



# **Eurotax - Solutions for Car Finance**

A product overview



# Agenda

## Motivation

### Proposed Solution

- Credit portfolio risk assessment
- Credit decision support

### WebServices as one powerfull way

### References

## Motivation: Car finance market with new challenges to face

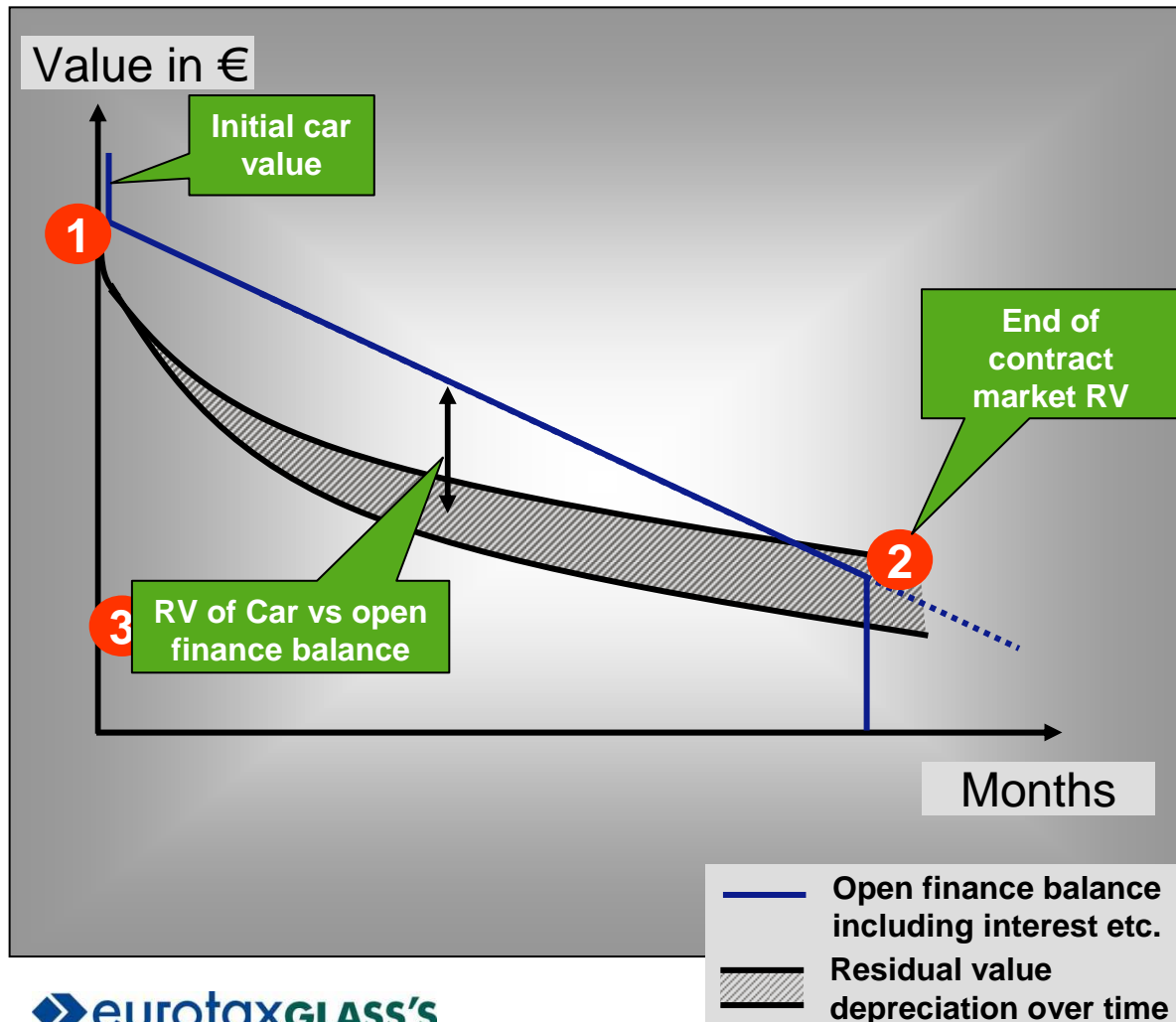
### Basel II requires or/and regular internal company rules :

- Assessment of security value stability **before every** credit allocation
- **Repetitive assessment** of securities portfolio
- Extraordinary assessment in case of negative information
- In the realisation of securities, internal and external experts must be involved
- Implementation of early risk detection systems (at borrower side)
- Portfolio valuation in case of merger or sales

ETG sees a clearly increasing demand for neutral valuation expertise in the car finance sector

# New finance products also require more information – example Balloon finance

## Finance balance Open debt versus residual value



## Rationals

### Finance Characteristics:

- Initial payment
- Equal monthly rates
- End of contract with 3 alternatives:
  - Final payment
  - Give back car
  - Prolong monthly rates

