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Air-baggage drop-off during train ride to the airport

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TerminalOnRail

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Initial position

Limitation of temperature rise:

→ EU-wide **reduction of greenhouse** gases of approx. **70%** by 2050

Flight path 2050

→ 90% of EU residents shall have the opportunity of **4 hour door-to-door trip**

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Cooperation between air and rail

Competition between air travel and (high speed) trains for destinations up to 500/1000km

Cooperation models between air and rail system – general idea: use (high speed trains) as **airport feeder** instead of (ultra) short distance **flights**

- *Low*
- *Moderate*
- *High*

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Cooperation between air and rail - Low

Easy trip to the airport: e.g. train ticket sold by airlines

Example - Rail&Fly (ÖBB or DB):

- Cooperation between rail operators and travel agencies or airlines
- Train tickets are included or offered to air travellers for a special price

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Cooperation between air and rail - Moderate

Includes a code-share agreement between rail operators and airlines

Example - AIRail (ÖBB or DB) / tgvair (SCNF):

- Connecting flights include at least one train service
- Train service is handled like a plane flight
 - Train service has a flight number, passengers have to check in and get a boarding pass
 - In case of delay or cancellation the air-passenger rights are used (rebooking, hotel booking, compensation etc.)

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Cooperation between air and rail - High

Like „moderate“ cooperation, but including baggage handling

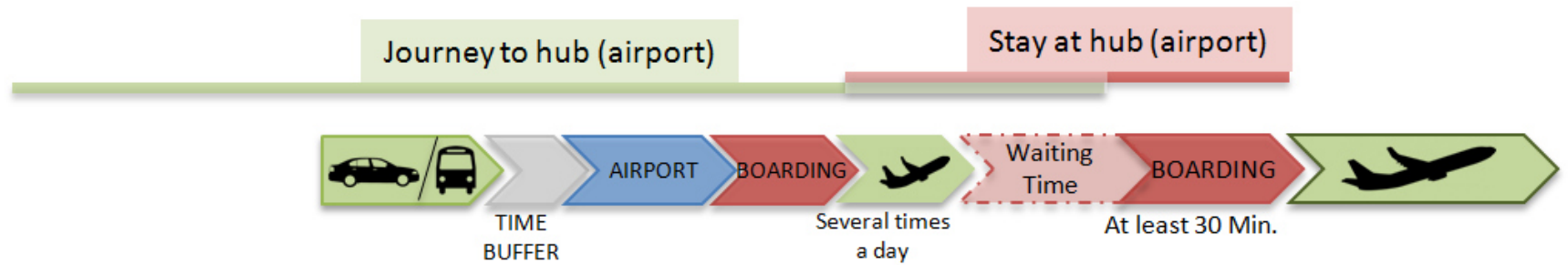
Example - AIRail of DB until 2007:

- Check-in and baggage drop-off counter at train station
- Baggage is transported inside the train in a separate compartment

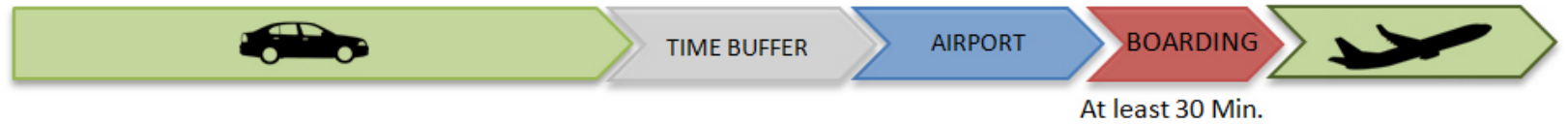
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Usual air travel options

