Source: RNE TIS / OBI 12c EE, report version 2.0 Executed version (date): draft (2017-03-14)

North Sea-Baltic | 2017-02

freight

Punctuality and delay analysis

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Punctuality: Monday - Sunday	Punctuality target: 80% within 30'

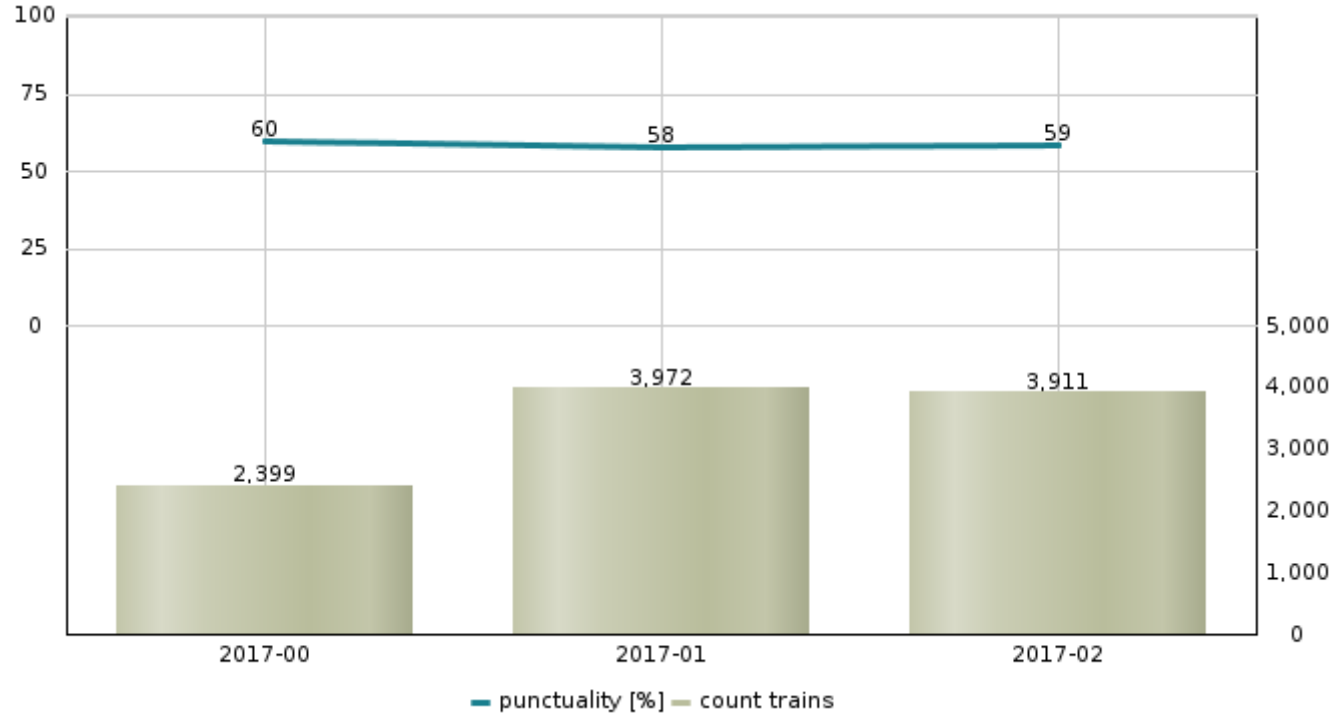
Parameters chosen:

Corridor:	RFC8
TT Period:	2017-02
Train type:	freight
IMs:	[DBNetz,Infrabel,PKP PLK,ProRail,SŽDC]
Locations:	[Amsterdam Centraal,Amsterdam Westhaven West,Bad Bentheim,Bad Schandau,Děčín hlavní nádraží,Frankfurt (Oder) Oderbrücke,Gremberg,Güterglück Stw Gkn,Lovosice jih,Magdeburg Hbf,MONTZEN-FRONTIERE,Oldenzaal,Poznań Starołęka,Praha-Libeň,Röderau,Rotterdam Centraal,Rzepin,Schöna,Schönefeld,Stendal,Stendal Gbf,Stendal Vorbahnhof Bft,Swarzędz,Waalhaven Zuid,Wilhelmshorst,Y.NAZARETH,Y.SCHIJN]
Train referencenb from:	
Train referencenb to:	
Only international trains are considered which run through defined RFC border locations	

