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A TICKET TO **TOMORROW**

Stronger link between Northern Netherlands and Northern Germany

Wunderline - a tool for economic development

7th of December 2015

provincie groningen

Landkreis Leer

IHK Industrie- und Handelskammer

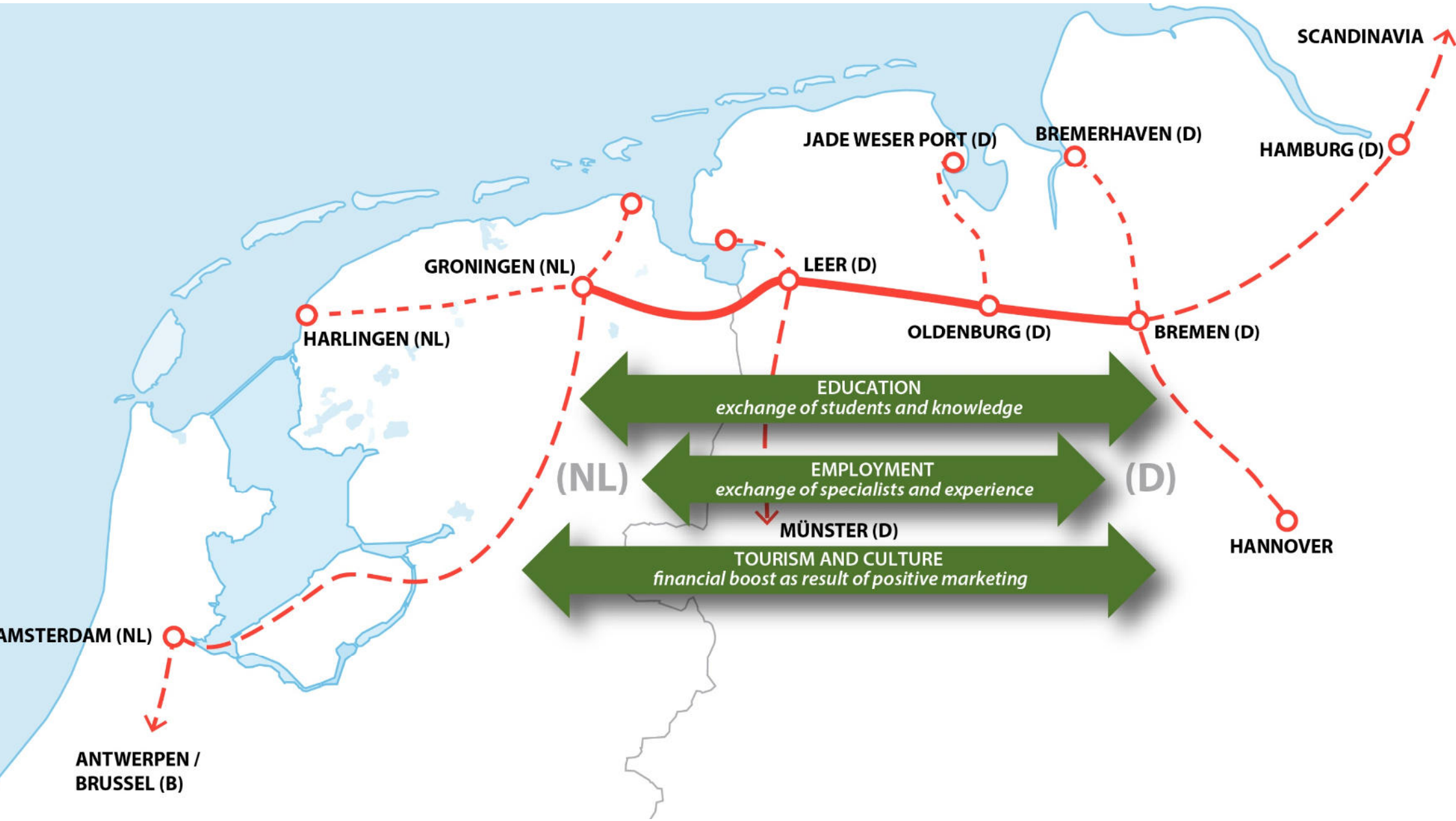
