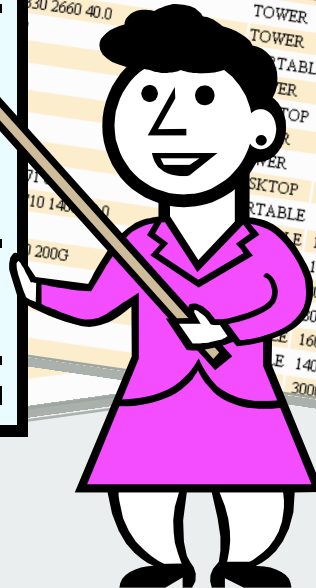
**RETAIL AUDIT MMSD SK SK FEBRUARY 2005 - MARCH 2005**

**RUNNING-REPORT MMSD SK SK SK PANELMARKET SALES THS.PCK**

CD	CD-R	CD-RW	TOT
<b>AUDIO</b>			
<b>AUDIO</b>			
<b>TOTAL</b>			
ACER			
BELL TECHNOLOGY			
BEST MEDIA			
EMTEC			
GIGAMASTER			
GZ			
HOPE			
HP			
IMATION			
JVC			
MAXELL			



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**Radio recorder -EU- Sales Units / Value MAT 2004/2005 last 12 Per.**

Month	Q1/04	Q2/04	Q3/04	Q4/04	Q1/05	Q2/05
8595	8954					

**Development Europe (10) Sony RR + CD**

**RETAIL AUDIT PCS DE MARCH 2005**

**HITLIST PC DE PM**

**SALES UNITS%, SALES UN.CUM%... MARCH 2005**

NO. BRAND	MODEL	DESIGN	CSP. MHZ	HARD DISC CAP.	VIDEOCARD	TWRADIO CARD
1 NEMAQ	AMD SEMPRON 2600+ 3000	TOWER	1670	80000	NO	NO
2 FSC		TOWER	3600	400000	NO	NO
		PORTABLE	1600	80000	NO	NO
		PORTABLE	2000	80000	NO	NO
		TOWER	3000	60000	NO	NO
		TOWER	2660	250000	NO	NO
		TABLET	1700	40000	NO	NO
		ER	1500	40000	NO	NO
		TOP	2800	40000	NO	NO
		ER	3000	40000	NO	NO
		WER	2800	40000	NO	NO
		SKTOP	3200	40000	NO	NO
		TABLET	1700	80000	NO	NO
		E	1400	80000	NO	NO
		E	1600	60000	NO	NO
		E	960	40000	NO	NO
		E	2000	200000	NO	NO
		E	1600	40000	NO	NO
		E	1400	80000	NO	NO
		E	3000	60000	NO	NO
		E	8000	NO	NO	NO

# Our Product



**INMARKT EXPRESS 5.8 [001.05097]**  
 Datenbank Bearbeiten Ausgabebart. Analyse Listen Service Selektion ?  
 Hotline - GfK Marketing Services: Tel. 49-911/395 3000 - Fax 49-911/395 27

**MODEL EXPRESS 2.2 [001.05088]**  
 Database Edit Output  
 Hotline - GfK

**COBRAS**  
 Client Oriented Branch Reporting and Analysis System  
 Version 3.01

**GfK QuickView**  
 back to public site contact key info homepage

**ENCODEX**

**Please login to the Premium Site of GfK Marketing Services...**

GfK Marketing Services **Premium Site** is offered to our panel customers as a unique medium for efficient online access to valuable market information. Have your GfK reports available conveniently and up-to-the-minute together with supplementary premium services.

**Premium Site Login:**

User-Id:   
 Password:    
 Invalid username or password

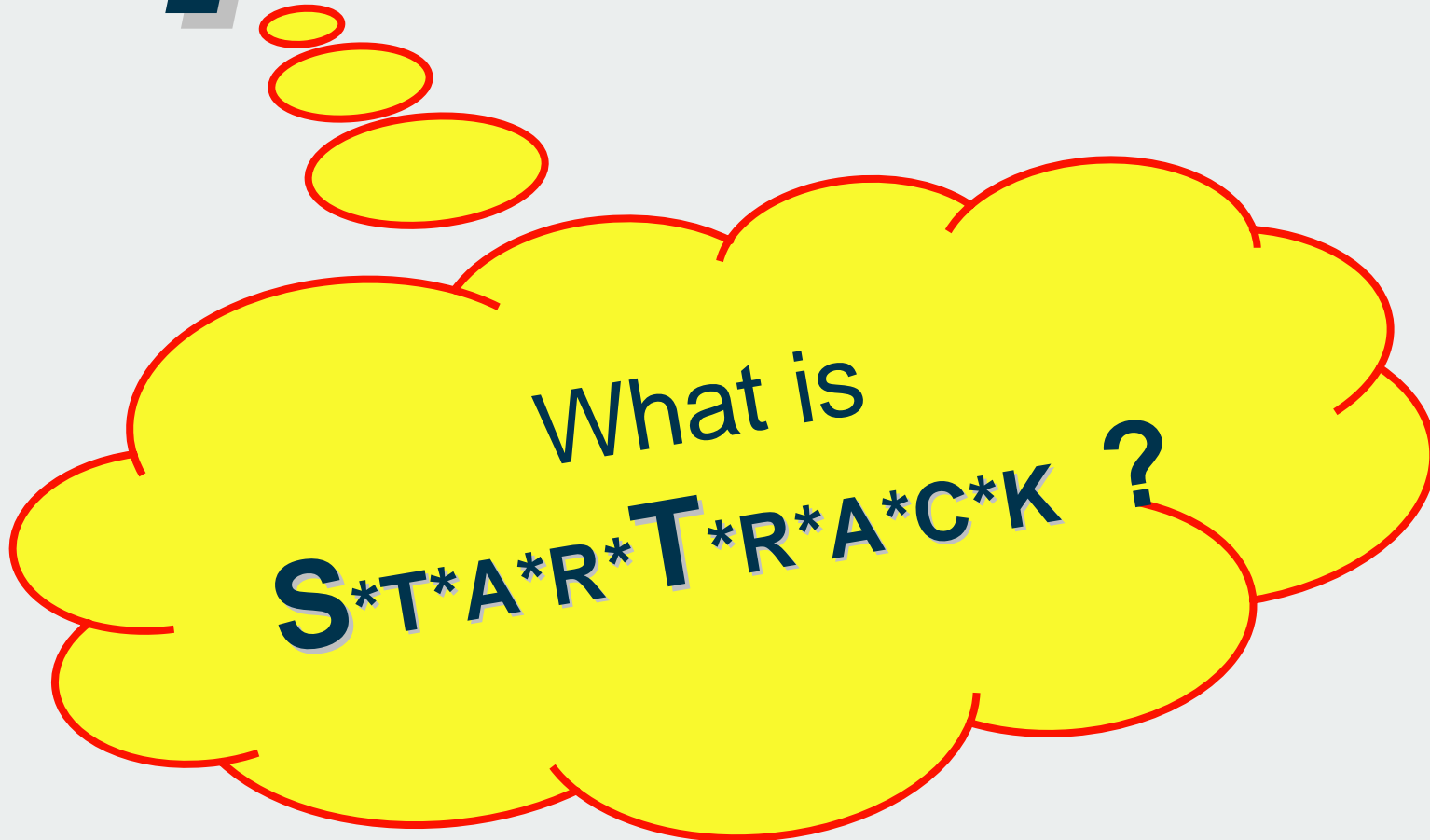
If you have forgotten your premium portal password please click [here](#).