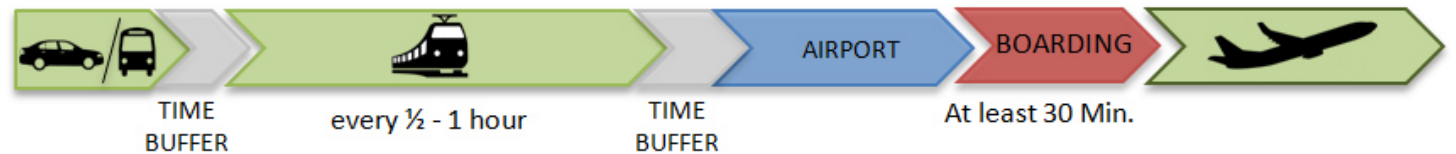
plane - plane



car - plane



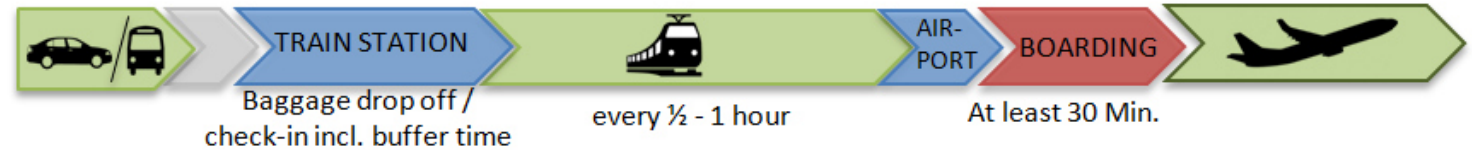
train - plane



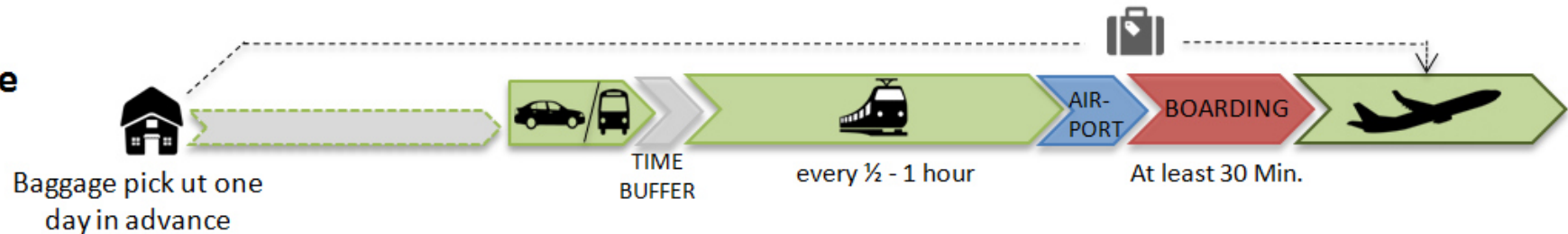
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Options including baggage handling

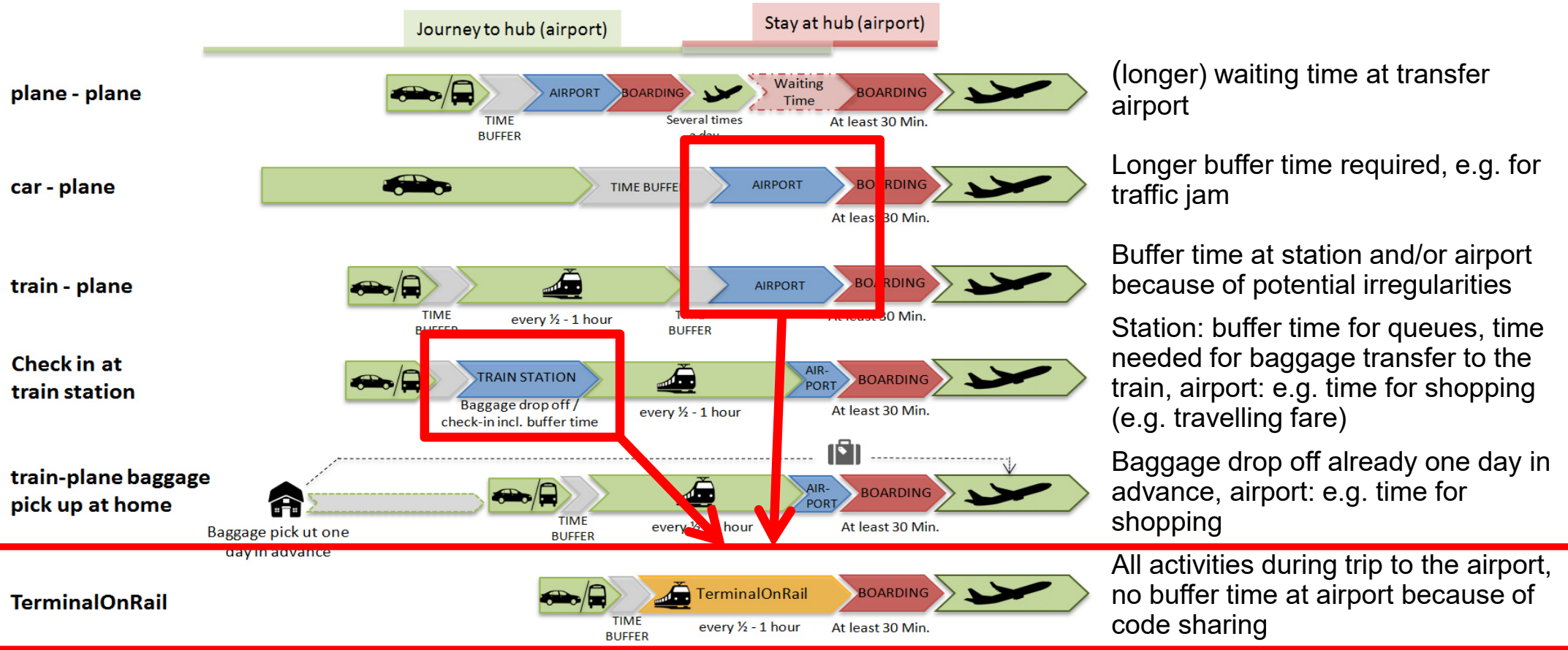
Check in at
train station



train-plane baggage
pick up at home



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Project idea



- Idea
 - Transfer of different actions from the **airport terminal into the train**
 - goal: increase of attractiveness of airport trains due to better time use facilities.
- Exploratory project
 - Collecting ideas, development of concepts
 - Feasibility study
 - Also define short term measures

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Airport activities

- Check in
- Baggage drop off
- ~~Security check~~
- ~~Passport control~~
- Changing money
- Withdrawing money
- (Duty free) shopping
- Eating and drinking, working or relaxing in a lounge
- Buying take away drinks (e.g. water bottle for the plane) or literature
- Etc.