GRONINGEN SEAPORTS

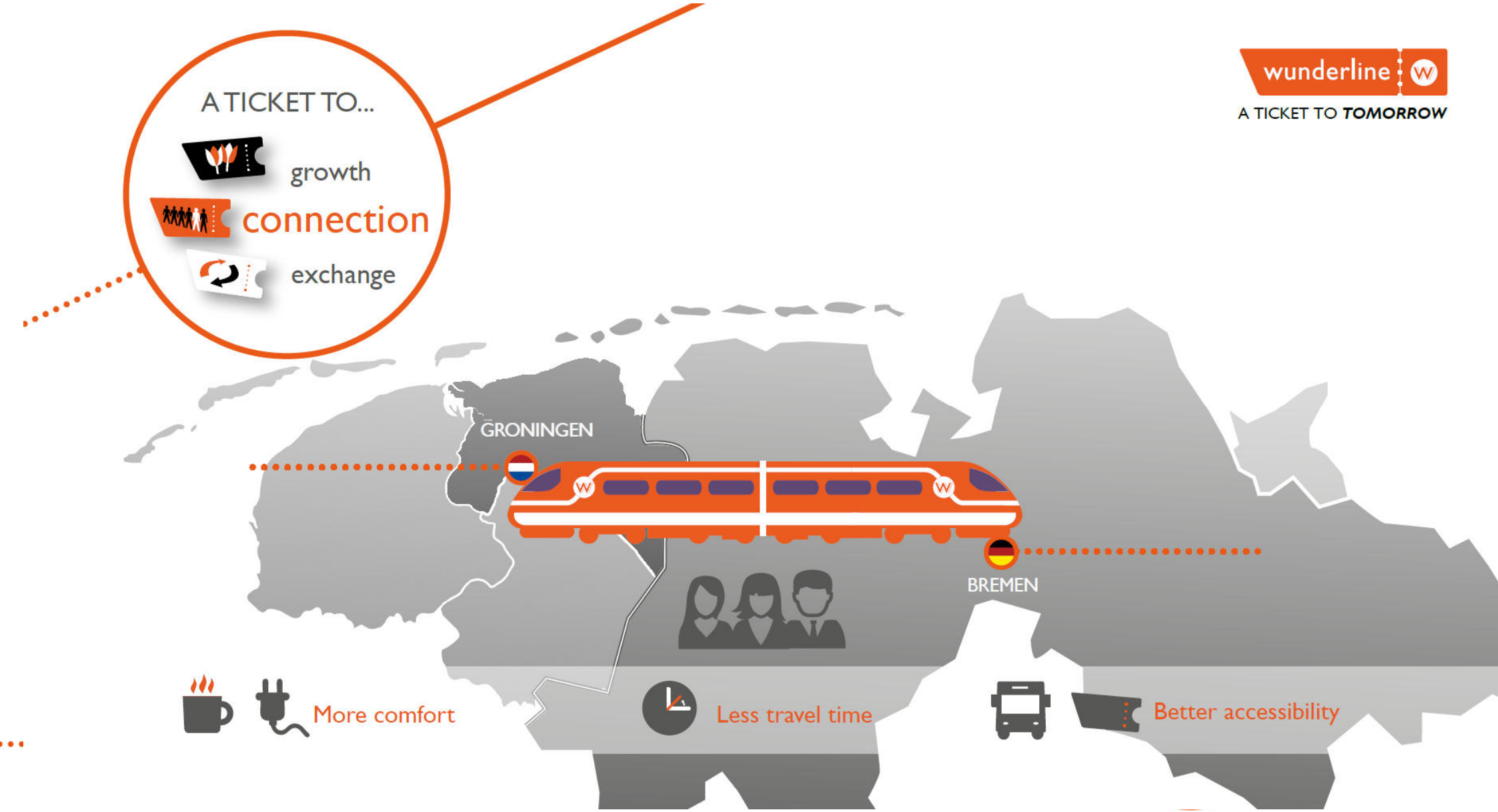
AG EMS

Von der Europäischen Union kofinanziert
Fazilität „Connecting Europe"

Co-financed by the European Union
Connecting Europe Facility

Medegefinancierd door de Europese Unie
De financieringsfaciliteit voor Europese verbindingen


