National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport

THE PEP
Facts and Figures

37th meeting of the Bureau |
29 June 2020

Draft annotated outline THE PEP facts & figures brochure

'How clean and environmentally friendly is our mobility and transport in Europe today'

1 – Introduction

- Introducing THE PEP and explaining the importance of a facts & figures brochure to move together towards cleaner, healthier an environmental friendly mobility. In an editorial explain the context of changes in mobility due to Covid-19.
- The aim is **setting the scene, highlighting the health and environment in transport argument today,** as one of the drivers for the **transition** of the transport sector. **Helping policies and cooperation to accelerate** towards low and zero emission and healthy mobility and transport in the decade to come.
- The brochure should be short, visually attractive, easily understandable and being intended for wide range of target groups, notably for policy makers at senior level from multi-disciplinary fields and backgrounds.

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2 - Transport and mobility in the European Region

Modal split road and urban transport in countries

- passenger car (numbers, km travelled, ownership etc.)
- public transport busses and trams (numbers, km travelled, etc.)
- trucks and vans (numbers, km travelled etc.)
- motorcycle, moped (numbers, km travelled etc.)
- walking and cycling (numbers, km travelled etc.)
- fuel consumption ICE (petrol, diesel, gas and biogas) and e vehicles

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3 – Health and Environmental effects of transport and mobility

General introduction regarding choices on themes with health and environmental challenges of transport and mobility

Each of the six themes, answering three questions:

- What is it?
- What do we know today?
- What is the biggest challenge for change?

Facts & figures of additional indicators for a theme will be displayed in an appendix

3 – Health and Environmental effects of transport and mobility

I) Air Quality

II) Traffic noise

III) Greenhouse gas emissions

IV) Road traffic injuries

V) Physical inactivity

VI) Environmental health inequities

These themes represent the challenges a-d and g described in the 'challenges ex draft declaration for criteria for data for group' document

4 - Understand our European region, context relevant understanding the differences

- Living in urban or rural areas, urban sprawl and land take
- Social economical aspects and disparities in the European region
- Economic circumstances
- Other environmental aspects, like biodiversity

These topics represent the challenges e, h and i described in the 'challenges ex draft declaration for criteria for data for group' document

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5 – Overall conclusion on the main question

- Some concluding remarks will be made taken into account all themes and the context for the different countries as well as

Appendix 1: additional indicators per theme

- Per theme one main indicator to describe the effect for a certain transport mode on the environment or health will be include in the main document and additional indicators will be displayed in an appendix

Appendix 2: context on the European region

- Appendix will include information that provide insight in the context of a specific region e.g. geographical and population data

Draft overview challenges and indicators (1)
(shown on 1st facts & figures meeting 12 June 2020)

Challenge	Environmental pressure / exposure indicator	Health indicator	Data
(a) Ambient air pollution	Emission (PM, NO_2) per unit mass (total traffic contribution, per inhabitant, per kilometer driven) Concentration mass per cubic meter Both emission and concentration can be split for modes of transport	idem exposure indicator with the assumption that less emission is healthier pramature death attributable to air pollution YLL/yr per kilometer driven per 100.000 inhabitant shortening of life expectancy (months)	https://www.eea.europa.eu/themes/air/air-emissions-data https://www.eea.europa.eu/data-and-maps/data/aqereporting-8 http://discomap.eea.europa.eu/map/fme/AirQualityExport.htm http://www.euro.who.int/en/publications/abstracts/environmental-health-inequalities-in-europe.-second-assessment-report-2019 https://www.eea.europa.eu/media/newsreleases/many-europeans-still-exposed-to-air-pollution-2015/premature-deaths-attributable-to-air-pollution https://www.eea.europa.eu/data-and-maps/figures/years-of-life-lost-per
(b) Traffic noise	number of people exposed to average day-evening-night noise levels (Lden) ≥55dB number of people exposed to night-time noise (Lnight) ≥50dB	years of life lost (YLL), years lived with disability (YLD), disability adjusted life years (DALYs) attributed to exposure, DALYs/yr per 100.000 inhabitants for annoyance, sleep disturbing, ischemic heart disease, cognitive impairment (children) and premature mortality	https://www.eea.europa.eu/themes/human/noise/noise-fact-sheets/noise-country-fact-sheets-2019/ Eurofound data
(c) Greenhouse gas emissions from transport, particularly from road transport	greenhouse gases (CO2, N2O, CH4, HFCs, PFCs, SF6 and NF3) plus 4 indirect greenhouse gases (NOx, CO, NMVOC, SO2) GHG total, per inhabitant, per betaJoule, per kilometer Example: carbon dioxide per kilometer driven per inhabitant. Could be split for modes of transport and even for different energy carriers	idem exposure indicator with the assumption that less emission is healthier	https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/submissions/national-inventory-submissions-2018 (UNFCC CRF tables) EMEP database, Eurostat
(d) Physical inactivity	not applicable	minutes/kilometer per person per day walking or cycling	Physical activity factsheets for the 28 European Union Member States of the WHO European region 2018 c World Health Organization (http://www.euro.who.int/__data/assets/pdf_file/0005/382334/28fs-physical-activity-euro-rep-eng.pdf?ua=1) http://www.euro.who.int/en/health-topics/disease-prevention/physical-activity/activities/hepa-europe https://www.kimnet.nl/publicaties/brochures/2018/03/16/fietsfeiten