West-East

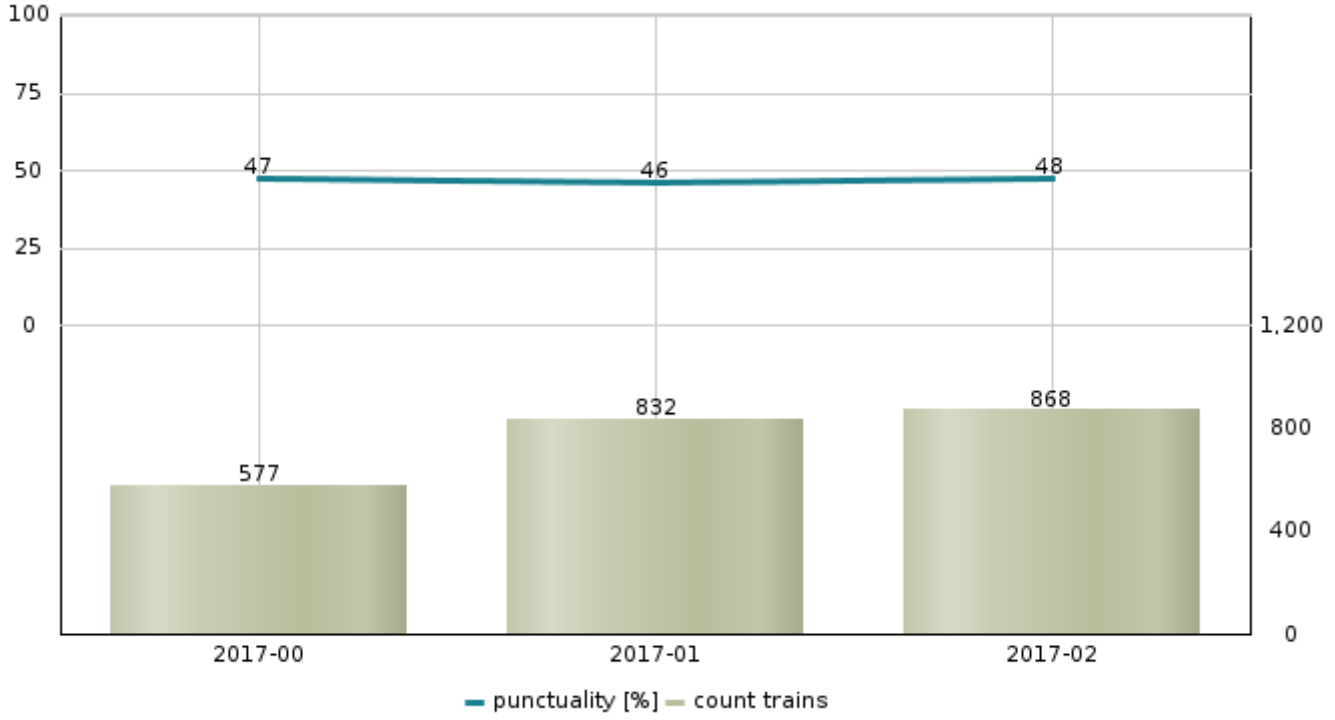
Punctuality at origin 12 months (% within 30') 1)

Punctuality at entry 12 months (% within 30') 1)



Punctuality at exit 12 months (% within 30') 1)

