Erasmus+

FEASIBILITY STUDY ON COMPENSATION SCENARIOS FOR THE NEW AND GREENER ERASMUS+ PROGRAMME 2021–2027

Education and Youth NAs from FR, NL, BEfl , MT, RS and FI participated in the work together with EC-officials

FINNISH NATIONAL AGENCY FOR EDUCATION

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FOUNDATION TEMPUS

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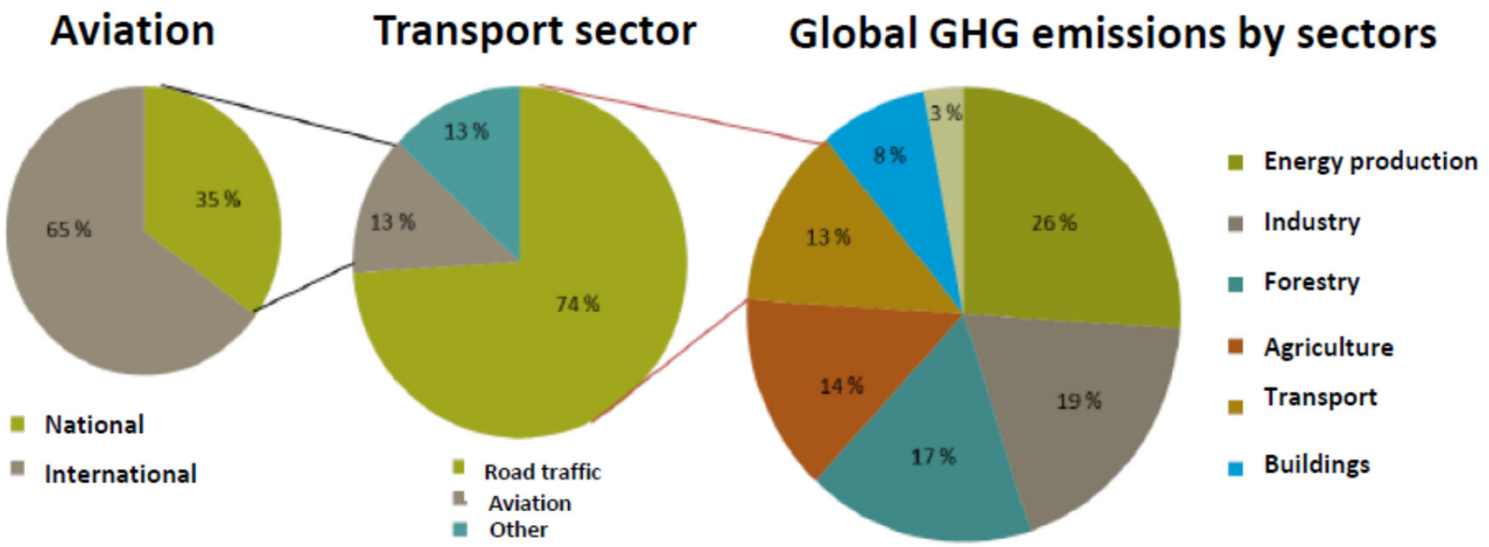
Funded by Erasmus+ TCA and carried out with the support of Nordic Offset during 2020