Which activities can be transferred into the airport feeder train?

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Airport activities

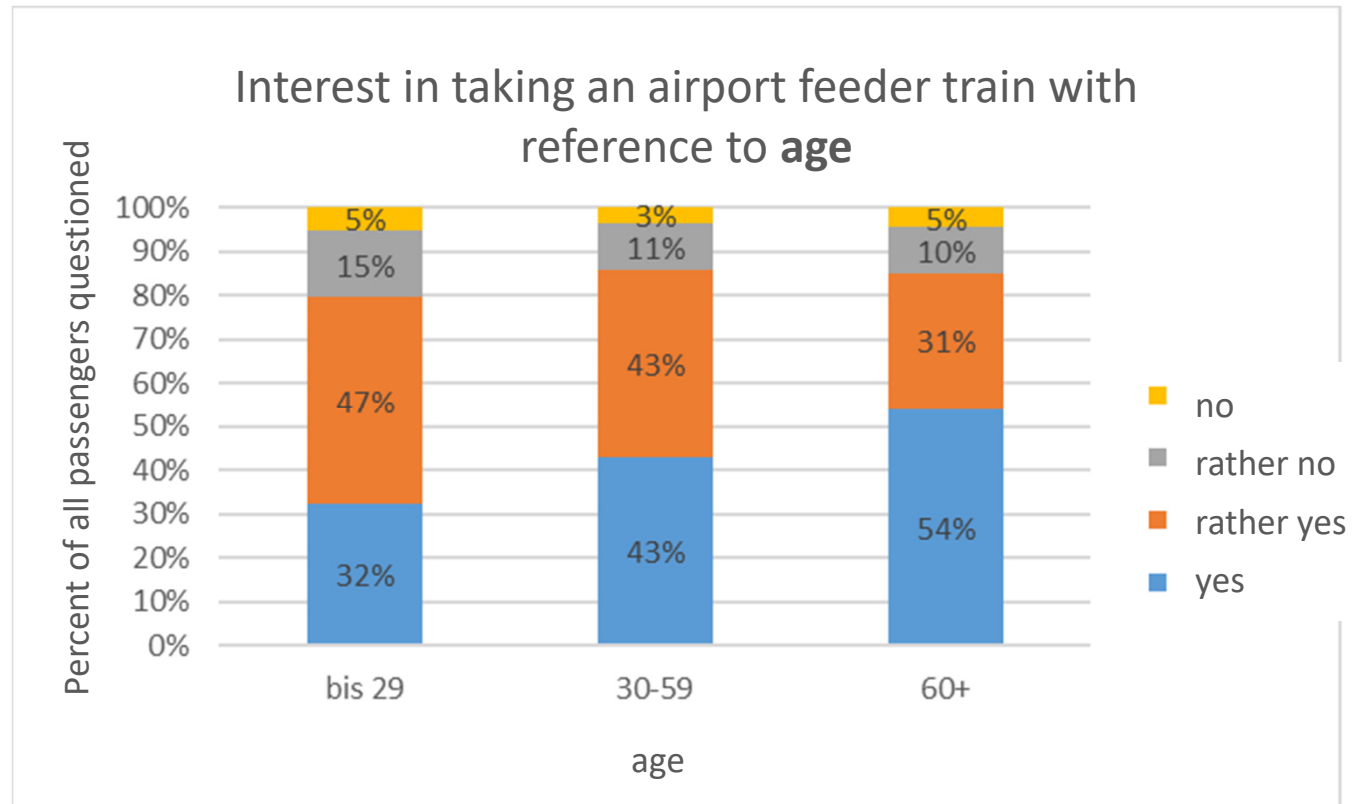
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- Etc.

Which activities are meaningful and which can be realized in the train?

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Interest in taking airport feeder trains