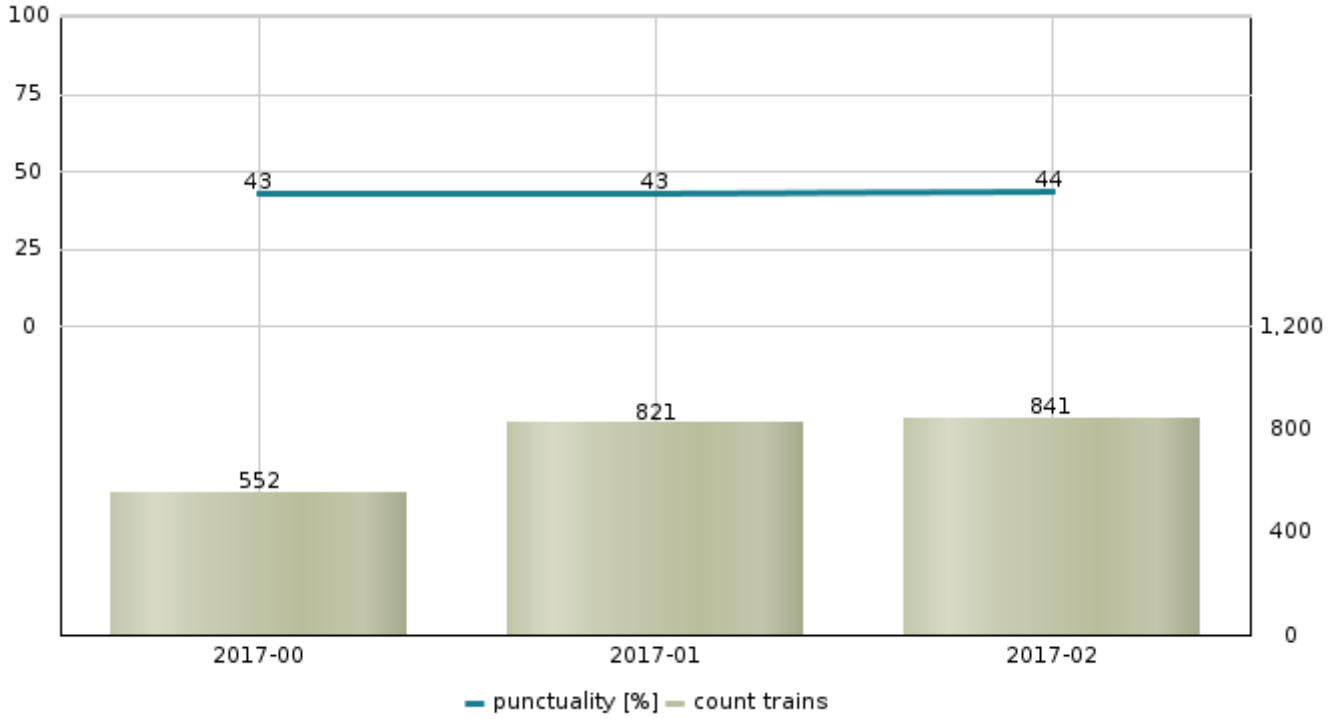
Punctuality at destination 12 months (% within 30') 1)



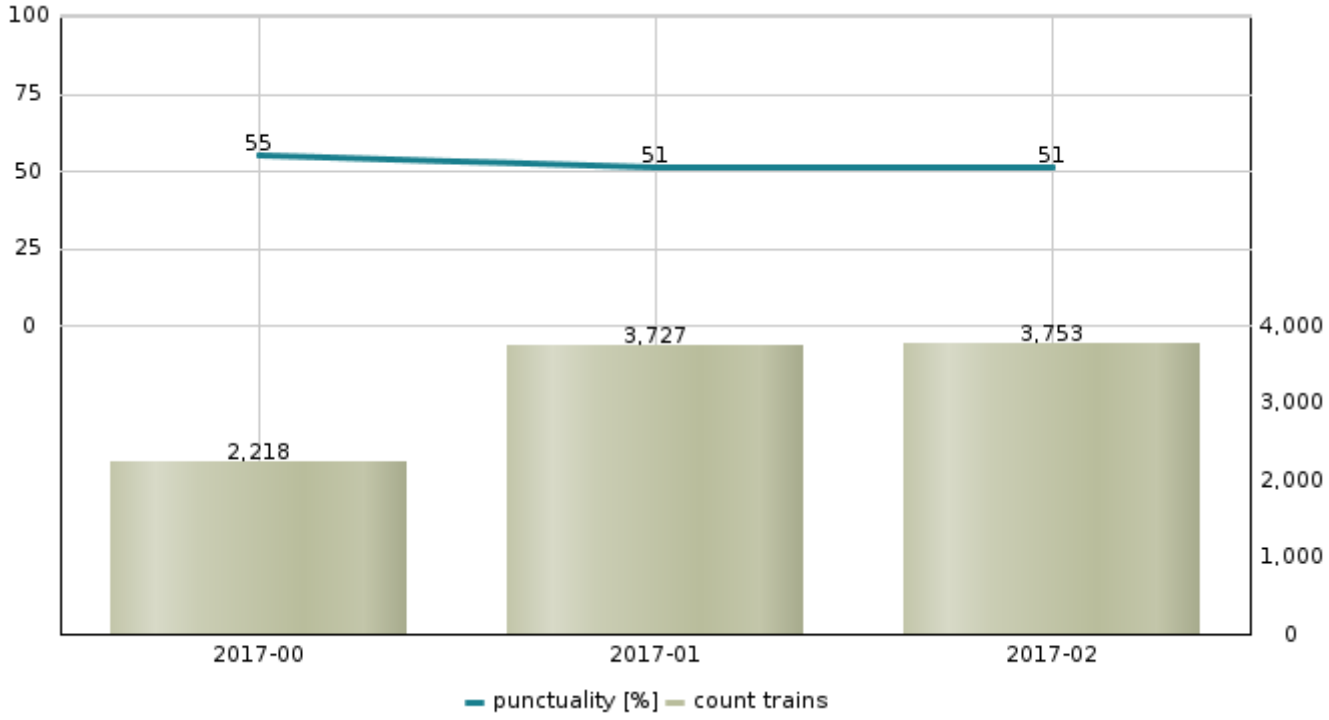
1) Train runs are considered and measured if responsible IM of origin or destination location is in the IM parameter list included. Origin and destination are considered as first and last CTT of a train run in corridor IM network. Entry and exit are considered as first and last CTT in the corridor area defined by measurement locations.