### Information needs:

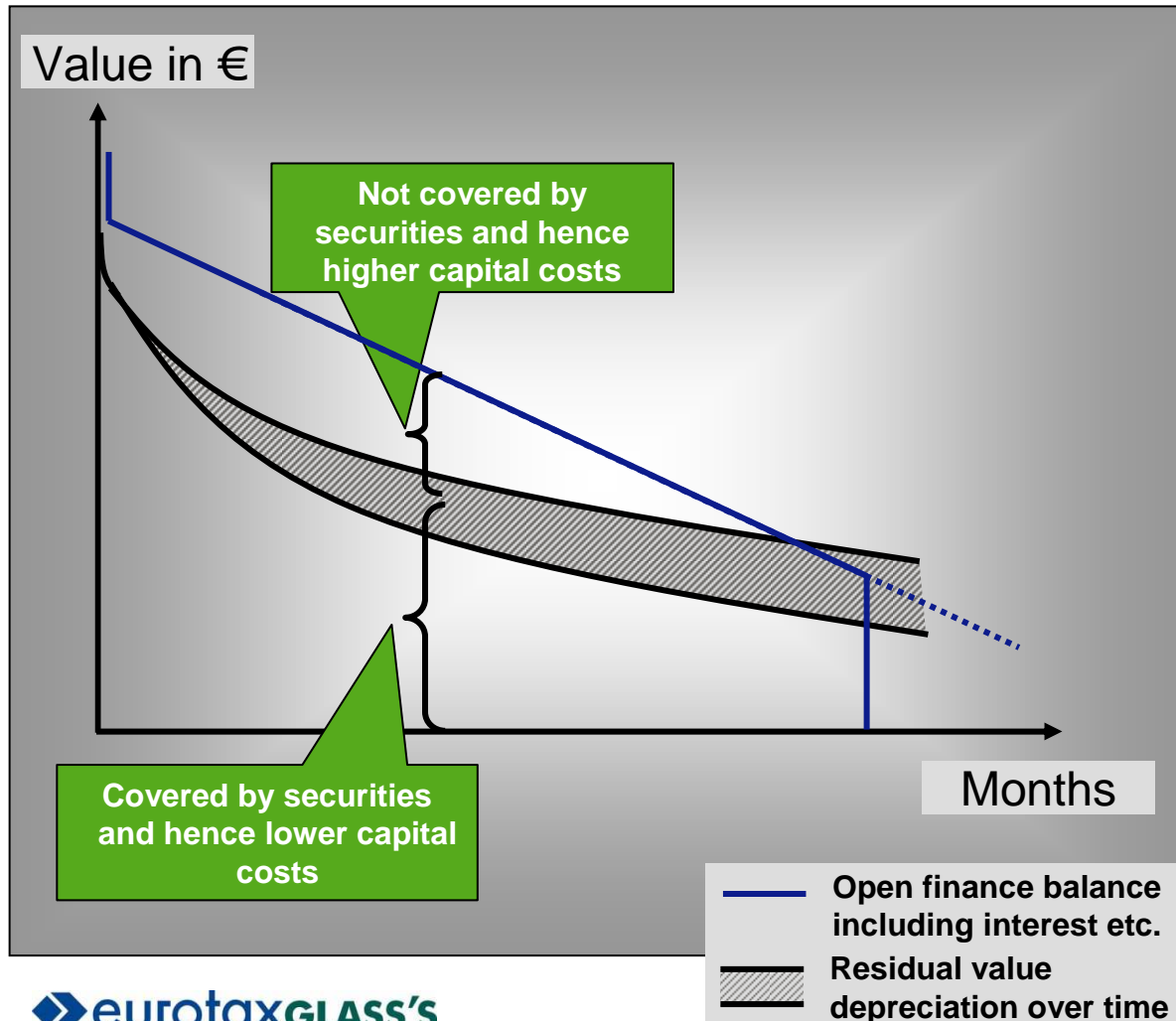
- 1 Initial car value
- 2 Forecast RV
- 3 RV of car over time

### Remarks:

- The final payment is a trade off between risk policy and sales needs

# The value of the securities influences the capital costs

## Finance balance Open debt versus residual value



## Rationals

For the open finance amount, a bank has to pay capital costs

These costs depend on the rating of the credit

The part that is covered with securities requires a lower risk rating and hence lower capital costs

Hence the careful tracking of RV's over time can improve the capital cost expenditures

# As a Consequence, Car Finance Companies need more valuation information

## For credit decision:

- What is the current value of the car
- What is the future value of the car
- What is the value depreciation over time

Ideally, this information will be seamless included in the credit decision process with impact on decision (yes or no), rating and interest rates

## For the portfolio management

- What is the current value of the car versus the open finance balance
- What is the future value of the car versus the open finance balance

Ideally this information is included in the credit portfolio management process and delivered on regular basis for the total portfolio.

# Agenda

## Motivation

### Proposed Solution

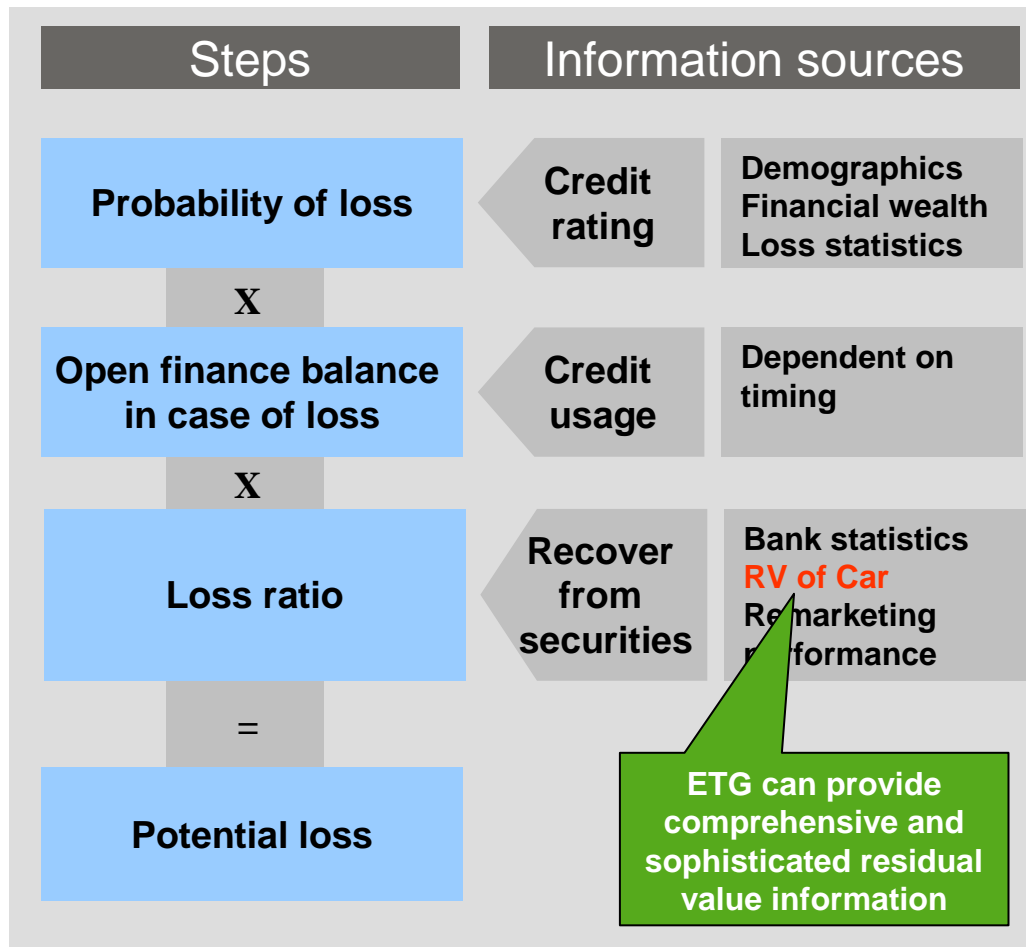
- Credit portfolio risk assessment
- Credit decision support

## WebServices as one powerfull way

## References

# EurotaxGlasses can support the risk management process with valuable information

## Calculation of risk



## Benefit of including ETG information

- Full transparency on security value during any point in time
- Evaluation of potential loss on a per contract level possible
- Active risk management enabled
- ETG already with significant experience from Leasing sector