SCANDINAVIA
JADE WESER PORT (D)
BREMERHAVEN (D)
HAMBURG (D)
GRONINGEN (NL)
LEER (D)
HARLINGEN (NL)
OLDENBURG (D)
BREMEN (D)
EDUCATION
exchange of students and knowledge
(NL)
EMPLOYMENT
exchange of specialists and experience
(D)
MÜNSTER (D)
HANNOVER
TOURISM AND CULTURE
financial boost as result of positive marketing
AMSTERDAM (NL)
ANTWERPEN /
BRUSSEL (B)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growth
connection
exchange
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A TICKET TO TOMORROW
GRONINGEN
BREMEN
More comfort
Less travel time
Better accessibility

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Commitment Europe

IV. PROPOSAL SCORING

Award criteria	Marks awarded
1.RELEVANCE	5.0
2.MATURITY	4.0
3.IMPACT	4.5
4.QUALITY	4.5

Source: E-internal evaluation form (Europese Commissie)
Date: 10 juli 2015

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Technical part

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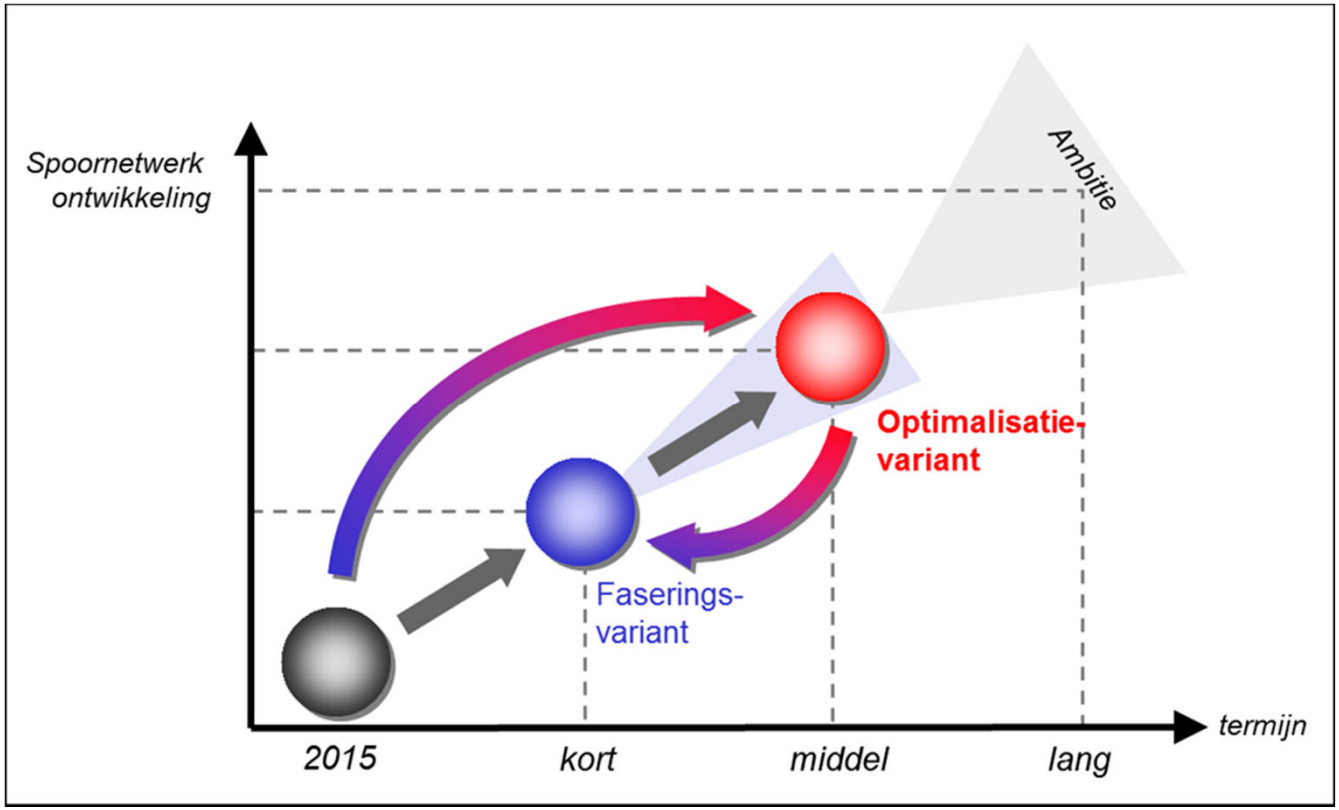
Phased approach to the improvement of quality