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# The S\*T\*A\*R\*T\*R\*A\*C\*K system





What is  
**S\*T\*A\*R\*T\*R\*A\*C\*K ?**

It is NOT:





## - What is S\*T\*A\*R\*T\*R\*A\*C\*K ? -



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**S\*T\*A\*R\*T\*R\*A\*C\*K** = **S**ystem **T**o **A**nalyze and  
**R**eport on **T**RACKing  
data

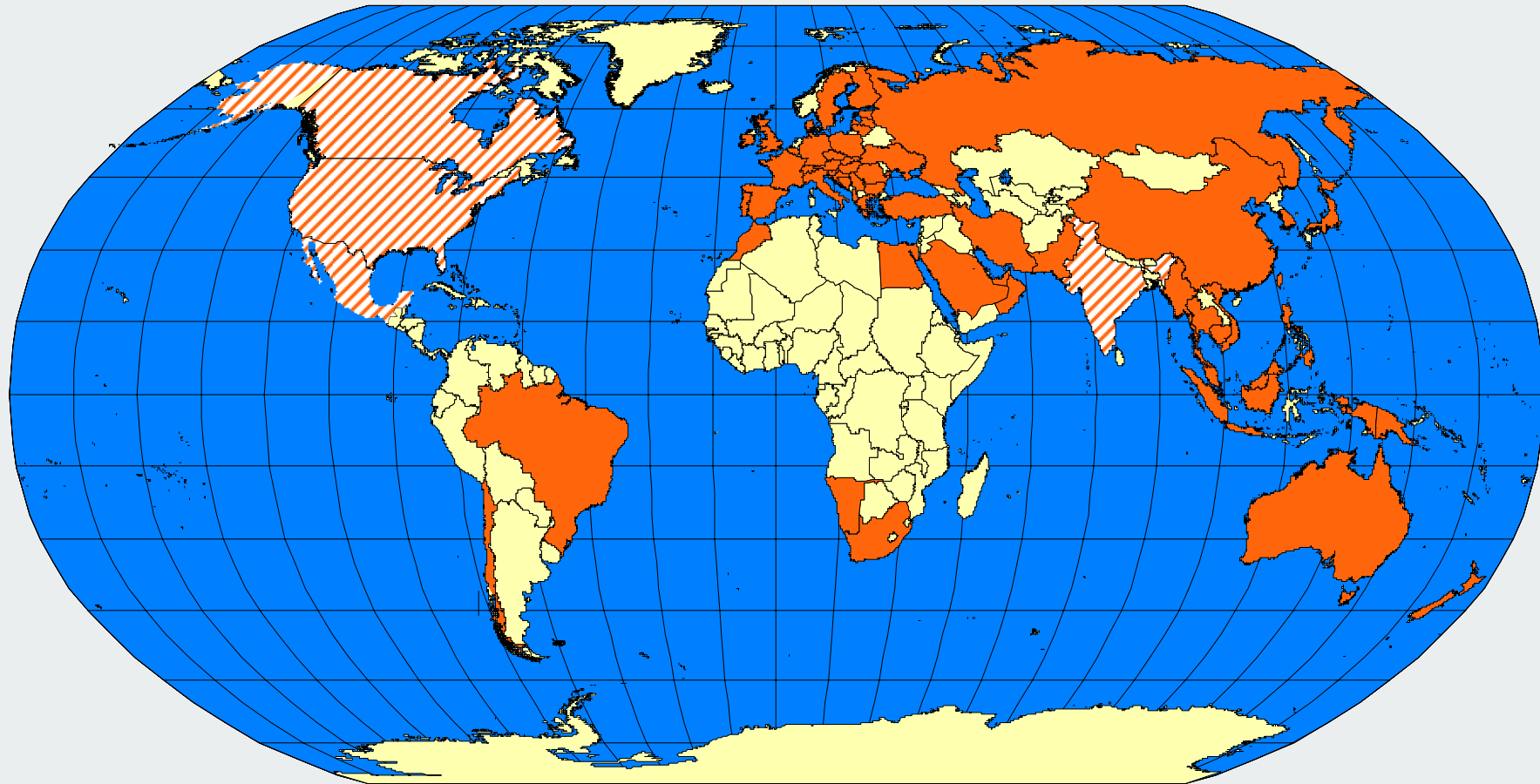
- New international production system of GfK Retail&Technology division
- Fully productive since March 2004
- Replaced inflexible mainframe system by a modern technology
- Relational database backend, VB & Active X frontend