# For total portfolio valuation, EurotaxGlass's can set up a batch process

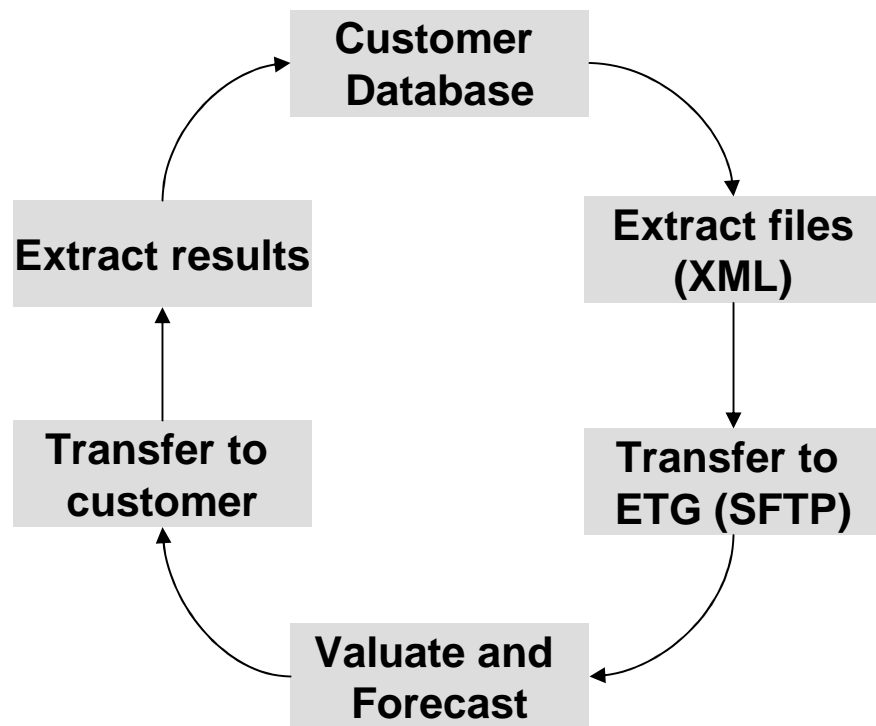
**ETG valuations are a neutral and independent source for valuation, forecast and reforecast of residual value performance**

## Basic product description (**international**)

- Files are extracted from customer systems e.g. via XML
- Files are send to ETG e.g. via SFTP
- ETG calculates relevant values and delivers back results within 1-3\* day

## Customer Benefits

- Neutral and independent valuation
- Transparency on residual value risk
- Objective basis for portfolio management decisions



„Our neutral and independent expertise is our customers benefit“

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# EurotaxGlass `s proposal: Evaluation of cars as securities during the credit decision process

## Description:

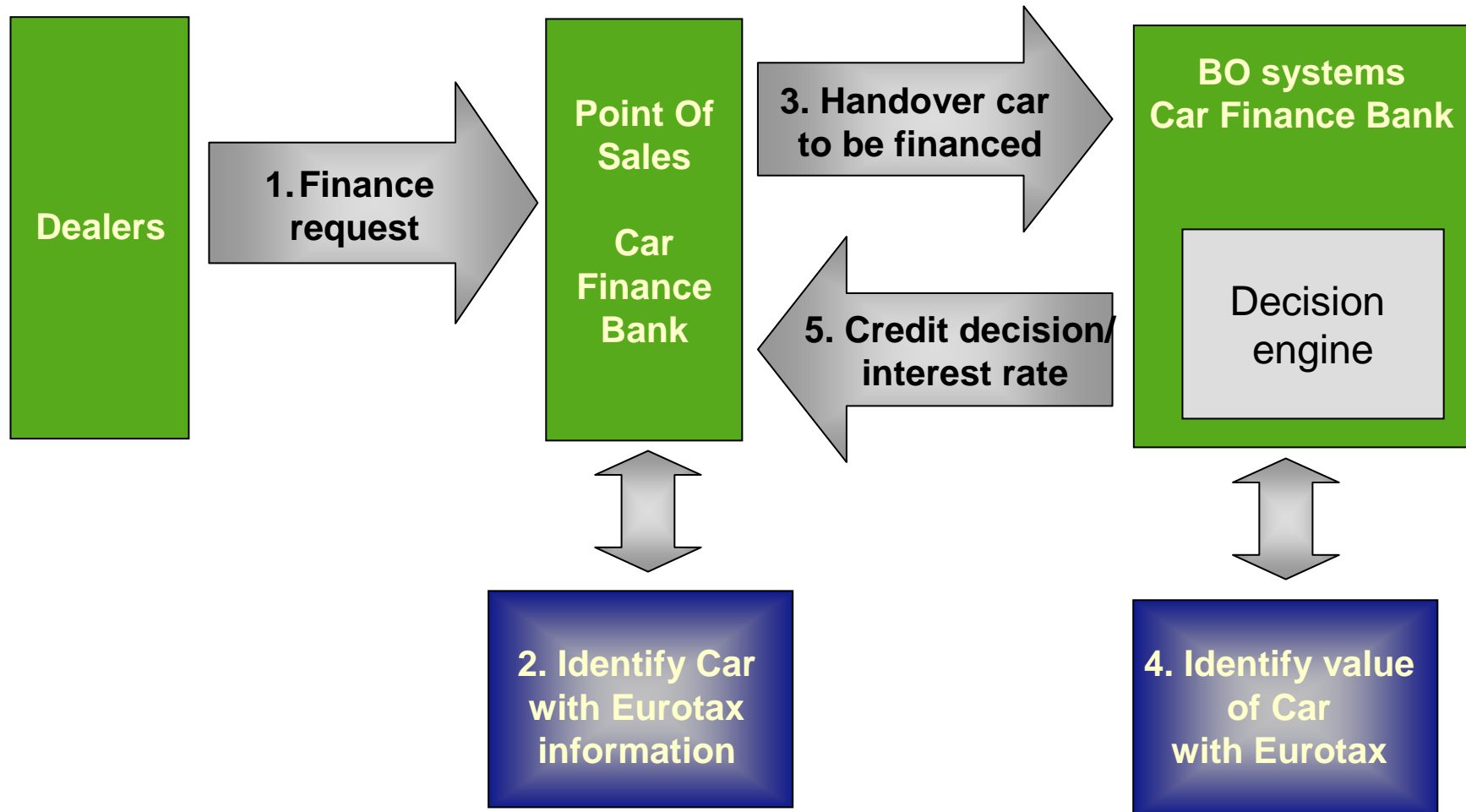
- Based on Make, Model, Type, Options, Mileage and Age, EurotaxGlass`s can determine current and future residual values
- Can be used either during credit decision process but also for supporting the product development processes

## Benefits

- Precise knowledge of actual and future residual value of car allows risk identification and management
- Clear picture of value of securities and impact on credit rating already during credit decision

