



CARGORAIL IS

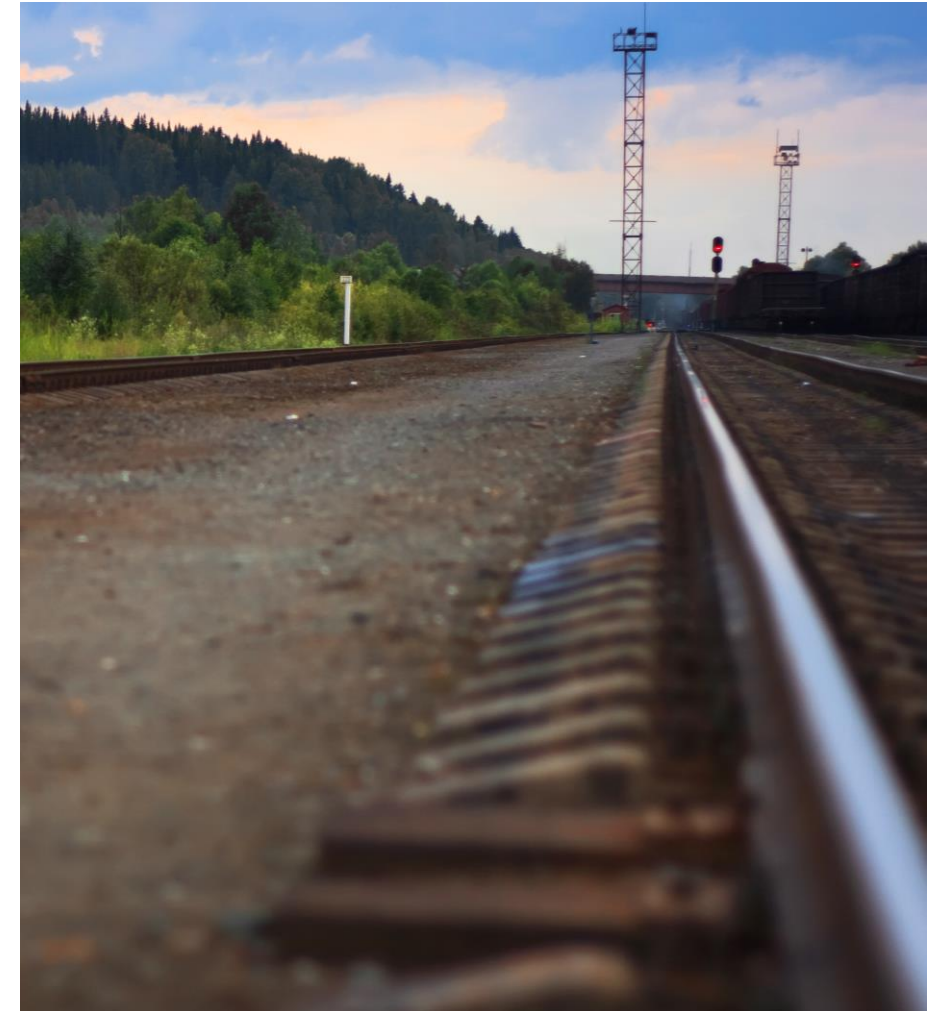
Ready for intelligent future

About 25 years ago, first system, oriented to infrastructure manager:

- **Using actions** (for example move wagon, prepare train, release train from station) not documents
- **Data is reused from previous actions**

Lessons learned:

- **Actions** are more universal, can withstand format, documents and business processes changes over time
- **Applications** installed in client computer requires more maintenance and there are many challenges to distribute them ant once



Going to intelligent future (2 step)

About 15 years ago, first system, oriented to railways undertaker:

- **Using documents** (for example consignment note, customs declaration) not actions
- **Some times data is reentered** to forms, excels and other documents to have statistical or operational information

Lessons learned:

- **Documents are easier to understand** for users and they are more flexible to change
- **Documents are resistant to join** in one coherent solutions (**inconsistent reports!**)
- **Not process!!!!**
- **Web applications** is more simple to maintain and scale



Going to intelligent future (3 step)

