CONVISTA
moving ahead

Mobility in transition

May 2017, Cologne

#01 ConVista – a strong partner

#02 Mobility in transition – your chance

#03 ConVista PAVE

#01 ConVista – a strong partner

Since 1999, ConVista offers its customers expert advice with extensive technical and methodological competence.

Operationalization of your business strategy

- Design and optimization of business processes
- Advice on technical problems and their operational (technical) implementation

Competent partner for process optimization via software integration and development

- Implementation, optimization and maintenance of SAP software and portals based on Microsoft®/SAP technology
- Development and expansion of Java, ABAP and .Net solutions

Domain Know-how
Branchenspezifische Kernprozesse
Customer & Sales
SAP Expertise
Energiewirtschaft
Finanzen
Versicherung
Bankwesen
Software Architektur
Analytics
Vorkonfigurierte Lösungen (RDS)
Portale & Collaboration
Java Entwicklung
Treasury & Financial Asset Management
Payment Management
Business Consulting

Overview of ConVista – figures, data, facts

350
customers

680
employees

78
million revenue

19
locations worldwide

18
years organic growth

10
of the top 30 DAX companies (Germany) belong to our customer base

22
out of the 30 biggest German utilities belong to our customer base

1
principle

CONVISTA

We advise our customers throughout the entire value chain of our competence centers.

From the identification of strategic issues to the organizational and technical implementation on site

	Business Consulting	Application Lifecycle Management	Custom Development Service	Innovations
Analytics	Planning, Reporting & Compliance			
Financials	Financials & Controlling, Consolidation			
Payment Management	Payment & billing management			
Sales & Service	Sales Force Management, Sales Operations & Customer service			
Collaboration & Communication	Portals & Social Intranets, Self-Services, SharePoint-SAP integration, User Centered Design			
Treasury & Financial Asset Management	Cash- & liquidity management, Hedge Management, Commodity risk management			
Industry-specific core processes	**Insurance, energy & banking**			

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The most important part of our success: our customer satisfaction

Extract

Insurance industry

achmea ▪ AIG ▪ Allstate ▪ ARAG ▪ Assimoco ▪ AXA ▪ Capita Insurance Services ▪ Car Garantie ▪ Catalana Occidente ▪ CNP Vida ▪ CSS Versicherungen ▪ Daimler Financial Services ▪ DBV-Winterthur ▪ Delta Lloyd ▪ Deutscher Ring ▪ DEVK Versicherungen ▪ ERGO ▪ Euro Hypo ▪ Folksam ▪ GenRe ▪ Gothaer ▪ Great Western Insurance Company ▪ Groupama ▪ Gruppo Generali ▪ HDI Gerling ▪ Heidelberger Leben ▪ Helsana ▪ ICBC ▪ Inter Versicherungen ▪ Liberty Seguros ▪ Línea Directa ▪ LV 1871 ▪ Mapfre ▪ Mannheimer Versicherungen ▪ Mass Mutual Financial Group ▪ MLP ▪ Munich RE ▪ MVA Fund ▪ Ocaso ▪ Old Mutual ▪ Provinzial ▪ R+V Versicherung ▪ Regent Life ▪ Santalucía ▪ SCOR ▪ Signal Iduna ▪ Standard Life ▪ Stuttgarter ▪ SV Versicherungen ▪ Swiss Life ▪ Techniker Krankenkasse ▪ VHV Versicherungen ▪ Vienna Insurance Group ▪ Volkswagen Financial Services ▪ Wüstenrot & Württembergische ▪ Zurich

Energy industry

E.ON ▪ EnBW ODR ▪ Energieversorgung Leverkusen ▪ ENSO Energie ▪ envia Mitteldeutsche Energie ▪ eprimo ▪ EWE ▪ Gelsenwasser ▪ Industrielle Werke Basel ▪ Mainova ▪ NEW Niederrhein Energie und Wasser ▪ MVV Energie ▪ RheinEnergie ▪ SpreeGas ▪ Stadtwerke Düsseldorf ▪ Stadtwerke Leipzig ▪ Stadtwerke Mainz ▪ Stadtwerke München ▪ SÜWAG ▪ Syna ▪ Thüga

Banking

ABSA ▪ Blackrock ▪ Caixa Catalunya ▪ GMAC Bank ▪ ING Bank ▪ ISBAN SL ▪ La Caixa ▪ Lloyds TSB ▪ Northern Trust ▪ Santander Group ▪ Standard Bank

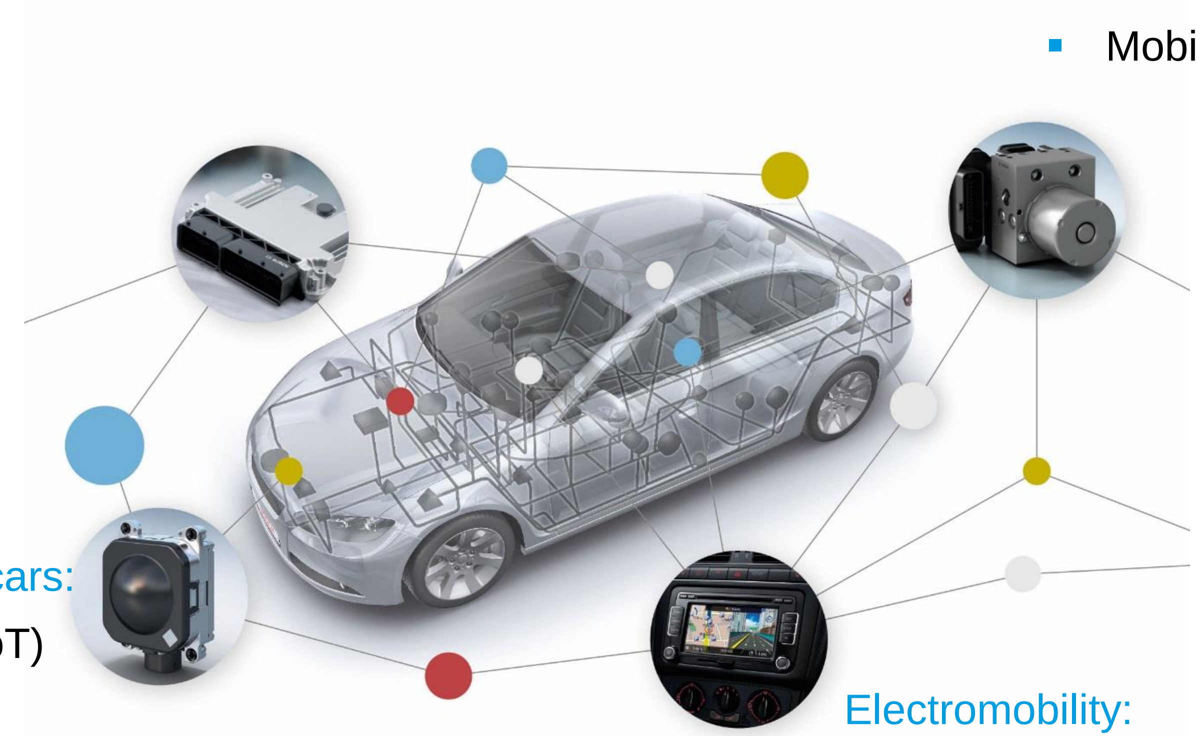
Other sectors

ADP ▪ Arborea 3A ▪ Business Connexion ▪ M. DuMont Schauberg ▪ Melitta ▪ MLP ▪ NetCologne ▪ o2 ▪ OBI ▪ Porcelanosa ▪ REWE Group ▪ Risogallo ▪ SAP ▪ Telefonica ▪ Ticketmaster ▪ Telekom ▪ Toyota Tsusho ▪ TÜV Rheinland ▪ WAZ Mediengruppe

#02 Mobility in transition – your chance

Mobility is in transition...

