

Collaborative & Reliable Sychromodal Planning

SmartPort Lunch Meeting

Alberto Giudici

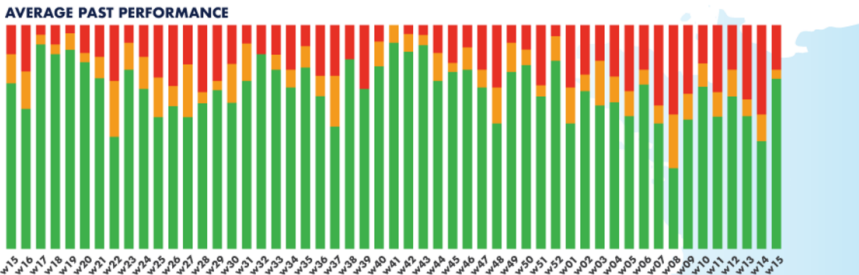
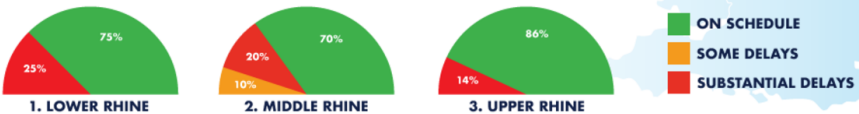
RSM Erasmus University Rotterdam

May 23rd, 2017

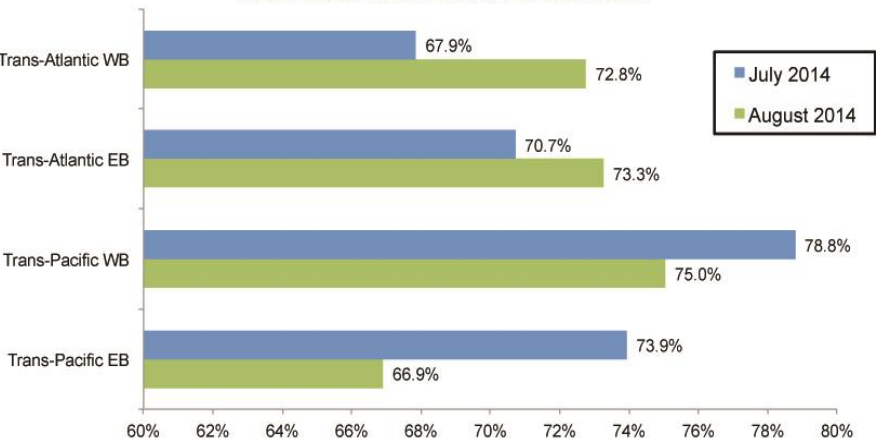
Reliability

Trends and results of last week

Week 15



Schedule Reliability by Trade Lane: July and August 2014
Trans-Atlantic and trans-Pacific trade lanes



Source: SeaIntel

22/05/2017

spoormonitor beta

storingen (0)



Vertrektijden

Amsterdam Centraal

☐ Dit station standaard tonen

tijd	naar	sp	vertragingskans
14:22	Rotterdam C.	14b	14.5%
14:23	Zwolle	10b	6%
14:24	Alkmaar	8	14.9%
14:25	Nijmegen	4b	9.9%
14:26	Zandvoort a Zee	1	3.6%
14:27	Uitgeest	7a	8.6%
14:30	Amersfoort	11b	10.8%
14:32	Hoofddorp	13a	8.4%
14:34	Vlissingen	2a	2.4%
14:36	Enkhuizen	10a	2.4%

[volledige rapportage van Amsterdam Centraal](#)

Travel Options



From Rotterdam Blaak
To Leiden Centraal
Via Utrecht Centraal
on Mon 22 May, departure 14:29

