



DIGITALIZATION

Operational improvements through FVL digitalisation

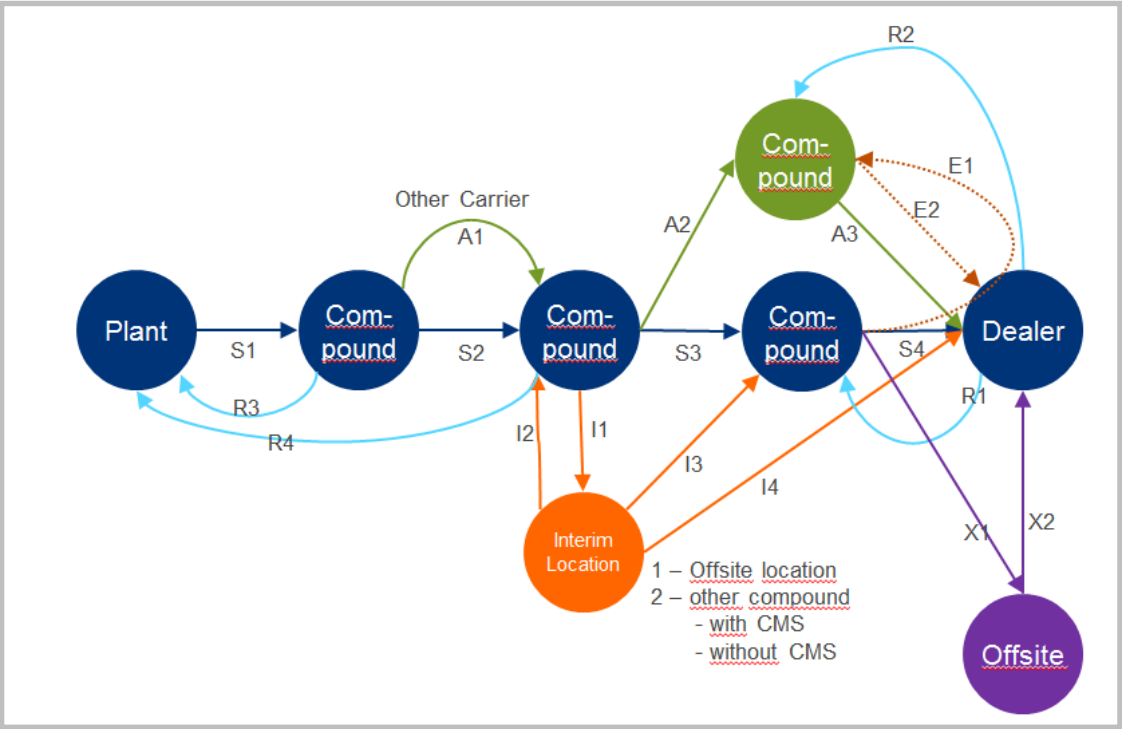
Hartmut Haubrich

Mainz, 26. Oct. 2018

A large parking lot filled with rows of cars, overlaid with a teal semi-transparent rectangle containing text.