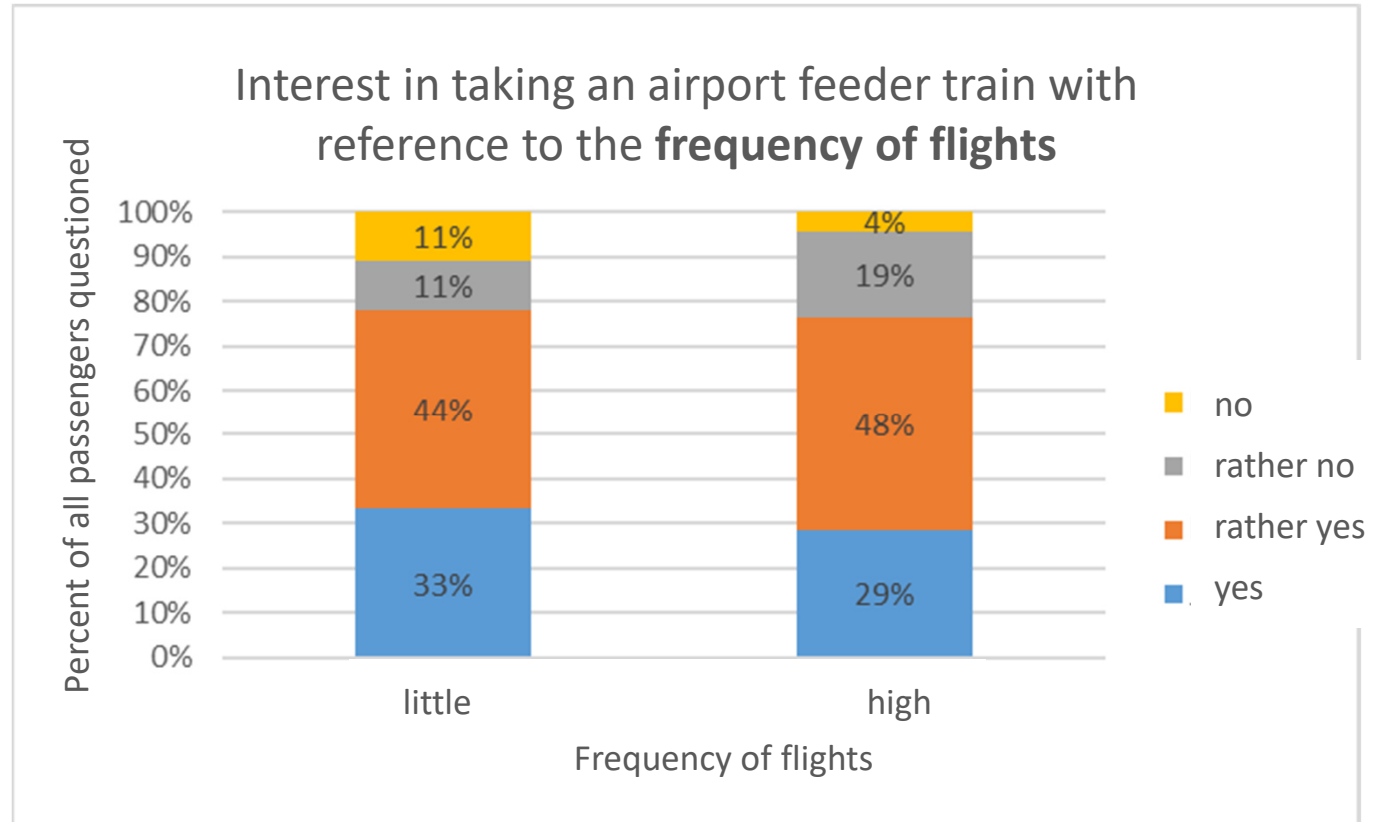
- Interest is rising according to age



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Interest in taking airport feeder trains