# - Why S.T.A.R.T.R.A.C.K. ?-

GfK

Global Markets, Global GfK → Global System

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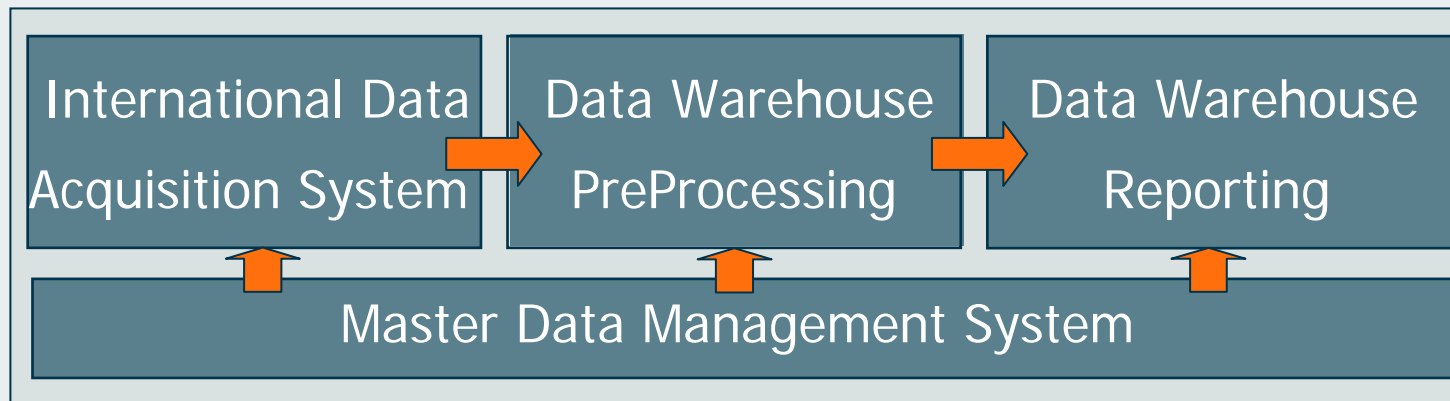
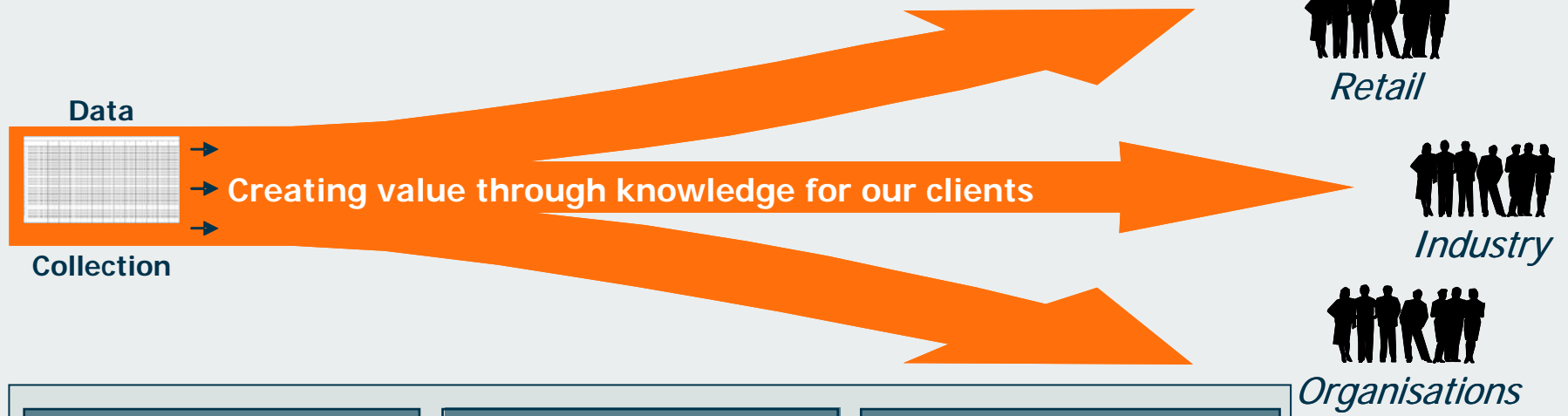
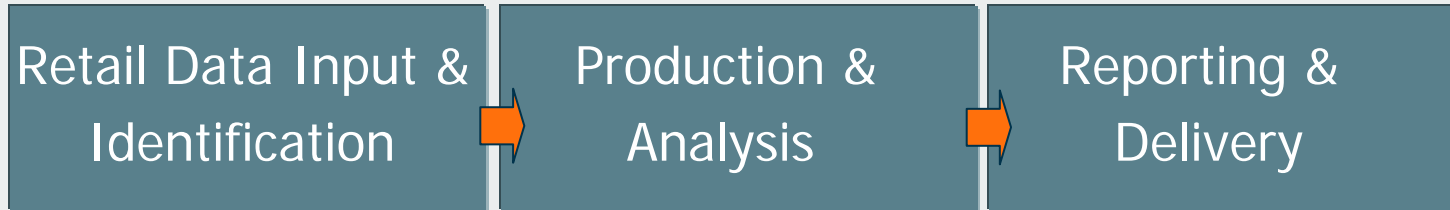
# Concepts of S\*T\*A\*R\*T\*R\*A\*C\*K

- One global platform for the entire Marketing Services workflow
- Easy Integration of additional countries into one global system
- Global Consolidation in coding and reporting:
  - ➔ Global Codeplans (Feature Linking on MDM)
  - ➔ Common Coding (on MDM, -> global hitlists in DWH)
  - ➔ Global Reporting Structures (Library Objects in DWH)
  - ➔ Web access
- ➔ Flexible and fast => shorter reporting periodicities

# S\*T\*A\*R\*T\*R\*A\*C\*K



www.gfkms.com



# S\*T\*A\*R\*T\*R\*A\*C\*K Quality Benefits

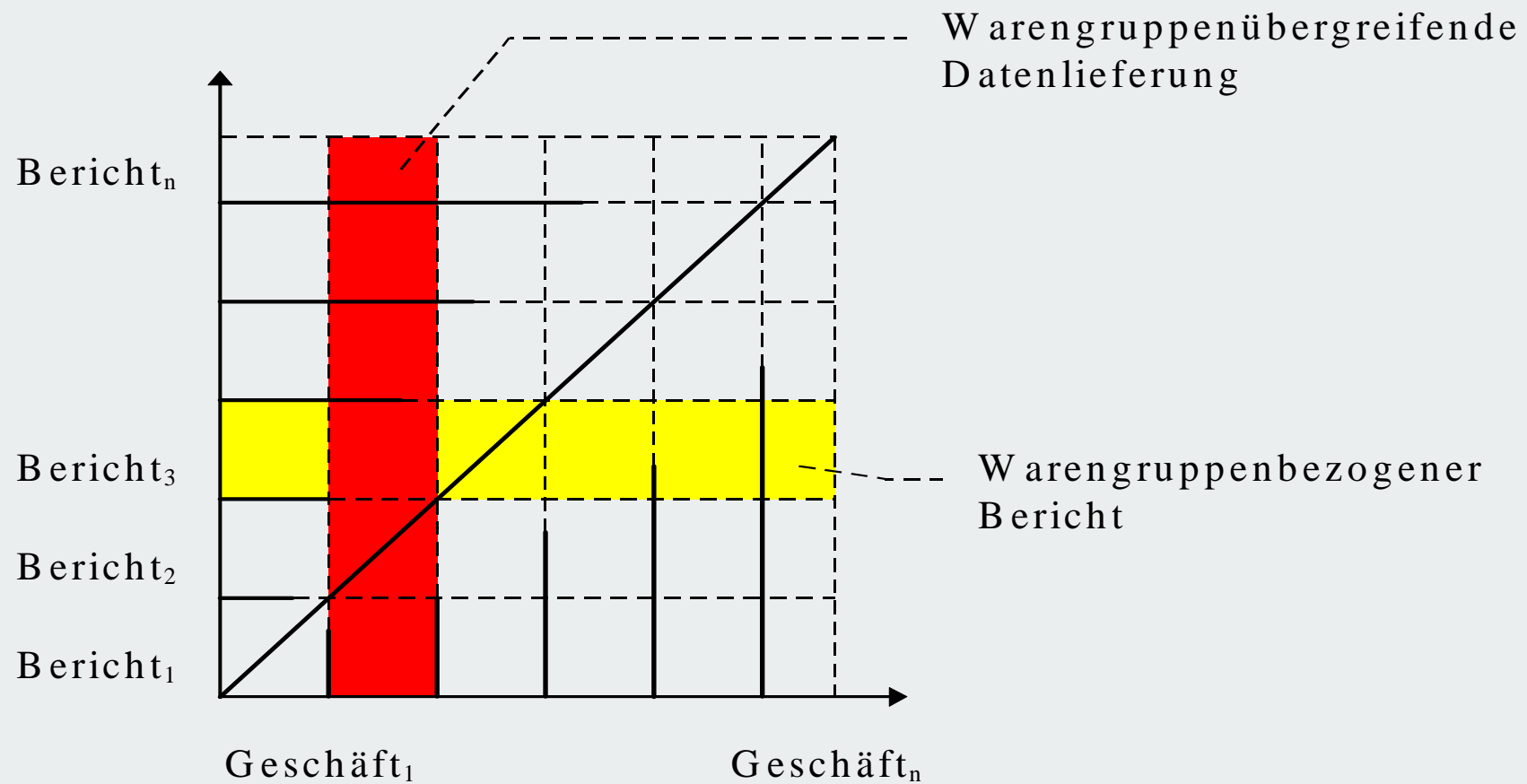


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- International Standardization
  - consistent and consolidated product and shop master data base
  - global code plans
  - standardized segmentations in international reporting tools
  