More than 7 years ago, first system, oriented to railways undertaker:

- **Using operations (actions)** (for example move wagon, prepare train, release train from station) not documents
- Data is **strictly** reused from previous actions

Lessons learned:

- **Operations (actions)** are still more universal, can withstand format, documents and business processes changes over time
- **Web applications** is more simple to maintain and scale
- With **consistent data** you easily have accurate simple analytics and predictive analytics



Going to intelligent future (4 step)

About 3 years ago, first system, oriented to railways undertaker, menevroe and infrastructure manager:

- **Using operations (actions)** (for example move wagon, prepare train, release train from station) not documents
- Using **process engine** to easily change processes depending on RU or IM
- Data is **strictly** reused from previous actions

Lessons learned:

- **Operations (actions)** are still more universal, can withstand format, documents and business processes changes over time
- **Web applications** is more simple to maintain and scale
- With **consistent data** you easily have accurate simple analytics and predictive analytics



Holistic station view



TRAINS

108200 Draugystė Station

Incomming trains

Train No.	Train index	Last event station	Last operation	Carrier	length (Stand. wag. length)
2367	1482-001-1082	120306 Kena	Train wagon coupling 2018-06-06 10:36	0021 BČ	4
4984	1482-484-1082	148208 Kalij 1	Train approval 2018-05-30 09:29	0021 BČ	4

Trains at the station [11/15]

Train No.	Train index	Last operation track	Last operation
2222	1482-111-1082	01 / 02	Train arrival 2018-11-22 12:26
2345	1082-002-1482	02 / 31	Train approval 2018-06-06 10:53
2345	1082-001-1482	01 / 02	Train formation 2018-06-06 10:51
3456	1082-003-1203	02 / 23	Train approval 2018-06-06 10:58
1849	1082-465-1483	01 / 01	Train formation 2018-05-17 15:38
2689	1082-003-1062	01 / 01	Train index change 2018-03-19 15:00
1877	1082-315-1485	01 / 08	Train formation 2018-04-12 15:42
5645	1082-154-1483	01 / 02	Train formation 2018-04-10 14:00

Kelio 01 atkarpa 1

Wagons (loaded / empty / all) **6 0 6**

Occupied / left 7 / 72

Weight, t 458.10

Cargo recipients (load / empty)

987848 4952 JSC BELARUSKALI	4	0
""Aronaks LS"" TOO"	1	0
141544519 2122 UAB Birių krovinių terminalas	1	0

01 T 02 T 03 04 05 06 T 07 08 T

Occupied / left

7 / 72	8 / 64	3 / 69	0 / 85	2 / 70	3 / 69	0 / 73	1 / 72
6	8	2	0	1	2	0	1

01 02 DP KB KK MK NK PK

FILTER CLEAR FILTERS

At glance station personnel can:

- See incoming and trains at station
- Tracks occupation
- Wagons cargo destinations and clients

Based on incoming trains information and tracks occupation station personnel can optimally plan wagons stream management

Location of wagons on tracks

WAGONS IN STATION

MOVE WAGON CREATE SHIPMENT ATTACH TO TRAIN 1 - 13 of 13 SEARCH

Path	No.	Wagon No.	Inspection	Movements	Shipments	Train index, No.	Arrival date	Wagon subtype	Wagon recipient	Destination station	Cargo	Cargo recipient
01 / 01	1	94850120	0 / 0	0 / 0	0600006	1082-4-10600045		96 FITIN KT	123456 Test client	148208 Kalij 1	31042050 / 434034 Kalio chloridas, kuria...	123456 Test client
01 / 01	2	95480331	0 / 0	0 / 0	0600007	1082-4-10600045		95 CD GR	123456 Test client	148208 Kalij 1	31042050 / 434034 Kalio chloridas, kuria...	123456 Test client
01 / 01	3	95480141	0 / 0	0 / 0	0600008	1082-454-14820446		95 CD GR	123456 Test client	148208 Kalij 1	31042050 / 434034 Kalio chloridas, kuria...	123456 Test client
01 / 01	4	64840622	0 / 0	0 / 0	0600050	1082-333-1482		60 PV PV	123456 Test client	148208 Kalij 1	31042050 / 434034 Kalio chloridas,	123456 Test client

01 T 02 T 03 T 04 T 05 T 06 T 07 T 08 T

14 / 65 12 / 60 4 / 68 3 / 82 3 / 69 4 / 68 6 / 67 6 / 67

01 02 DP KR KK MK NK PK

Wagons in station view lets quickly access all needed information at glance:

- Occupation of tracks
- Wagons states
- Wagons cargo destinations and clients

Also user can engage in variety of actions by marking wagons in row and initiating actions .