Draft overview challenges and indicators (2)
(shown on 1st facts & figures meeting 12 June 2020)

Challenge	Environmental pressure / exposure indicator	Health indicator	Data
(e) Socioeconomic disparities resulting from poor mobility access			
(f) Environmental health inequities resulting from the direct and indirect impacts of the transport sector, particularly for children	no specific indicator only in combination with other challenges (e.g. air pollution, noise, traffic injuries) EURO-HEALTHY Population Health Index (PHI), a multidimensional measure built to evaluate population health of the 269 NUTS 2 regions of the European Union	no specific indicator only in combination with other challenges (e.g. air pollution, noise, traffic injuries)	http://www.euro.who.int/en/publications/abstracts/environmental-health-inequalities-in-europe.-second-assessment-report-2019 http://www.euro.who.int/__data/assets/pdf_file/0018/412128/Country-profiles-on-environmental-health-inequality.pdf?ua=1 http://www.euro-healthy.eu/ https://www.nature.com/articles/s41598-019-42036-w https://www.ncbi.nlm.nih.gov/pubmed/28930515 (example US) https://www.ugpti.org/resources/reports/downloads/mpc17-326.pdf (example US) https://www.sciencedirect.com/science/article/pii/S0160412018311978 (example UK)
(g) Road traffic injuries		road fatalities per 100.000 inhabitants per year road fatalities per 100.000 motor vehicles road fatalitite per 1 billion vehicle-km total fatalities	http://www.euro.who.int/en/publications/abstracts/environmental-health-inequalities-in-europe.-second-assessment-report-2019 https://www.rivm.nl/en/about-rivm/mission-and-strategy/international-affairs/international-projects/inherit ICD code-based mortality statistics usually enable identification of detailed injury causes, look at WHO mortality database
(h) Economic inefficiency due to externalization of health, environmental and congestion costs			https://www.rivm.nl/en/about-rivm/mission-and-strategy/international-affairs/international-projects/inherit (Chapter 6 INHERIT report EU benefits of cycling (Figure 6.4)
(i) Urban sprawl, land take and the loss of biodiversity			EEA data on land recycling etc. http://www.susted.com/wordpress/content/urban-sprawl-definitions-data-methods-of-measurement-and-environmental-consequences_2014_12/ https://www.britannica.com/topic/urban-sprawl https://www.bafu.admin.ch/bafu/en/home/topics/biodiversity/in-brief.html

Example layout and next steps
(shown on 1st facts & figures meeting 12 June 2020)

- Introduction with aim, challenges and context (max 3 pages)
- per challenge one page as a factsheet short description challenge followed by facts and figures based on indicators
- Appendix additional indicators per challenge (max 2-3 pages per challenge
- Appendix context such as geographical situation
- Consensus main features (max 30-40 pages)
- Process agreements (RIVM deliverable clickable pdf for translation)

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- 29 June draft table of content
- July, information gathering and analysis, with the help of experts of all countries involved in THE PEP
- 7 August first draft facts & figures document