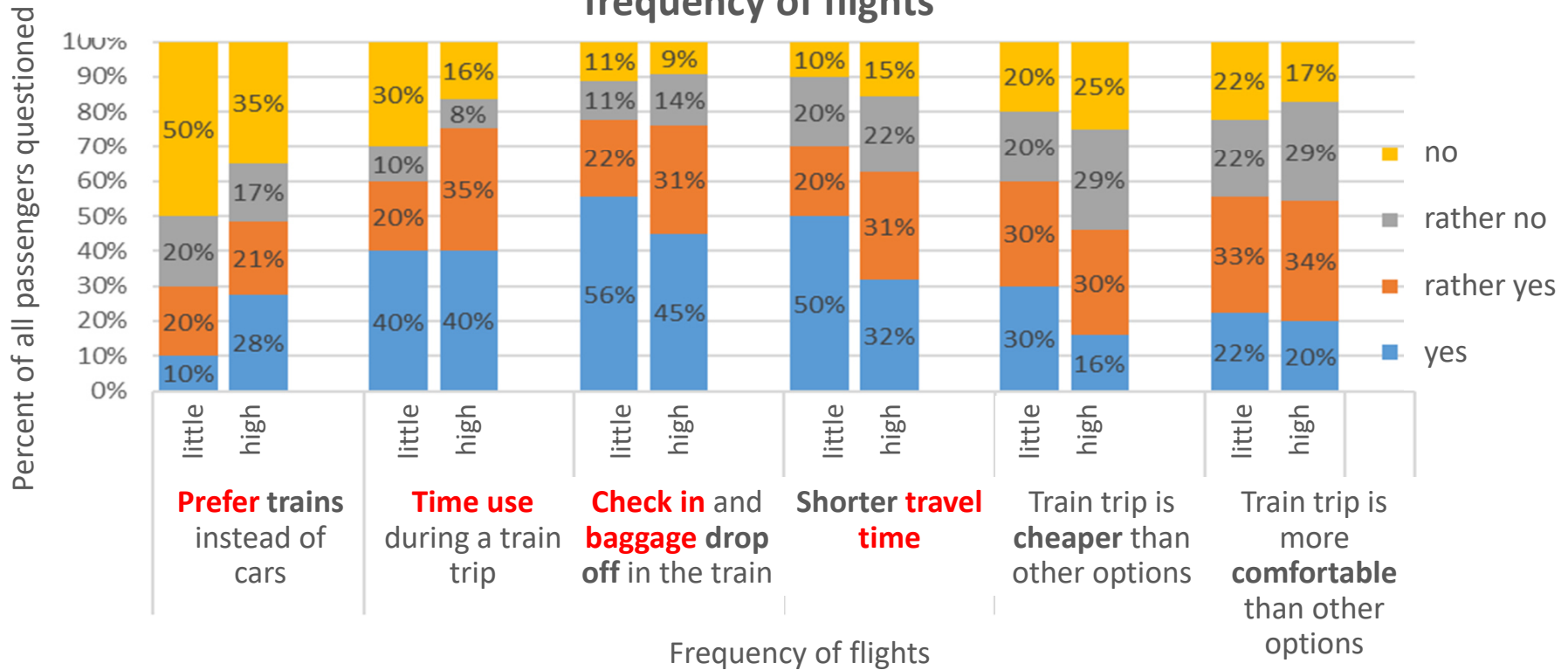
- Interest is nearly the same



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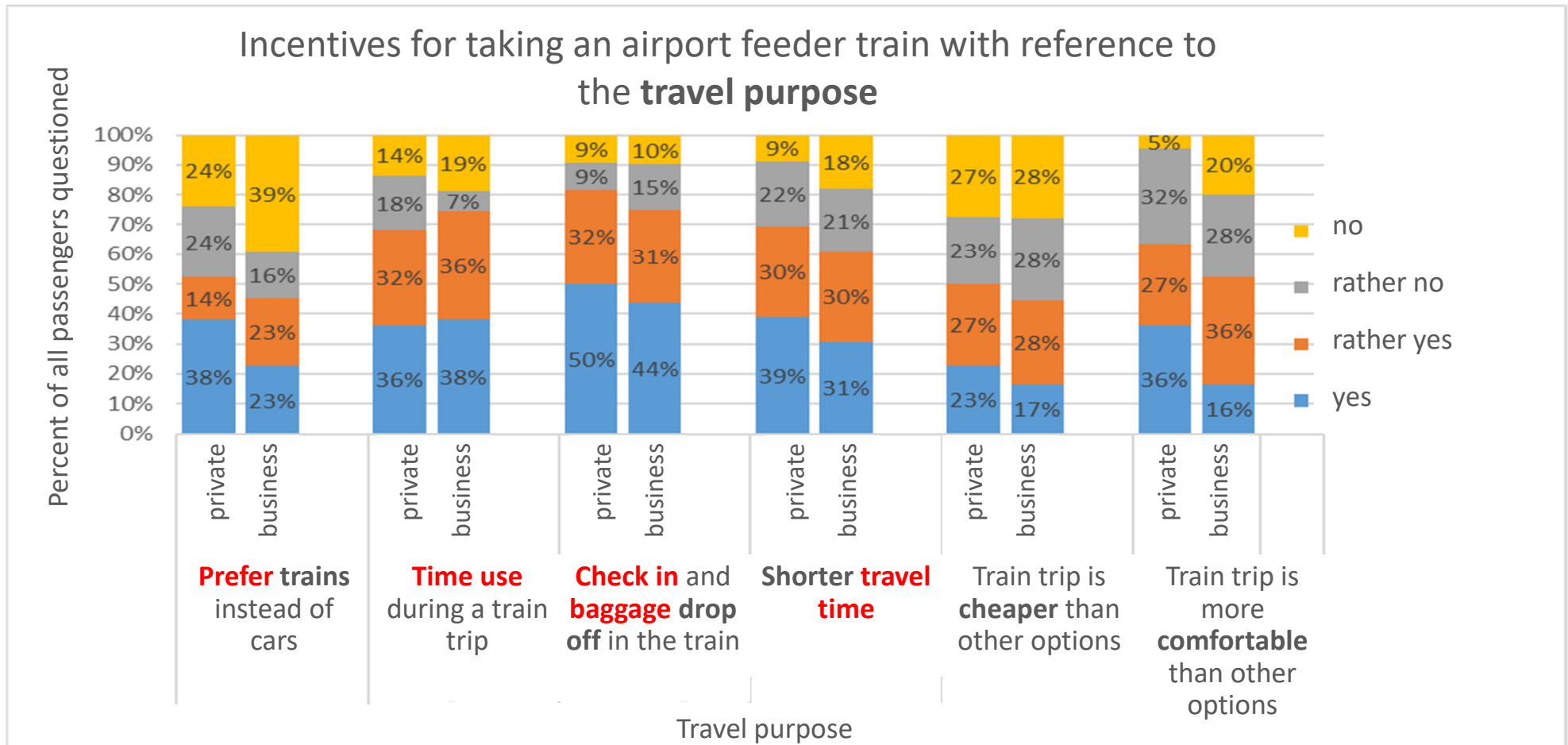
Incentives for using airport feeder trains

Incentives for taking an airport feeder train with reference to the frequency of flights