The new economy of sharing…



Autonomous driving:

- Mobility: tied to a station vs. not tied to a station

The change in value:

- Status symbol vs. object of utility
- Renouncement of an own car
- Sharing-Community

New market participants:

- Uber
- Tesla
- Google

Interconnectedness of cars:

- Internet of Things (IoT)
- eCall
- Hotspot
- Blockchain

Electromobility:

- E-filling station
- Traffic control

Usage behavior is changing to sharing models

…and the business models are changing

… the Silikon Valley is leading the way

The business model based on individual traffic with an own car is changing:

- Technologies such as combustion engines are being challenged.
- Uncertainty about the future market participants (Old Economy vs. Silicon Valley) and their roles
- New providers of products and services

New markets are emerging and existing business models are questioned

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New challenges are setting new trends

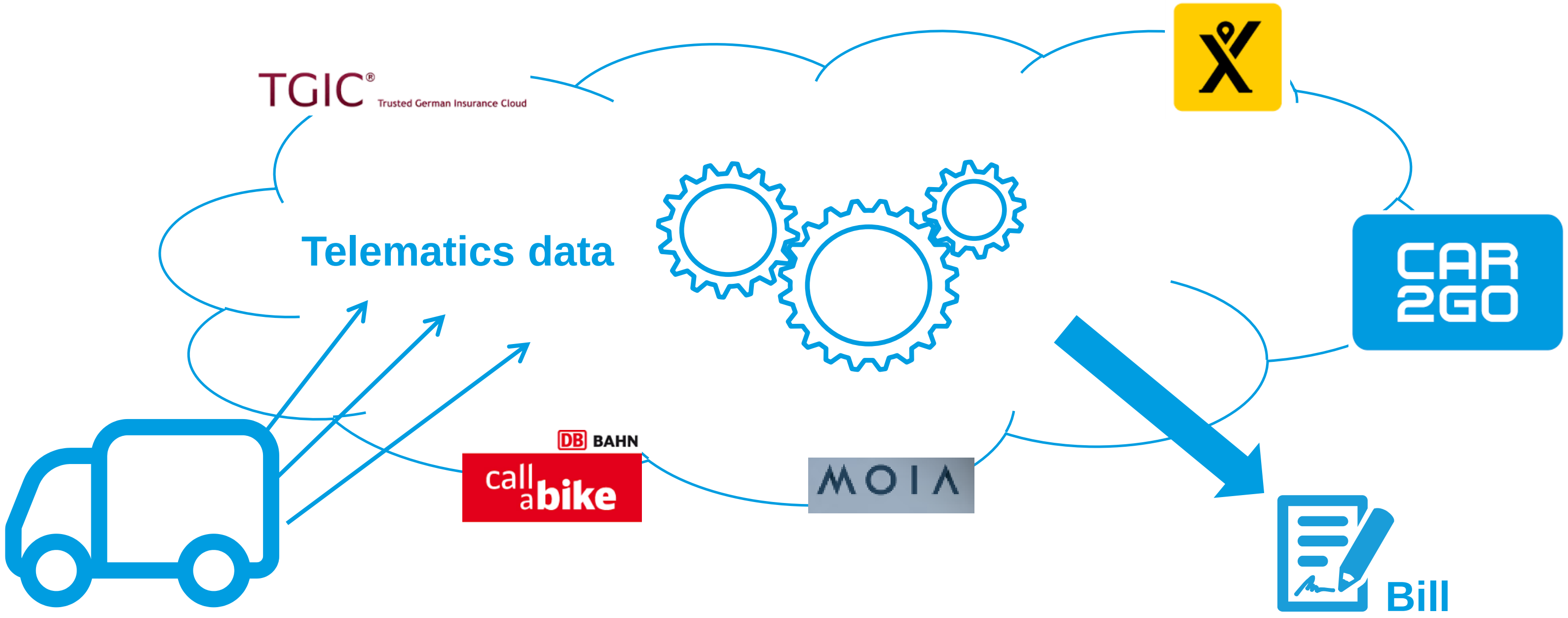
- The current offers regarding the individual mobility do not adequately cover the **growing technology** and **customer needs of the future.**
- New offers must be submitted to the customers and their needs to cover them and to grow with them.

Solution: Positioning as partner of mobility services

Your chance – to design the change

Establishment of a billing platform for vehicle insurances

The market is occupied on the basis of the existing business model Pay-As-You-Drive.
The platform forms the basis for the billing of own and third-party services in the medium term.



Billing platform for insurance companies as a pioneer of new mobility services

Your benefit

Participation in future innovations

- On the basis of the existing business model own services can be offered
  - Insurances for car or ride sharing
  - Spot Insurance
  - Risky routes
  - Insurance for autonomous driving
  - Fleets
- Additional services regarding billing such as billing for sharing communities
- Renting the platform to new service providers/ start-ups for still unknown mobility concepts
- Partner for other mobility providers
- Re-use of legacy core insurance systems

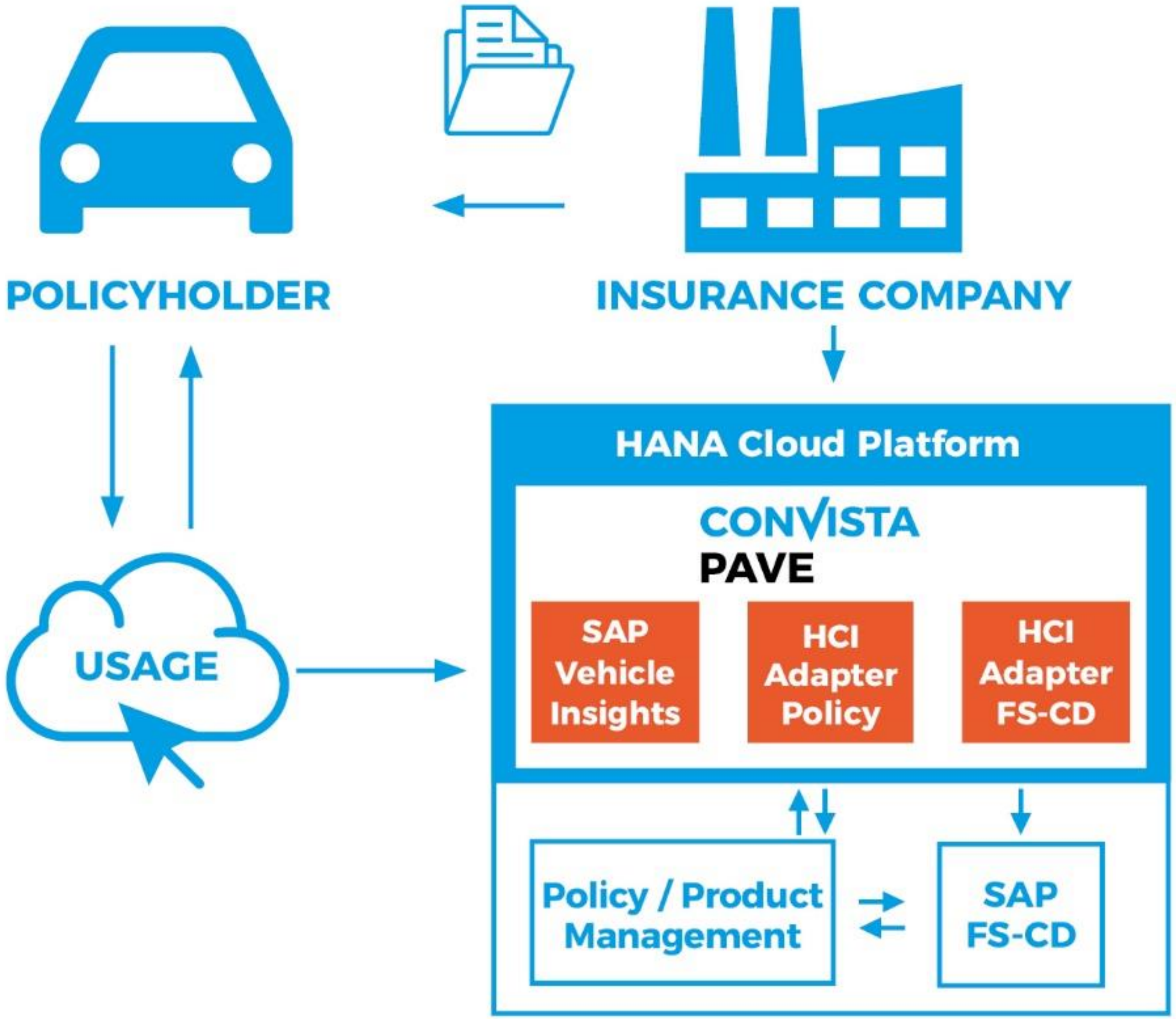
ConVista – your partner for the change

ConVista Payment Vehicle (PAVE)

- ConVista PAVE provides a billing platform for a usage-based insurance (UBI) and reduces the investment costs
- The cloud-based solution on HANA technology makes you fit for the future
- An open infrastructure enables the integration of various services
- As experts in the insurance market, we ensure an uncomplicated integration into the insurance core systems
- We enable with Faktor-IPS legacy core insurance systems to handle policies based on usage-based insurance. Faktor-IPS is our Open Source product system and modeling tool for modern, java-based, core insurance solutions.