# Example: Ideal integration of ETG valuation information in credit decision process

Connecting car dealers to the systems of the car finance Bank



# In addition, Forecast will support any evaluation of future RV's

## ETG Forecast – Application to forecast single cars and complete fleets

### Basic product description

- Forecast towards any desired point in the future
- Including mileage, age, options, desirability...
- Customizations possible as well

### Customer Benefits

- Detailed forecast as benchmark information
- Monthly updated information based on full scope of ETG market observation

The screenshot displays the Eurotax FORECAST application window. The main area contains a table with columns for 'Market', 'Manufacturer', 'Type', 'Fuel', 'Body', 'Doors', 'cc', 'HP', 'KW', 'Gearbox', 'Start Model', 'End Model', 'Forecast Period Mths', 'Miles p.a.', 'User RV', 'Glass's RV', 'User RV', and 'Glass's RV'. Below the table, there are summary statistics for 'RECALC' including 'Start Miles', 'Miles p.a.', 'Purchase Price incl. VAT', 'Forecast Period Mths', 'Contract Exp.', 'Total Mileage', 'Desirability (%)', and 'Disposal (Weeks)'. The interface also shows a menu bar, a toolbar, and a status bar at the bottom.

Market	Manufacturer	Type	Fuel	Body	Doors	cc	HP	KW	Gearbox	Start Model	End Model	Forecast Period Mths	Miles p.a.	User RV	Glass's RV	User RV	Glass's RV
DE	AUDI	A6 Avant 2.4	Benzol	KOMBI	5	2393	177	130	Manuelles Getriebe	2004 11		36	30000	47.8	47.8		
DE	AUDI	A6 Avant 2.4 Autom.	Benzol	KOMBI	5	2393	177	130	Automatik	2004 11		36	30000	47.3	47.3		
DE	AUDI	A6 Avant 2.4 quattro	Benzol	KOMBI	5	2393	177	130	Manuelles Getriebe	2004 11		36	30000	46.7	46.7		
DE	AUDI	A6 Avant 2.7 TDI	Diesel	KOMBI	5	2638	179	132	Manuelles Getriebe	2004 11		36	30000	50.5	50.5		
DE	AUDI	A6 Avant 3.0 TDI Autom. DPF quattro	Diesel	KOMBI	5	2967	224	165	Automatik	2004 11		36	30000	50.5	50.5		
DE	AUDI	A6 Avant 3.0 TDI Autom. quattro	Diesel	KOMBI	5	2967	224	165	Automatik	2004 11		36	30000	50.4	50.4		
DE	AUDI	A6 Avant 3.0 TDI DPF quattro	Diesel	KOMBI	5	2967	224	165	Manuelles Getriebe	2004 11		36	30000	50.5	50.5		
DE	AUDI	A6 Avant 3.0 TDI quattro	Diesel	KOMBI	5	2967	224	165	Manuelles Getriebe	2004 11		36	30000	50.5	50.5		
DE	AUDI	A6 Avant 3.2 FSI	Benzol	KOMBI	5	3123	255	188	Manuelles Getriebe	2004 11		36	30000	48.2	48.2		
DE	AUDI	A6 Avant 3.2 FSI Autom. quattro	Benzol	KOMBI	5	3123	255	188	Automatik	2004 11		36	30000	47.2	47.2		
DE	AUDI	A6 Avant 3.2 FSI quattro	Benzol	KOMBI	5	3123	255	188	Manuelles Getriebe	2004 11		36	30000	48.0	48.0		
DE	AUDI	A6 Avant 4.2 quattro	Benzol	KOMBI	5	4163	334	246	Automatik	2004 11		36	30000	45.5	45.5		

Summary Statistics (RECALC):

- Start Miles: 0
- Miles p.a.: 30,000
- Purchase Price incl. VAT: 0.00
- Forecast Period Mths: 36
- Contract Exp.: 21.02.2008
- Total Mileage: 90,000
- Desirability (%): 0.0
- Disposal (Weeks): 0

„A neutral, fair market value indicator“

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## WebServices as one powerfull way

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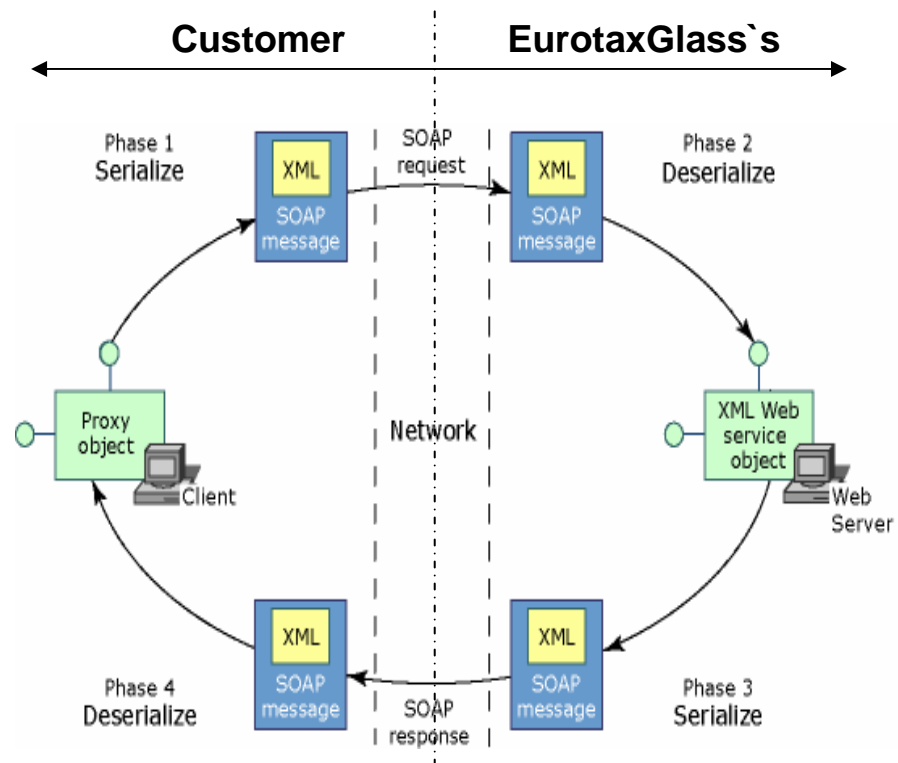
# WebServices – what is that ?