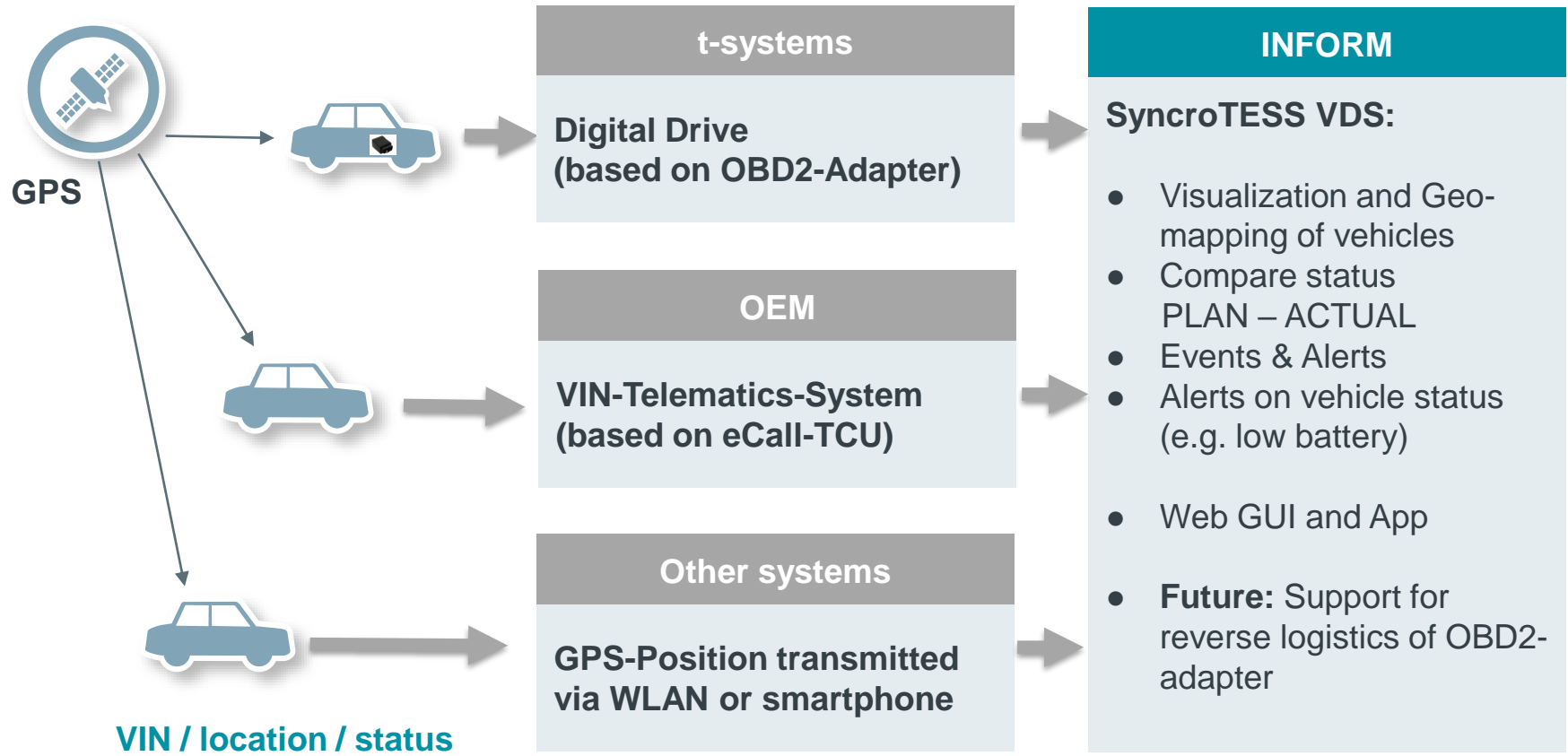
Operational Improvements through Vehicle based telematics

Finished Vehicle Logistics



Where is the vehicle?

Vehicle-based Telematics // Track & React



Vehicle-based Telematics // Trace of 1 VIN

The screenshot displays a web-based interface for vehicle telematics. The main window is titled 'VIN Radar' and shows a map of Dublin, Ireland. The map features a network of roads and a specific vehicle trace highlighted in red. A blue circle highlights a specific area on the map. The interface includes a top navigation bar with 'WebGUI', 'Home', 'Custom', 'Cockpit', 'Operations', 'Messages', and 'TMS'. A left sidebar contains 'Vehicle' and 'Tour' sections. A bottom status bar shows 'Windows aktivieren' and 'Wechseln Sie zu den Einstellungen, um Wi...'. A right sidebar shows a table with columns 'Final I' and 'TRUS'.