14:36 → 16:28 | ⌚ 1:52 | 🚶 3 | 100%

↻ Intercity > Intercity > Intercity > Intercity

14:51 → 16:37 | ⌚ 1:46 | 🚶 2 | 100%

↻ Intercity > Intercity > Intercity

15:06 → 16:58 | ⌚ 1:52 | 🚶 3 | 83%

↻ Intercity > Intercity > Intercity > Intercity

15:19 → 17:07 | ⌚ 1:48 | 🚶 2 | 100%

↻ Intercity > Intercity > Intercity

15:36 → 17:28 | ⌚ 1:52 | 🚶 3 | 92%

↻ Intercity > Intercity > Intercity > Intercity

15:51 → 17:37 | ⌚ 1:46 | 🚶 2 | 91%

↻ Intercity > Intercity > Intercity

Travel Options

From

Rotterdam Blaak

To

Leiden Centraal

Via

Utrecht Centraal

on

Tue 23 May, departure 18:53

19:19

→

21:07

🕒 1:48

🚿 2

100%

↻

Intercity

>

Intercity

>

Intercity

19:36

→

21:28

🕒 1:52

🚿 3

92%

↻

Intercity

>

Intercity

>

Intercity

>

Intercity

19:51

→

21:37

🕒 1:46

🚿 2

100%

↻

Intercity

>

Intercity

>

Intercity

20:06

→

21:58

🕒 1:52

🚿 3

100%

↻

Intercity

>

Intercity

>

Intercity

>

Intercity

20:19

→

22:07

🕒 1:48

🚿 2

100%

↻

Intercity

>

Intercity

>

Intercity

20:51

→

22:37

🕒 1:46

🚿 2

100%

↻

Intercity

>

Intercity

>

Intercity

21:19

→

23:07

🕒 1:48

🚿 2

100%

22/05/2017

Trip Details

20:57

Exit side left

track 12

21:11

○ Utrecht Centraal

track 7

14 min transfer

IC

NS Intercity

To Schiphol Airport

>

🕒 Punctuality: 82%

🚿 Quiet

21:33

Exit side right

track 3

21:35

○ Amsterdam Zuid

track 4

Change on same platform

IC

NS Intercity

To Dordrecht

>

🕒 Punctuality: 100%

🚿 Quiet

Exit side right

21:58

○ Leiden Centraal

track 8b

You have entered a journey with a 'via' station. We are currently unable to provide pricing information for this.

+

A. Giudici

Punctuality

100%

The train arrived in 100% of the cases on time.

This is how the punctuality figure is calculated:

We calculate the percentage of trains that arrived on time for the same route, on the same day of the week and at the same time of day. The calculation is based on the figures of the preceding three months.

What does 'arriving on time' mean?

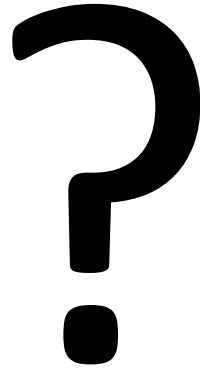
A train is considered on time when it arrives within a margin of 5 minutes after the time that is stated in the journey planner.

What does this mean for your journey?

The punctuality figure indicates how often your train arrived on time in the past, but it does not provide any guarantee for your journey now.

3

What about reliability in intermodal transport?