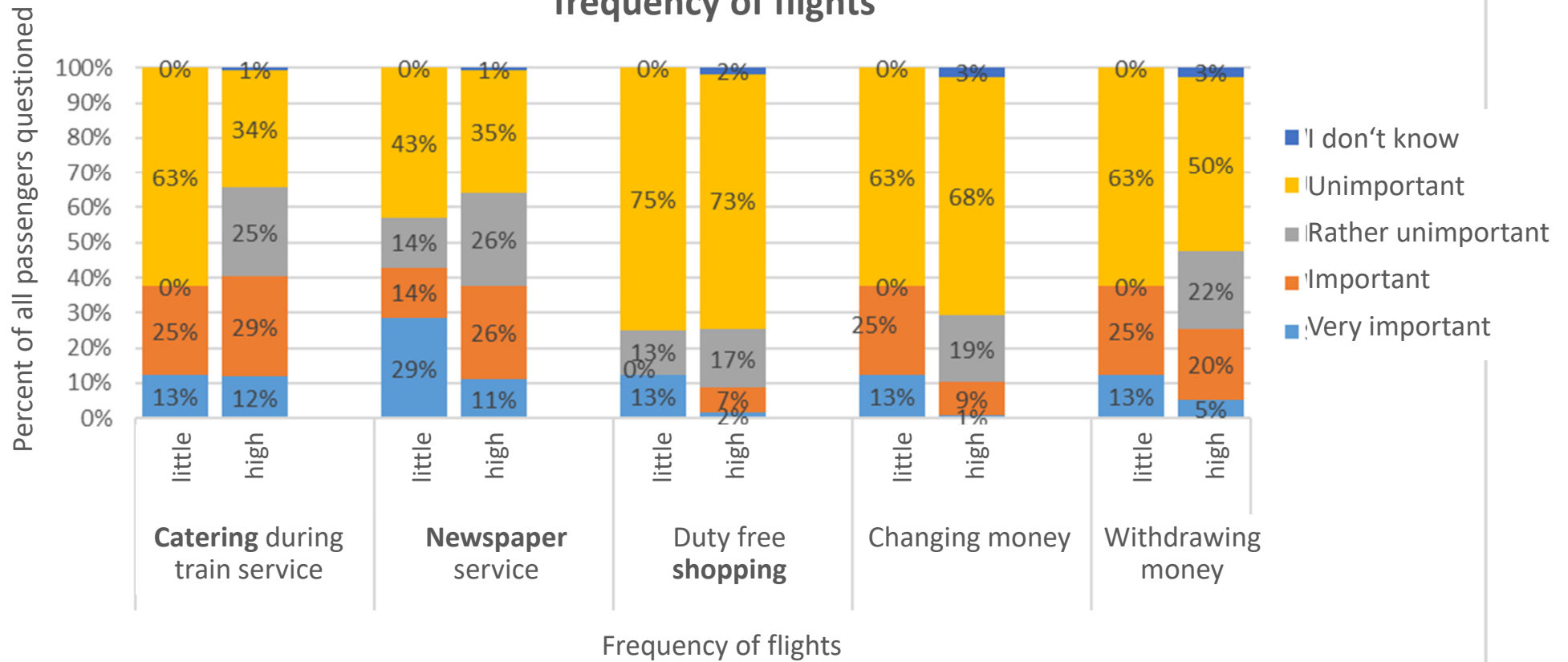
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Incentives for using airport feeder trains