Final I	TRUS
681	TRUS
707	TRUS
853	TRUS
707	TRUS
707	TRUS
715	DESM
853	TRUS
681	TRUS
707	TRUS
702	TRUS

Vehicle-based Telematics // snapshot of Multiple VINs

The screenshot displays a web-based interface for vehicle tracking. At the top, a navigation bar includes 'WebGUI', 'Home', 'Custom', 'Cockpit', 'Operationen', 'Nachrichten', and 'TMS'. Below this, a 'VIN Radar' window is open, showing a map of the Dublin Port area. A blue circle highlights a specific location on the map, near the 'Dublin Port Turnoff'. To the right of the map, a data panel provides details for the selected vehicle:

- VIN: [redacted]
- Zusätzliche ID: [redacted]
- Standort Code: DUBLIN_PORT
- Globaler Status: ON_COMPOUND
- Lieferzeit: [redacted]
- Nächster Standort: [redacted]
- Hersteller: [redacted]
- Modell: [redacted]
- Schäden: 0
- Sperren: 0
- Aktive Sperren: [redacted]
- bestell. Händler: [redacted]
- Finaler Standort: [redacted]
- Externe Farbe: [redacted]

At the bottom of the map, there are checkboxes for 'edges', 'gps', 'nextlocation', 'finallocation', and 'vin' (which is checked). A 'Lesezeichen' (bookmarks) section is visible at the bottom left. On the right side of the interface, a table with columns 'Stan...' and 'Final I' is partially visible, showing a list of vehicle records. A 'Windows aktivieren' (activate windows) message is displayed at the bottom right of the VIN Radar window.

Vehicle-based Telematics // Location & Geofencing

The screenshot displays a software interface for vehicle management. At the top, there's a navigation bar with options like 'Home', 'Custom', 'Cockpit', 'Operations', 'Messages', and 'TMS'. Below this is the 'Vehicle Detail Information' section, which includes fields for VIN, Location Code (DUBLIN_PORT), Global Status (ON_COMPOUND), Delivery Time, Make, Model, Damages (0), Active Holds, and Location. A green arrow points to the 'Location' field. To the right is a map of Europe with a green line indicating a route from Dublin, Ireland, through the UK, France, and Belgium. Below the map is a horizontal menu with tabs for 'Locations', 'Yard Orders', 'Service Orders', 'Transport Orders', 'Damages', 'Claims', 'Holds', 'Events', 'Unit Charges', 'Interface Logs', 'Comments', 'Attachments', 'Transport Order Lists', and 'Telematics'. The 'Locations' tab is active, showing a table with 3 entries. The table has columns for Location Code, Local Status, Announced, On Terminal, Loaded, Left, Nr, Order Status, and Location Name. The first row is highlighted in blue. At the bottom right of the table, it says '0 of 3 selected.'.

Vehicle Detail Information

VIN: [blurred] Additional ID: [blurred]
Location Code: DUBLIN_PORT Global Status: ON_COMPOUND
Delivery Time: [blurred] Next Location: [blurred]
Make: [blurred] Model: [blurred]
Damages: 0 Holds: 0
Active Holds: [blurred] Ordering Dealer: [blurred]
Location: [blurred] External Color: [blurred]

Map

Locations | Yard Orders | Service Orders | Transport Orders | Damages | Claims | Holds | Events | Unit Charges | Interface Logs | Comments | Attachments | Transport Order Lists | Telematics

3

Location Code	Local Status	Announced	On Terminal	Loaded	Left	Nr	Order Status	Location Name
[blurred]	Left	2018-06-11 10:18	2018-06-11 10:21			101	Completed	[blurred]
ZEEBRUGGE_PORT	Left		2018-06-14 11:04			102	Completed	ZEEBRUGGE_PORT
DUBLIN_PORT	On terminal		2018-06-24 14:03			1,017	Started	DUBLIN_PORT

0 of 3 selected.

Vehicle-based Telematics // Fuel Level – Battery Voltage - Odometer

The dashboard displays vehicle information and three key telematics metrics: Battery Voltage, Fuel Level, and Odometer. Each metric is presented as a line graph with a corresponding data table.