A FEW GENERAL ISSUES

Production of greenhouse gas emissions

Global situation

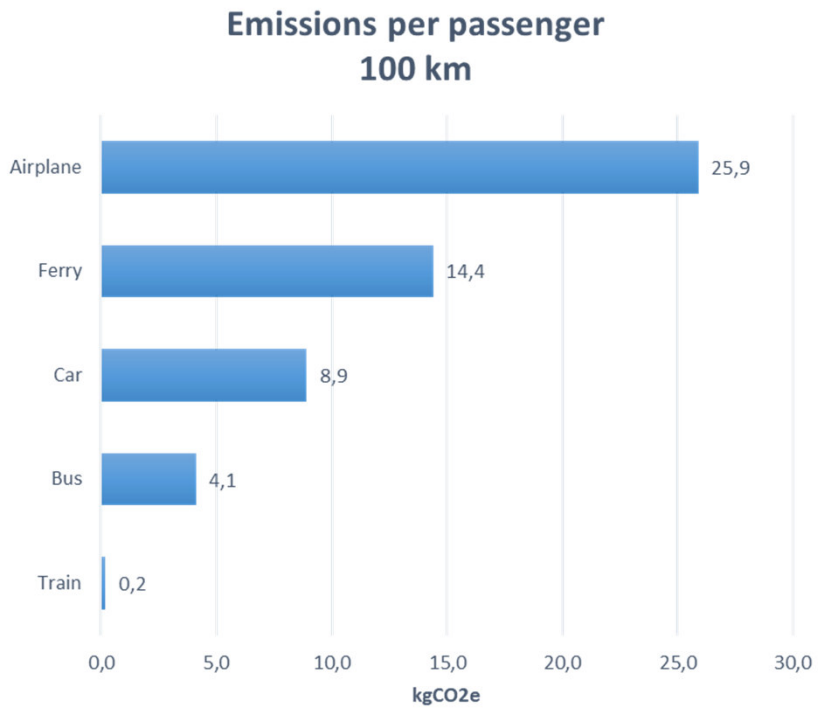


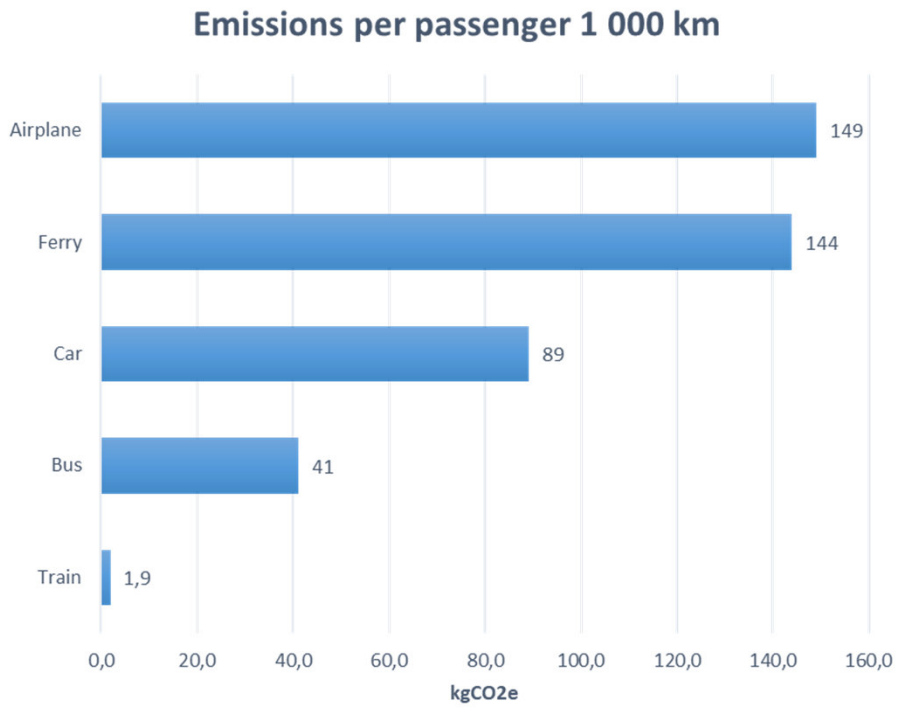
Source: The Finnish Environment Institute, Lentomatkustuksen päästöt raportti 2/2019

In EU the share of the transport sector is 27 % and aviation produces about 3,7 % of the total GHG emissions (2017)