- Improved Data Checks
  - improved shop quality check routines
  - easy to use and very flexible production analysis tool
  
- Improved Report Production
  - clear text definition reporting tool
  - centralized set up and maintenance of report pages

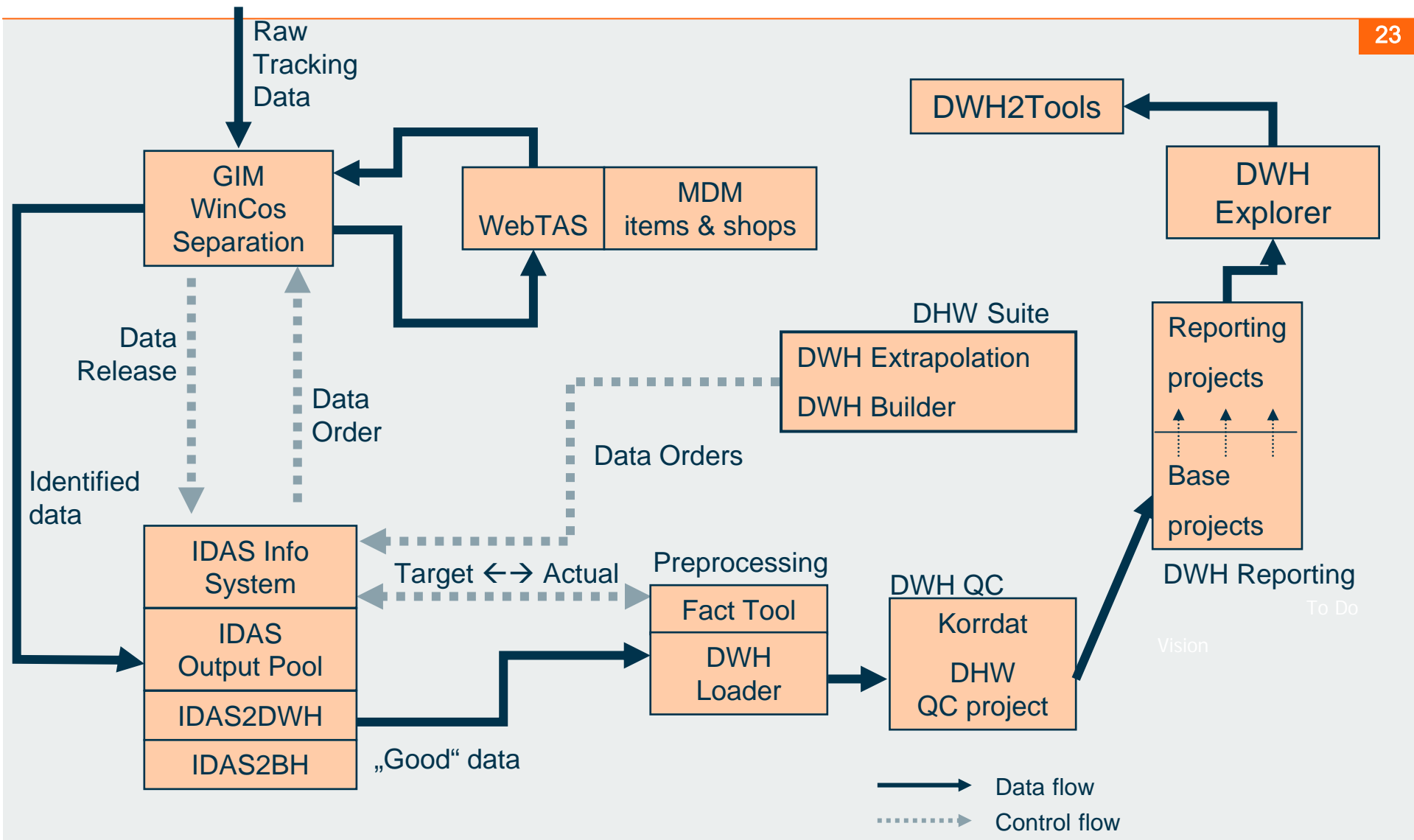
# Kernaufgabe: „Kippen“ von Datenlieferungen zu Marktberichten

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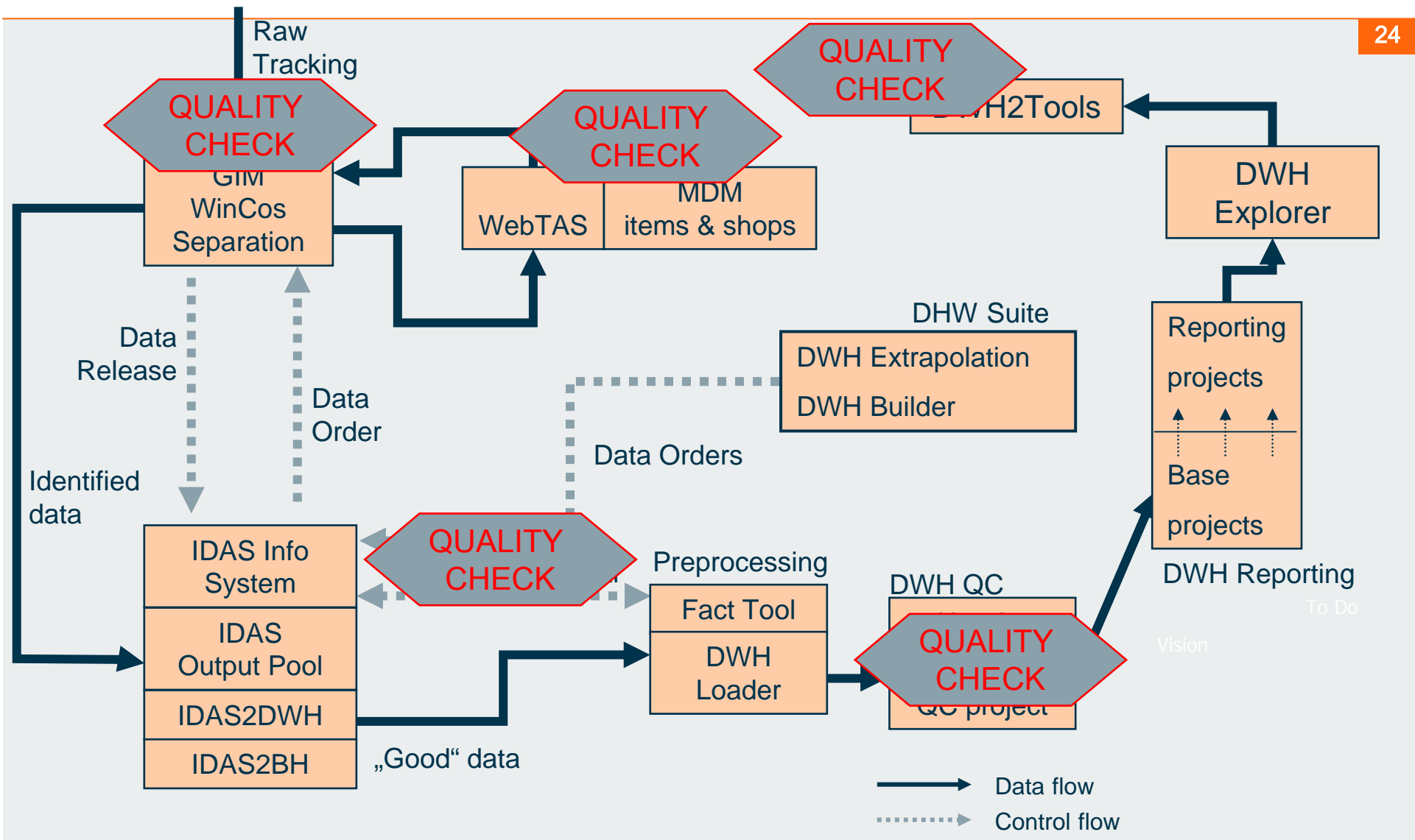