Actions with train



☰ CR TRAIN - 4654 1082-454-1482 IN STATION User Name

TECHNICAL INSPECTION COMMERTIAL INSPECTION

Formation date	Train No.	Formation st.	Trai. orn. No.	Destination st.	Order type	Stand. wag. length	Weight, t
2018-10-01 14:47	4654	108200 Draugystė	454	148208 Kalij 1	From front	3	225
Protected wag. class	Over size ind.	Liv.	Route type	Last event station	Last event tra		
0	0000	No	0 Simple train	108200 Draugystė	01 / 07		

Wagon list

Train wagons Locomotives and driver's brigades Business operations

No.	Wagon No.	Owner	Inspecciones	Movements	Shipments	Bearings	Brutto, t	Destination st.	Cargo	Reciever	Route	Protection	mark	st.	t
1	65841355	21 BČ	0 / 0	0 / 0	0600002 Declaration in progress	Roller bearings	50	148208 Kalij 1	434034	123456 Test client			120202 Kena eksp.	25	4325 GG
2	64848401	20 RŽD	0 / 0	0 / 0	0600002 Declaration in progress	Roller bearings	48	148208 Kalij 1	434034	123456 Test client			120202 Kena eksp.	25	4325 GG
3	64740616	22 UZ	0 / 0	0 / 0	0600002 Declaration in progress	Roller bearings	53	148208 Kalij 1	434034	123456 Test client			120202 Kena eksp.	24	4325 GG

- Departure from station
- Unlock wagons
- Attach wagons
- Train discharging
- Transfer responsibility for train
- Change train index

All actions with train are available from train object.

All data is shared between wagons and consignment notes – for example, as train moves through stations wagon dislocation changes.

Tax calculation



TAX DOCUMENTS														Demo User		
														1 - 20 iš	X	FILTERS
Demo1																
Division																
Document	Wagon/Container	Payer	Cargo code	Sum	Currency	Invoice date	Credit document	Division	Period	Last change	Forwarder	Agreement number	Client cod			
73-1900033 KR-142 Editable	58580044 / 8880080 52640059 / 8565164 TEMU	110053823 JVC "Demo company"		Total	920,00	EUR	No	Demo1	2019-02	2019-02-22 08:49:50 Demo User	2411952	DKEC-57 (2016)	0992			
				VAT	193,20											
				Total with VAT	1113,20											
				VAT, %	21											
73-1900030 KR-142 Editable	22221402 / 4440019 MSKU 22221956 / 5550005 TGBU	110053823 JVC "Demo company"		Total	19,20	EUR	No	Demo1	2019-02	2019-02-22 14:55:02 Demo User	2411952					
				VAT	0,00											
				Total with VAT	19,20											
				VAT, %	0											
7300506zmo CIM Approved	22221402 / 4444229 APZU 56350051 / 5254028 SEGU 55550032 / 5270006 TGHU ⚙️	110053823 JVC "Demo company"	99220000	Total	1043,20	EUR	Invoice date 2019-02-22 Invoice no. FAC3061395	Demo1	2019-02	2019-02-22 14:28:57 Demo User	2417067					
				VAT	219,07											
				Total with VAT	1262,27											
				VAT, %	21											
7300505 CIM Approved	50000033 / 7000004 POCU 50000033 / 8000004 50000025 / 8000004	110053823 JVC "Demo company"	05010000	Total	736,00	EUR	No	Demo1	2019-02	2019-02-18 11:10:13 Demo User	2411952	DKEC-47 (2017)	6037			
				VAT	0,00											
				Total with VAT	736,00											
				VAT, %	x											
73-1900028 KR-142 Editable	52550316 / 5878085 TRLU 55845085 / 8584162 SEAU	110053823 JVC "Demo company"		Total	6,90	EUR	No	Demo1	2019-02	2019-02-20 15:01:58 Demo User	2418015					
				VAT	0,00											
				Total with VAT	6,90											
				VAT, %	x											
20190215_ŽB_3 CIM New	1360061 OOLU 1269080 MSCU ⚙️	110053823 JVC "Demo company"	88026090	Total	2973,93	EUR	No	Demo1	2019-02	2019-02-22 18:03:30 Demo User						
				VAT	624,53											
				Total with VAT	3598,46											
				VAT, %	21											
20190215_ŽB_2 CIM New	22180129 22190789 22201032	110053823 JVC "Demo company"	88026090	Total	1089,62	EUR	No	Demo1	2019-02	2019-02-22 18:03:07 Demo User						
				VAT	228,75											
				Total with VAT	1318,37											
				VAT, %	21, 18											