#03 ConVista PAVE

Summary of ConVista PAVE



Process summary ConVista PAVE

Usage
- Telematics and GPS (regarding the driving behavior) are recorded and transmitted

SAP Vehicle Insights
- prepares the data for the individual journey in a consistent format

HCI Adapter Policy
- Provides product and price details (for example for highway kilometers, night drives, full braking etc.)
- Updates the contract history

PAVE
- Assigning the rides to a contract
- Calculates the premium based on usage,
- Provides analysis tools to optimize rates
- Provides information for a customer portal/ a customer app

HCI Adapter FS-CD
- Calls WebServices to book the premium

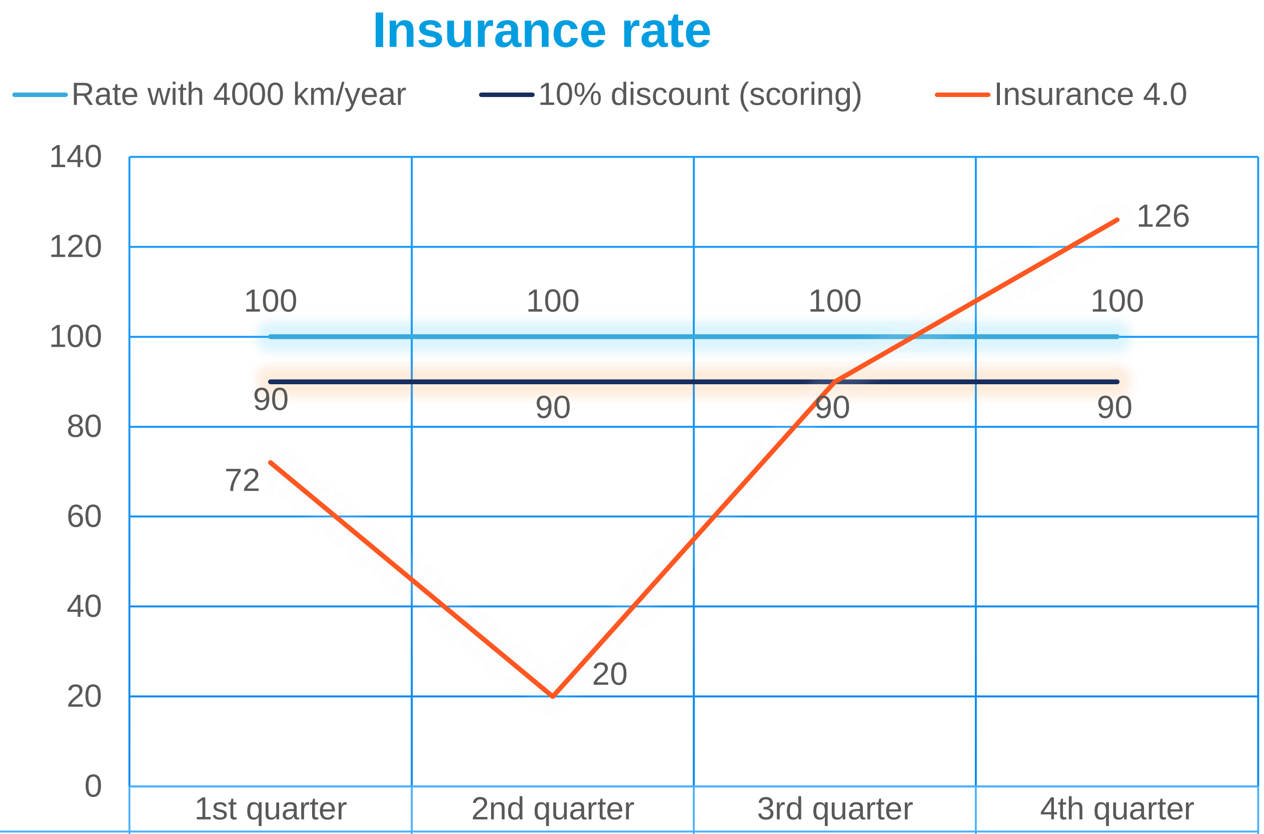
SAP FS-CD
- The receivable is managed with standard processes and the amount is requested if necessary (e.g. by a reminder)

A fully automatic procedure allows the processing of large amounts of data.

Scoring vs. Insurance 4.0 with ConVista PAVE

An example:

- Estimated miles/year
  4000 km
- Exemplary driving behavior
- 800 km – 1st quarter
- No tours in the 2nd quarter
- 1000 km – 3rd quarter
- 1400 km – 4th quarter



	1st quarter	2nd quarter	3rd quarter	4th quarter
Rate with 4000 km/year	100	100	100	100
10% discount (scoring)	90	90	90	90
Insurance 4.0	72	20	90	126

Existing scoring approaches can be reused or extended.

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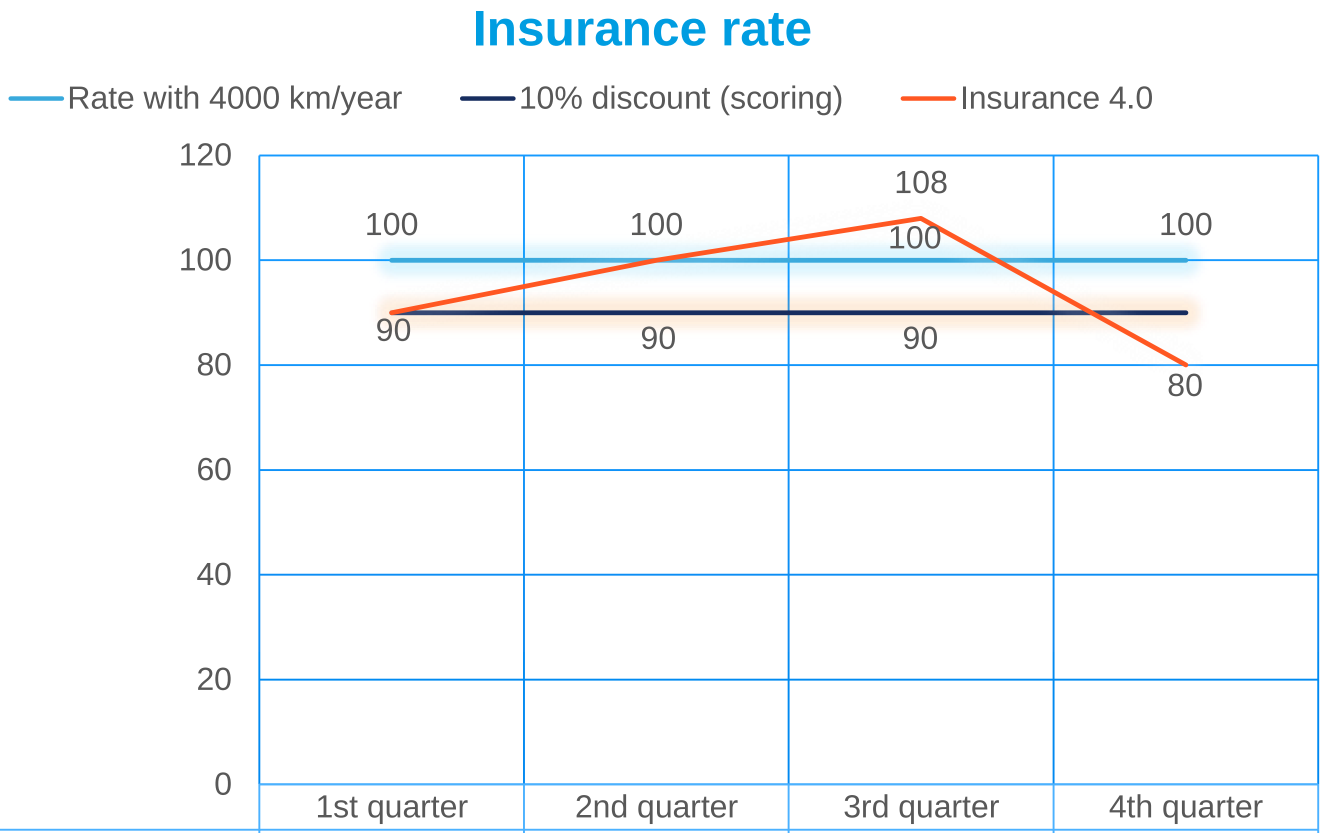
Scoring vs. Insurance 4.0 with ConVista PAVE