- Long term: 1.23 hrs
- Short term: phasing variant
- Medium term: optimization variant

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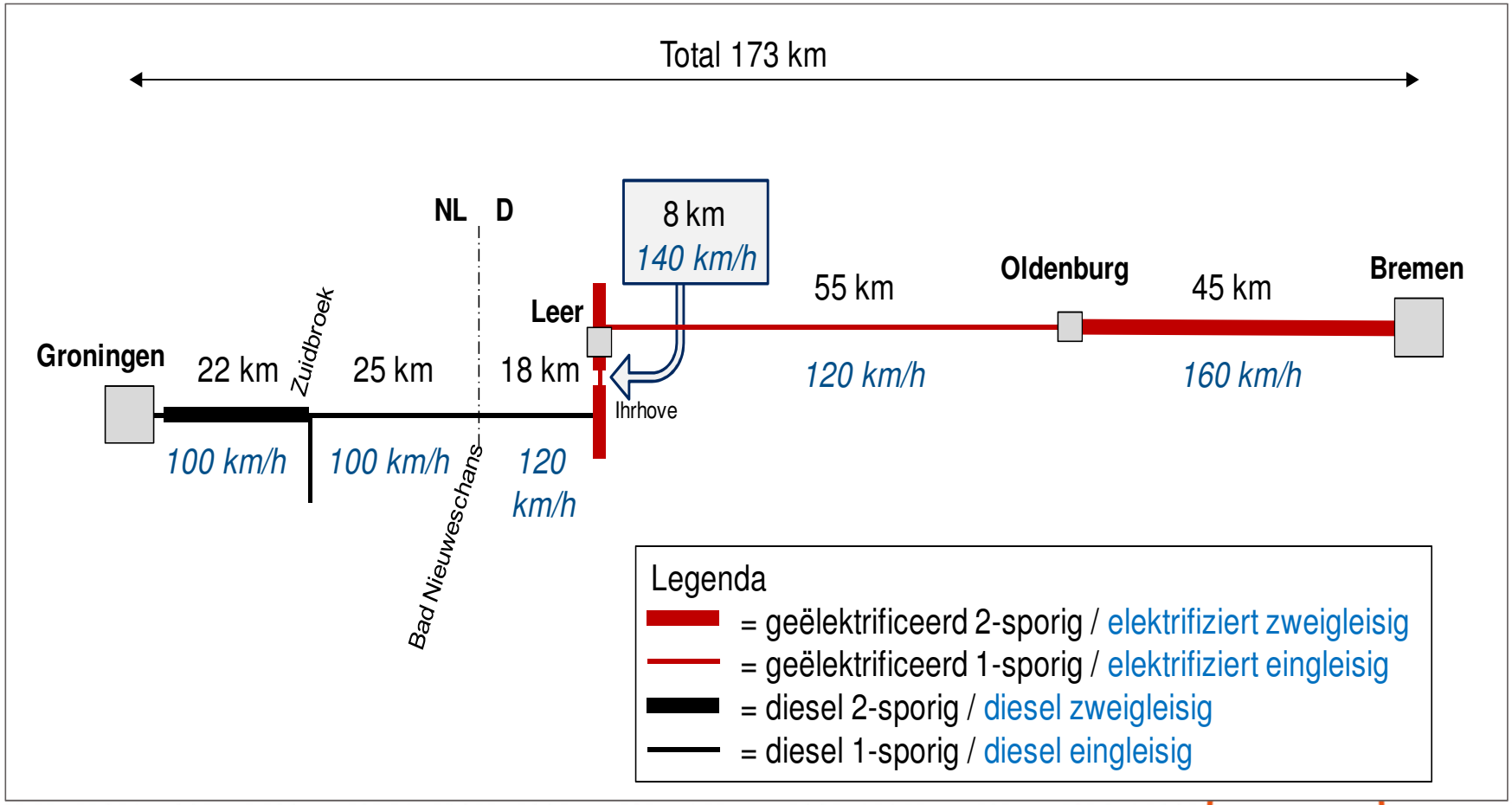
Target 2018

By 2018 we have a decision on the implementation with a feasible and supported variant.