East-West

Punctuality at origin 12 months (% within 30') 1)

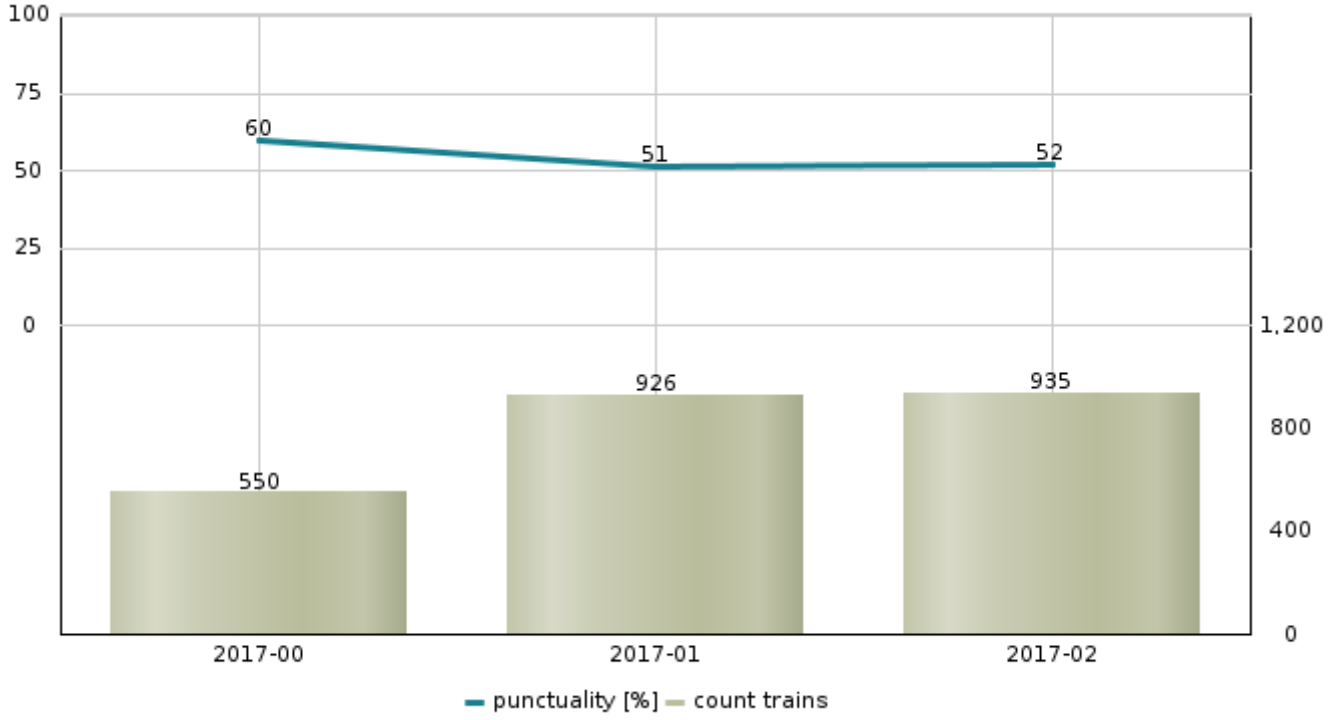


Punctuality at entry 12 months (% within 30') 1)



Punctuality at exit 12 months (% within 30') 1)

Punctuality at destination 12 months (% within 30') 1)



1) Train runs are considered and measured if responsible IM of origin or destination location is in the IM parameter list included. Origin and destination are considered as first and last CTT of a train run in corridor IM network. Entry and exit are considered as first and last CTT in the corridor area defined by measurement locations.