Vehicle Detail Information

VIN:	Additional ID:
Location Code: DUBLIN_PORT	Global Status: ON_COMPOUND
Delivery Time:	Next Location:
Damages: 0	Model:
Active Holds:	Ordering Dealer:
Final Location:	External Color:

Battery Voltage (Vehicle 63)

Measurement time	Value	Unit
2018-06-13 11:03	12,676.00	mv
2018-06-14 11:04	12,676.00	mv
2018-06-14 11:05	12,676.00	mv
2018-06-14 11:10	12,707.00	mv
2018-06-14 12:58	14,835.00	mv
2018-06-14 12:58	14,865.00	mv

Fuel Level (Vehicle 41)

Measurement time	Value	Unit
2018-06-24 13:33	78.00	%
2018-06-24 13:33	627.00	%
2018-06-24 13:34	352.00	%
2018-06-24 13:34	352.00	%
2018-06-24 13:34	78.00	%
2018-06-24 13:34	352.00	%

Odometer (Vehicle 63)

Measurement time	Value	Unit
2018-06-24 13:35	402,851.00	METER
2018-06-24 13:35	402,881.00	METER
2018-06-24 13:35	402,885.00	METER
2018-06-24 13:35	402,889.00	METER
2018-06-24 13:35	402,889.00	METER
2018-06-24 13:38	402,889.00	METER

Vehicle based Telematics // Conclusion

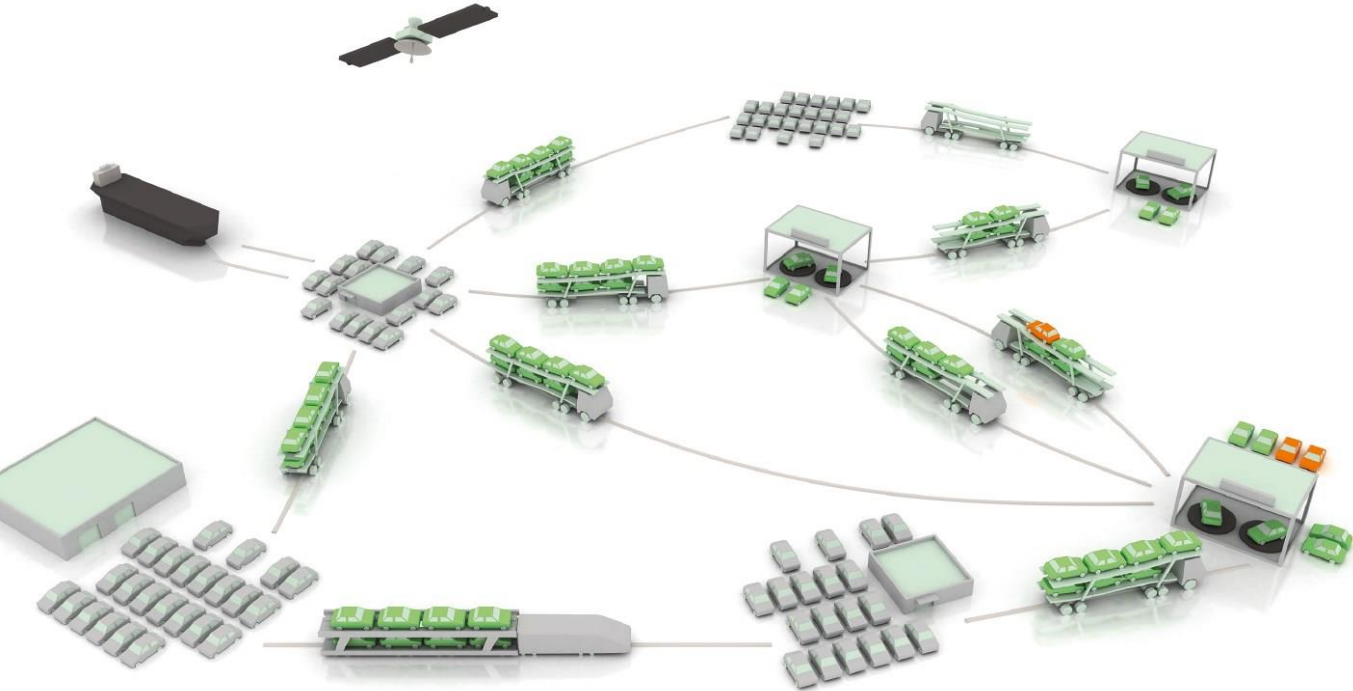
Track & React will

- reduce or eliminate the effort to determine “Where **IS** the VIN?”
- Focus on “Where **SHOULD IT BE** and what is needed to get it there?”