Infrastructural situation



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Technical challenges

- **Several purposes:** short- and long-distance traffic for passengers as well as cargo
- **Complicated schedule:** fitting into the schedules in G and NL
- **Capacity bottle necks:** 57 % single-track + 2 railway bridges + highly frequented railway nodes
- **Different systems:** signalling technique, 62 % of the line (G) electrified, different voltage> more expensive, versatile trains
- **Other railway projects:** strongly embedded in and interacting with other railway projects along the line

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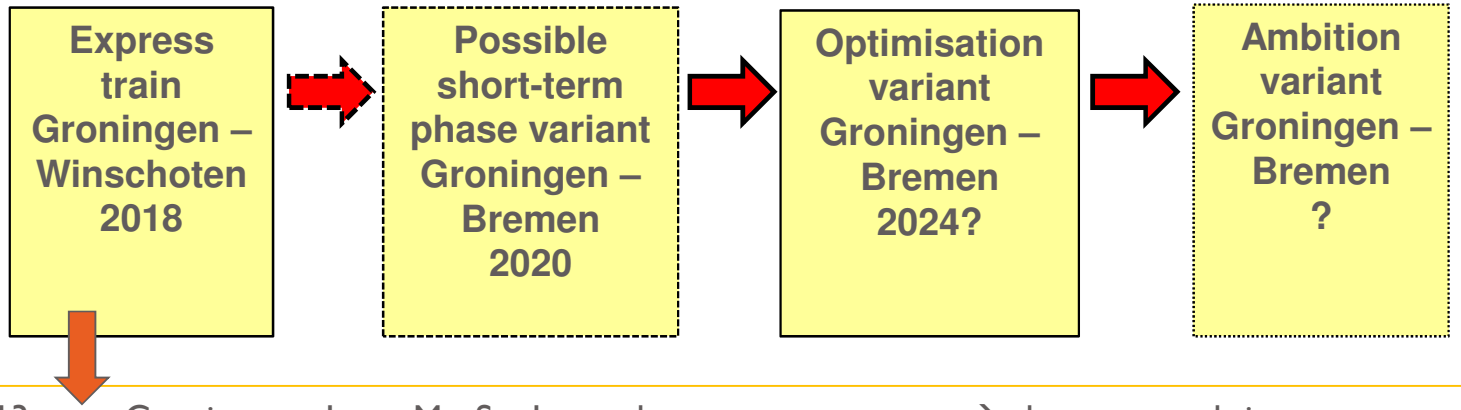
What we achieved so far



2013	Groningen – Leer: Mo-Sa, 1x per hour	→ shorter travel time, more comfort → more passengers
2014	Improved Leer connection	→ shorter travel time → more passengers
2015	Ticketing (DB, Arriva, Niedersachsen-Ticket(Plus))	→ more accessible → more passengers
2016	Groningen – Leer: Mo-So, 1x per hour	→ shorter travel time, more comfort → more passengers

Initial situation

Regional Groningen – Leer trains every hour
IC/RE trains to Bremen are going to Hanover / Leipzig
Integration of Groningen – Winschoten express train
Programme of the Northern Netherlands (PNN) incl. Node of Groningen

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Promising alternatives: 4 options for structuring the line

Direct Groningen – Bremen connections	Only one (express) train across the border, stopping at stations between Groningen and Leer	Express train + regional train across the border
Combination with RE/IC between Leer and Bremen	1	2
Extra train between Leer and Bremen, alongside RE/IC	3	4

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Promising alternatives

Line Variant	Travel time	Investment costs:	Costs/ minute	Operation costs (ME/Y)	Remarks
1	2h26	60-90	4.2	1	Optimal travel time with line variant 1 with minimal investments and operation costs
2	2h12	140-170	5.0	4	Optimal travel time with network variant 2
3	2h16	70-100	3.1	11	Optimal cost-benefit ratio (using LNVG project)
4	2h02	140-170	3.6	14	Good cost-benefit ratio (using LNVG project)
4	1h55	190-220	4.0	14	Travel time under 2 hours