ETG WebServices – seamless integration, easy implementation, secure

## Product Overview

- Integration of ETG data and kernels over the Internet
- Information exchange via SOAP
  - On customer side request is generated
  - ETG system sends answer
  - Result is extracted and used in customer system
- Response time of a few milliseconds
- Full security via SSL

## Illustration



„Accessibility as if it is your data“

# Eurotax core information blocks are available as Webservice

Data	Description	Usage
Administration	<ul style="list-style-type: none"> <li>• Administration of rights</li> <li>• Track transactions</li> </ul>	To control and manage Webservice usage
Identification	<ul style="list-style-type: none"> <li>• Identify ETG code for car (based on make model type etc)</li> <li>• Basic descriptive information</li> </ul>	Identify ETG code as basis input for all ETG solutions
Specification	<ul style="list-style-type: none"> <li>• Standard and extra options</li> <li>• In- &amp; exclusion logics</li> </ul>	Configure for ordering Configure for full valuation
Valuation	<ul style="list-style-type: none"> <li>• Identify residual value of car</li> <li>• Identify residual value of options</li> </ul>	Vehicle valuation
Technical	<ul style="list-style-type: none"> <li>• Additional technical information per car (CO2 etc.)</li> </ul>	Additional user information

# WebServices offer appealing/value business benefits

	<b>Business Benefits</b>	<b>Rational</b>
<b>1</b>	<ul style="list-style-type: none"><li>• Full depth of Eurotax information</li></ul>	<ul style="list-style-type: none"><li>• Full data and kernel information</li></ul>
<b>2</b>	<ul style="list-style-type: none"><li>• Always actual information</li></ul>	<ul style="list-style-type: none"><li>• Always latest data and kernel</li></ul>
<b>3</b>	<ul style="list-style-type: none"><li>• Deepest integration in customer systems</li></ul>	<ul style="list-style-type: none"><li>• The whole “environment” including GUI ( graphic user interface) is created by the customer</li></ul>
<b>5</b>	<ul style="list-style-type: none"><li>• Full transparency on usage</li></ul>	<ul style="list-style-type: none"><li>• Every transaction is tracked</li></ul>
<b>6</b>	<ul style="list-style-type: none"><li>• Easy to integrate</li></ul>	<ul style="list-style-type: none"><li>• And also supported by ETG</li></ul>
<b>7</b>	<ul style="list-style-type: none"><li>• Lowest maintenance efforts</li></ul>	<ul style="list-style-type: none"><li>• All updates etc are purely on ETG side</li></ul>
<b>8</b>	<ul style="list-style-type: none"><li>• Full availability</li></ul>	<ul style="list-style-type: none"><li>• 24 Hours, 7 Days, 52 Weeks</li></ul>

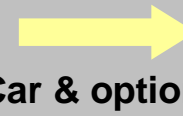
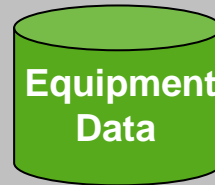
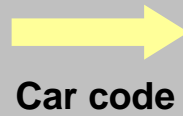
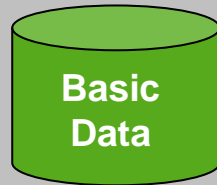
# Eurotax Data and WebServices - a powerful combination

Identification

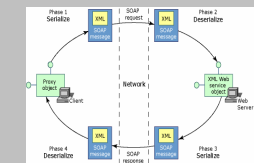
Specification

Valuation

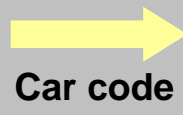
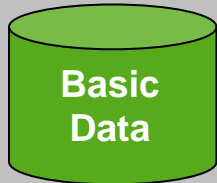
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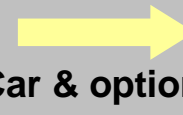
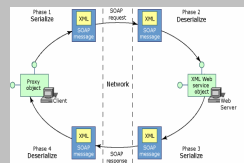
WS Valuation



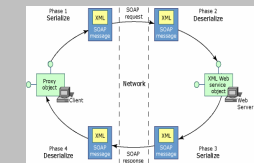
2



WS Specification

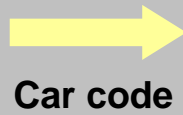
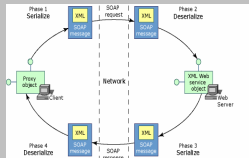


WS Valuation

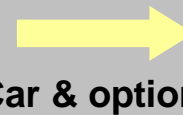
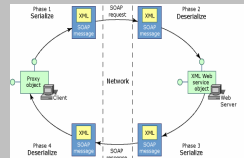


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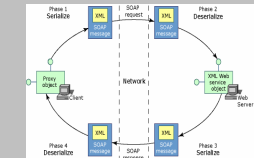
WS Identification



WS Specification



WS Valuation



„Flexible to the individual needs of our customers“

# Example: Webservice Valuation

## Comments

- Requires upfront Identification of vehicle
- Valuation reflects market specific calculation rules
- Trade in and retail values as result

## Example screen (Component)

(Vers. 1.41) - Microsoft Internet Explorer

Eurotax WebValuation

TESTSERVER

Drucken Bewertung Preisschild Kaufvertrag Anderes Fzg Fragen Impressum

### Schwacke Fahrzeugbewertung

Bewertungsnummer:	8163426
Wertermittlungsdatum:	31.08.2004
Schwacke-Code:	10117836
Hersteller:	AUDI
Typ:	A4 Cabriolet 2.4
Erstzulassung:	04/2002
Gesamtlaufleistung:	22222 km
KBA-Code:	0588 / 792
Aufbauart / Türen:	CABRIO / 2
Hubraum / kW / PS:	2393 / 125 / 170
Zylinder Anzahl / Art:	6 / V-Form

Händler-Einkaufswert inkl. MwSt.:  
Händler-Verkaufswert inkl. MwSt.: EUR 22.250,-  
EUR 26.500,-

**Serienmäßige Ausstattung:**  
Airbag (Seitenairbags) vorne  
Airbag für Fahrer und Beifahrer  
Airbagzub.: Deaktivierung f. Beif.Airbag  
Anti-Blockier-System (ABS) inkl. EBV  
Außenspiegel elektr. verstellb. u. beh.  
Außentemperaturanzeige  
Dekoreinlagen, hochglänzend  
Drehzahlmesser

## Details Webservice Valuation – The Methods

Method	Description	Output
Basic vehicle valuation	<ul style="list-style-type: none"> <li>• Basic car</li> <li>• Only ETG standard mileage</li> <li>• No options</li> </ul>	<ul style="list-style-type: none"> <li>• Basic value trade</li> <li>• Basic value retail</li> </ul>
Exact vehicle valuation	<ul style="list-style-type: none"> <li>• Individual mileage and age</li> <li>• No options</li> </ul>	As above + <ul style="list-style-type: none"> <li>• Mileage correction</li> <li>• Age correction</li> <li>• Final value</li> </ul>
Complete vehicle and equipment valuation	<ul style="list-style-type: none"> <li>• Individual mileage and Age</li> <li>• Full Options</li> <li>• Options</li> </ul>	As above + <ul style="list-style-type: none"> <li>• Option depreciation</li> </ul>