Taxes are calculated from documents (consignment notes, maneuvering, additional services documents)

Taxes can be calculated automatically or manually, in batch or one by one.

INVOICE - FAC3061402 PREPARED Demo User

Invoice Actions history

Invoice type: Type 3 Invoice date: 2019-02-22 Digital: Yes Credit: No Debit: No Sent to accounting IS: No

Seller

Name: JVC "Seller" Division: Demo1

Address: Demo 1, Vilnius, Lithuania

Company code: 84982232 VAT code: VAT28430284032 Bank account: LT16 78422 2356 0985 7315

Bank: Bank1 SWIFT: NDEALT2X

Buyer

Name: JVC "Buyer" Identification code: 210502640

Address: Demo 2, Vilnius, Lithuania

VAT code: VAT2392039203 Bank account:

Bank: Bank code: SWIFT:

Invoice no. Without agreement: No Language: German Service delivery date Tax code: K0 Correction year

Delivery date: 2019-02-24 Pay after delivery (days): 7 Work days: No Payment type:

Operations

No.	Operation	Unit of measur.	Amount	Price	Total	VAT	Law article	Total VAT	Total with VAT	Accounting system code
1	30 Cargo transportatio to ES countries	PSL	1,000	7,00	7,00	21		1,47	8,47	6000000718
					EUR	7,00		1,47	8,47	

Invoices can be prepared for single tax document or group of them. All taxes are grouped, by operations.

Client or employee can get detail information in xls or csv formats.

Invoices can be send automatically to client or printing services.

Integration with accounting systems assures financial accuracy.