Source: European Environment Agency

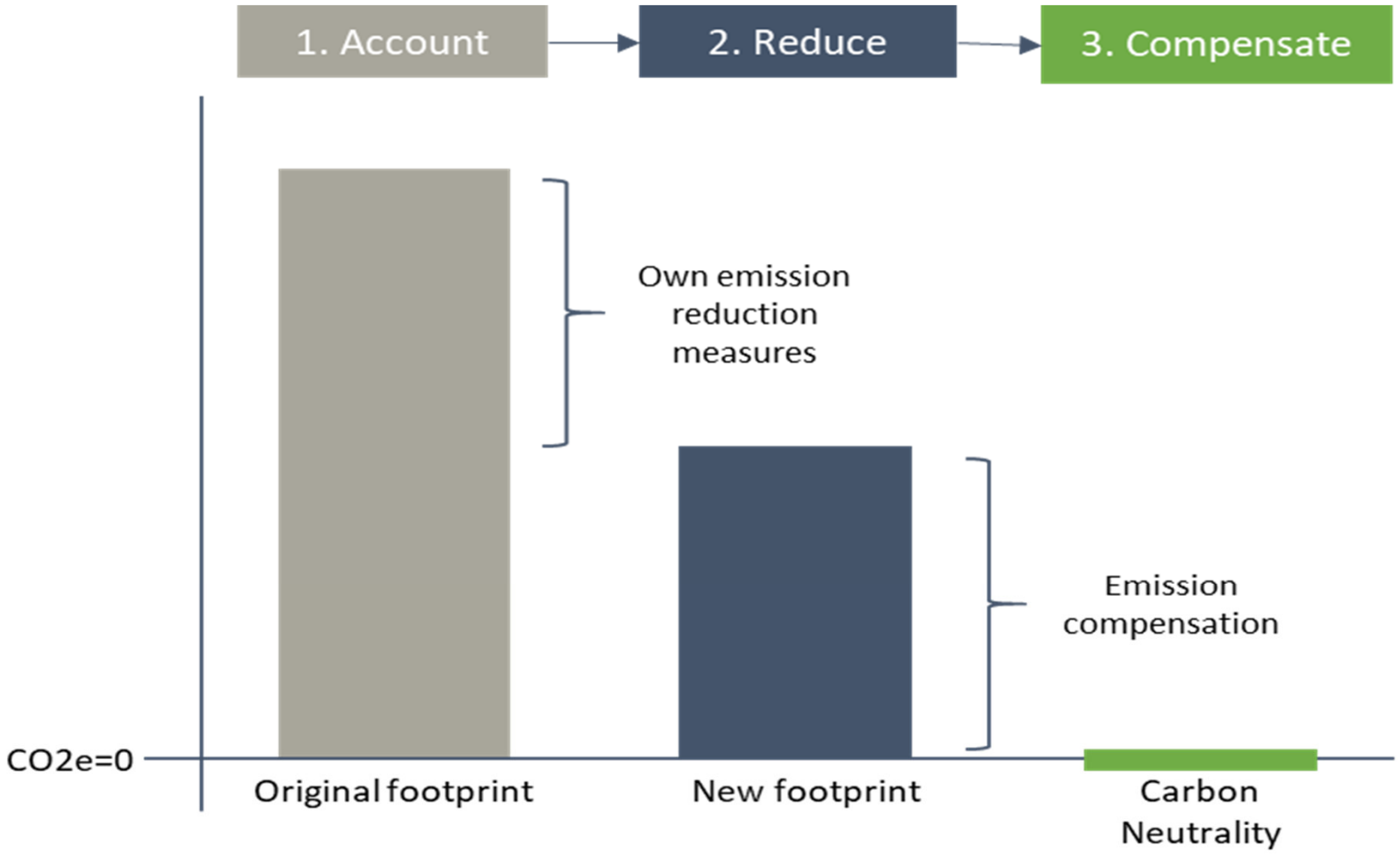
Emissions per passenger of different travel modes





Note! E.g. fast ferries (24-27 knots) can emit even more than flights

Principles for carbon neutrality



CENTRAL FEATURES OF THE STUDY

The data

Data:

- Call years 2016-2018
- KA1, KA2 & KA3 (no KA229)
- Mobilities from mobility tool
- Data available:
  - Sending country & city
  - Receiving country & city
  - Calculated lenght (based on sending and receiving organisation’s addresses or sending/receiving cities)
  - Distance band