## Details Webservice Identification – The Methods

Method	Description	Output
Basic search	Identification via: <ul style="list-style-type: none"> <li>• Make, Model, Type</li> <li>• Date</li> <li>• Plate (UK, NL)</li> </ul>	<ul style="list-style-type: none"> <li>• Unique vehicle code</li> <li>• Qualified vehicle information</li> </ul>
Advanced search	As above + <ul style="list-style-type: none"> <li>• HP/ KW, Body type, doors, fuel, transmission, ccm</li> <li>• Market segment</li> </ul>	<ul style="list-style-type: none"> <li>• Unique vehicle code</li> <li>• Qualified vehicle information</li> </ul>
Country specific search	Identification via: <ul style="list-style-type: none"> <li>• DE: KBA or Model code</li> <li>• CH: Typenschein, Manufacturer code</li> <li>• AT: Hauptcode</li> <li>• PL ITS-EC Kod ( for insurance)</li> </ul>	<ul style="list-style-type: none"> <li>• Unique vehicle code</li> <li>• Qualified vehicle information</li> </ul>

## Details Webservice Specification – The Methods

Method	Description	Output
Equipment list	<p>Identification via:</p> <ul style="list-style-type: none"><li>• Standard (included)</li><li>• Equipment for free</li><li>• Equipment with cost</li><li>• Inclusion and exclusion (some equipment can not be combined)</li><li>• Packages</li></ul> <p>User will be able to select</p>	<ul style="list-style-type: none"><li>• Qualified vehicle information</li><li>• With list of all standard and chosen equipments + codes</li></ul>
Equipment combination	<p>All selected equipments will be checked on valid combinations</p>	<ul style="list-style-type: none"><li>• List with valid combination of extra equipment</li></ul>

## Some final remarks

### Identification:

- Eurotax offers several ways to identify the car, via technical information, or Market codes like KBA in DE or Typenschein in CH
- However, sometimes the existing information is not detailed enough to identify a car on the level ETG usually classifies the car in a market
- ITS-EC Code PL, ITS information is not detailed enough – a few EC-Codes are equal with one ITS number
- To overcome, additional business rules can be implemented e.g “from all ETG codes that refer to one KBA code always select the one with the lowest price”

### Benefits

# Agenda

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## WebServices as one powerfull way

## References

## Major reference customers rely on ETG solutions

### Leasing sector:

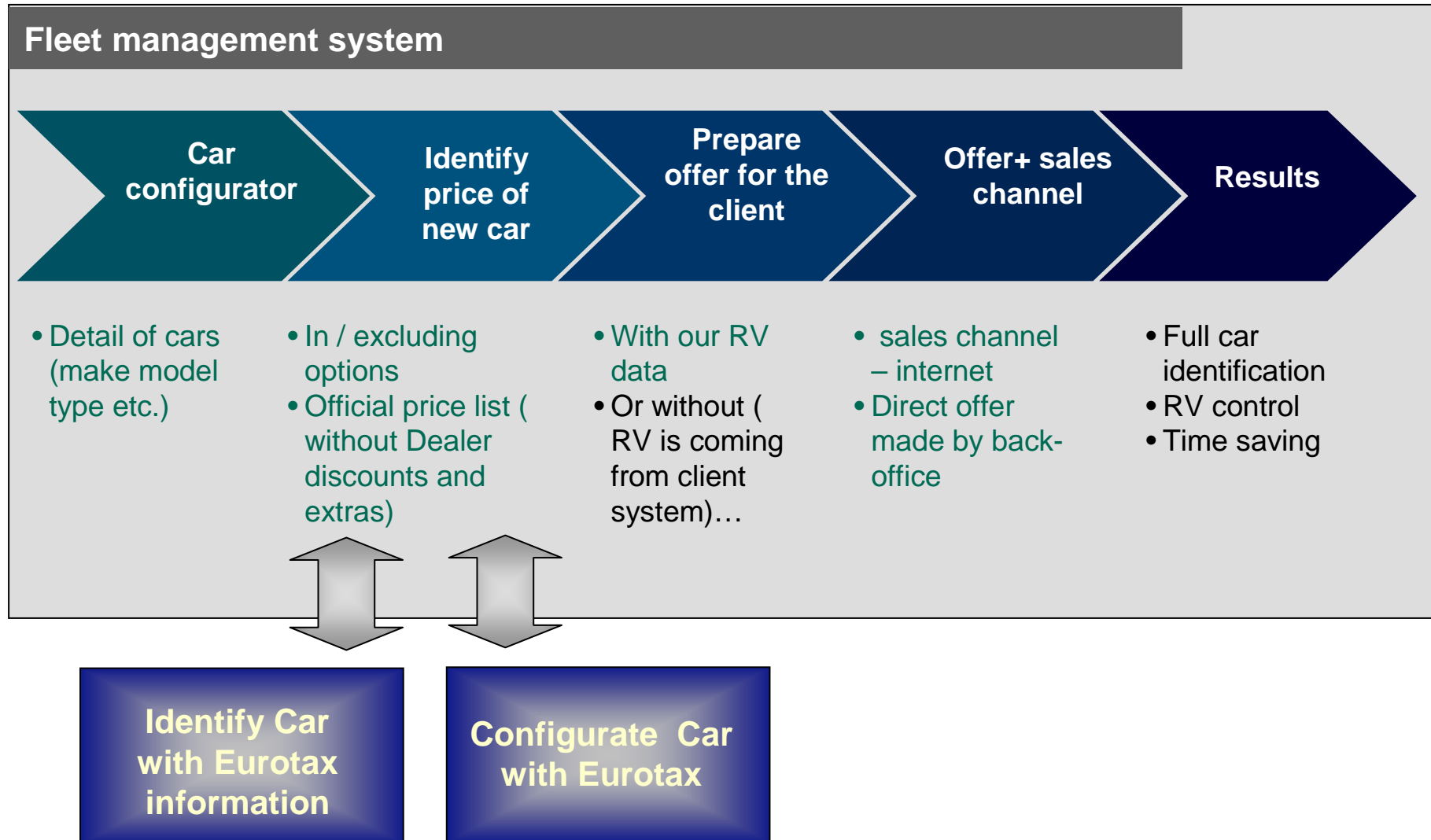
- KBC Autolease PL/EU Life since 2008
- Santander Multirent PL Life since Q2 2008
- Athlon Lease PL/EU Life since 2007
- ImpulsLeasing PL/EU Life since 2009

