



# Statistics on light utility vehicles (LUV)

## Experiences in Switzerland





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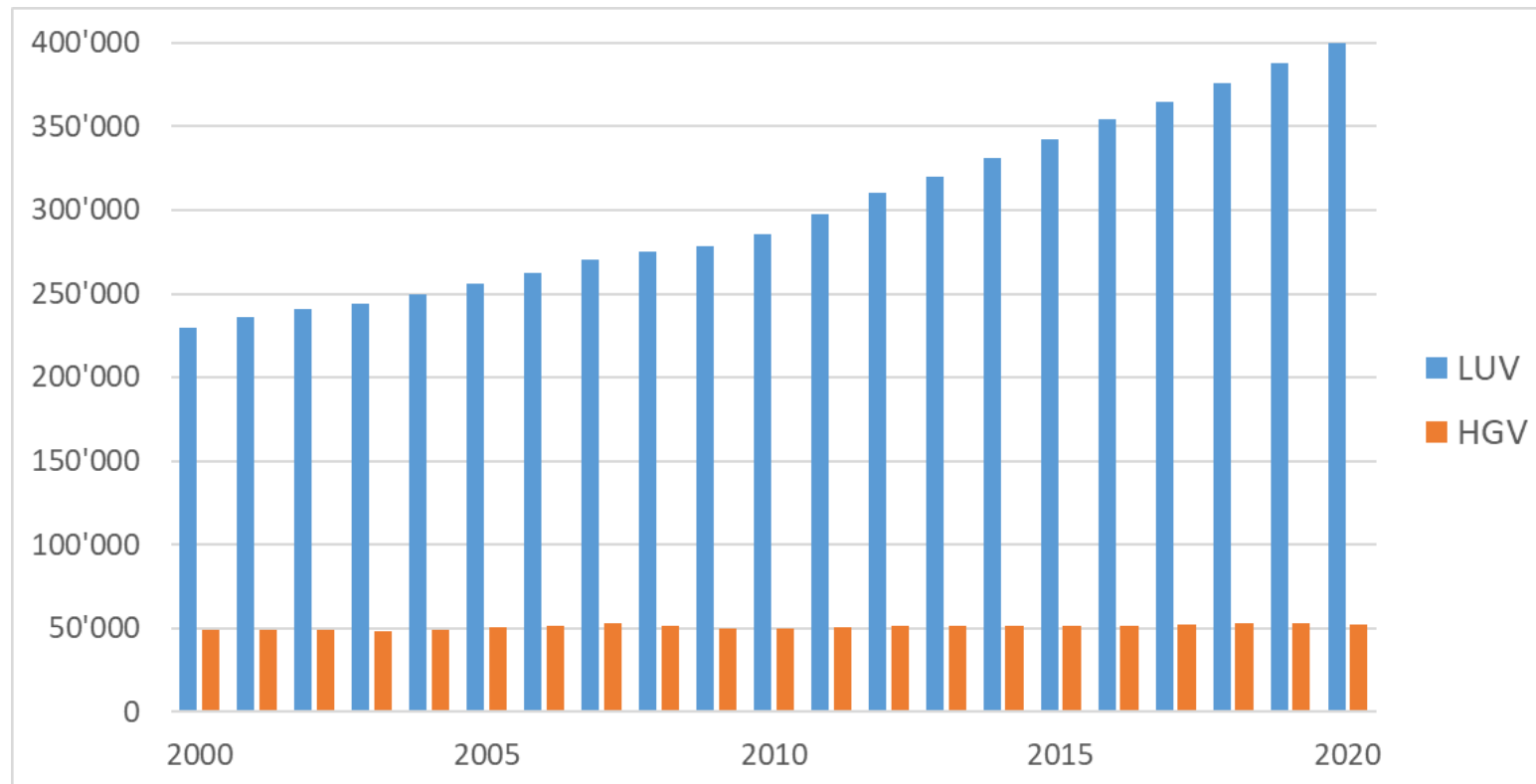


# 1. Relevance

- LUV responsible for twice the kilometre performance compared to heavy goods vehicles (HGV)
- Number of LUV has increased by 74% since 2000, HGV only by 6%
- Data needed for transport policy and transport planning (city logistics, potential substitution of HGV, greenhouse gas emissions, traffic modelling, etc.)



## Number of LUV and HGV registered in Switzerland





## 2. Definitions

- Vans and road tractors with a maximum permissible laden weight of no more than 3.5 tonnes
- No ban on driving at night and on Sundays, no special regulations for drivers
- Used also for other purposes than goods transport (e.g. business trips by craftsmen, private use)



## 3. 2013 Survey

- First time since 1998, next scheduled for 2023
- Population: LUV registered in Switzerland
- Sample size: 70 000 LUV (22% of total)
- Survey period: 56 days distributed over 2013
- Data collection: paper and online questionnaire
- Mandatory for business use, voluntary for private use



## 3.1 Data collected

- Data on owner: private or business, type of activity (NACE)
- Data on vehicle: technical information (from vehicle register), kilometres during reference day
- Data on journey: purpose, origin/destination, empty journies
- Data on goods: type, weight, transport distance







