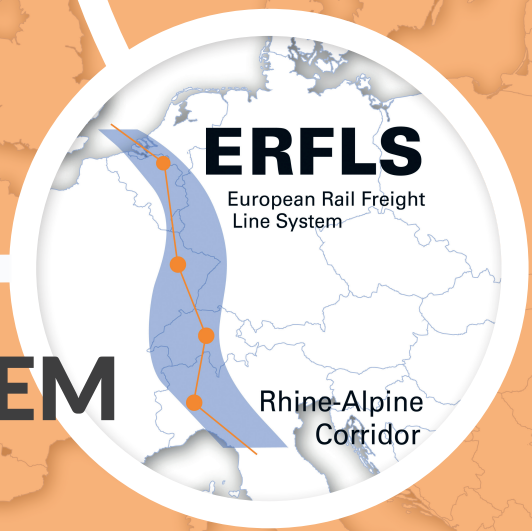




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ERFLS CEF ACTION EUROPEAN RAIL FREIGHT LINE SYSTEM



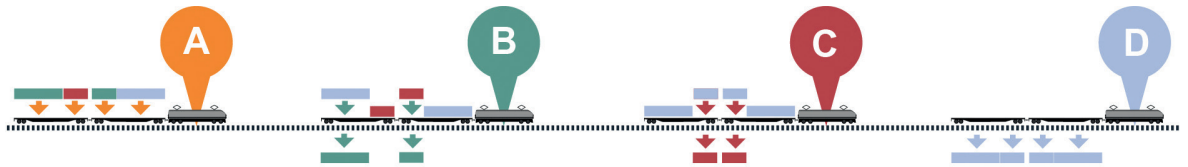
CURRENTLY

From shuttle trains fully loaded at origin and fully unloaded at destination...



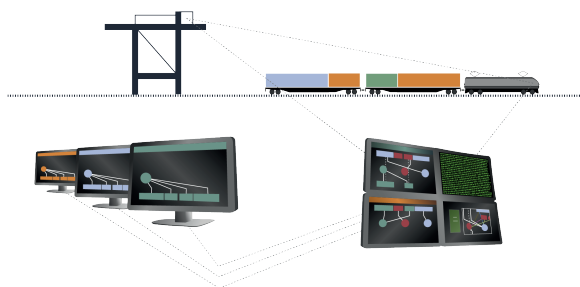
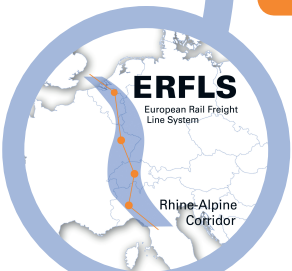
WITH ERFLS

...to liner trains with short intermediate stops where they are partly loaded/unloaded.



TELEMATICS SOLUTIONS

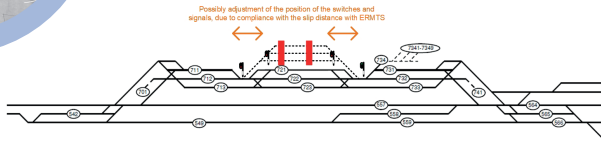
ERFLS telematics will be a layer linking terminals, trains, slots, and operators



- 1 EACH OPERATOR MAY KEEP USING ITS OWN SYSTEMS AND DATA FORMATS
- 2 RELIABLE REAL TIME INFORMATION WITH CURRENT TECHNOLOGIES
- 3 E-CONSIGNMENT NOTE AND ADVANCE INFORMATION TO TERMINALS
- 4 OPTIMISED OPERATIONS AT TERMINALS AND ROAD-SIDE
- 5 SALE OF SLOTS ON TRAINS AS THEY ARE RUNNING, WITH VISIBILITY OF TRAINS POSITION AND EMPTY SLOTS

INFRA SOLUTIONS

Six terminals along the whole Rhine Alpine Corridor were examined as case examples and all can become ERFLS smart terminals. Terminal transformation options are available along with required times and costs.

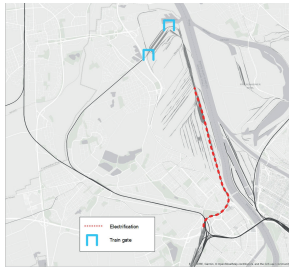


VALBURG

planned layout and operations are similar to those of a smart terminal. Need to make momentum access and direct exit possible on line with ERTMS level 2

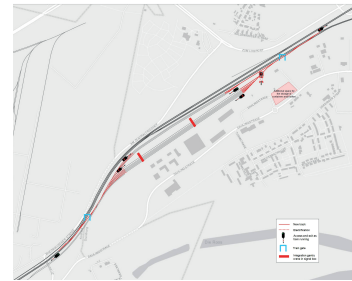
LUDWIGSHAFEN

2 options for minor transformation



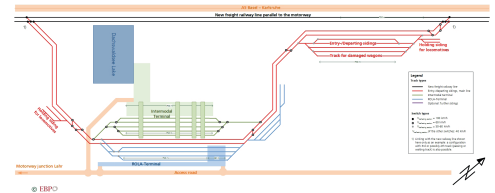
DUISBURG

LOGPORT III: 2 adaptation options



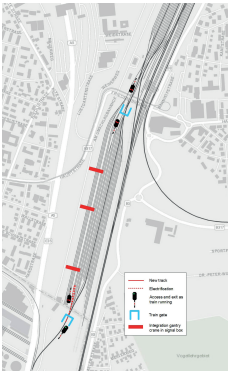
LAHR

terminal in planning, 2 possible layouts, both with tracks for momentum access and to smart terminal standards



BASEL WEIL AM RHEIN

one adaptation option with regular usage of through tracks



NOVARA

4 transformation options, from minor changes to a possible new terminal

