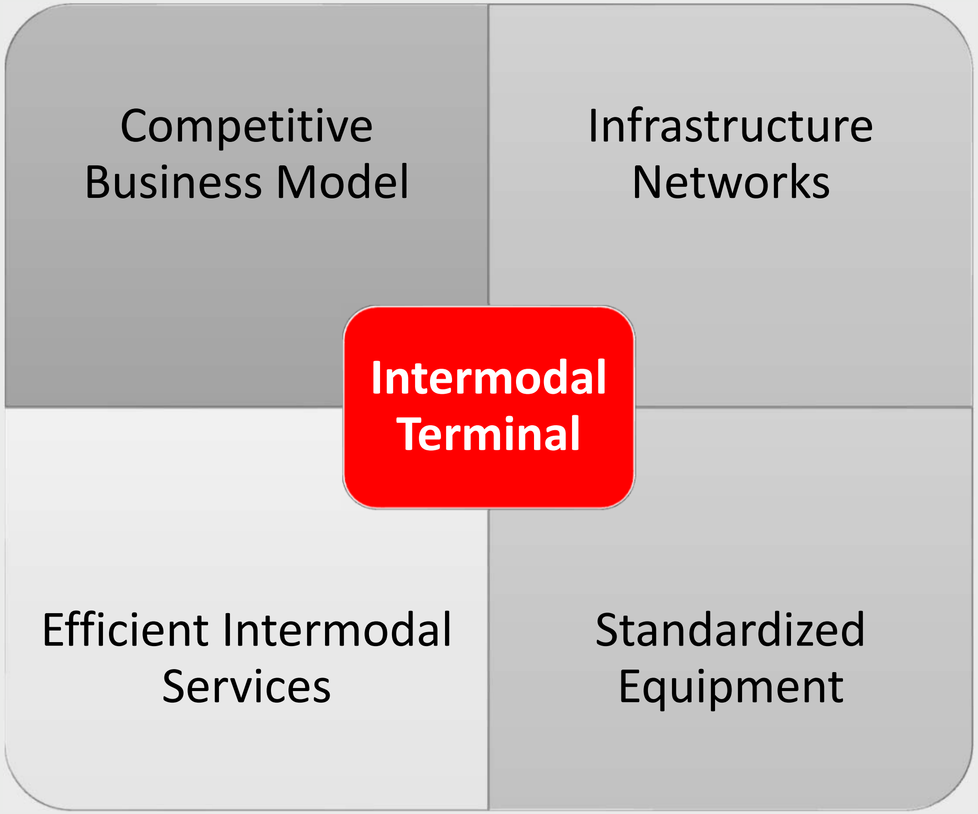
Transfer Conference & REIF Shift to Regional Rail Award