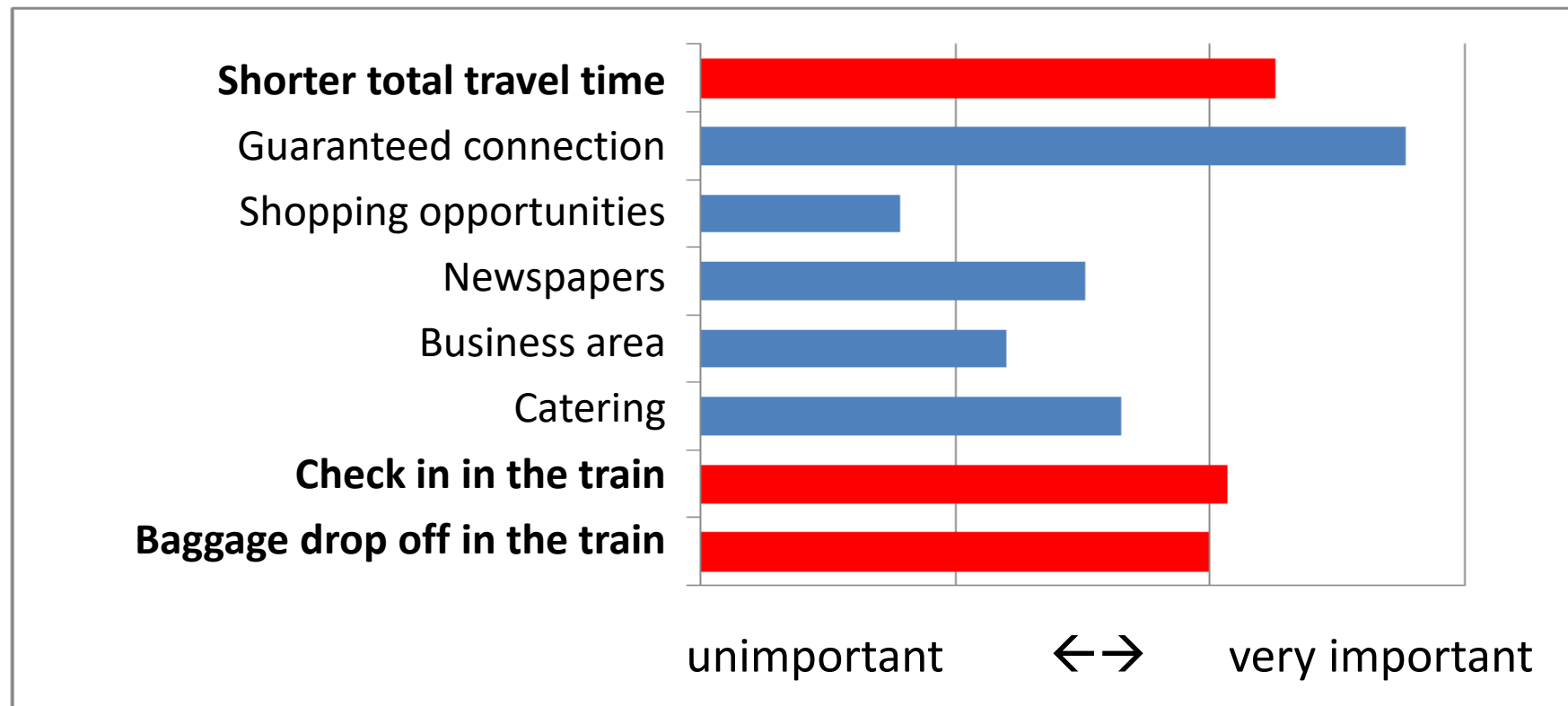


Interest in services on airport feeder trains

Interest in other services inside the train with reference to the frequency of flights

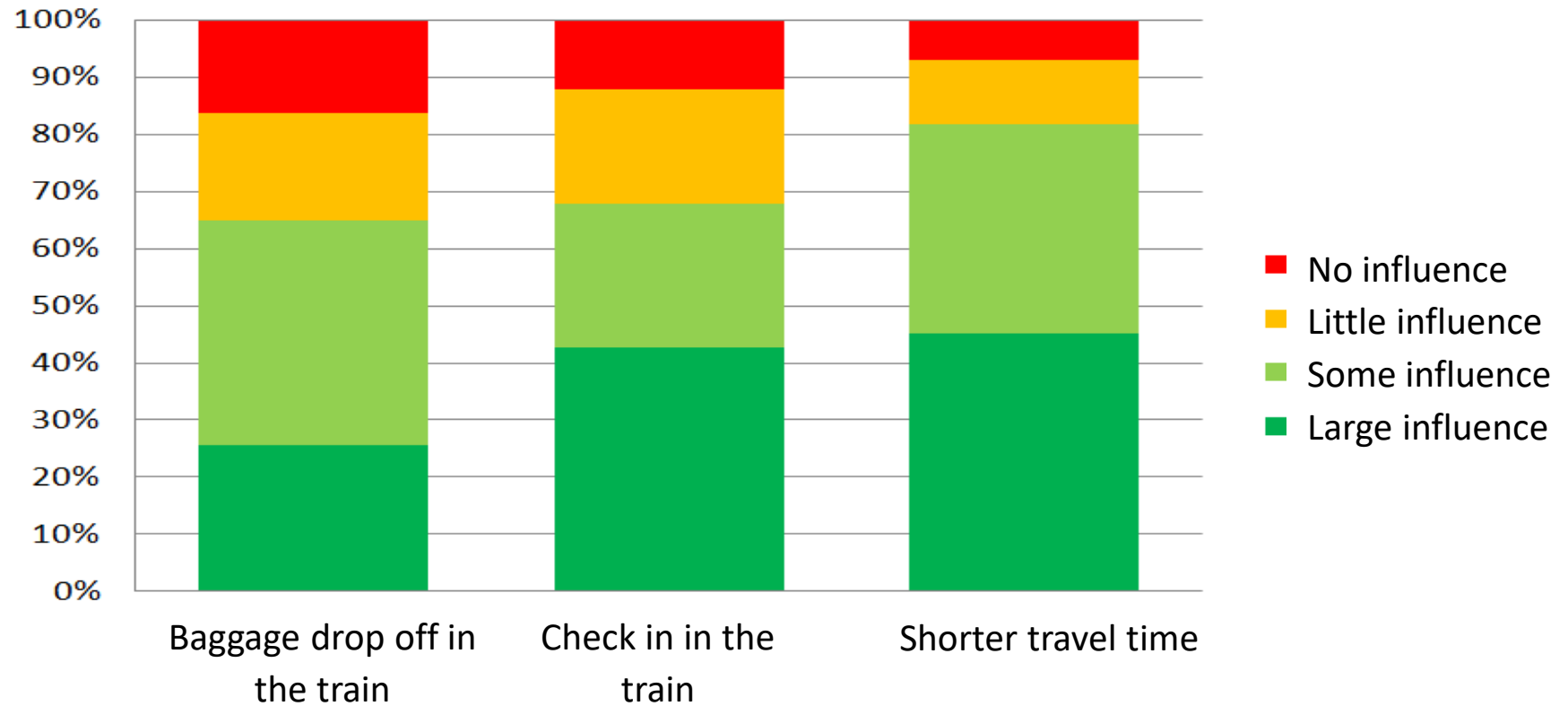


Passenger expectations



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Incentives for train choice



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Airport activities

- ~~Check in~~ Not necessary, just nice to have → Up to 80% use web check in
 - Baggage drop off **High interest and high benefit**
 - ~~Security check~~ Not possible inside the train, but eventually **fast lane**
 - ~~Passport control~~ at the airport for TerminalOnRail passengers
 - ~~Changing money~~ Not necessary, just nice to have
 - ~~Withdrawing money~~ Not necessary, just nice to have
 - (Duty free) shopping Nice to have and easy to realise: **Online shop** → handover at gate
 - Eating and drinking, working or relaxing in a lounge Possible in the train
 - Buying take away drinks (e.g. water bottle for the plane) or literature Possible in the train
- Online shop** → handover at gate