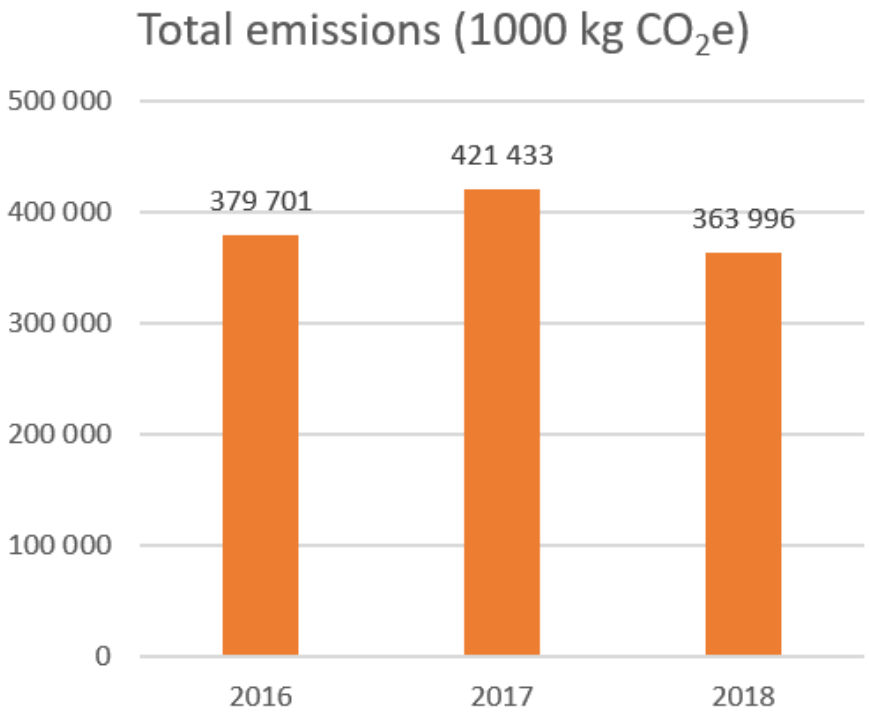
Methodology

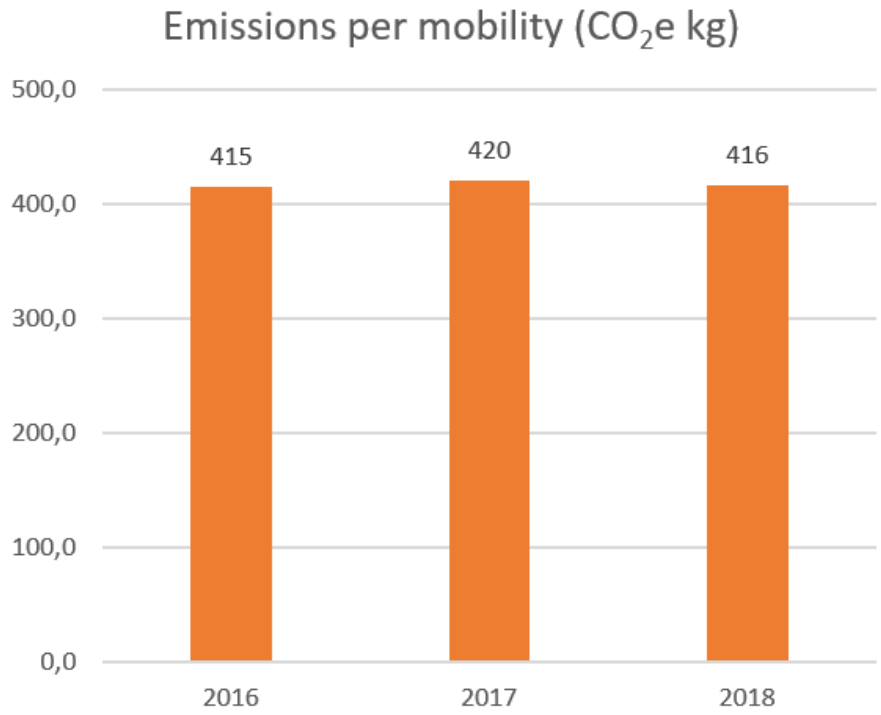
1) Using average of distance band to calculate distance for mobilities with missing distance
2) Determining which mobilities are flights
    - Kilometre limit for flying based on transport possibilities
        - 4 categories, one assigned to each sending country
            - 50, 100, 250 and 500 km
            - Separate 500 km category for domestic mobilities
        - If mobility is longer than assigned limit → classified as flight
3) Flights only, other emissions left out (only under 20 % were non-flights)
4) Calculating emissions for flights using flight emission factors
5) Calculating future scenarios based on these emissions