# S\*T\*A\*R\*T\*R\*A\*C\*K Integrated Workflow





# S\*T\*A\*R\*T\*R\*A\*C\*K Integrated Workflow







# Data Refinement in Master Data Management

## GfK MS product world structure

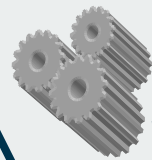
Product Group Sectors	Product Groups (Selection)	Examples for Features and Their Feature Value
Large Appliances, Small Kitchen Appliances, Jewellery, Furniture	Washing Machines, Vacuum Cleaners, Shavers, Watches, Kitchen Furniture	Water Consumption (in litres), Cable Rewind (with, without), Dust Bags (with, without), etc.
Consumer Electronics	TV Sets, VCRs, Car Radios, DVD Players	Screen Size (in inches), Sound System (Stereo, Mono), TV Norm (NTSC, PAL, SECAM, PAL/SECAM multi), Remote (with/without), Number of Video Heads (2,4,5)
IT/Telecom	Cellular Phones, PCs, Printers, Software	Band (Single-, Dual- or Tri-band), Mounting Form (Mini Tower, Tower, 19", Barebone), Pages per Minute, Application Field (learning game, entertainment, home office)

# Item Quality Check via Feature Rules

## Feature Rule



**IF** Screensize  $\geq$  55 cm  
**THEN** Videotext = Yes



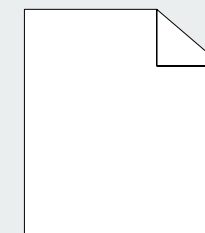
SQL

**PGR II520**  
**CRT-TV**

Item ID	Screen size	Videotext
1714	55 cm	Yes
1715	74 cm	No
1716	36 cm	No
1717	74 cm	Yes
...	...	...

invalid

invalid items



Report

## Browser



## Mail

via AutoNot



Country:

Germany

- [-] Consumer Electronics
  - [-] TV / Video
    - [-] DVD-PLAYER
      - (62) DVD Audio --> MP3
- [+] Information Technology
- [+] Office Equipment
- [+] Telecom

### Feature Quality Control: Check Productgroup

Rule Name	Mandatory	Last Edited	Edited By
DVD Audio --> MP3	90%	Montag, 6. September 2004	Thomas Kirsche
Description	Rule Body		
Most devices that support DVD audio playback also have MP3 playback	IF [DVD AUDIO (F60681)] = [DVD AUDIO (FV273994)] THEN [MP3 PLAYBACK (F58606)] = [MP3 PLAYBACK (FV258074)]		

Column Filter	Column Sort	layoutgroup, pos. PD	Default Columns	Global Features	Standard Features
<input type="checkbox"/> TABLE/PORTABLE	<input checked="" type="checkbox"/> MP3 PLAYBACK	<input type="checkbox"/> COMBI	<input type="checkbox"/> DVD RECORDING	<input type="checkbox"/> MP3 RECORDER	<input checked="" type="checkbox"/> DVD AUDIO
<input type="checkbox"/> SUPER AUDIO CD	<input type="checkbox"/> REAL DOLBY	<input type="checkbox"/> LOUDSPEAKERS	<input type="checkbox"/> DIVX PLAYBACK	<input type="checkbox"/> HDD CAPACITY	<input type="checkbox"/> SERVER FUNCTION
<input type="checkbox"/> HEIGHT IN MM	<input type="checkbox"/> PHOTO-CD	<input type="checkbox"/> SVCD	<input checked="" type="checkbox"/> BRAND	<input type="checkbox"/> EXCLUSIVPROD ZA	<input type="checkbox"/> INTRO
<input type="checkbox"/> SHOW VIEW	<input type="checkbox"/> PANAS./TECHNICS	<input type="checkbox"/> EAN-CODES	<input type="checkbox"/> LCD SCREEN SIZE	<input type="checkbox"/> EPG	<input type="checkbox"/> PRODUCT URL