Intermodal terminals – key to modal shift

by Klaus-Uwe Sondermann, Managing Director, KombiConsult GmbH

Key(s) to modal shift
Intermodal Terminals



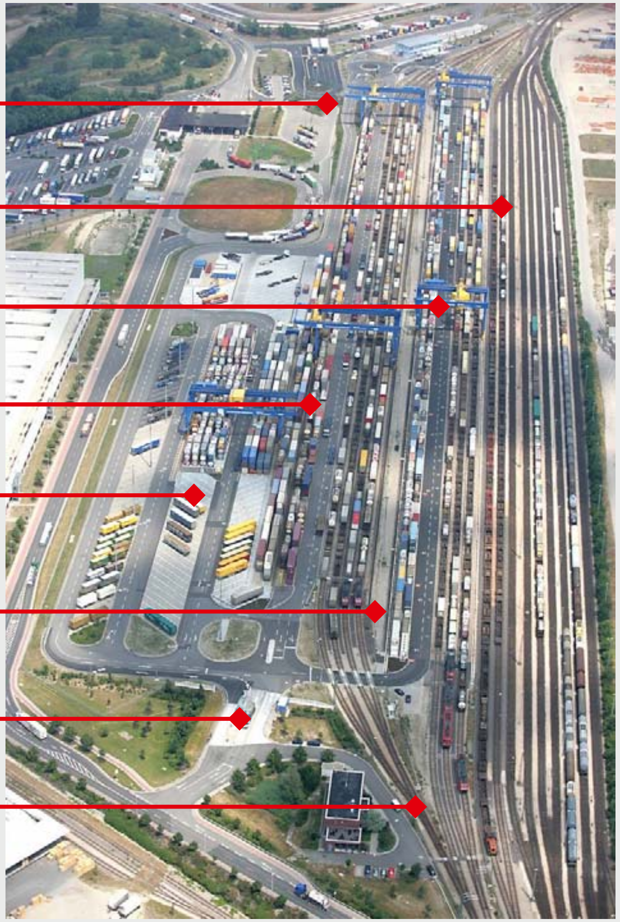
Agenda

- Development of CT volumes in Germany 2013-2019(-2021)
- Illustration of CT transhipment facilities in Germany until 2019
- Performance review of the existing funding guidelines
- Forecast of CT development and transhipment demand until 2030
- Proposals for the design of the future funding guideline
- Take-aways

Key(s) to modal shift

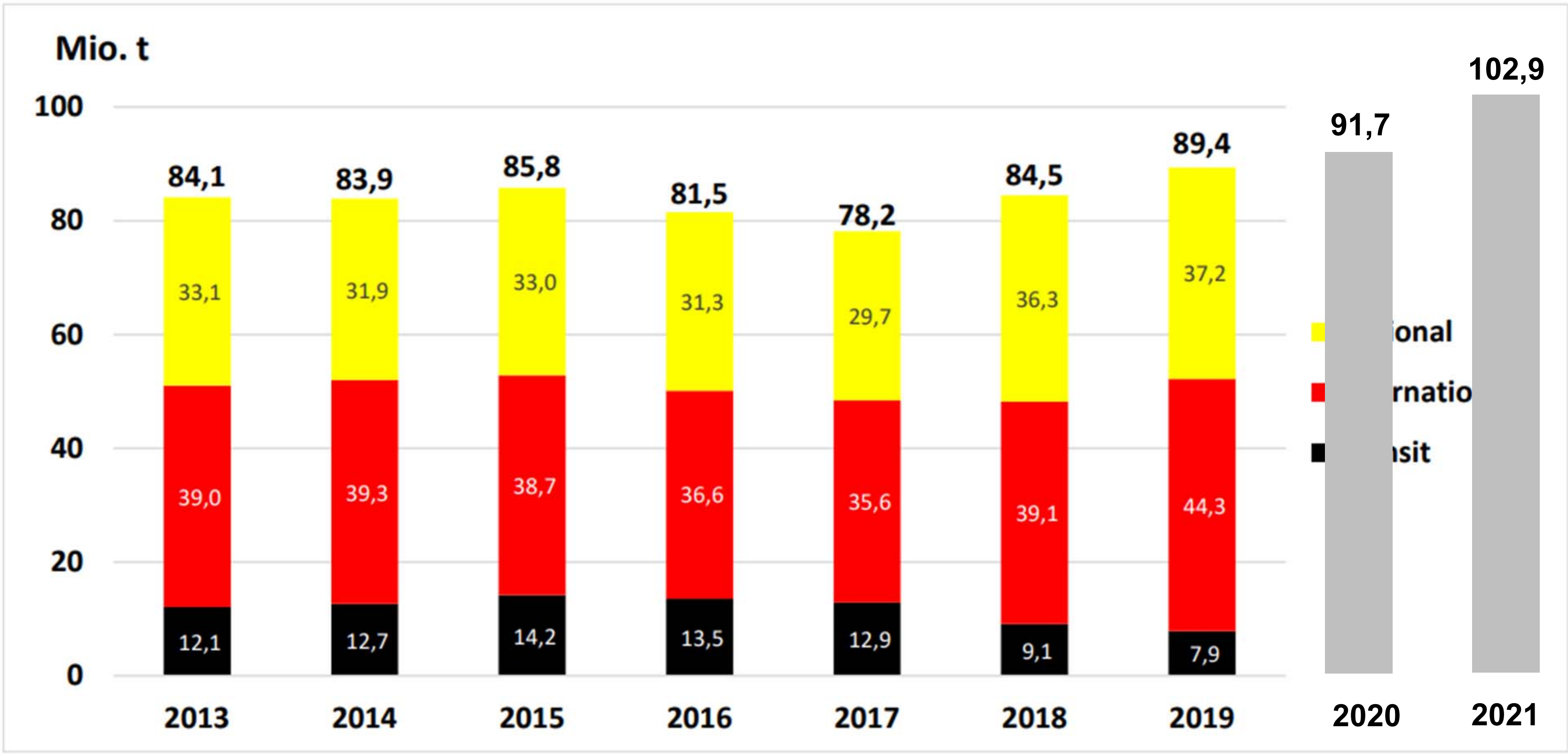
Intermodal Terminal design features

- Gate Area with (automated) check-in
- Buffer tracks
- Transshipment Tracks (“train long” = 740 m)
- Buffer Lanes
- Storage / Depot
- Loading and Driving Lanes
- Road Access
- Direct (electrified) Rail Access (with OCR-Gate)