## 3.2 Double survey

- For HGV, comprehensive kilometre data are available from heavy vehicle fee (→ calibration), vans exempt
- Completing the questionnaire takes more time for vehicles with many trips → potential bias
- Part of the sample receives a simple questionnaire where completion time is independent of number of basic transport operations → base for calibration



## 3.3 Stratification



Vehicle type	Population size / Sample rate	Characteristics
Light road tractor	2000 / 100%	Used for goods transport, kilometre data from heavy vehicle fee available for calibration
Van with permissible laden weight of 3.5t	95 000 / 22%	Typically used for goods transport
Van with permissible laden weight < 3.5t	224 000 / 22%	Typically used for other purposes



## 4. Response burden

Measures were taken to limit response burden as much as possible:

- Sample survey every 10 years, data for one day only per selected vehicle
- Use of existing data from vehicle register
- Careful consideration of effort and benefit (important variables only)
- Simplified filling for local distribution journeys
- Online questionnaire as an alternative to the paper form



## 5. Conclusions and results

- Response rate satisfactory in the 2013 survey (>70%)
- Only 8% answered online compared to 15% in HGV survey
- LUV show other characteristics than HGV sector
- Plausible results, in line with the simple estimation model → 10 year interval considered sufficient
- 2023 survey in preparation, similar to 2013 with some improvements



## Comparison between LUV and HGV

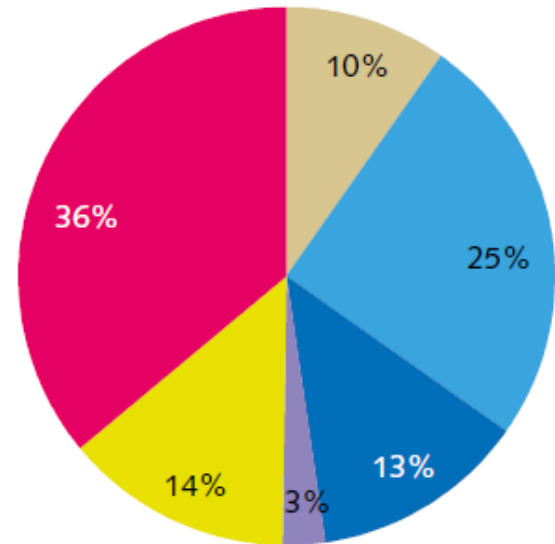
Year 2013	Swiss LUV	Swiss HGV
Total kilometres*	3.9 billion	1.7 billion
Total tonne-kilometres*	0.9 billion	10.9 billion
Average loading weight	0.2 tonnes	6.3 tonnes
Average transport distance	33 km	37 km

\*on Swiss territory



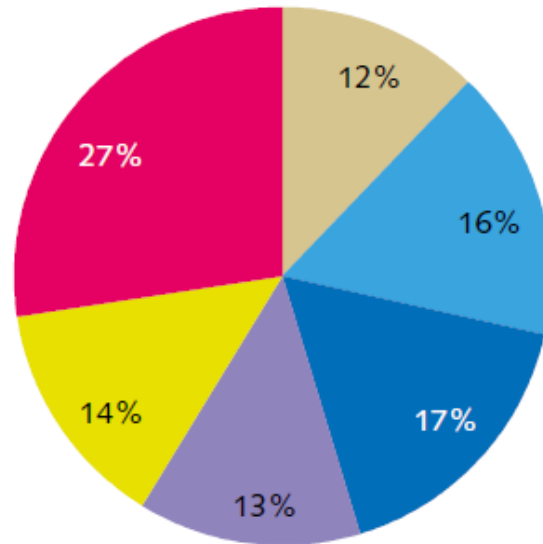
## Kilometre performance of LUV by NACE, 2013

Vans (< 3.5 t)



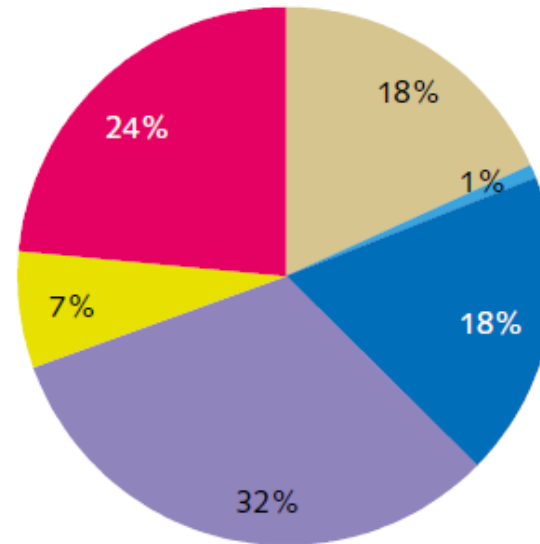
Total: 2371 million km

Vans (3.5 t)