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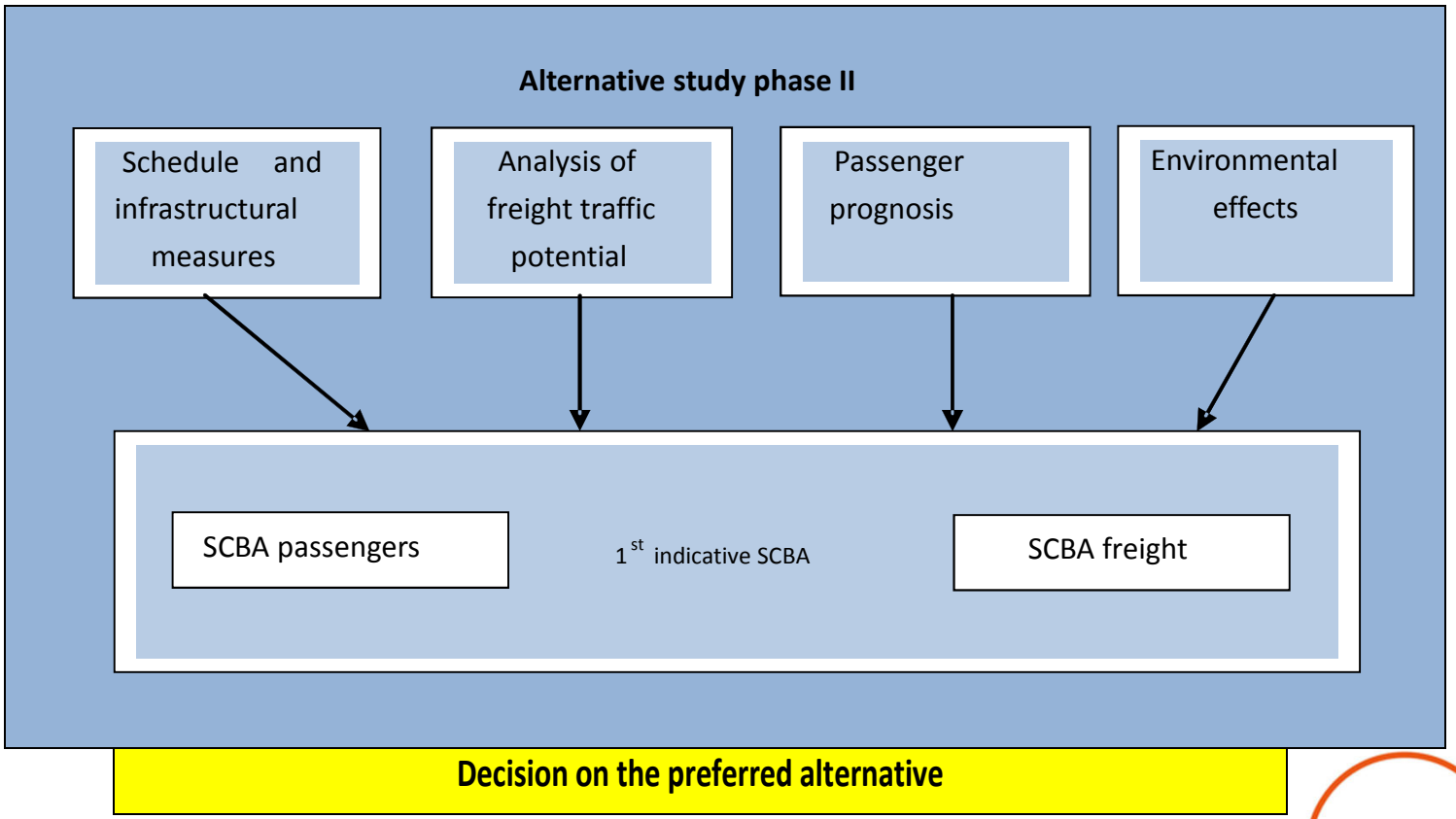
Studies → preferred alternative



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Research on Freight transport

- Source and Destination areas
- Modal split 2025-2035
- Utilisation of the rails
- Freigth transport in one direction per hour possible?
  - Autonomous developement of railinfrastructure
  - Structural Freight path with waiting lanes
  - Structural Freight path with adapted infrastructure

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Any questions?