check

check only items with status Existing

Check Product Group

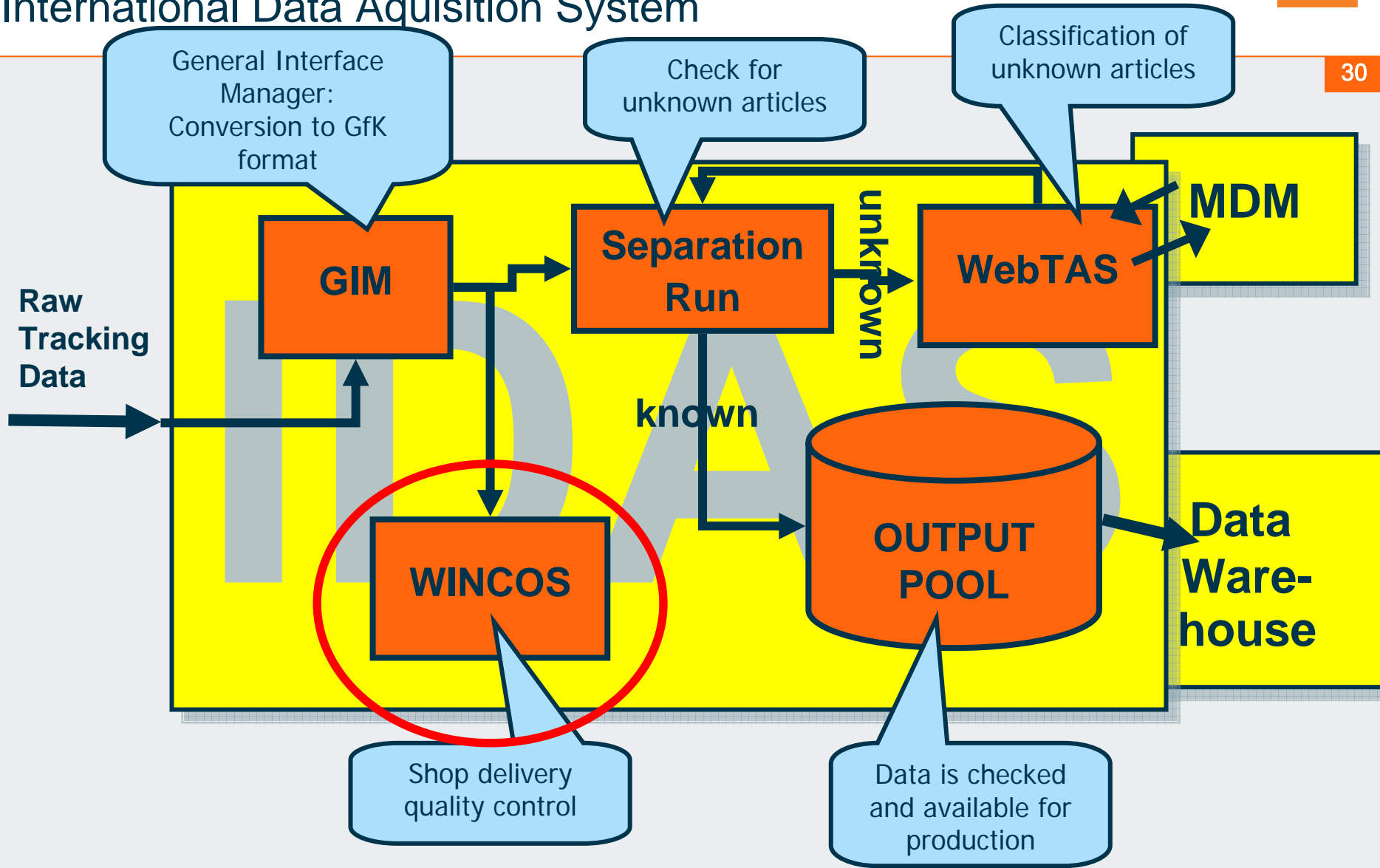


# Data refinement in Data-In



# S\*T\*A\*R\*T\*R\*A\*C\*K - I\*D\*A\*S

## International Data Acquisition System



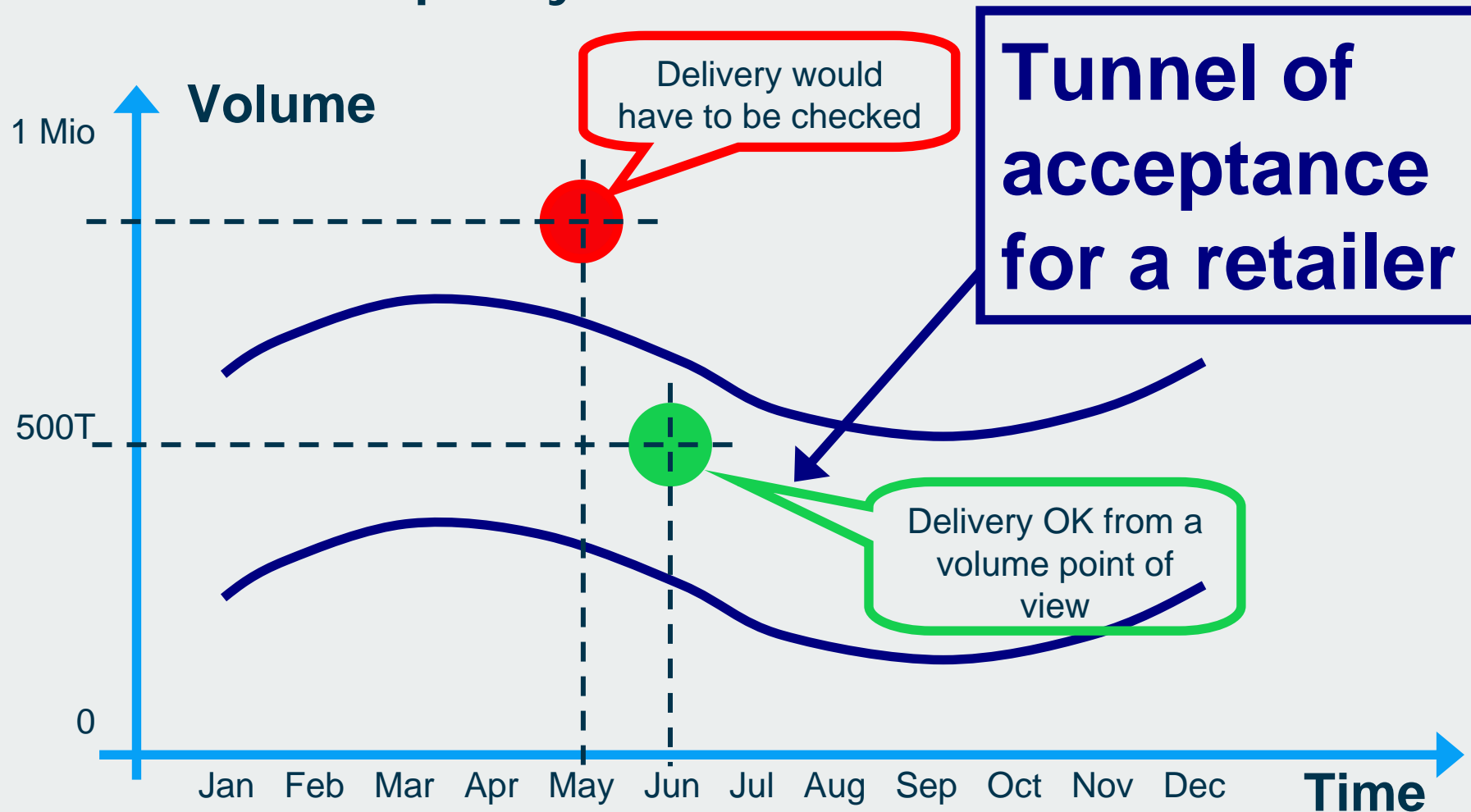
# S\*T\*A\*R\*T\*R\*A\*C\*K - IDAS

## -> WINCOS

GfK

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→ Checks the quality of the retailer deliveries





## Data delivery checks in WinCOS

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WinCOS for GfK-Marketing Services - [Datenbase - Maintenance]

**Central Administration of Company Data and Error Borders**

Company data | Error Borders | Facts | Channels & Groups | BKZ's & RPG's | Periods | Position Control | Request Data

**No Errors shown**  
If Average-Value and current month for each fact are under a defined value, then position will not be shown as an error.