West-East

Key figures per location

(locations are measured if location and responsible IM are chosen in parameters)

IM	Location	Status	Train runs	Data quality (%)	Punctuality (%)	Avg delta-t (min)	Avg delay (min)
Infrabel	Y.SCHIJN	5dest.	220	90.9	64.5	36	47
Infrabel	Y.SCHIJN	1orig.	459	95.4	69.4	28	32
ProRail	Waalhaven Zuid	5dest.	20	45.0	77.8	41	46
ProRail	Waalhaven Zuid	1orig.	239	94.1	58.2	63	68
ProRail	Amsterdam Centraal	5dest.	183	97.3	87.1	22	27
ProRail	Amsterdam Centraal	1orig.	1	100.0	100.0	2	2
ProRail	Rotterdam Centraal	3dep.	3	100.0	66.7	41	41
ProRail	Oldenzaal	5dest.	244	91.0	77.5	30	35
ProRail	Oldenzaal	1orig.	29	93.1	40.7	212	222
DBNetz	Gremberg	3dep.	273	80.2	54.3	60	65
DBNetz	Bad Bentheim	5dest.	236	0.8	50.0	430	431
DBNetz	Bad Bentheim	1orig.	250	82.4	60.2	86	96
DBNetz	Stendal	3dep.	2	100.0	0.0	92	92
DBNetz	Stendal Gbf	3dep.	148	83.1	35.0	93	111
DBNetz	Magdeburg Hbf	5dest.	490	90.2	49.1	110	122
DBNetz	Magdeburg Hbf	1orig.	9	88.9	0.0	292	292
DBNetz	Schönefeld	3dep.	195	93.3	69.2	24	56
DBNetz	Bad Schandau	3dep.	511	87.7	39.1	121	144
DBNetz	Schöna	3dep.	7	100.0	66.7	42	92
DBNetz	Frankfurt (Oder) Oderbrücke	5dest.	533	88.4	44.8	101	129
DBNetz	Frankfurt (Oder) Oderbrücke	1orig.	542	89.1	28.4	175	191
SŽDC	Děčín hlavní nádraží	5dest.	611	94.1	41.9	117	141
SŽDC	Děčín hlavní nádraží	1orig.	159	94.3	32.0	121	133
SŽDC	Lovosice jih	3dep.	4	100.0	0.0	182	182
SŽDC	Praha-Libeň	3dep.	202	96.0	52.6	67	108
PKP PLK	Rzepin	1orig.	243	92.2	41.5	136	177
PKP PLK	Rzepin	5dest.	389	91.0	38.1	163	207
PKP PLK	Swarzędz	5dest.	80	91.2	35.6	224	251
PKP PLK	Swarzędz	1orig.	2	100.0	0.0	618	618

Punctuality is the ratio of count of RA below or equal to the limit devided by count of all RA at location & status.

Average delta-t is the sum of delta-t at location & status devided by count of RA (considering negative values).

Average delay is the sum of delta-t at location & status devided by count of RA (considering negative values as zero).

Data quality is the ratio of count of RA devided by count of CTT at location & status.

East-West

Key figures per location

(locations are measured if location and responsible IM are chosen in parameters)

IM	Point	Status	Train runs	Data quality (%)	Punctuality (%)	Avg delta-t (min)	Avg delay (min)
PKP PLK	Swarzędz	1orig.	26	80.8	90.5	-11	77
PKP PLK	Swarzędz	5dest.	63	90.5	71.9	-13	68
PKP PLK	Rzepin	1orig.	402	87.6	41.2	174	203
PKP PLK	Rzepin	5dest.	238	95.8	54.0	175	223
SŽDC	Praha-Libeň	3dep.	127	96.1	49.2	38	80
SŽDC	Lovosice jih	3dep.	50	94.0	68.1	54	69
SŽDC	Děčín hlavní nádraží	1orig.	31	96.8	16.7	261	268
SŽDC	Děčín hlavní nádraží	5dest.	454	97.1	38.8	98	116
DBNetz	Frankfurt (Oder) Oderbrücke	1orig.	495	71.9	33.3	167	177
DBNetz	Frankfurt (Oder) Oderbrücke	5dest.	498	80.1	43.2	129	148
DBNetz	Schöna	3dep.	3	100.0	33.3	35	54
DBNetz	Bad Schandau	3dep.	331	77.0	33.3	139	154
DBNetz	Schönefeld	3dep.	162	88.3	37.8	176	189
DBNetz	Magdeburg Hbf	1orig.	14	85.7	16.7	344	359
DBNetz	Magdeburg Hbf	5dest.	535	82.4	39.6	136	154
DBNetz	Stendal	3dep.	1	100.0	100.0	13	13
DBNetz	Stendal Gbf	3dep.	88	84.1	33.8	125	137
DBNetz	Bad Bentheim	1orig.	283	79.5	54.2	99	115
DBNetz	Bad Bentheim	5dest.	291	90.7	52.3	91	112
DBNetz	Gremberg	3dep.	439	88.6	75.6	28	44
ProRail	Oldenzaal	1orig.	41	90.2	70.3	105	112
ProRail	Oldenzaal	5dest.	301	89.7	64.1	54	63
ProRail	Rotterdam Centraal	3dep.	52	80.8	64.3	45	65
ProRail	Amsterdam Centraal	1orig.	1	100.0	100.0	-1	0
ProRail	Amsterdam Centraal	5dest.	188	90.4	67.6	39	43
ProRail	Waalhaven Zuid	1orig.	50	74.0	40.5	83	88
ProRail	Waalhaven Zuid	5dest.	260	92.7	53.1	90	101
Infrabel	Y.SCHIJN	1orig.	126	86.5	56.0	59	78
Infrabel	Y.SCHIJN	5dest.	595	84.7	58.9	53	70

Punctuality is the ratio of count of RA below or equal to the limit devided by count of all RA at location & status.