An example:

- Estimated miles/year = 4000 km
- Exemplary driving behavior
- 1000 km – 1st quarter
- 1000 km – 2nd quarter
  + 20 accelerations/
  braking manoeuvres
- 1200 KM – 3d quarter
- 800 KM – 4th quarter
  + 20 accelerations/
  braking manoeuvres



	1st quarter	2nd quarter	3rd quarter	4th quarter
Rate with 4000 km/year	100	100	100	100
10% discount (scoring)	90	90	90	90
Insurance 4.0	90	100	108	80

In addition, the driver's behavior can be taken into account regarding the rate calculation.

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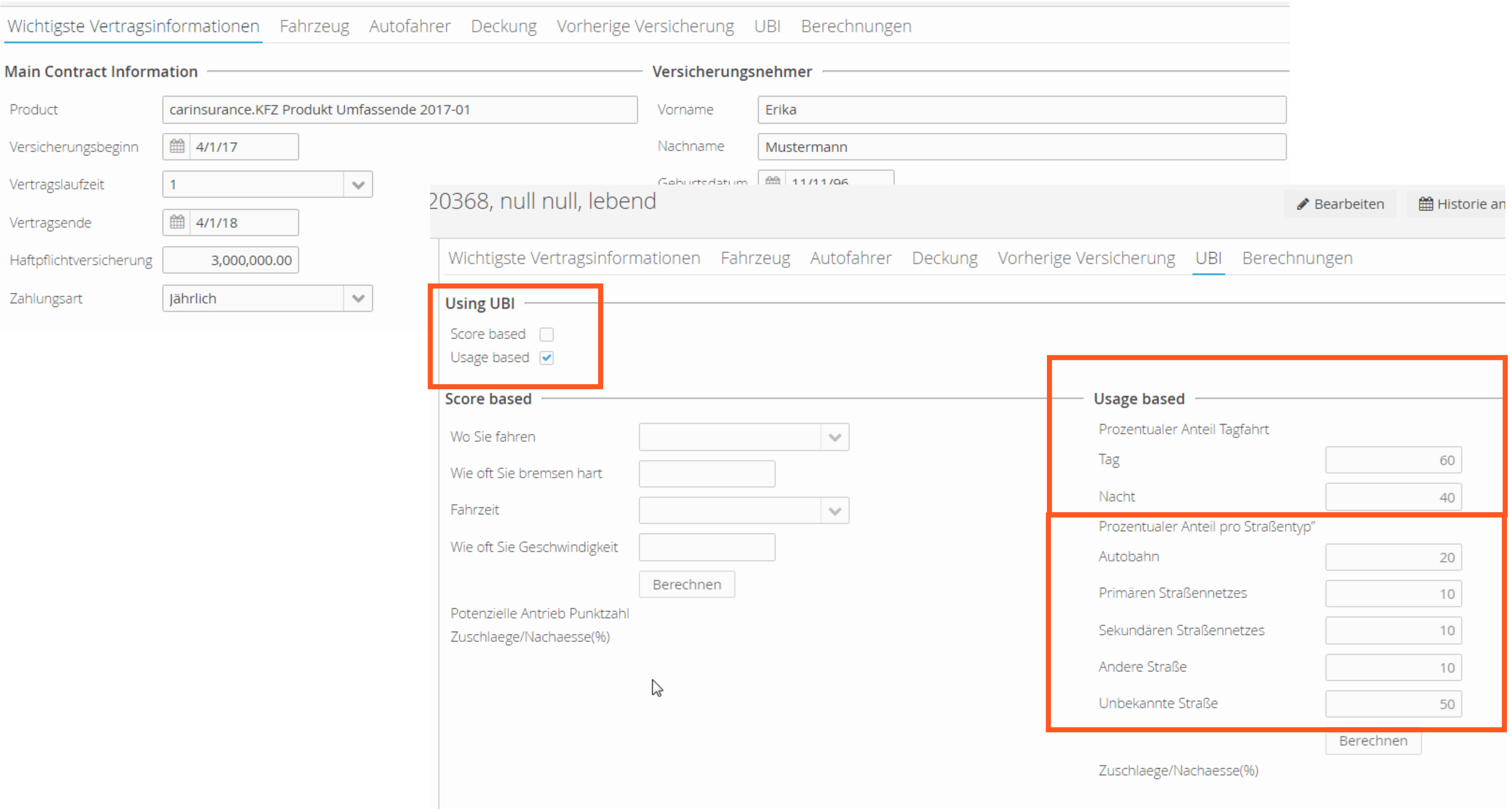
Consumption-based real-time billing with SAP

First, an insurance contract must be created in the existing system (here Faktor-IPM).



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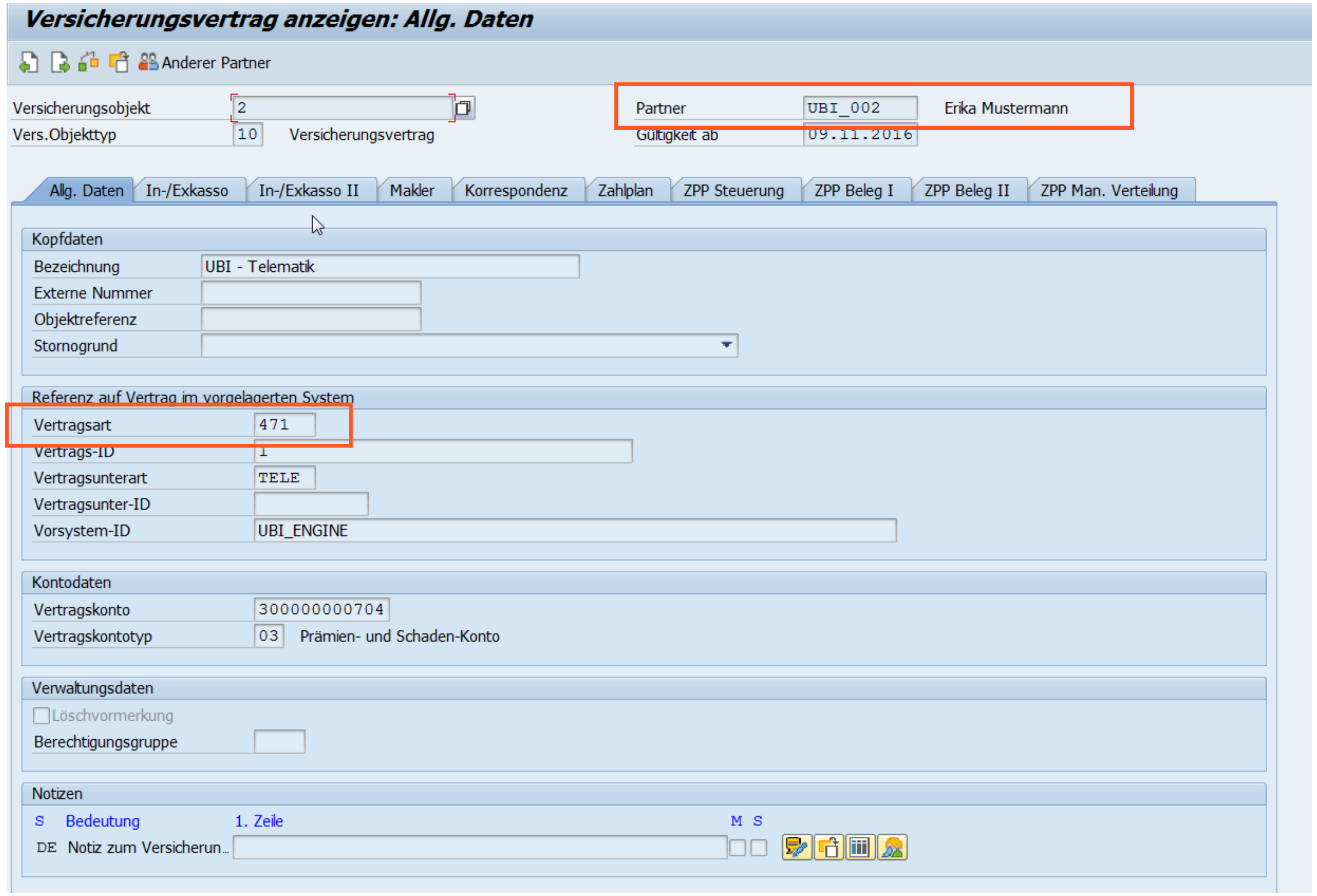
Consumption-based real-time billing with SAP

The policyholder is generated as an SAP business partner (GP) and the insurance contract is generated as an SAP FS-CD insurance object.