A photograph of a multi-level car carrier truck driving on a highway. The truck is loaded with several cars, including a white sedan on the top level and a blue car on the middle level. The truck's green hydraulic arms are visible. The background shows a clear blue sky and a road with white lane markings. A semi-transparent teal overlay covers the bottom half of the image, containing the title text.

Operational Improvements through Digital Integration

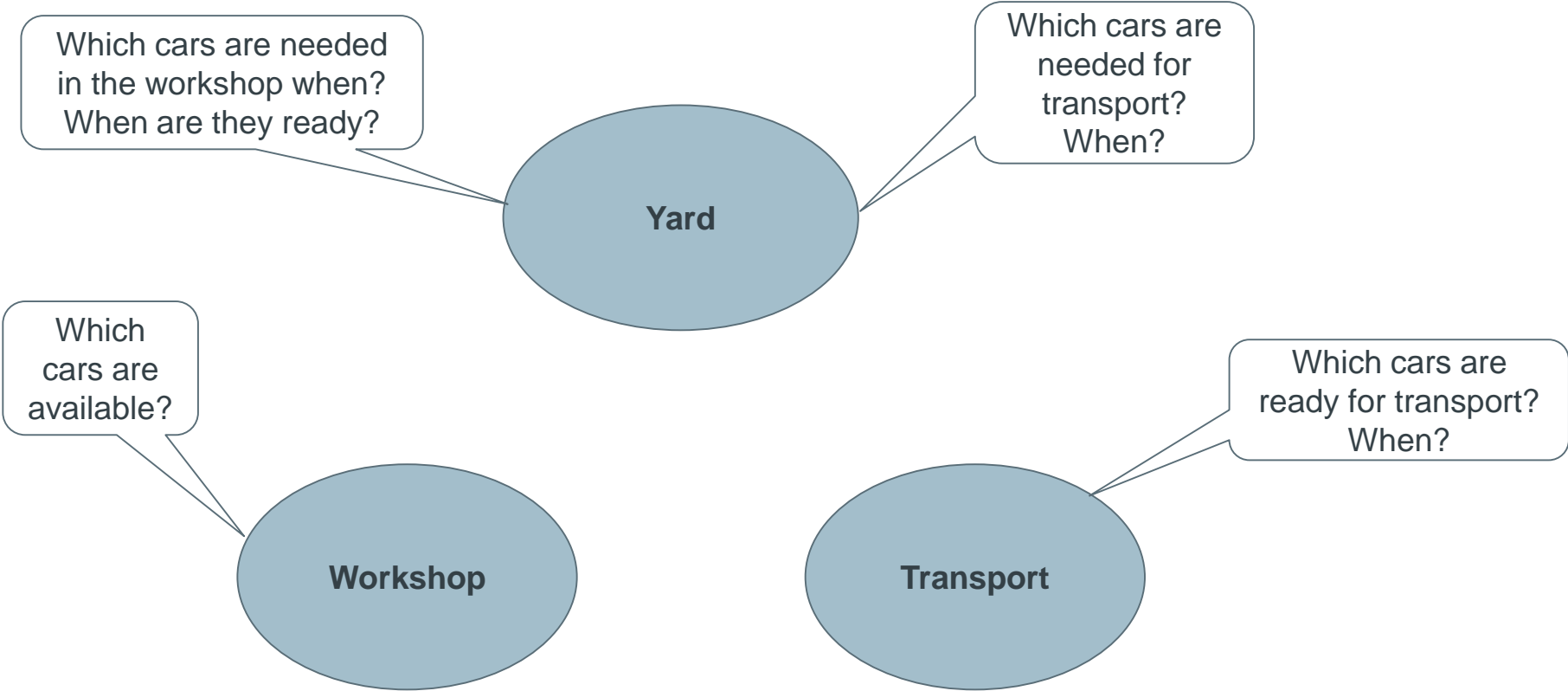
Digital Integration // FVL Landscape