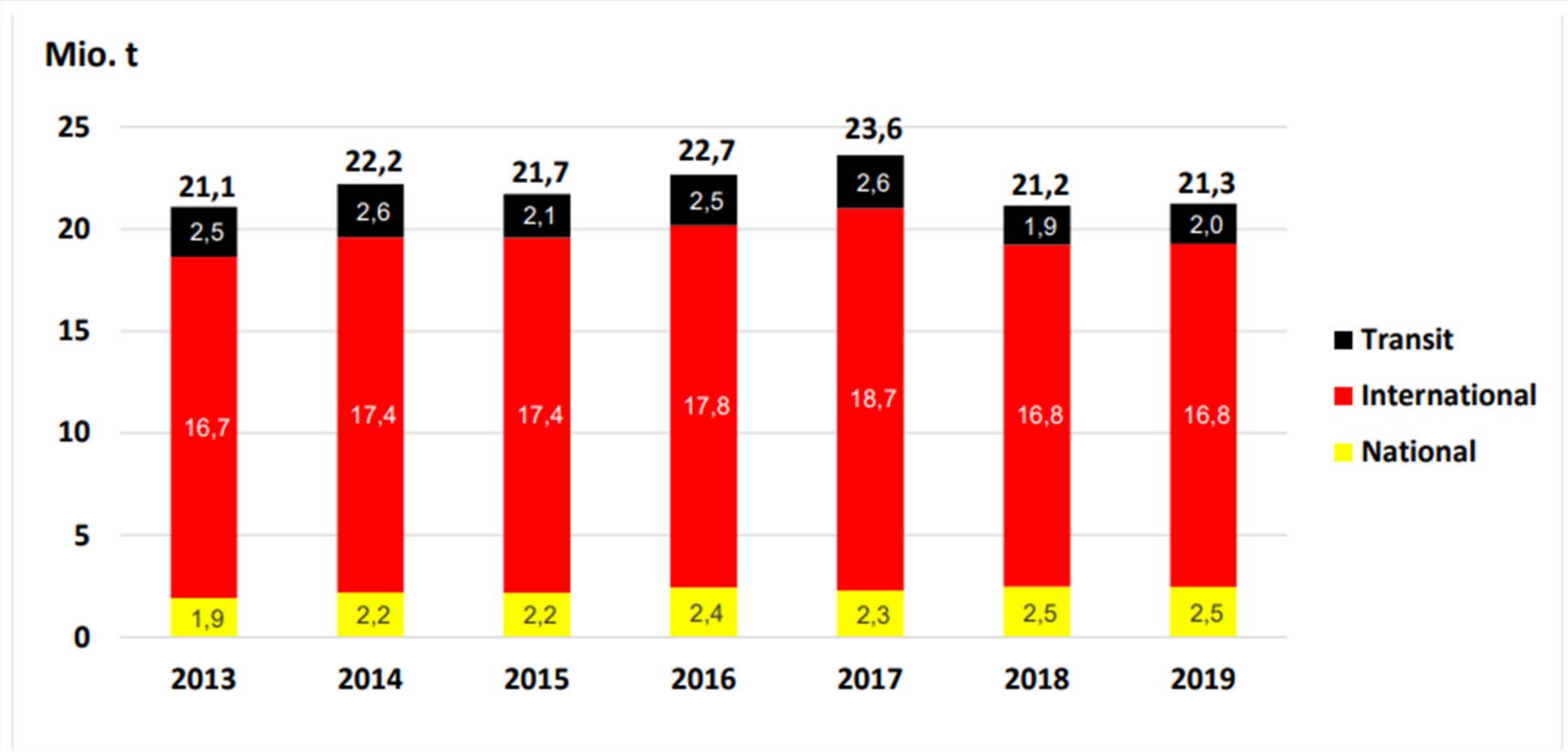
Source: BASF, KombiConsult analysis

Development of CT-Volume in Germany
Unaccompanied CT Rail-Road: Types of Traffic, 2013-2019