Main challenges

1. How do we operationally define reliability?

Punctuality

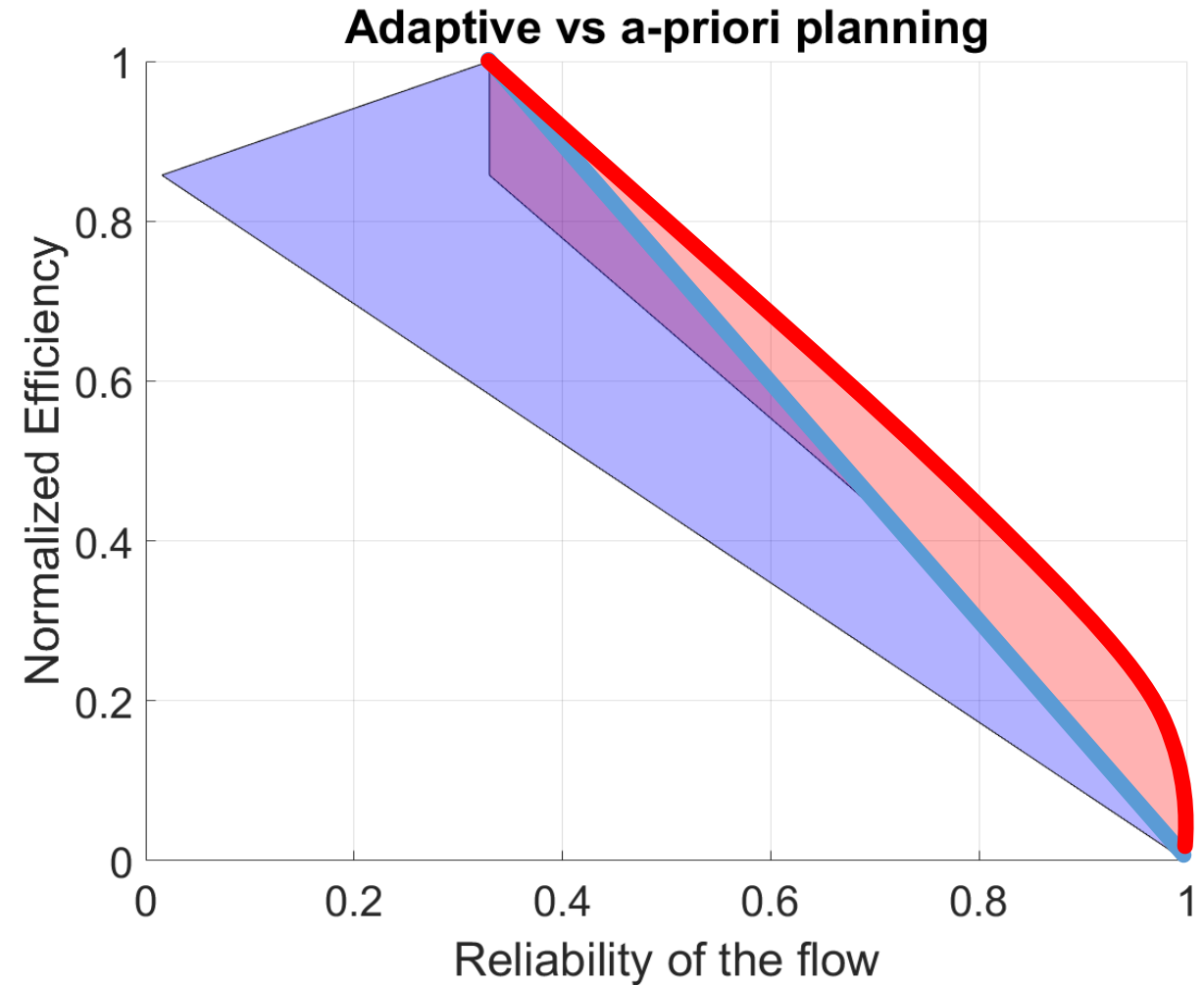
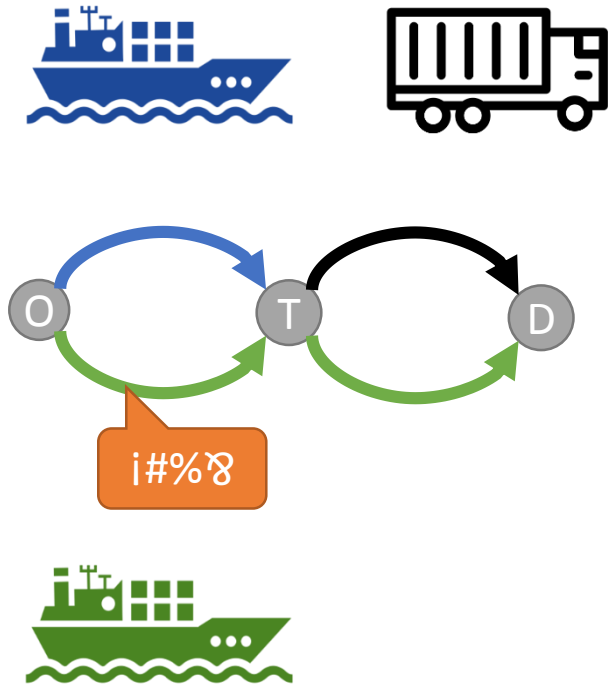
2. What is reliability related to?

Costs – Transit Time – Routing decisions

3. How can we plan reliable transport?

Let's make an example!

Planning reliable transport – A toy example



Collaborative & Reliable Synchromodal Planning

Alberto Giudici

Supervisors: Tao Lu, Rob Zuidwijk