Average delta-t is the sum of delta-t at location & status devided by count of RA (including negative values).

Average delay is the sum of delta-t at location & status devided by count of RA (excluding negative values).

Data quality is the ratio of count of RA devided by count of CTT at location & status.

West-East

Highly delayed trains at origin (top 10)

Train number	Number of trains running	Number of delayed trains (>treshold)	Avg. delay (min) of delayed trains
000000	1	1	954
000000	1	1	713
000000	1	1	692
000000	7	7	609
000000	1	1	495
000000	2	1	484
000000	4	4	462
000000	1	1	453
000000	1	1	443
000000	1	1	426

Highly delayed trains at exit (top 10)

Train number	Number of trains running	Number of delayed trains (>treshold)	Avg. delay (min) of delayed trains
000000	1	1	1,536
000000	1	1	1,387
000000	8	5	861
000000	1	1	807
000000	2	2	802
000000	3	2	720
000000	1	1	713
000000	8	1	678
000000	10	9	666
000000	1	1	657

Highly delayed trains at entry (top 10)

Train number	Number of trains running	Number of delayed trains (>treshold)	Avg. delay (min) of delayed trains
000000	3	3	952
000000	1	1	910
000000	1	1	862
000000	2	2	750
000000	4	1	732
000000	3	3	716
000000	1	1	641
000000	3	1	611
000000	2	2	560
000000	1	1	495

Highly delayed trains at destination (top 10)

Train number	Number of trains running	Number of delayed trains (>treshold)	Avg. delay (min) of delayed trains
000000	1	1	1,536
000000	3	2	1,238
000000	1	1	807
000000	1	1	804
000000	13	7	755
000000	4	3	752
000000	1	1	649
000000	1	1	637
000000	3	3	617
000000	5	3	578

East-West

Highly delayed trains at origin

(top 10)

Train number	Number of trains running	Number of delayed trains (>treshold)	Avg. delay (min) of delayed trains
000000	1	1	1,091
000000	1	1	1,016
000000	1	1	998
000000	1	1	990
000000	3	2	883
000000	1	1	742
000000	1	1	716
000000	1	1	707
000000	16	12	686
000000	1	1	616

Highly delayed trains at exit

(top 10)

Train number	Number of trains running	Number of delayed trains (>treshold)	Avg. delay (min) of delayed trains
000000	1	1	1,136
000000	1	1	912
000000	3	2	898
000000	1	1	803
000000	3	2	662
000000	1	1	640
000000	3	2	606
000000	1	1	595
000000	2	1	577
000000	1	1	542

Highly delayed trains at entry

(top 10)

Train number	Number of trains running	Number of delayed trains (>treshold)	Avg. delay (min) of delayed trains
000000	1	1	1,577
000000	1	1	980
000000	1	1	900
000000	3	2	878
000000	2	1	869
000000	2	2	802
000000	1	1	716
000000	1	1	712
000000	1	1	707
000000	4	1	644

Highly delayed trains at destination

(top 10)

Train number	Number of trains running	Number of delayed trains (>treshold)	Avg. delay (min) of delayed trains
000000	2	2	914
000000	1	1	878
000000	2	1	798
000000	2	2	604
000000	3	2	589
000000	1	1	577
000000	2	2	557
000000	1	1	554
000000	3	2	552
000000	1	1	542