Source: Destatis, KombiConsult analysis

Development of CT-Volume in Germany
Unaccompanied CT Inland Waterway-Road: Types of Traffic, 2013-2019



Source: Destatis, KombiConsult analysis

CT-Terminals in Germany
All terminals by terminal class and category, 2019

Class of Terminals and Category	N°	Capacity (LU p.a.)	Volume (LU p.a.)	Ø Utilisation (%)
DB Netz-Terminals Rail-Road	**20**	**2 390 000**	**-**	**-**
Terminals funded by Guidelines*	**89**	**9 744 000**	**6 379 290**	**65%**
Inland Terminal Rail-Road	31	2 424 800	1 538 780	63%
Inland Terminal IWW-Road	5	167 300	77 370	46%
Inland Terminal Trimodal	42	4 659 200	2 558 600	55%
Terminal near Ferry Port	4	363 000	220 830	61%
Terminal near Sea Port	7	2 130 000	1 983 710	93%
Other Terminals	**40**	**1 781 300**	**1 093 810**	**61%**
TOTAL	**149**	**13 915 000**	**> 9 370 000**	**≈ 67%**

*Guidelines for the funding of Combined Transport transhipment facilities of owners in private legal form, different programmes since 1998, the last 2017-2021; KombConsult analysis.

CT-Terminals in Germany
Funding of Combined Transport transhipment facilities in Germany

- Financial contribution to the building costs of intermodal terminals in Germany
  - DB Netz AG as investor → Law for Expansion of Federal Railways (BSchwAG)
  - Private legal form → **Guidelines for the funding of CT transshipment facilities**
- Construction of new and upgrading of existing sites
- Up to 80% of the components eligible for funding (listed in the Guidelines)
- No start of works before handing-in the application;
  Application can be handed-in any time (according to project maturity)
- Economical viability (with the requested funding)
- Assessment by permanent staff of competent authorities (EBA, GDWS)
- Security must be provided for the repayment of funds
- Terminal owner/investor independent from operator (tendering)
- Non-discriminatory access to terminal services assured

Source: BMDV, KombiConsult analysis

Evaluation of Funding Success
Funded projects since 1998, Status: October 2020

Class of Terminals and Category	N°	Share	Investment* (Milion €)	Funding Amount (Million €)	Ø Funding Rate (%)
Inland Terminal Rail-Road	43	36%	480.5	344.3	72%
Inland Terminal IWW-Road	6	5%	59.8	43.0	72%
Inland Terminal Trimodal	54	45%	659.6	447.3	68%
Terminal near Ferry Port	7	6%	54.1	37.8	70%
Terminal near Sea Port	10	8%	221.6	128.5	58%
Total	**120**	**100%**	**1 475.6**	**1 000.9**	**68%**

* Eligible investment costs incl. Planning costs

Additional investment in supplementary service facilities such as Depots (approx. €200 million)