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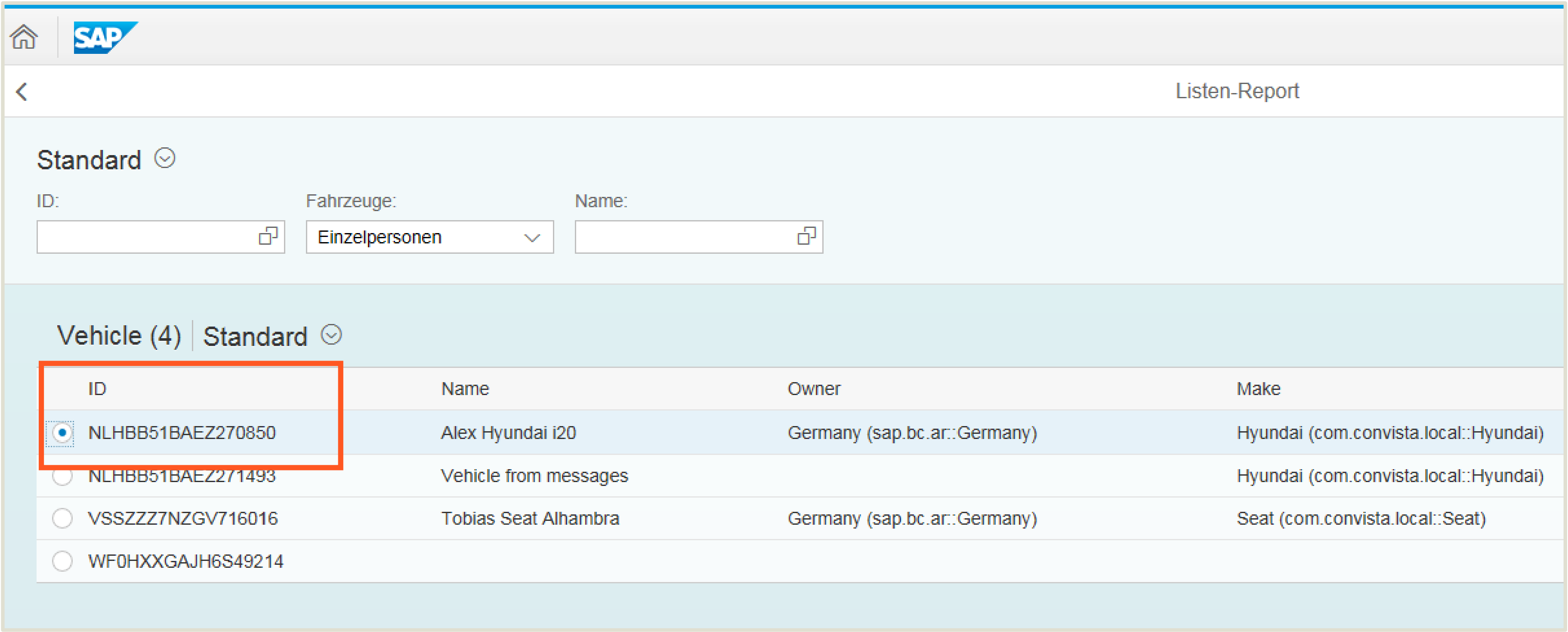
ConVista PAVE

The legacy system is connected to the cloud by the Hana Cloud Integration (HCI) and the vehicle is generated in SAP Vehicle Insights and ...



ConVista PAVE

…it is linked in ConVista PAVE to the insurance contract, the SAP GP and the SAP FS-CD insurance object.

v 1.110.18 | Help | DEVELOPER | JVW | JVW (vad

Now editing: UBI/ub

ubi.table::vehicledata | ubi.table::policies | **ubi.table::policies**

3 row(s)

sap_policy_ide…	sap_bp_id	vehicle_identifier	source_system	name	surname	email
0	UBI_001	VSSZZZ7NZGV716016	EIS	Max	Mustermann	max@mustermann.de
1	UBI_002	NLHBB51BAEZ270850	EIS	Erika	Mustermann	erika@mustermann.de
0	UBI_001	WF0HXXGAJH6S49214	EIS	Maxi	Mustermann	maxi@mustermann.de

ConVista PAVE

Telematics and GPS data are transmitted to SAP Vehicle Insights and they are assigned to the insurance contract through the vehicle identification number (VIN).


```
{
  "Time": "10.11.2016 01:47:12.2258 nachm.",
  "Latitude (deg)": 49.29633,
  "Longitude (deg)": 8.646609,
  "Vehicle speed (km/h)": 30,
  "Accel X (m/s2)": -1.245292,
  "Accel Y (m/s2)": 4.547754,
  "Accel Z (m/s2)": -4.658683,
  "VIN": "NLHBB51BAEZ270850"
},
```

```
{
  "Time": "10.11.2016 01:47:13.1687 nachm.",
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  "Longitude (deg)": 8.64656,
  "Vehicle speed (km/h)": 31,
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  "Accel Z (m/s2)": -0.720666,
  "VIN": "NLHBB51BAEZ270850"
},
```