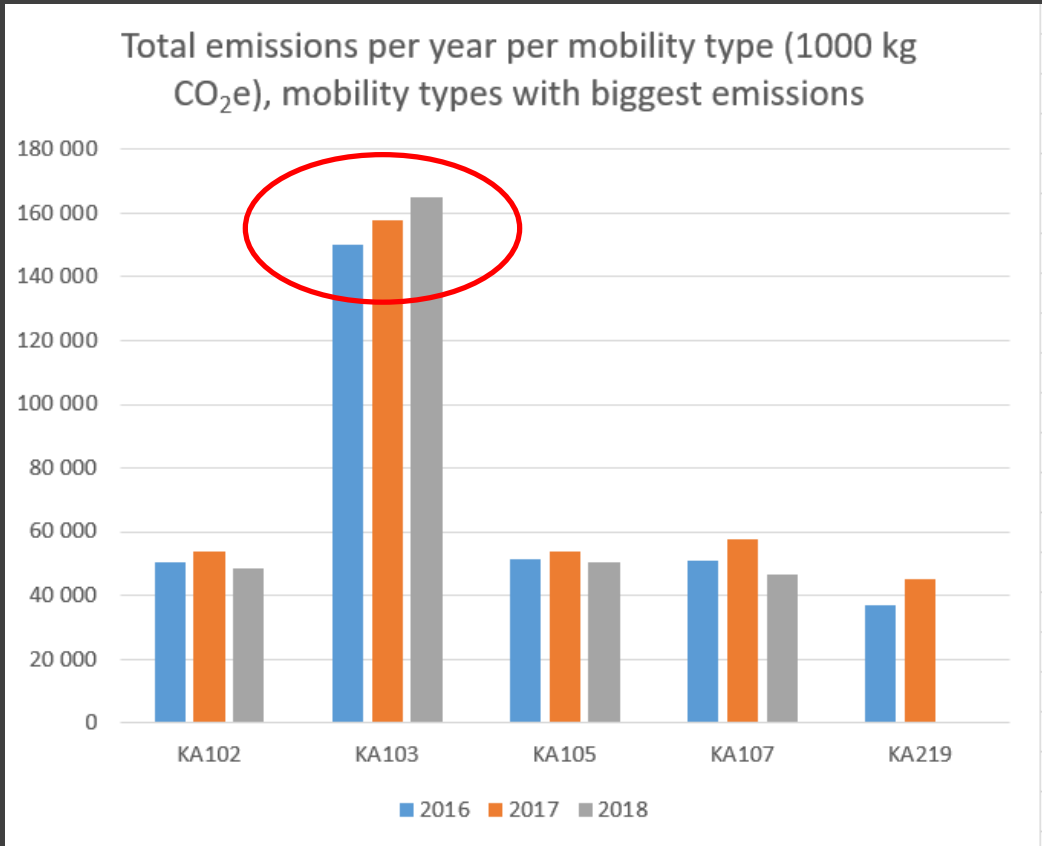
Some results

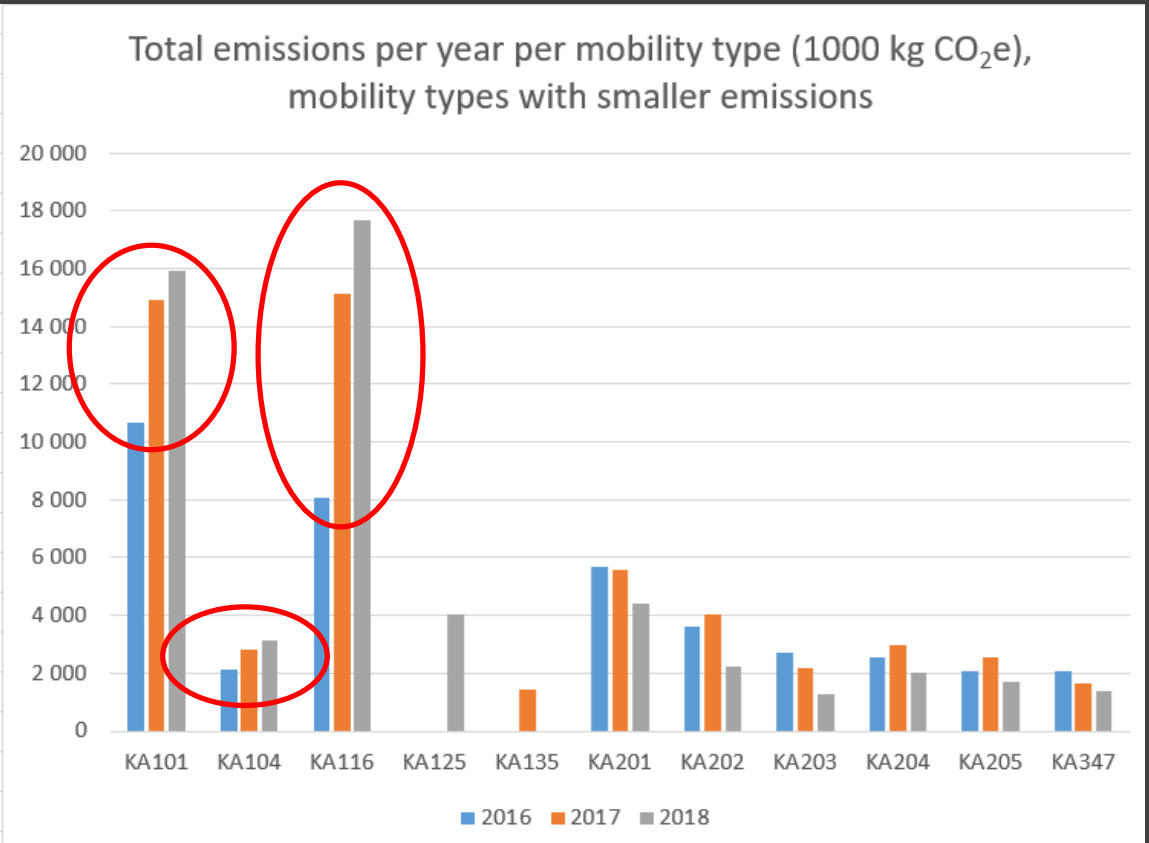
Yearly emissions in e.g. Iceland 2,94 million tonnes