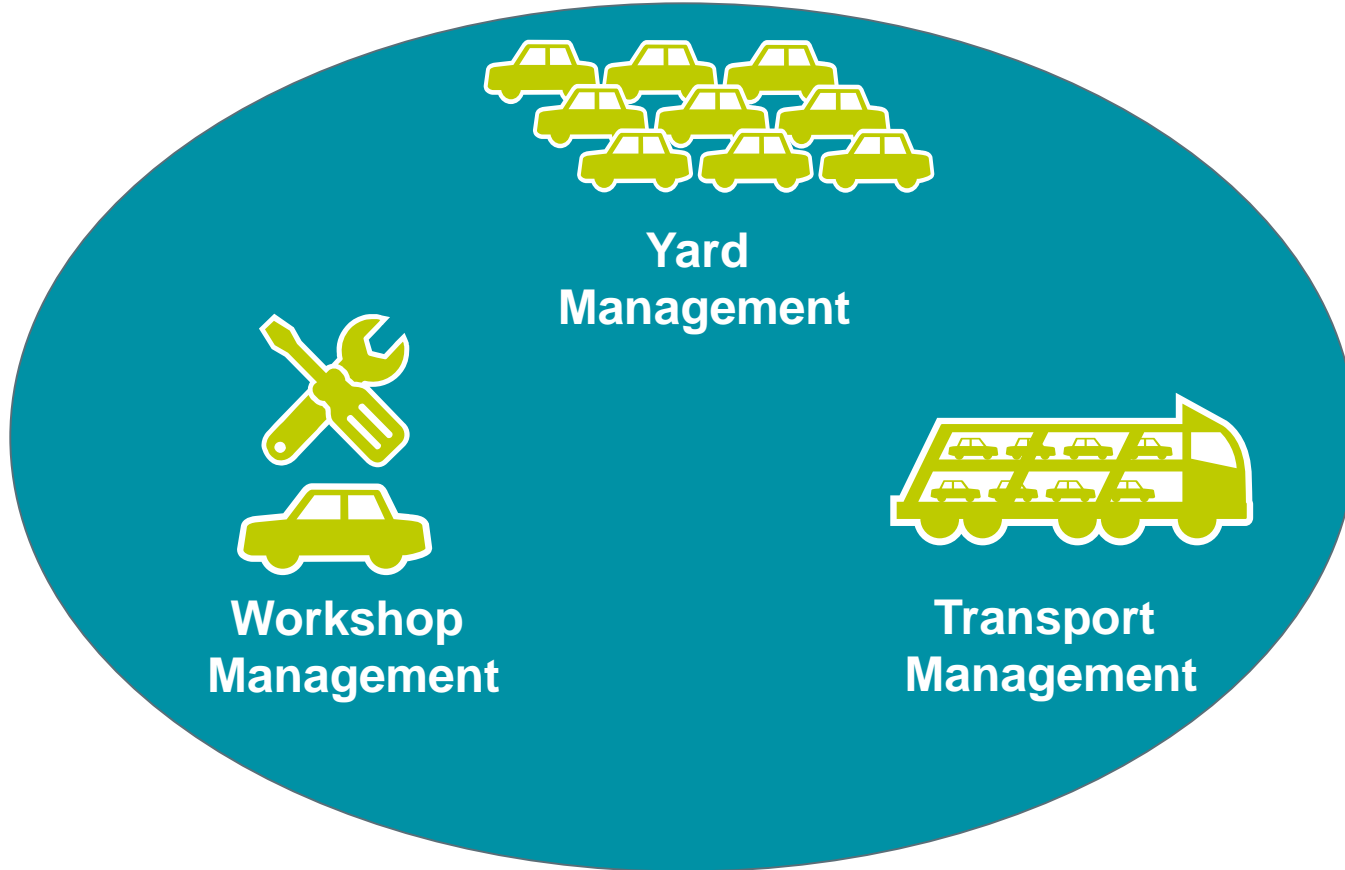


Core elements:

- Plants
- Yards
- Workshops
- Transports
- Dealers

Digital Integration // Core coordination challenges





Digitalization

- Enables real-time Integration
- Avoids delays between processes

Digitalization in FVL enables real-time integration.

Integration enables end-to-end Visibility, - Automation and –Optimization.

This is an enabler to speed up processes and at the same time manage and fulfill the customer promise more successfully and efficiently.



Thank You !