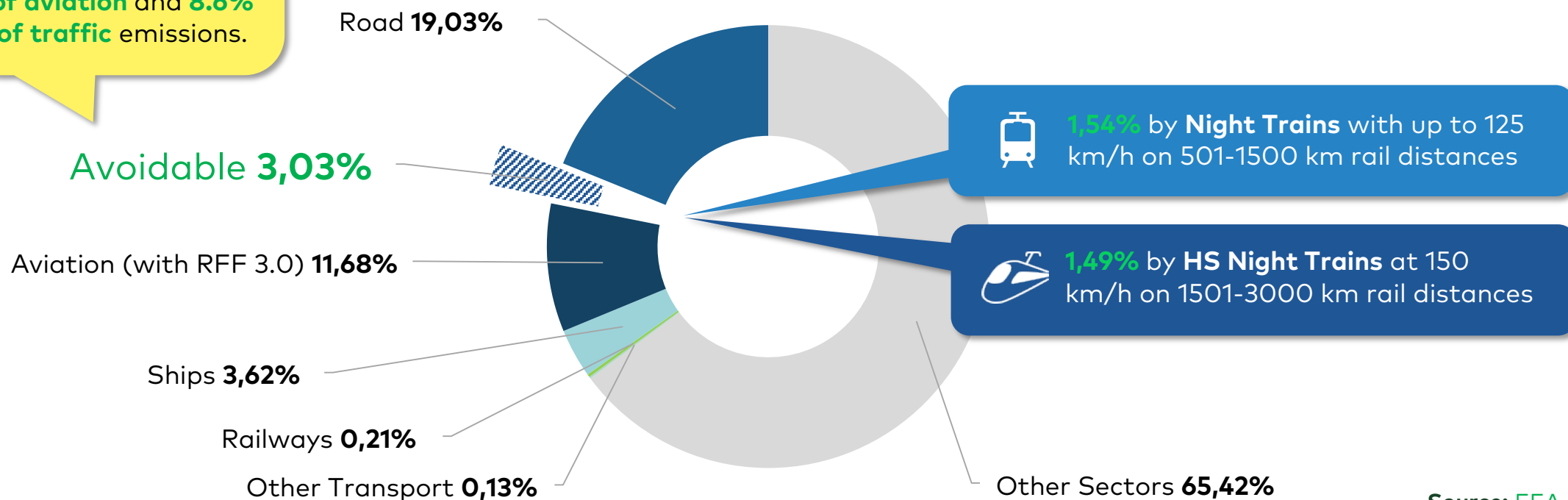


The GHG avoiding potential of night trains

If, as estimated, 32% of EU aviation passengers would shift, this equals **26% of aviation** and **8.6% of traffic** emissions.

EU CO₂e* Emissions 2019

incl. a Radiative Forcing Factor (RFF) of non-CO₂ emissions (3.0 times the CO₂ value using GWP method)



Source: [EEA](#)



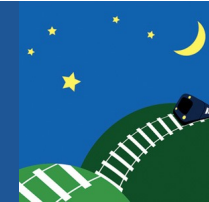
How does it pay off?

The EU emitted 4732 Mt CO₂e in 2019
(incl. non-CO₂ RF/GWP*).

3,03 % of these emissions are **143 Mt CO₂e every year.**

12 billion €

@ 85 € EU carbon permit price



What needs to be done?

Almost cost-neutral when confined to sleeper services, but important to serve higher travel distances and thus increase market share

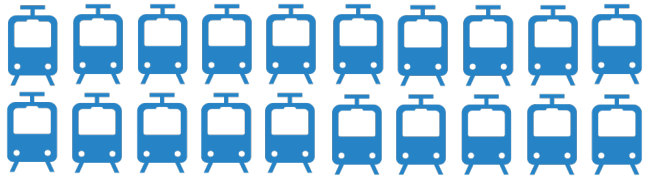
Making night trains more attractive:

- **Reduce their track access charges** to marginal cost
- Keep long-term timetable slots
- Give them equal priority with other long-distance traffic
- Tax international rail no higher than international aviation
- Tax mobile hotels no higher than stationary ones
- Charge according to environmental cost



What needs to be done?

Investing in new rolling stock:



250 M additional passengers per year need **2066** new **night trains** with 10 coaches and 414 berths each that may go everywhere with at least 200 km/h
(*approx. 67 B €* order volume*)

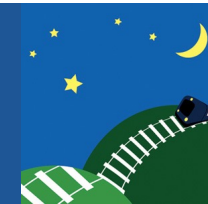


112 M additional passengers per year need **488** new **HS night trains** with 788 berths each in sleeper and couchette coaches that may go almost everywhere with up to 270 km/h
(*approx. 30 B €* order volume*)

2554 new night trains
97 B € order volume*

@ 85 € EU carbon permit price
amortised within **8 years.**

* Estimate based on published order volumes: [400 M € for 140 coaches](#) and [75 M for 15 multi-system engines](#) and [335 M € for 12 trainsets](#)

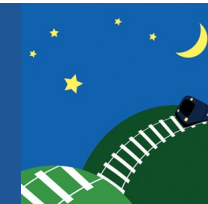


What about road traffic?

As the modal shift from road to rail has a much lower climate saving potential than the shift from air to rail, the GHG reduction potential of road traffic was **not yet considered**.

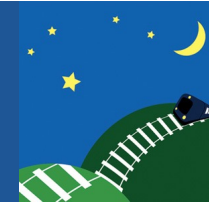
We think that night trains are not set to be an alternative for budget-sensitive coach travellers. However, an attractive night train net would inevitably make car travellers shift, which represent 57% of all travellers on 500-1500km distances.

Some studies assume that at least 5% of car traffic can be replaced with a better night train service. Five Percent of the 11.5% share of cars in the EU total greenhouse gas emissions could add **another 0.58%** reduction potential



#3percentOverNight

Thank you. And let's share the good news!



Back-on-Track.eu

European network to promote
cross-border night trains