Yearly emissions per person in Austria 6730 kg and Finland 7090 kg



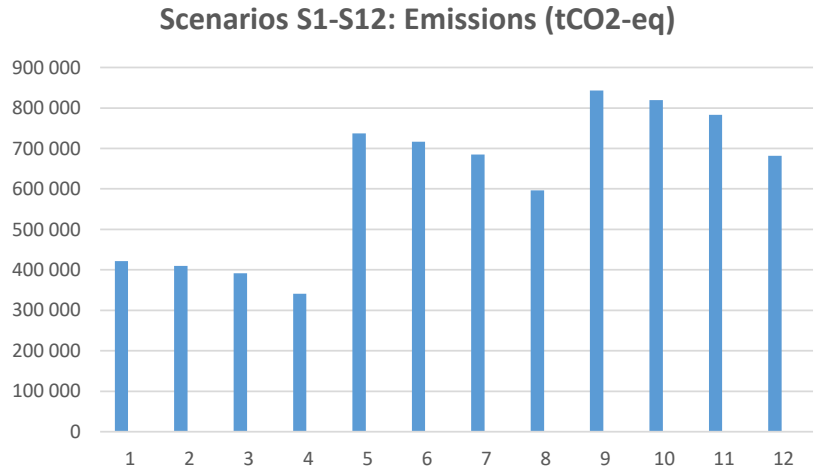



Total emissions per year per mobility type (1000 kg CO_2e), mobility types with biggest emissions
180 000
160 000
140 000
120 000
100 000
80 000
60 000
40 000
20 000
0
KA102
KA103
KA105
KA107
KA219
2016
2017
2018


Total emissions per year per mobility type (1000 kg CO_2e), mobility types with smaller emissions
20 000
18 000
16 000
14 000
12 000
10 000
8 000
6 000
4 000
2 000
0
KA101
KA104
KA116
KA125
KA135
KA201
KA202
KA203
KA204
KA205
KA347
2016
2017
2018

Scenarios of possible changes of greenhouse gas emissions in the future (based on 2017 data)

Scenario	Amount of mobilities	Share of flights
S1	Amount of mobilities stays the same	Share of flights stays the same
S2	Amount of mobilities stays the same	Share of flights decreases by 10%
S3	Amount of mobilities stays the same	Share of flights decreases by 20%
S4	Amount of mobilities stays the same	Share of flights decreases by 40%
S5	Amount of mobilities rises by 75%	Share of flights stays the same
S6	Amount of mobilities rises by 75%	Share of flights decreases by 10%
S7	Amount of mobilities rises by 75%	Share of flights decreases by 20%
S8	Amount of mobilities rises by 75%	Share of flights decreases by 40%
S9	Amount of mobilities rises by 100%	Share of flights stays the same
S10	Amount of mobilities rises by 100%	Share of flights decreases by 10%
S11	Amount of mobilities rises by 100%	Share of flights decreases by 20%
S12	Amount of mobilities rises by 100%	Share of flights decreases by 40%



	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
Mobilities	1 002 329	1 002 329	1 002 329	1 002 329	1 754 076	1 754 076	1 754 076	1 754 076	2 004 658	2 004 658	2 004 658	2 004 658
Mobilities by airplane	821 709	739 538	657 367	493 025	1 437 991	1 294 192	1 150 392	862 794	1 643 418	1 479 076	1 314 734	986 050
Emissions (tCO_2-eq)	421 433	409 677	391 326	340 811	737 507	716 934	684 821	596 419	842 866	819 354	782 652	681 621
Emissions, change from S1 (tCO_2-eq)	0	-11 756	-30 107	-80 622	316 075	295 502	263 388	174 986	421 433	397 921	361 220	260 189
Emissions, change from S1 (%)	0.0%	-2.8%	-7.1%	-19.1%	+75.0%	+70.1%	+62.5%	+41.5%	+100.0%	+94.4%	+85.7%	+61.7%
Emissions per mobility (kg CO_2-eq)	420	409	390	340	420	409	390	340	420	409	390	340