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  "Accel Z (m/s2)": 1.32233,
  "VIN": "NLHBB51BAEZ270850"
}
```


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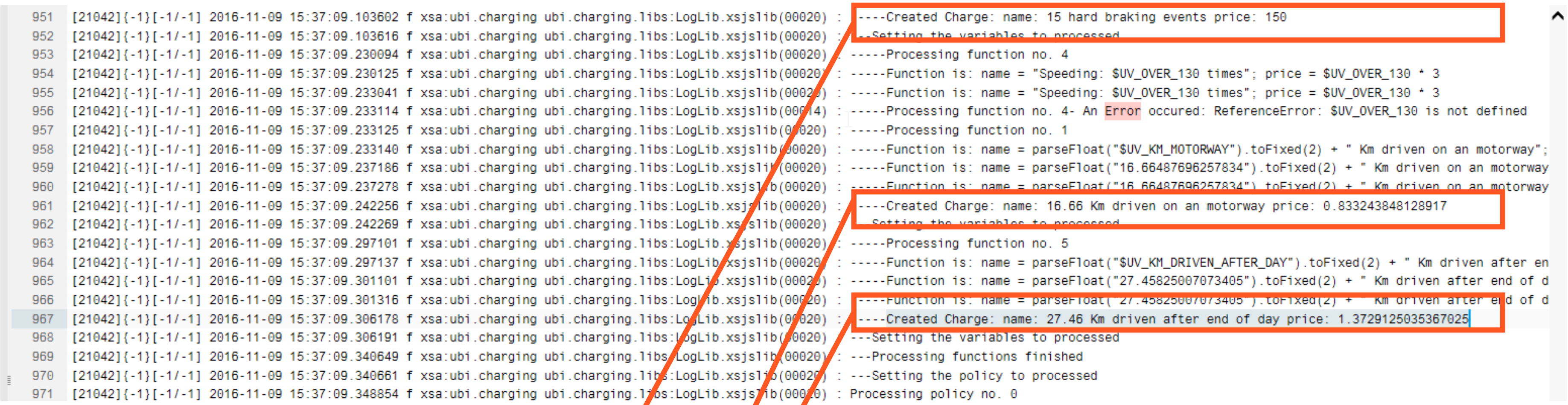
ConVista PAVE

In ConVista PAVE the drives are “evaluated" according to their tarif details from Faktor-IPM and the insurance premium will be calculated.



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[21042]{-1}[-1/-1] 2016-11-09 15:37:09.103602 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : ----Created Charge: name: 15 hard braking events price: 150
[21042]{-1}[-1/-1] 2016-11-09 15:37:09.103616 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : --Setting the variables to processed
[21042]{-1}[-1/-1] 2016-11-09 15:37:09.230094 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : -----Processing function no. 4
[21042]{-1}[-1/-1] 2016-11-09 15:37:09.230125 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : -----Function is: name = "Speeding: $UV_OVER_130 times"; price = $UV_OVER_130 * 3
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[21042]{-1}[-1/-1] 2016-11-09 15:37:09.233125 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : -----Processing function no. 1
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[21042]{-1}[-1/-1] 2016-11-09 15:37:09.242256 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : ----Created Charge: name: 16.66 Km driven on an motorway price: 0.833243848128917
[21042]{-1}[-1/-1] 2016-11-09 15:37:09.242269 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : --Setting the variables to processed
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[21042]{-1}[-1/-1] 2016-11-09 15:37:09.297137 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : -----Function is: name = parseFloat("$UV_KM_DRIVEN_AFTER_DAY").toFixed(2) + " Km driven after en
[21042]{-1}[-1/-1] 2016-11-09 15:37:09.301101 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : -----Function is: name = parseFloat("27.45825007073405").toFixed(2) + " Km driven after end of d
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[21042]{-1}[-1/-1] 2016-11-09 15:37:09.306178 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : ----Created Charge: name: 27.46 Km driven after end of day price: 1.3729125035367025
[21042]{-1}[-1/-1] 2016-11-09 15:37:09.306191 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : ---Setting the variables to processed
[21042]{-1}[-1/-1] 2016-11-09 15:37:09.340649 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : ---Processing functions finished
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[21042]{-1}[-1/-1] 2016-11-09 15:37:09.348854 f xsa:ubi.charging ubi.charging.libs:LogLib.xsjslib(00020) : Processing policy no. 0
```

Within the rate calculation the usage will be considered as for example

- strong braking maneuvers
- the route type (highway etc.)
- or the time (night drives)

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The calculation results…

policy_id	name	price	proce
1	15 hard braking events	150	0
1	16.66 Km driven on an motorway	0.833243848128917	0
1	27.46 Km driven after end of day	1.3729125035367024	0
1	1 times driven after end of day	5	0
1	15 hard braking events	150	0
1	1 times driven after end of day	5	0
0	Basic fee	5	0

ConVista PAVE

…can be displayed to the policyholder by an app. They are also available to the insurance company as data basis for evaluations.

UBI

Erika Mustermann - ID: 1

Recent charges

Name	Price	Date	Status
27.46 Km driven after end of day	1.37	09.11.2016	
16.66 Km driven on an motorway	0.83	09.11.2016	
15 hard braking events	150	09.11.2016	
1 times driven after end of day	5	09.11.2016	
27.46 Km driven after end of day	1.37	08.11.2016	

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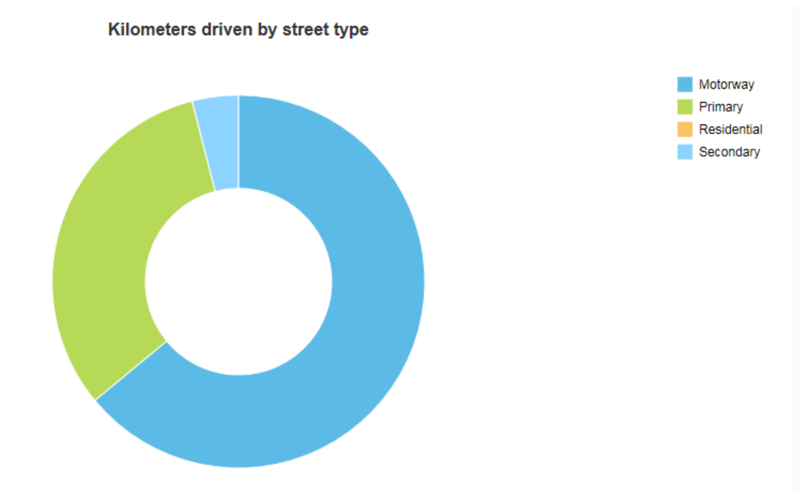
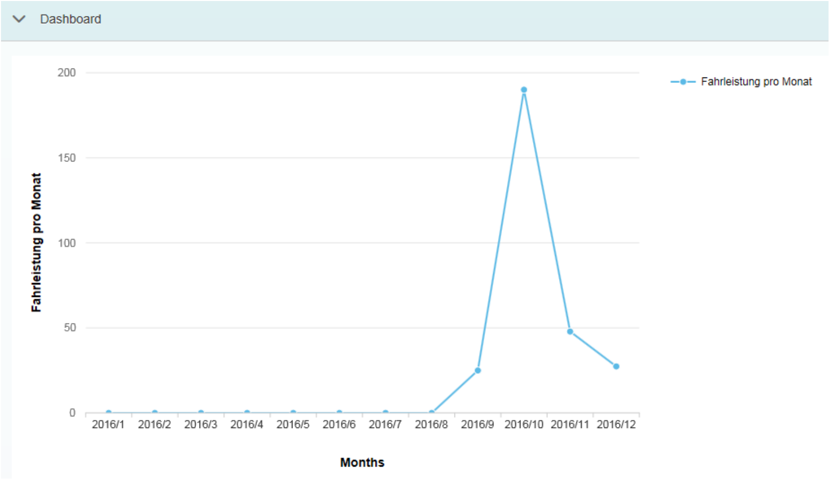
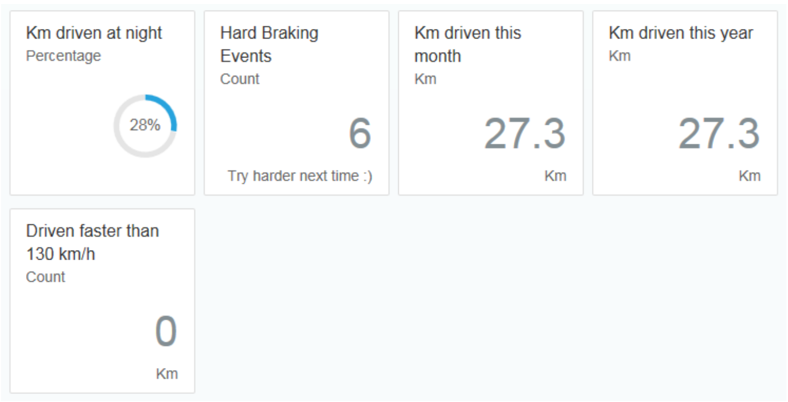
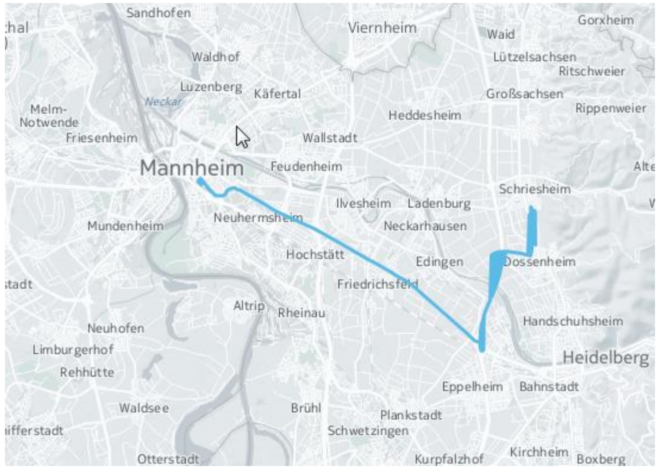
Based on HTML5, it is possible to create interfaces for apps or portals.









