

Spatial Optimization Ratio (R_{km})

20%

10%

Subsample: 129 intermodal journeys

Legend

-40%

-20%

-10%

Optimization Strategies

- Detour 1
 Transfers
- Detour 2
 Service Quality
- Detour 3
 Time on Board

Spatial distance gap between actual (eff) and alternatifve (alt) trips



Calculation of the Spatial Ratio

$$R_{lm} = \frac{km_{alt}}{l}$$

0%

$$km = km_R + km_{TC} + km_D$$

Calculation of the Perceived Temporal Ratio

$$R_{tO} = \frac{t_{alt}}{t_{eff}}$$

$$tP = 1.8*(t_R + t_D) + 2.8*t_A + 1*t_{TC}$$

Reading Guide

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This bubble chart represents the visual relationship between four variables: (i) the spatial optimization coefficient (R_{km}) , (ii) the perceived temporal optimization coefficient (R_{to}) , (iii) the difference between the spatial **distance** of actual trips (km_{eff}) and alternative trips (km_{alt}) , and (iv) the type of optimization spatiotemporal strategy involved in the intermodal trip.

40%

50%

Four detour profiles are apparent: profile **A** characterized by distance-time gains, profile **B** by spatial distance savings, profile **C** leveraging the characteristics of the other two profiles, and profile **D**, where the distribution of points reflects neither a form of spatial nor temporal optimization.