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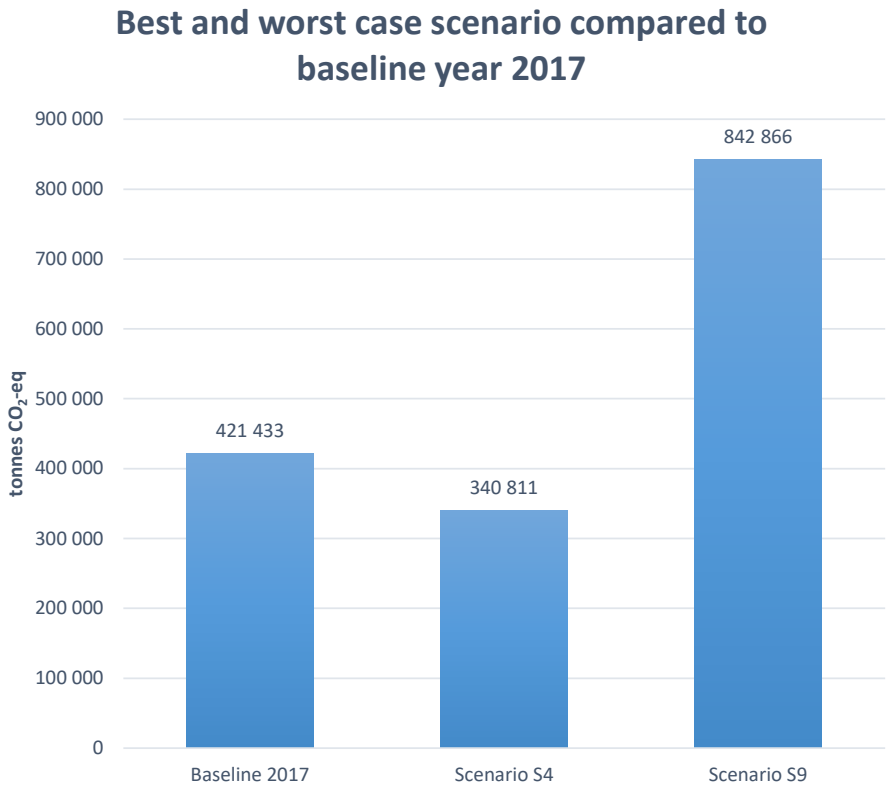
EMISSION REDUCTION ROADMAP

Erasmus+ programme in the future

- It is estimated that the size of Erasmus+ Programme will grow year by year, which means that the number of mobilities will probably also continue to grow.
- Increases in the total amount of mobilities could mean directly higher emissions, if the share of the flights does not decrease.
- But e.g. even a 40% decrease in flights (S4) does not still produce a similar decrease in emissions



And in reality…

- When looking more closely at the data of the flights:
  - We can assume it is most likely the shortest flights that would be changed into landtravel

    -> Changing even only 10% of the shortest flights already means all mobilities under 614 km must be other than flights
    -> Changing 20 % of the shortest flights means all mobilities under 811 km must be other than flights

- Is this realistic? Over 800 km by land is already quite far, especially when thinking of all the different situations in Europe…

This means…

- It is most likely that the programme's emissions will increase considerably during this period!
- Starting from 2020 beneficiaries have been able to obtain a higher travel budget and/or more travelling days in case they opt for cleaner, lower carbon emission means of transport to motivate the participants to travel by other means than flight and hence reduce the climate impact of the programme.
- We need to:
    1. Implement a number of different and also still new ways to steer the choice of means of transport so that the share of flights will decrease
    2. But also compensate the emissions that cannot be reduced