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ConVista PAVE Engine sends the billing data through a secure HCI-connection to the FS-CD.


```
    </OriginBusinessTransactionDocumentReference>
  </BusinessTransactionDocumentReference>
- <Item>
    <ID>1</ID>
    <InsuranceProductID>1</InsuranceProductID>
    <TypeCode>KM</TypeCode>
    <DueDate>2016-11-09</DueDate>
  - <BaseDatePeriod>
      <StartDate>2016-11-09</StartDate>
      <EndDate>2016-11-09</EndDate>
    </BaseDatePeriod>
  - <CoverageDatePeriod>
      <StartDate>2016-11-09</StartDate>
      <EndDate>2016-11-09</EndDate>
    </CoverageDatePeriod>
    <DirectlyCollectedIndicator>false</DirectlyCollectedIndicator>
  - <Party>
    - <DebitorCreditorParty>
        <BusinessPartnerInternalID>UBI_002</BusinessPartnerInternalID>
      </DebitorCreditorParty>
    - <PaymentProcessingParty>
        <BusinessPartnerInternalID>UBI_002</BusinessPartnerInternalID>
      </PaymentProcessingParty>
    </Party>
  - <PaymentControl>
      <PropertyMovementDirectionCode>2</PropertyMovementDirectionCode>
      <PaymentFormCode>01</PaymentFormCode>
      <PaymentAmount currencyCode="EUR">1.37</PaymentAmount>
    </PaymentControl>
  </Item>
```


Billing can be done daily, monthly, etc.

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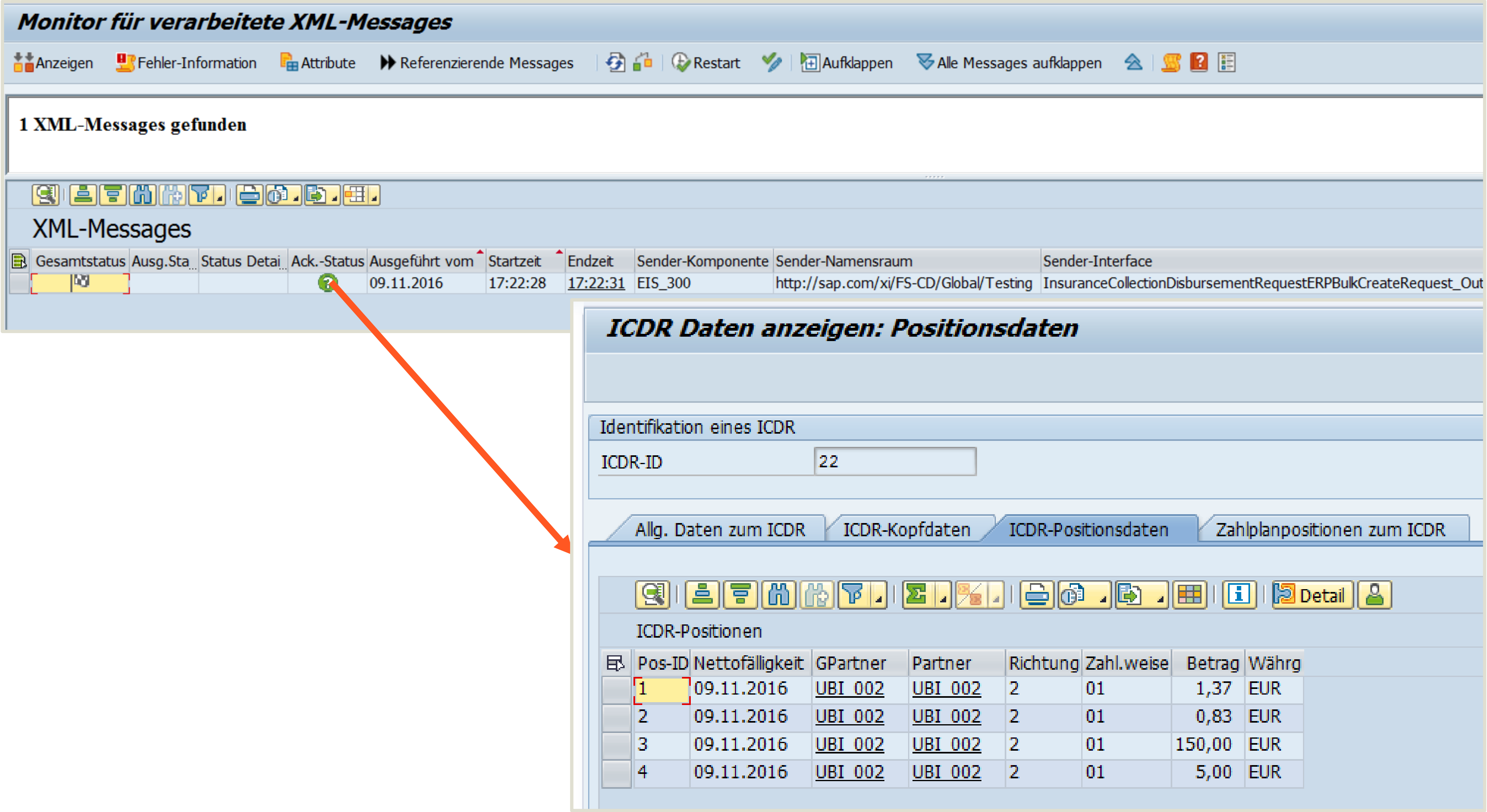
SAP FS-CD processes the message and ...



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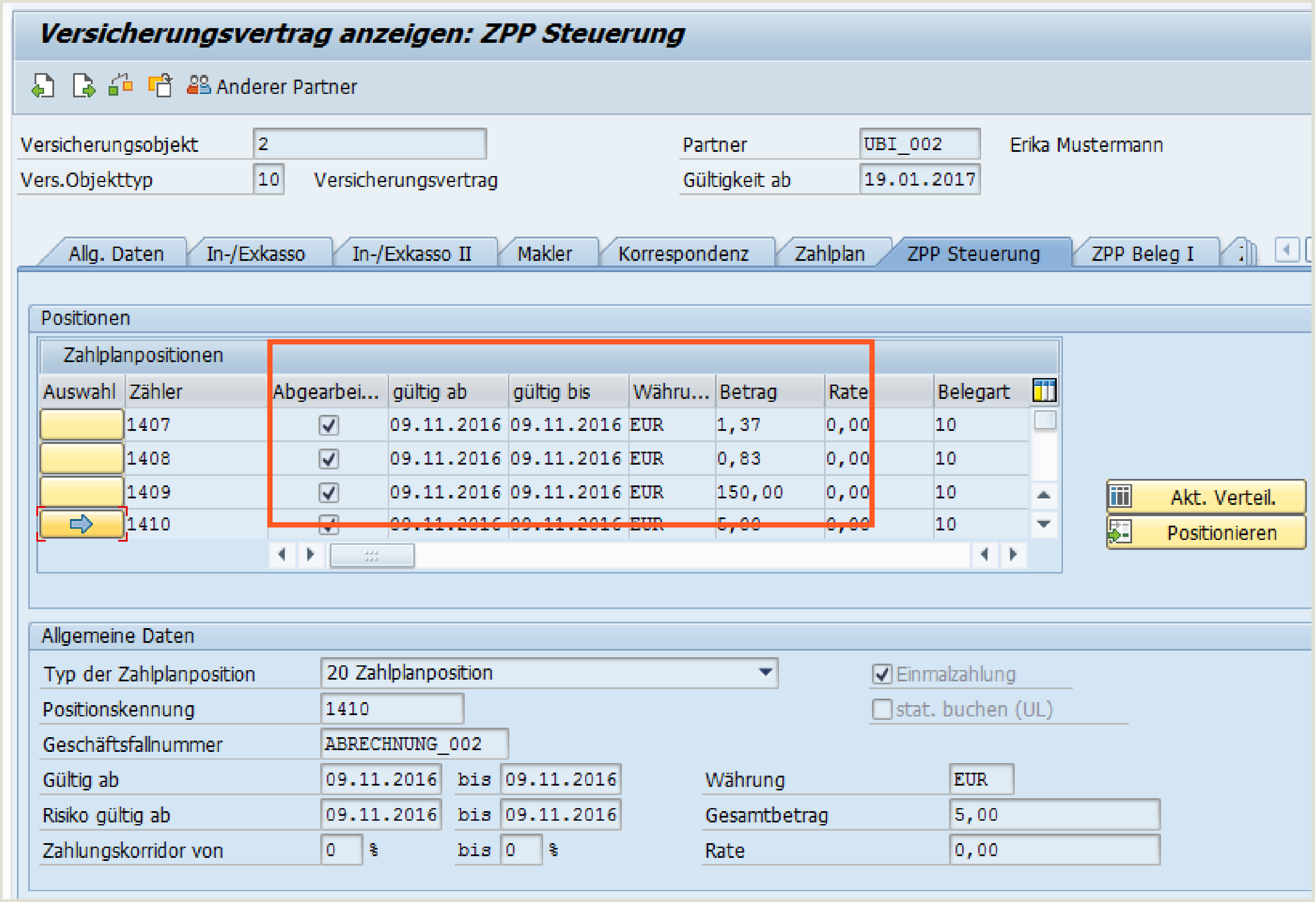
…and creates payment plan items on their basis.