Total additional capacity per year: 7.713 million loading units of which

3.238 million loading units of expansion and

4.475 million loading units for new builds

Evaluation of Funding Success

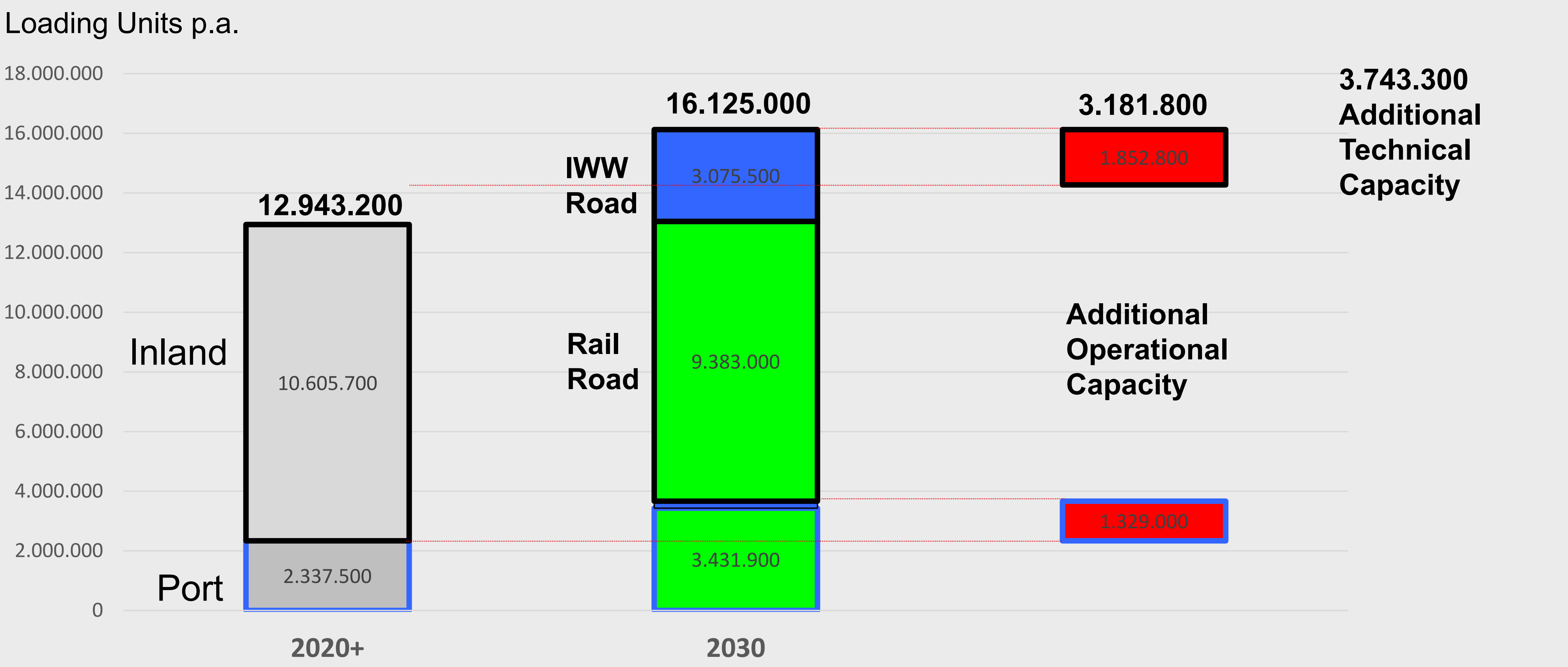
Effectiveness and efficiency of Guidelines for funding CT transshipment facilities

- **tkm**: 4.5 million truck journeys **reliefed** (2019)
  38.0 billion tonne-kilomters transport performance
- **CO2**: 2 747 500 t CO2 emissions **avoided** (2019)
- **€**: €937 million external effects **avoided**
  €18.7 billion economic benefit over 20 years (holding period)
- **€**: Economic ROI 18.7 (1 € of funding generates **economic benefit** of 18.7 €)
- **%**: 5.6 percentage points less road transport (75.6% instead of 81.2%) **modal shift effect**

Source: KombiConsult, Evaluation of the Guidelines, May 2021

Forecast of CT-Volume and Handling Capacity Need by 2030

Total need of handling capacity by 2030



Source: KombiConsult, Evaluation of the Guidelines, May 2021; „2020+“: incl. 32 planned projects delivering 1.2 million loading units

Proposals for the design of the future funding guideline
Main Points

- Maintain/Continue the basic principles
- Investment in new, extension and replacement in existing of facilities
- Technology openess
- Improvements in details
  - Appropriateness
  - Eligibility list
  - Owner/operator regulations
  - Bureaucratic efforts of application

Take aways

- Intermodal Terminals are key for modal shift
- Funding of the infrastructure cost rather than operational aid is an appropriate means of improving the competitiveness of intermodal supply chains
- Modal-Shift targets, socio-economic benefits and CO2-reduction are achieved
- Programme-based funding of individual terminal measures upon application
- Sustainable and economic viable through market drive
- Necessary capacity rather than “compliance”

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BERATEN PLANEN UMSETZEN

Contact

Klaus-Uwe Sondermann

Managing Director

+49 (0) 69 24 43 29 31 72

usondermann@kombiconsult.com

Terminals für den Kombinierten Verkehr über Schiene und Wasserstraße in Deutschland 2022

Terminals for Combined Transport by Rail and Inland Waterways in Germany 2022

Besuchen Sie auch unsere Website über Terminals in Europa

Please also visit our website on European intermodal terminals: www.intermodal-terminals.eu

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