Steps ahead

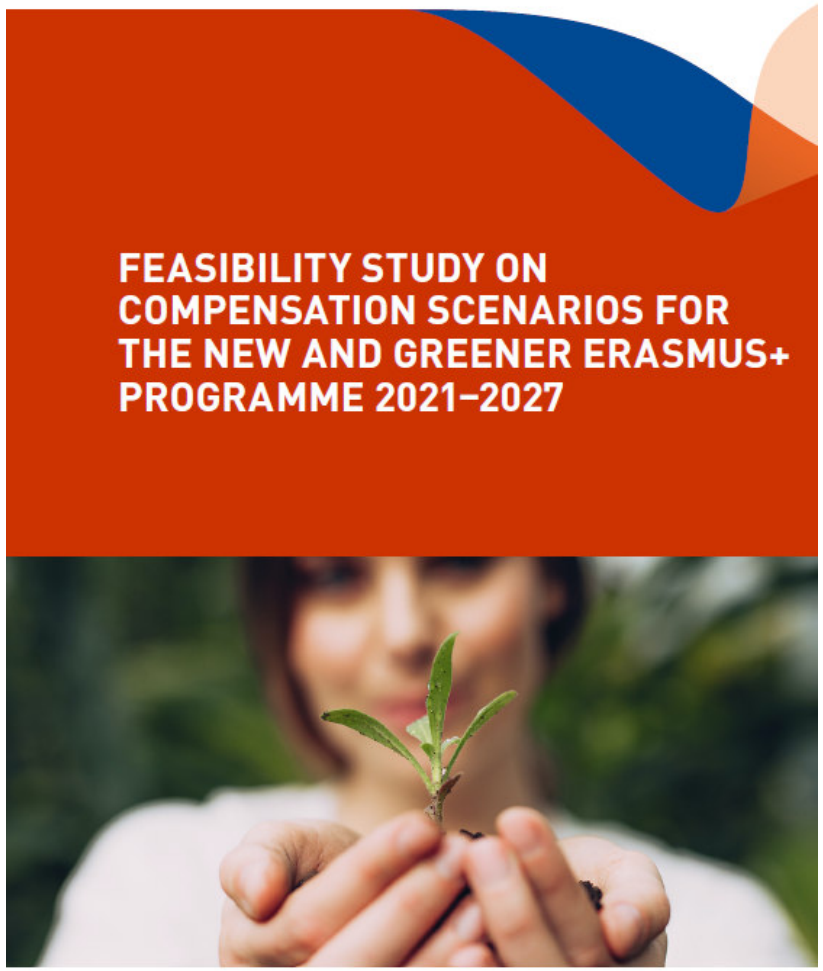
I. Account

II. Reduce

III. Compensate, but only with a rigorous approach

- Voluntary compensation using mitigation outcomes (emission reductions or carbon dioxide removals) must be **complementary to own emission reduction efforts**.
- Mitigation outcomes to be used for compensation should be selected carefully i.e. must be **real, permanent and additional** to what would otherwise happen, be monitored and reported against a robust baseline, and independently verified
- CORSIA (International Civil Aviation Organization's (ICAO's) Carbon Offsetting and Reduction Scheme for International Aviation) criteria is considered to set the minimum standard as for future offsetting
- The **opportunities for voluntary projects within the EU countries are less compared to developing countries** where the requirements for emission reductions have traditionally been less ambitious.
- In case Erasmus+ Programme is considering developing an own compensation project, the key issues to be taken into account are the resources needed (financial resources and carbon market capacity) and the typical timeline for implementing a project. A typical project implementation period is minimum 2-3 years before any offsets can be issued.

PROPOSALS FROM THE STUDY



The full report

- You can download the report at

  https://www.oph.fi/en/statistics-and-publications/publications/feasibility-study-compensation-scenarios-new-and-greener

Proposals, based on the study 1/3

General sustainability issues

- Practical guide to
  a) highlight sustainability in both content and implementation of programme in all actions and
  b) reduce the emissions in all activities of the programme; a checklist

- Creation of a common support structure on EU-level

- Exchange of experiences bw. organisations but also sectors

- Green Culture also within the National Agencies / greening of NAs

Proposals, based on the study 2/3

Promotion of reduction of emissions

- Calculator to compare the greenhousegas emissions of different travel modes
- Promotion of the benefits of travelling by land:
  ”reduce emissions and increase experiences”
- Reporting/Mobility Tool/Beneficiary Module: add detailed information of the flights: cities of departure, arrival and stopover - also departure and arrival of other modes of travelling? Incorporate an emission calculator?
- Administrative support to choose travelling by land:
  - daily allowances for more than 1 day travelling
  - more expensive tickets are accepted when travelling by land
- Interrail pass for mobility periods
- Still more attractive financing mechanisms for virtual mobility and virtual cooperation

Proposals, based on the study 3/3

Future compensation of emissions

- Timetable?
- Gradual or full?
- Different type of compensation projects to minimise the risk? Divide the compensation volumes over different approaches.
  - Innovative carbon removal / technology projects in Europe, even though expensive?
  - Possibly other EU-level compensation projects implemented by e.g. DG INTPA or DG NEAR?
- How to take into account existing compensation schemes by airlines?

Thank you!

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