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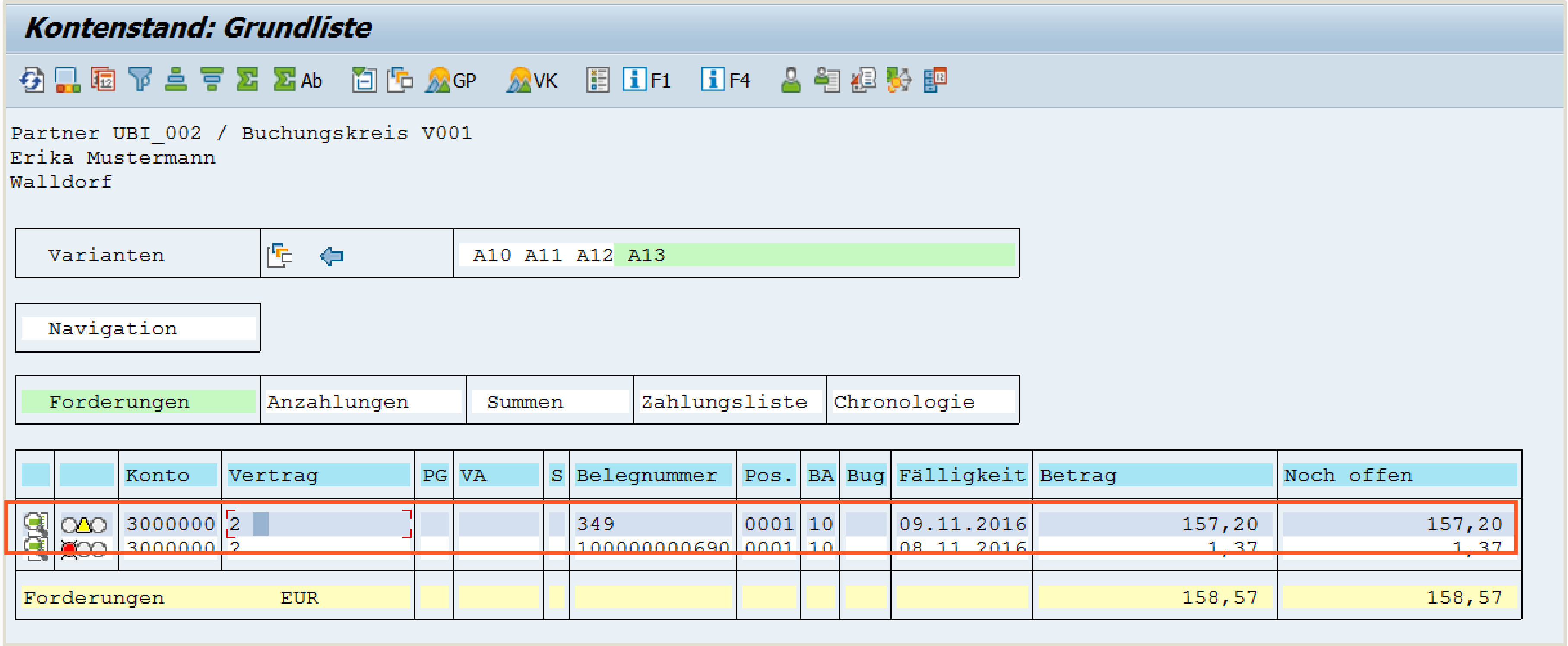
They are placed on the debit side and posted in a receipt.



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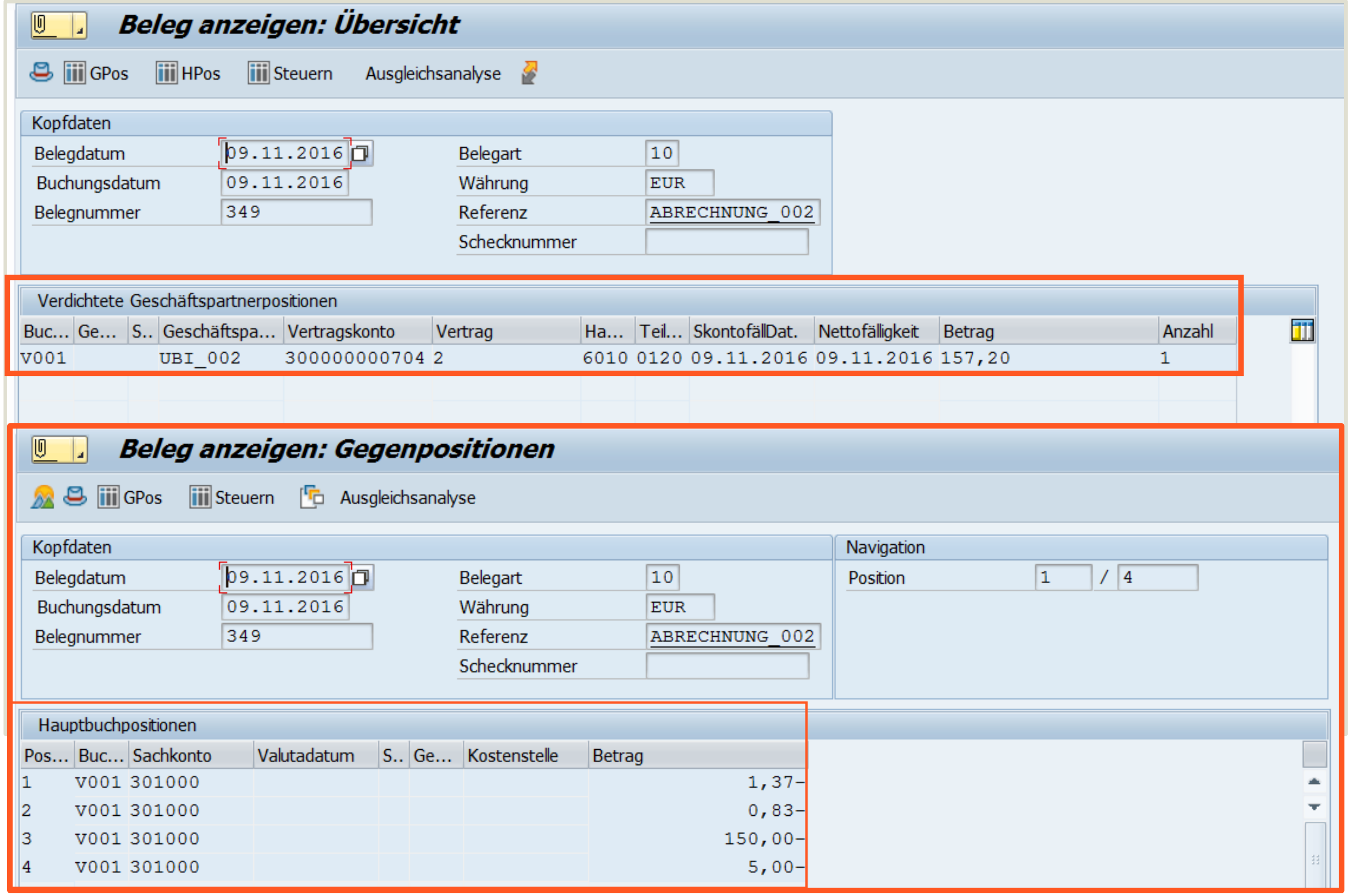
The receipt includes the billing details



CONVISTA

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Associate Partner

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tobias.mangei@ConVista.com

Thank you

for your attention!

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