Records <       Sales <       Turnover <   
Purchase <       New Stock <

**Error-Check**  
To find out, if an error to the previous month should be shown, a check to the previous year is made.

previous year ±

**Errorborders - E-Pool-Determination**

**BKZ**

Deviation previous week:      Records < ±   
   Purchase < ±   
   Sales < ±   
   New Stock < ±   
   Turnover < ±

Deviation previous month: see 'Channels & Groups'

   LB      UB  
Deviation previous year:           

**RPG**

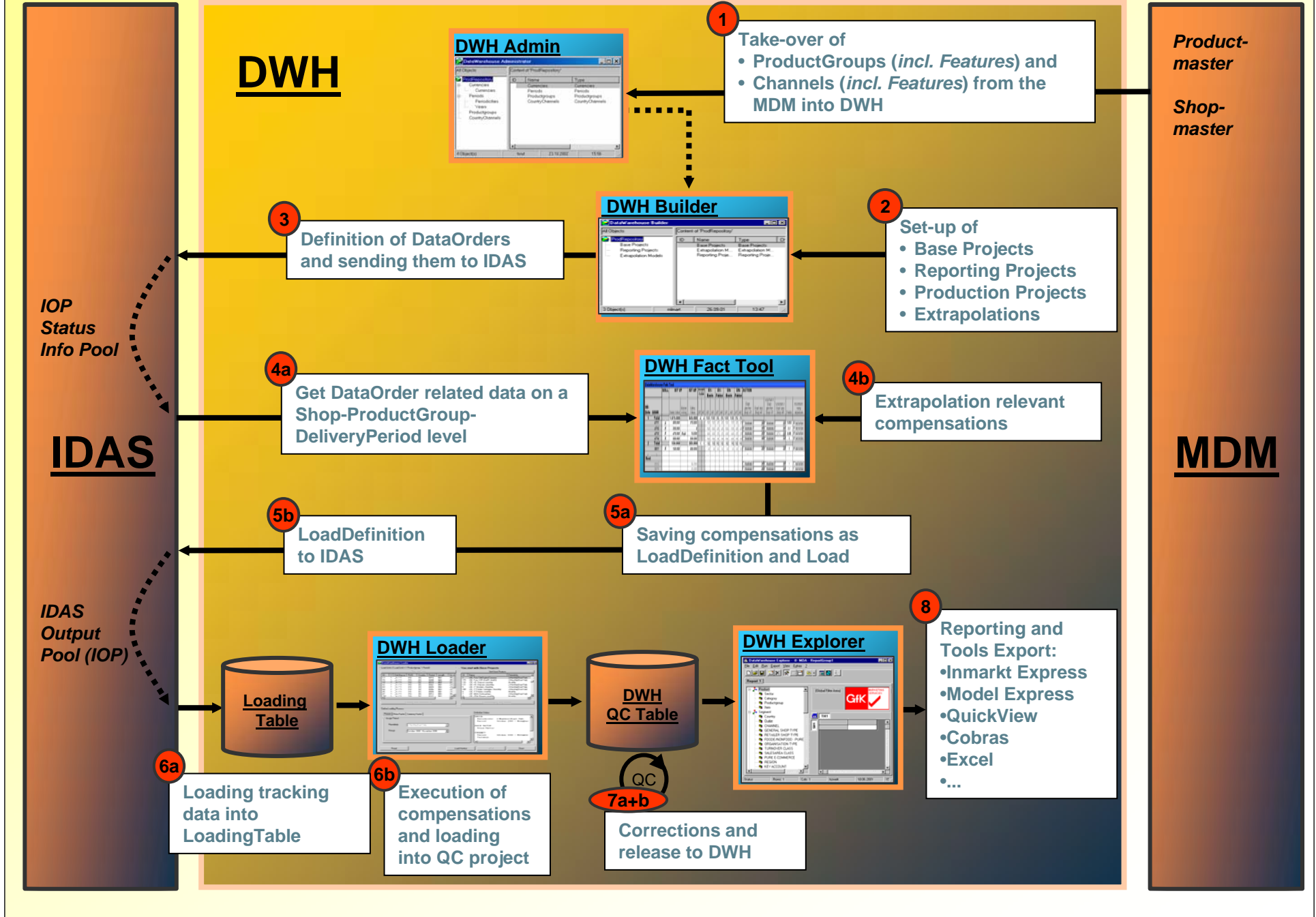
   LB      UB  
Deviation previous week / month:              
Deviation previous year:





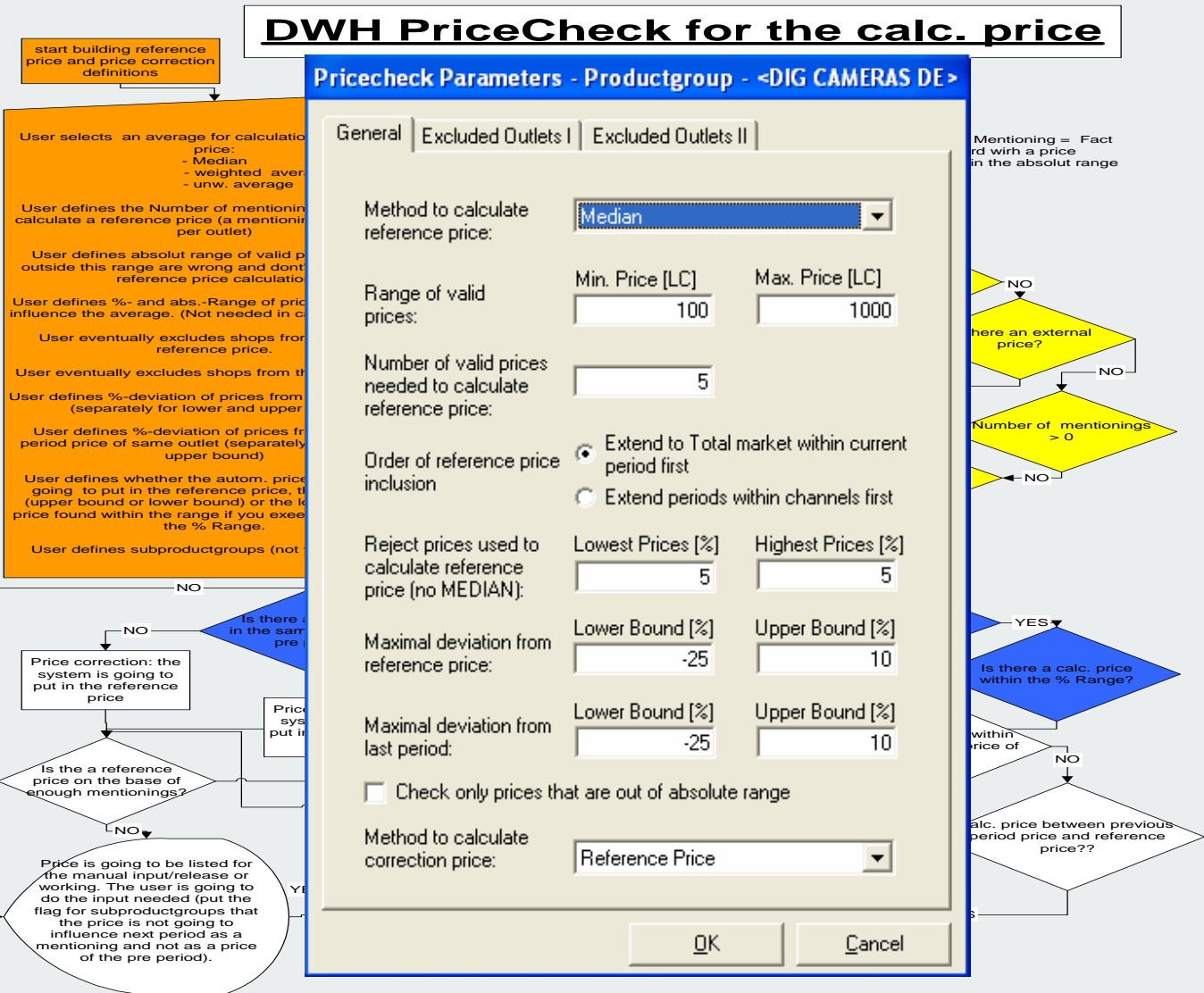
# Data Refinement in Data Analysis & Production