### Finance sector

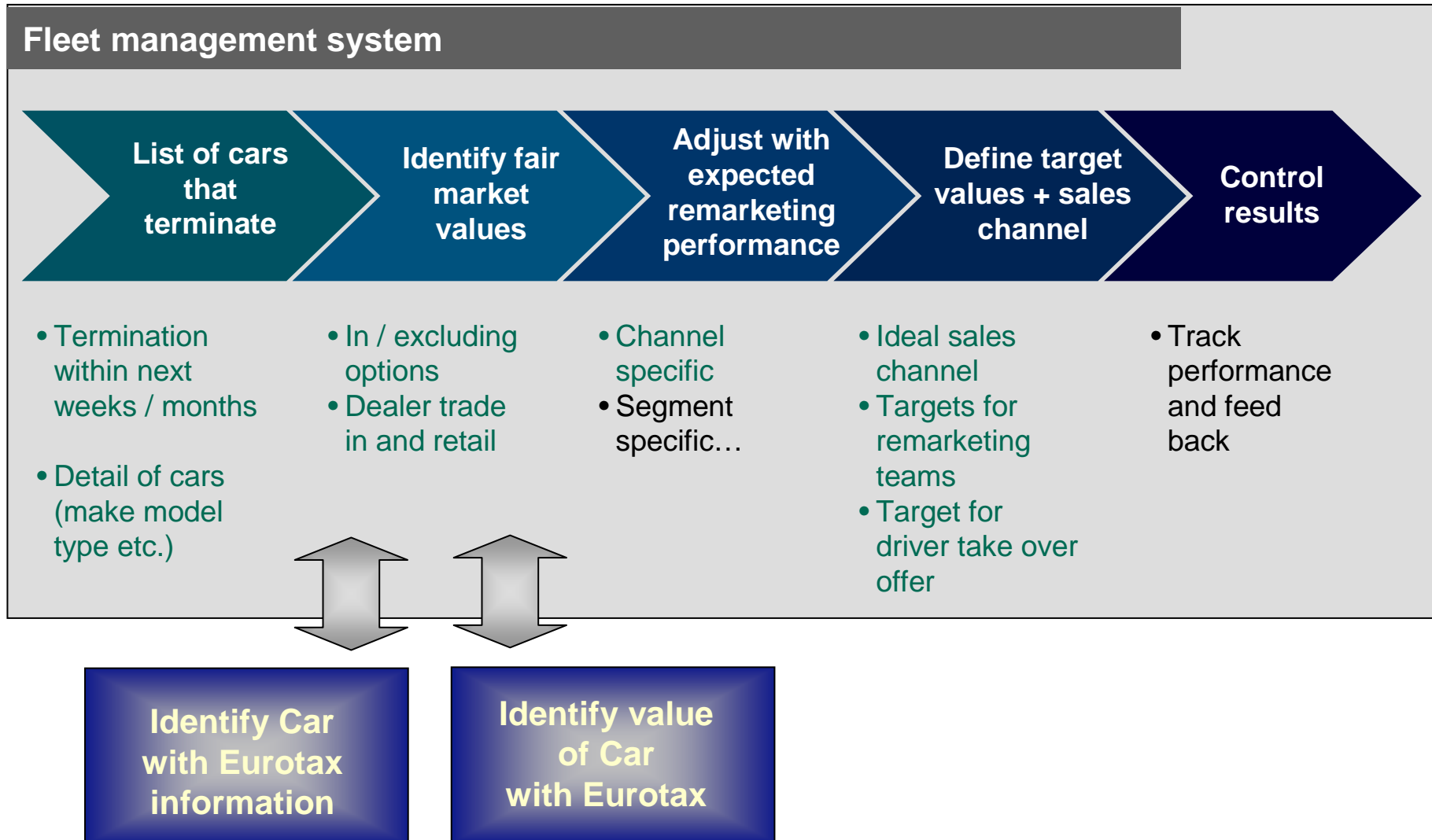
- Santander Bank Life since Q3 2004
- Getin Bank Life since Q1 2008
- Toyota Bank Life since Q2 2007
  
- Volkswagen Insurance Service PL Life since Q3 2008
- GrassSavoie PL Life since 2009

**In addition, over 10 customers are currently in the test phase**

# Example: Integration of ETG information in sales process of leasing company



# Example: Integration of ETG information in remarketing process of leasing company



# Sales process I – high level overview



- Get customer contact
- Present solution
- Send business documentation
- Send technical documentation
- Initiate test phase

- Organise test
- Support customer testing
- Clarify issues/questions
- Report on progress
- Advise on integration

- Work out commercial offer
- Agree on commercial offer
- sign

- Support customer with integration consulting
- Set up support and helpdesk

- Go live
- Track transactions

1 month

1-2 months

2-3 weeks

1 month

ongoing

Timing →

„Everything to allow our customers to make the right choice “

# Sales process II ( PL )– high level overview



- Get customer contact
- Present solution
- Send business documentation
- Send technical documentation
- Send test agreement
- Initiate test phase

- Organise test
- Support customer testing
- Clarify issues/questions
- Report on progress
- Advise on integration