Unified management

Process engine ensures coherent execution

Different actions for different users

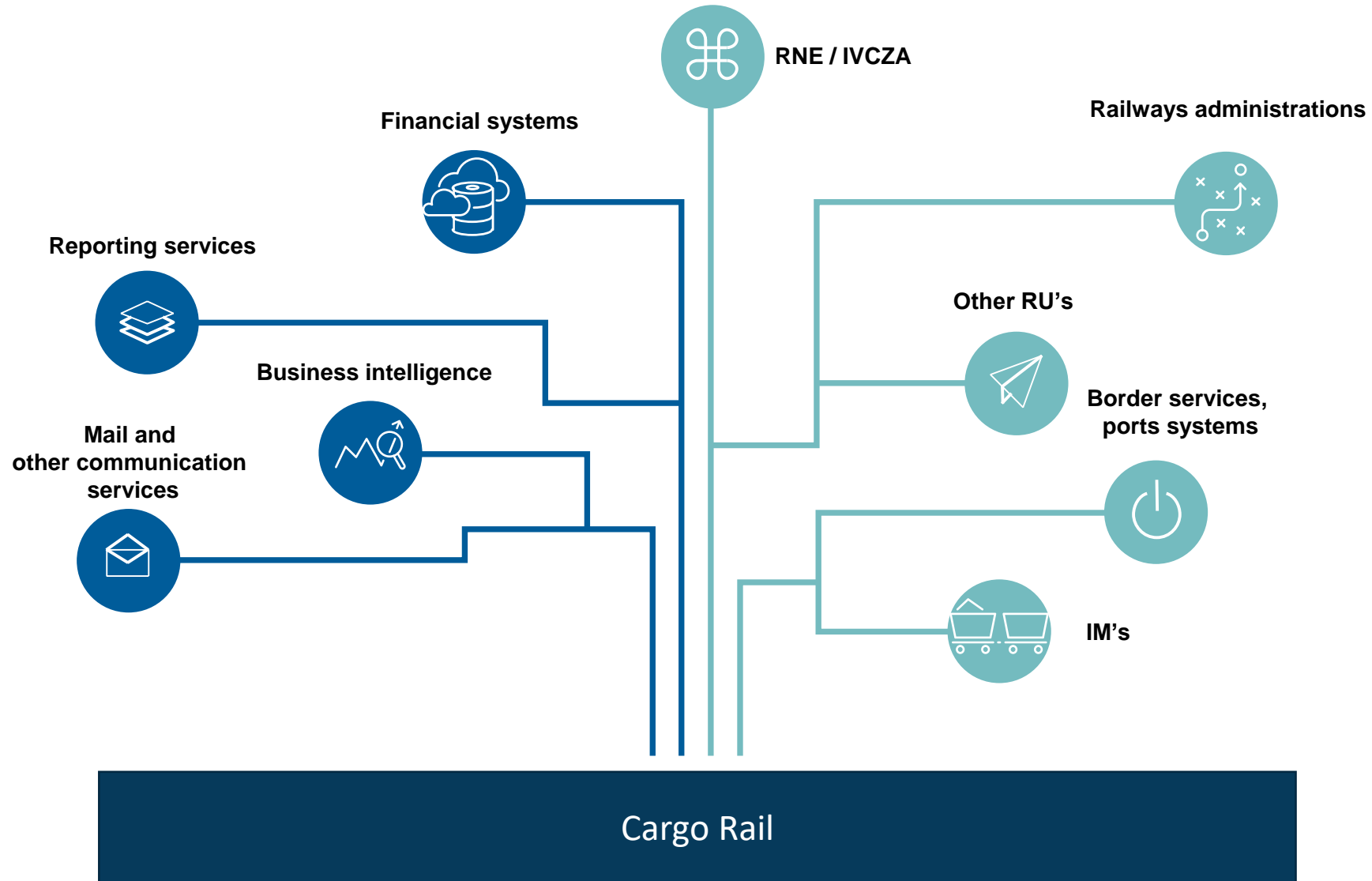
One data model



In next slides of presentation you'll see some sample solution windows. You could notice that for most part user enters only needed data, everything else fills automatically.

- CargoRail functionality lets:
 - Manage wagons in station and at clients site
 - Manage loading and unloading operations
 - Prepare consignment notes
 - Manage trains
 - Communicate with customs and other railways
 - Prepare other needed document and notes
 - Calculate taxes for operations and prepare invoice

Cargo Rail – ready for intelligent future



01

- Wagons at station management

- + Loading
- + Unloading
- + Moving wagons
- + Inspections
- + Send to repair
- + Review wagon data
- + Transfer responsibility
- + Provide additional services

02

- Trains management

- + Create train
- + Depart it from station
- + Perform inspections
- + Transfer responsibility
- + Split train
- + Add or remove wagons from train
- + Mark arrival
- + Inform clients automatically

03

- Documentation management

- + Consignment notes
- + Declarations for customs
- + Notice for ports
- + Agreements
- + Additional services documents
- + Maneuvering documents

04

- Secondary processes

- + Wagons repairs
- + Company structure and shifts management
- + Nomenclatures and classification management
- + Declaration preparation
- + Integrations with different parties (TAF – TSI, NTCS, ports, customs etc.)

05

- Billing

- + Tariffs books management
- + Automatic or manual tax calculation from any source
- + Prepare invoice from calculated taxes (bulk or one by one)
- + Automatically send electronic invoices to clients
- + Import data to financial systems

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