# StarTrack Workflow





# Automated price check & correction algorithm



## Fact manipulation settings

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The screenshot shows a dialog box titled "DWHEXplorer - Fact Manipulation Form" with a close button (X) in the top right corner. The dialog is divided into several sections for configuring fact manipulation settings.

**Sales Units**

- Recalculate Stock Old Units
- Recalculate Purchase Units
- Recalculate Stock New Units

**Purchase Units**

- Recalculate Stock Old Units
- Recalculate Sales Units
- Recalculate Stock New Units

**Stock New Units**

- Recalculate Stock Old Units
- Recalculate Sales Units
- Recalculate Purchase Units

**Stock Old Units**

- Recalculate Sales Units
- Recalculate Purchase Units
- Recalculate Stock New Units

**Negative Value Handling**

- Allow
- Abort
- Best Effort

**Update Values Action**

- Recalc current Sheet
- Erase current Sheet
- nothing

Generate integer values

Exclude Outlets

Buttons: Default, OK, Cancel



# Data Refinement in Reporting



# DWH Explorer – Definition View

The screenshot displays the DWH Explorer interface. On the left is a tree view of product categories. The main area shows a data grid for 'CAR TYRES-DE' with columns for sales units across various price ranges. A dialog box titled 'DWH Explorer - Select Items - <FAMILY>' is open, showing a list of available elements and selected items.

	0,01 - 20,00 €	20,01 - 30,00 €	30,01 - 40,00 €	40,01 - 50,00 €	50,01 - 60,00 €	60,01 - 70,00 €	70,01 - 80,00 €	80,01 - 90,00 €	90,01 - 100,00 €	100,01 - 110,00 €	110,01 - 120,00 €	120,01 - 130,00 €	130,01 - 140,00 €	140,00 €
<Grand Totals>														
Other Bridgestone														
Other Continental														
Other Goodyear														
Other Michelin														
Other Others														

**Dialog Box: DWH Explorer - Select Items - <FAMILY>**

- 5 Available Element(s): <Grand Totals>, <Sub Totals>, <Others>, <All FAMILY>, <All FAMILY With ?>
- 4 Selected Item(s): DUNLOP GRANDTREK, FULDA TRAMP 4x4, GOOD YEAR WRANGLER, KELLY SAFARI
- Available Group(s): Root, Sector Do It Yourself, International, National GERMANY



# DWH Explorer – Execution View

DataWarehouse Explorer - <DE- DIY KFZ Car Tyres> <274> - <ReportGroup3>

File Edit Run Export View Extras ? Debug

Report 1

CAR TYRES - DE  
June 2002 - July 2002

**TH1**

	0,01 - 20,00 €	20,01 - 30,00 €	30,01 - 40,00 €	40,01 - 50,00 €	50,01 - 60,00 €	60,01 - 70,00 €	70,01 - 80,00 €	80,01 - 90,00 €	90,01 - 100,00 €	100,01 - 110,00 €	110,01 - 120,00 €	120,01 - 130,00 €	130,01 - 140,00 €	140,01 - 150,00 €
	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units	Sales Units
<b>&lt;Grand Total&gt;</b>	10284	247697	691102	690960	401334	321749	227050	189074	112999	87122	62457	52223	4	
<b>Bridgestone Group</b>														
<Grand Total>	0	30661	88629	104409	76241	51106	27381	17941	6486	4815	3692	3608		
PASSENGER CAR	0	30661	88629	104409	76241	51106	27381	17941	6486	4815	3692	3608		
RADIAL	0	30661	88611	104409	76241	51106	27382	17851	6324	4296	3063	3283		
ZR	0		18					19	90	182	317	619	225	
4X4	0					990	1826	2752	1992	1908	1910	1192		
Other Bridgestone					9	110	18							
<Grand Total>					9	110	18							
PASSENGER CAR					9	110	18							
4X4														
<b>Continental Group</b>														
<Grand Total>	1822	57295	118721	190961	136052	124447	100388	75052	39938	28972	21572	15970	1	
PASSENGER CAR	1822	57295	118721	190781	135995	124347	99921	74634	39139	28610	21008	15870	1	
4X4				80	58	100	427	419	799	363	565	100		
Other Continental			10006	18822	13634	5455	1427	490	576	685	490	411	163	
<Grand Total>			10006	18822	13634	5455	1427	490	576	685	490	411	163	
PASSENGER CAR			10006	18822	13634	5455	1427	490	576	685	490	411	163	
4X4														
<b>Goodyear Group</b>														
<Grand Total>	5155	93742	120966	100086	67409	56757	40152	34590	21191	16709	16626	16218	1	
PASSENGER CAR	5155	93742	120966	100086	67391	56246	38942	31774	18615	17016	14804	13611	1	
4X4												22		
N (-140KM)														
P (-150KM)														
Q (-160KM)							166	113	201	71	61	45	62	
R (-170KM)														
S (-180KM)				0		265	602	1656	1197	494	489	188		
T (-190KM)														
DUNLOP GRANDTREK														
FULDA TRAMP 4x4									44	22	154	36	80	
GOOD YEAR WRANGLER									39	389	424	481	100	
KELLY SAFARI					18									
H (-210KM)						72	395	509	957	512	812	1130		
V (-240KM)									18			22		
W (-270KM)														
ZR (#240KM)														
Other Goodyear Gr.														
<Grand Total>	4937	16304	13043	9424	2992	1372	70							
PASSENGER CAR	4937	16304	13043	9424	2974	1284	70							
4X4	0				18	88								
<b>Michelin Group</b>														
<Grand Total>	64	11716	24972	33917	41052	29608	19022	29636	19248	15023	8126	7217		
PASSENGER CAR	24	11602	24356	33734	41031	29013	19028	29426	17988	14982	7311	6215		

Status: Rows: 38 | Cols: 25 | tsruf | 28.10.2002 | 17:10



Thank You