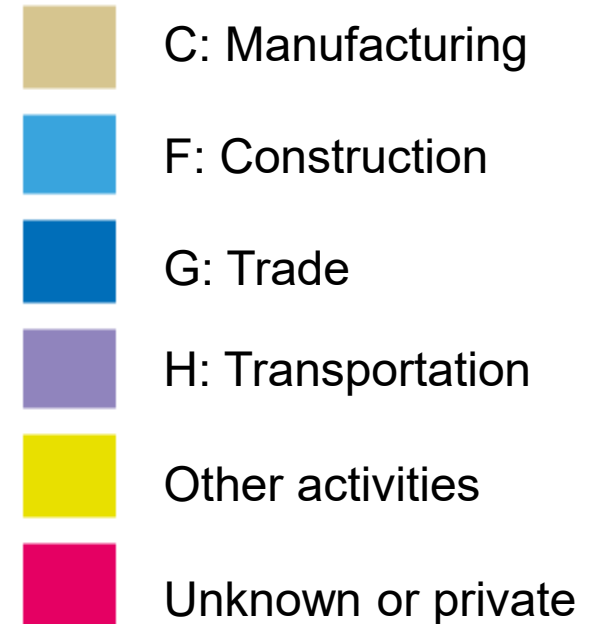


Total: 1456 million km

Light road tractors

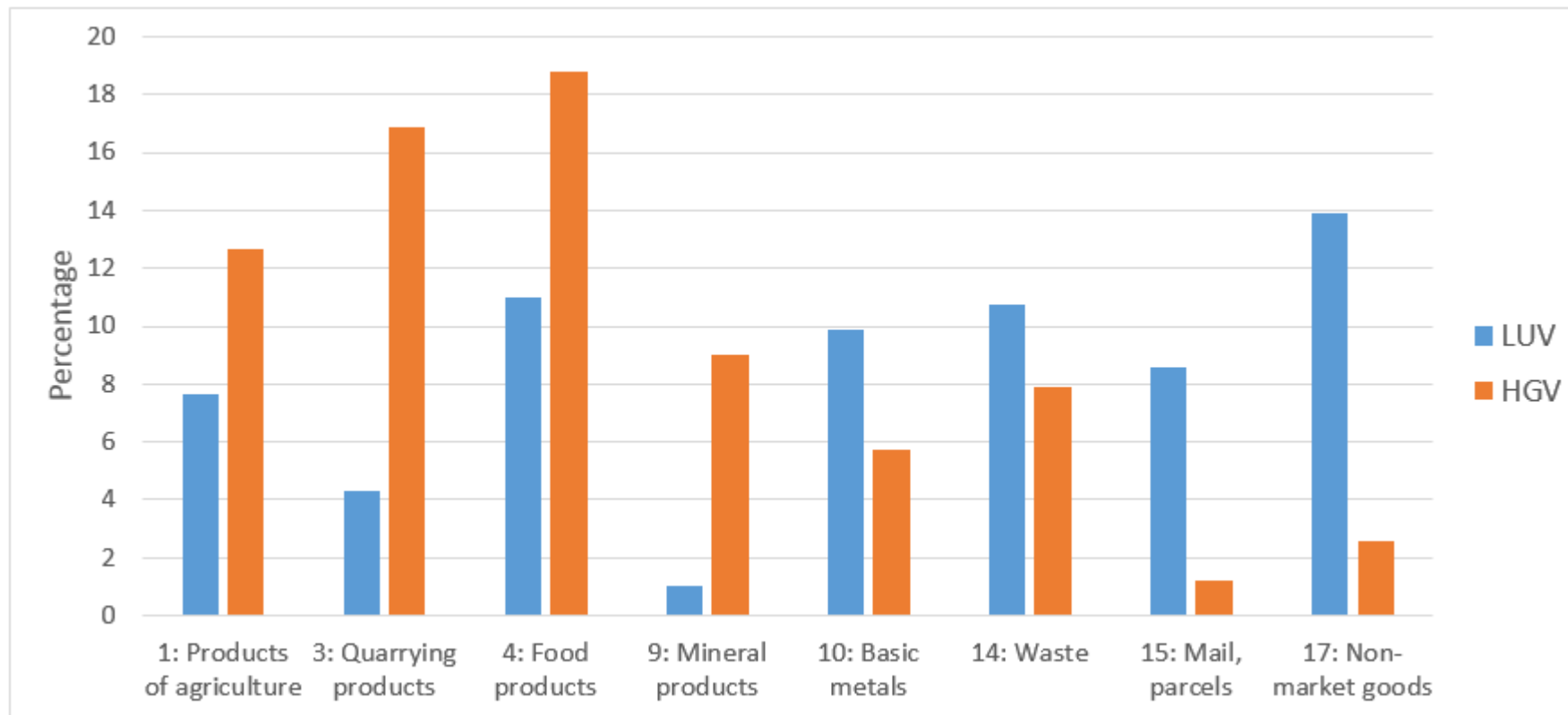


Total: 47 million km





## Transport performance shares of LUV and HGV by type of goods, 2013





# Thank you for your attention!

You can find data on road freight transport on our website in German, French and partially in Italian and English:

<https://www.bfs.admin.ch/bfs/fr/home/statistiques/mobilite-transports/transport-marchandises.html>

Survey on LUV: <https://www.bfs.admin.ch/bfs/fr/home/statistiques/mobilite-transports/enquetes/lwe.html>

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