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Challenges

- Baggage drop off in the train
- Baggage return in the train
 - Design of vehicle interiors
 - Efficient use of space, alternative use in all cases trains do not run to airports
 - Interface train-airport
 - Safety and customs

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Long term goal of project / benefit

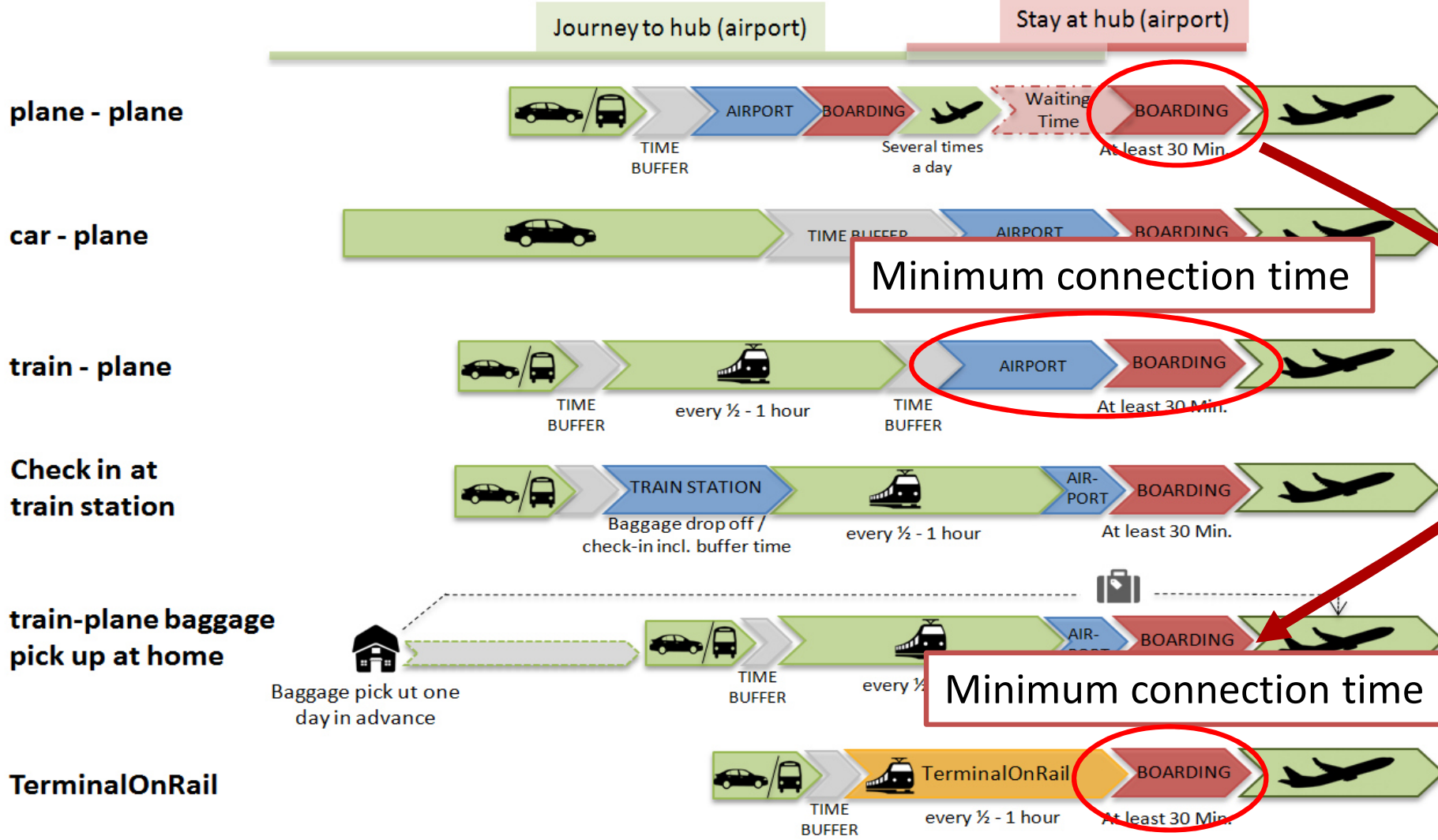
- **Development of an attractive system which leads to a shift of short-haul flights to the rail**
 - Airport activities in the train (especially baggage drop off)
 - Connection (several stations on the way to the airport)
 - Shorter door-to-door travel time
 - Highly attractive service – airlines may be willing to cancel (ultra) short distance feeder flights

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Summary

- Approx. 80% are interested in airport trains
- Special requests and incentives for their use:
 - Shorter travel duration (~90%)
 - Guaranteed connection in case of delay (~85%)
 - Usability of travel time (~80%)
 - Baggage drop off and check in in train (~80%)
- Minimum Connecting Time can be reduced

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Outlook

- Baggage drop off inside the train
 - is absolutely requested
 - is feasible
- Also the other way around (baggage return) is possible
- A lot of open-ended questions still remain
- Next steps will be deep research to find solutions for realization

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Thank you for your interest

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