West-East

Delay per responsible company and IM area

IM	Delay reason group	Delay responsible company	Delay ratio (IM)	Delay ratio (total)	Delay min
Infrabel	2-RU		30.80	0.40	2,618
Infrabel	9-SECONDARY		24.30	0.30	2,064
Infrabel	2-RU		16.20	0.20	1,376
Infrabel	2-RU		8.90	0.10	760
Infrabel	1-IM		9.70	0.10	823
Infrabel	2-RU		7.20	0.10	610
Infrabel	2-RU		0.80	0.00	66
Infrabel	8-EXTERNAL		1.90	0.00	159
Infrabel	2-RU		0.00	0.00	0
Infrabel	2-RU		0.30	0.00	23
ProRail	2-RU		100.00	0.00	11
DBNetz	9-SECONDARY		36.70	25.50	169,784
DBNetz	2-RU		15.10	10.50	70,011
DBNetz	2-RU		8.30	5.80	38,426
DBNetz	2-RU		7.10	4.90	32,822
DBNetz	1-IM		5.80	4.00	26,807
DBNetz	2-RU		5.20	3.60	24,079
DBNetz	2-RU		2.50	1.80	11,726
DBNetz	2-RU		2.40	1.70	11,016
DBNetz	2-RU		1.60	1.10	7,408
DBNetz	8-EXTERNAL		1.50	1.00	6,953
DBNetz	2-RU		1.30	0.90	5,890
DBNetz	2-RU		1.20	0.90	5,667
DBNetz	2-RU		1.10	0.80	5,249
DBNetz	2-RU		1.10	0.80	5,224
DBNetz	2-RU		1.10	0.80	5,155
DBNetz	2-RU		1.00	0.70	4,807
DBNetz	2-RU		1.00	0.70	4,409
DBNetz	2-RU		0.80	0.60	3,814
DBNetz	2-RU		0.90	0.60	4,074
DBNetz	2-RU		0.80	0.50	3,615
DBNetz	2-RU		0.60	0.40	2,724
DBNetz	2-RU		0.40	0.30	2,064
DBNetz	2-RU		0.40	0.30	1,757
DBNetz	2-RU		0.30	0.20	1,430
DBNetz	2-RU		0.20	0.20	998
DBNetz	2-RU		0.20	0.20	1,029
DBNetz	2-RU		0.20	0.10	867
DBNetz	2-RU		0.20	0.10	703
DBNetz	2-RU		0.20	0.10	776
DBNetz	2-RU		0.10	0.10	335
DBNetz	2-RU		0.10	0.10	664
DBNetz	2-RU		0.10	0.10	675
DBNetz	2-RU		0.10	0.10	532
DBNetz	2-RU		0.00	0.00	188
DBNetz	2-RU		0.00	0.00	81
DBNetz	2-RU		0.00	0.00	65
DBNetz	2-RU		0.00	0.00	207
DBNetz	2-RU		0.00	0.00	3
DBNetz	2-RU		0.00	0.00	30
DBNetz	2-RU		0.00	0.00	32
DBNetz	2-RU		0.10	0.00	255
DBNetz	2-RU		0.00	0.00	87
DBNetz	2-RU		0.00	0.00	58
DBNetz	2-RU		0.00	0.00	28
DBNetz	2-RU		0.00	0.00	23
DBNetz	2-RU		0.10	0.00	279
DBNetz	2-RU		0.00	0.00	40
DBNetz	2-RU		0.00	0.00	51
DBNetz	2-RU		0.00	0.00	102
SŽDC	8-EXTERNAL		73.80	21.30	141,852
SŽDC	2-RU		12.80	3.70	24,593
SŽDC	9-SECONDARY		5.20	1.50	9,935
SŽDC	1-IM		3.70	1.10	7,093
SŽDC	2-RU		3.30	0.90	6,244
SŽDC	2-RU		0.80	0.20	1,551

SŽDC	2-RU		0.30	0.10	581
DBNetz	2-RU		0.00	0.00	23
DBNetz	9-SECONDARY		0.00	0.00	35
SŽDC	2-RU		0.10	0.00	212
PKP PLK	9-SECONDARY		47.60	0.10	613
PKP PLK	8-EXTERNAL		49.30	0.10	636
PKP PLK	1-IM		2.70	0.00	35
PKP PLK	2-RU		0.40	0.00	5

Delay ratio (IM): total delay min per delay reason group and responsible company / total delay min same IM area
Delay ratio (total): total delay min per delay reason group and responsible company / total delay min all IM areas
Delay min: total delay min per delay reason group and responsible company