- Work out commercial offer
- Agree on commercial offer
- Sign agreement

- Go life
- Track transactions

1 month

1-3 months  
in some cases  
up to 9 moths\*

2-4 weeks

ongoing

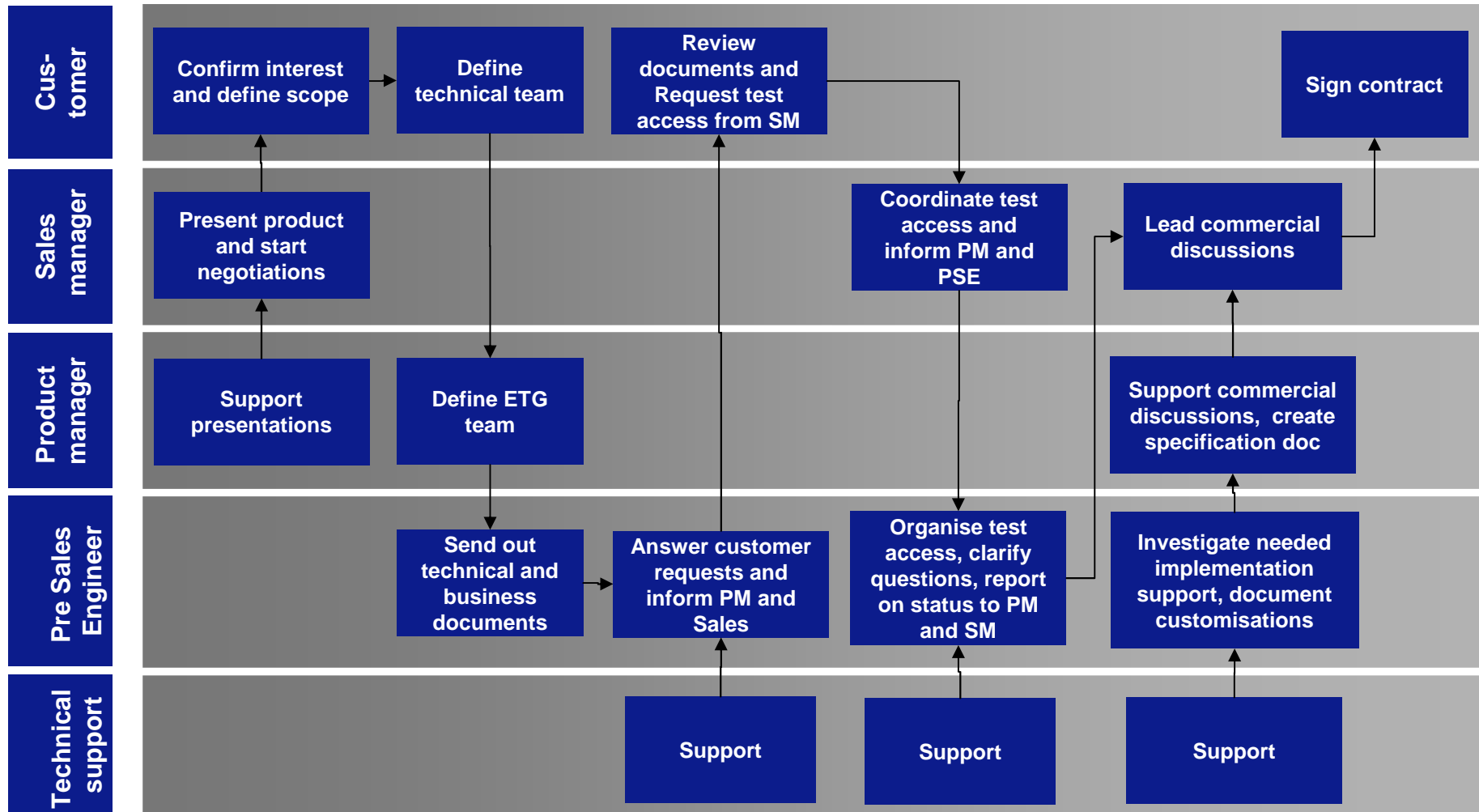
Timing →

„Everything to allow our customers to make the right choice “

# WebService Sales process

Responsible

Process

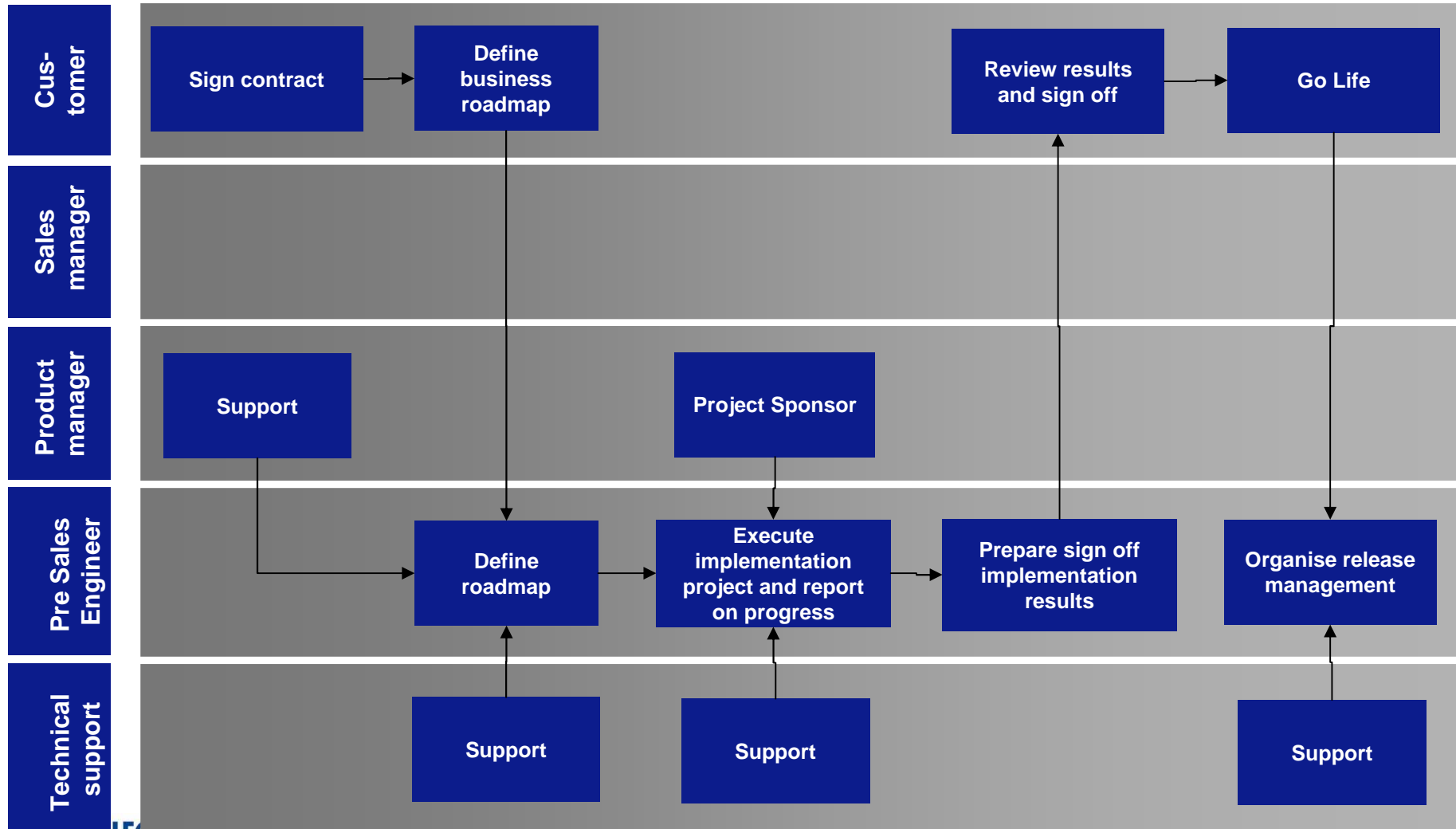


„Optimal support is guaranteed“

# WebService Project implementation

Responsibilities

Process



## Available support documents and tools

Name	Target audience	Description
Sales presentation (under progress)	Customers business decision makers	High level description and motivation about WS
WS interface descriptions	Customers IT team	Detailed technical description about WS and how to technically use it
Test application including GUI ( graphical user interface )	Customers IT team	Small sample demo program, how to use WebServices
Order form for test access	ETG sales and customer	Collects all relevant information to organise test access
Product description	ETG Sales for contract definition	Add on for the contracts to define scope of work. On pagers to be completed by interface descriptions

# From Webservice to Application – the IT context