East-West

Delay per responsible company and IM area

IM	Delay reason group	Delay responsible company	Delay ratio (IM)	Delay ratio (total)	Delay min
PKP PLK	8-EXTERNAL		83.00	1.00	5,436
PKP PLK	9-SECONDARY		13.80	0.20	907
PKP PLK	2-RU		0.20	0.00	14
PKP PLK	2-RU		0.40	0.00	24
PKP PLK	2-RU		1.80	0.00	121
PKP PLK	2-RU		0.00	0.00	1
PKP PLK	1-IM		0.20	0.00	13
PKP PLK	2-RU		0.60	0.00	37
SŽDC	2-RU		33.60	7.10	37,047
SŽDC	2-RU		23.30	4.90	25,716
SŽDC	8-EXTERNAL		17.60	3.70	19,389
SŽDC	9-SECONDARY		15.10	3.20	16,650
SŽDC	1-IM		5.10	1.10	5,644
SŽDC	2-RU		2.40	0.50	2,681
SŽDC	2-RU		0.40	0.10	441
SŽDC	2-RU		0.40	0.10	483
SŽDC	2-RU		0.30	0.10	308
SŽDC	2-RU		0.50	0.10	601
SŽDC	2-RU		0.30	0.10	333
SŽDC	2-RU		0.60	0.10	683
DBNetz	2-RU		0.00	0.00	55
DBNetz	9-SECONDARY		0.10	0.00	135
DBNetz	1-IM		0.00	0.00	6
DBNetz	2-RU		0.00	0.00	32
DBNetz	9-SECONDARY		31.80	24.30	127,185
DBNetz	2-RU		22.60	17.30	90,513
DBNetz	2-RU		6.70	5.10	26,722
DBNetz	1-IM		6.20	4.70	24,785
DBNetz	2-RU		3.90	2.90	15,396
DBNetz	2-RU		3.80	2.90	15,079
DBNetz	2-RU		3.70	2.80	14,623
DBNetz	2-RU		3.30	2.50	13,041
DBNetz	2-RU		2.80	2.10	11,178
DBNetz	2-RU		1.80	1.40	7,147
DBNetz	2-RU		1.50	1.10	5,801
DBNetz	8-EXTERNAL		1.50	1.10	5,829
DBNetz	2-RU		1.30	1.00	5,356
DBNetz	2-RU		1.00	0.80	4,179
DBNetz	2-RU		1.10	0.80	4,234
DBNetz	2-RU		0.80	0.60	3,349
DBNetz	2-RU		0.70	0.50	2,715
DBNetz	2-RU		0.50	0.40	2,055
DBNetz	2-RU		0.40	0.30	1,406
DBNetz	2-RU		0.50	0.30	1,827
DBNetz	2-RU		0.40	0.30	1,595
DBNetz	2-RU		0.30	0.30	1,368
DBNetz	2-RU		0.40	0.30	1,479
DBNetz	2-RU		0.30	0.20	1,156
DBNetz	2-RU		0.20	0.20	865
DBNetz	2-RU		0.20	0.20	793
DBNetz	2-RU		0.30	0.20	1,273
DBNetz	2-RU		0.30	0.20	1,287
DBNetz	2-RU		0.30	0.20	1,000
DBNetz	2-RU		0.20	0.10	745
DBNetz	2-RU		0.10	0.10	343
DBNetz	2-RU		0.10	0.10	294
DBNetz	2-RU		0.10	0.10	487
DBNetz	2-RU		0.10	0.10	531
DBNetz	2-RU		0.20	0.10	663
DBNetz	2-RU		0.20	0.10	603
DBNetz	2-RU		0.10	0.10	277
DBNetz	2-RU		0.10	0.10	489
DBNetz	2-RU		0.10	0.10	286
DBNetz	2-RU		0.00	0.00	40
DBNetz	2-RU		0.00	0.00	185
DBNetz	2-RU		0.00	0.00	152

DBNetz	2-RU		0.00	0.00	4
DBNetz	2-RU		0.00	0.00	5
DBNetz	2-RU		0.00	0.00	24
DBNetz	2-RU		0.00	0.00	157
DBNetz	2-RU		0.00	0.00	160
DBNetz	2-RU		0.00	0.00	104
DBNetz	2-RU		0.00	0.00	66
DBNetz	2-RU		0.00	0.00	84
DBNetz	2-RU		0.10	0.00	212
DBNetz	2-RU		0.00	0.00	18
DBNetz	2-RU		0.00	0.00	147
DBNetz	2-RU		0.00	0.00	72
DBNetz	2-RU		0.10	0.00	216
DBNetz	2-RU		0.00	0.00	110
Infrabel	2-RU		39.50	0.50	2,453
Infrabel	2-RU		29.10	0.30	1,808
Infrabel	9-SECONDARY		24.30	0.30	1,505
Infrabel	2-RU		0.50	0.00	32
Infrabel	2-RU		1.40	0.00	85
Infrabel	2-RU		0.40	0.00	25
Infrabel	8-EXTERNAL		1.00	0.00	64
Infrabel	1-IM		3.70	0.00	231

Delay ratio (IM): total delay min per delay reason group and responsible company / total delay min same IM area
Delay ratio (total): total delay min per delay reason group and responsible company / total delay min all IM areas
Delay min: total delay min per delay reason group and responsible company

Note: Delay causes for incidents can be corrected according to the deadlines of each country. Therefore discrepancies might arise. Delay codes according to UIC leaflet 450-2.