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# Beyond the Engine

## A Lifecycle Perspective on Transport Emissions

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## Intro

- Trusted data can be hard to come by
- Government gathers Data many topics
- Swiss Federal Office of Energy
- New Life Cycle Assessment (LCA) Tool

**The data must be made accessible!**

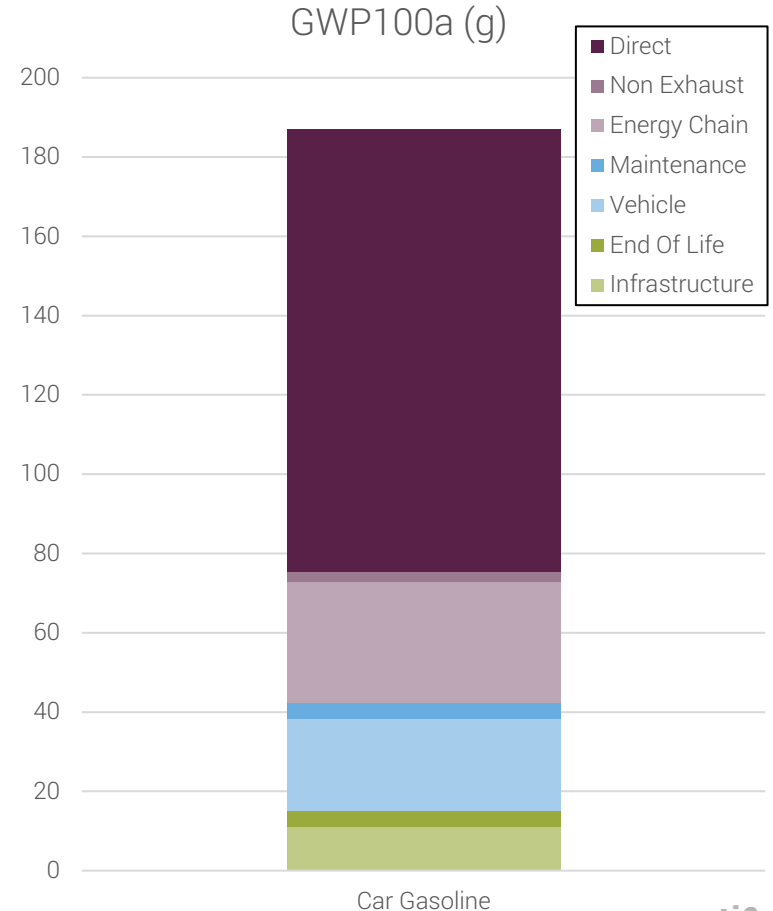
# Use Cases

- Make official Life Cycle Data available
- General Public: Compare means of transportation
- Education: Learn about environmental Impact of transportation
- Journalists: Research
- Experts: Calculating corporate footprints









# Life Cycle Assessment

- Calculate emissions
  - Vehicle production
  - Infrastructure
  - Direct emissions
  - Maintenance
  - Disposal
- Breakdown per kilometre



## Try it yourself

Mehrere Verkehrsmittel wählen...

 <b>Zug</b> <input type="checkbox"/>	 <b>Öffentlicher Verkehr</b> <input type="checkbox"/>	 <b>Auto</b> Flottendurchschnitt <input type="checkbox"/>
 <b>Auto</b> Batterieelektrisch <input type="checkbox"/>	 <b>Auto</b> Benzin <input type="checkbox"/>	 <b>Flugzeug</b> Kerosen <input type="checkbox"/>

**Ökobilanzdaten anzeigen**

**Kein passendes Verkehrsmittel gefunden?**

Mittels Suche im Katalog finden Sie eine vielseitige Auswahl von Verkehrsmitteln. Unterteilt in die Kategorien "Personenverkehr", "Gütertransport" und "Sonstige"

**Verkehrsmittel suchen →**

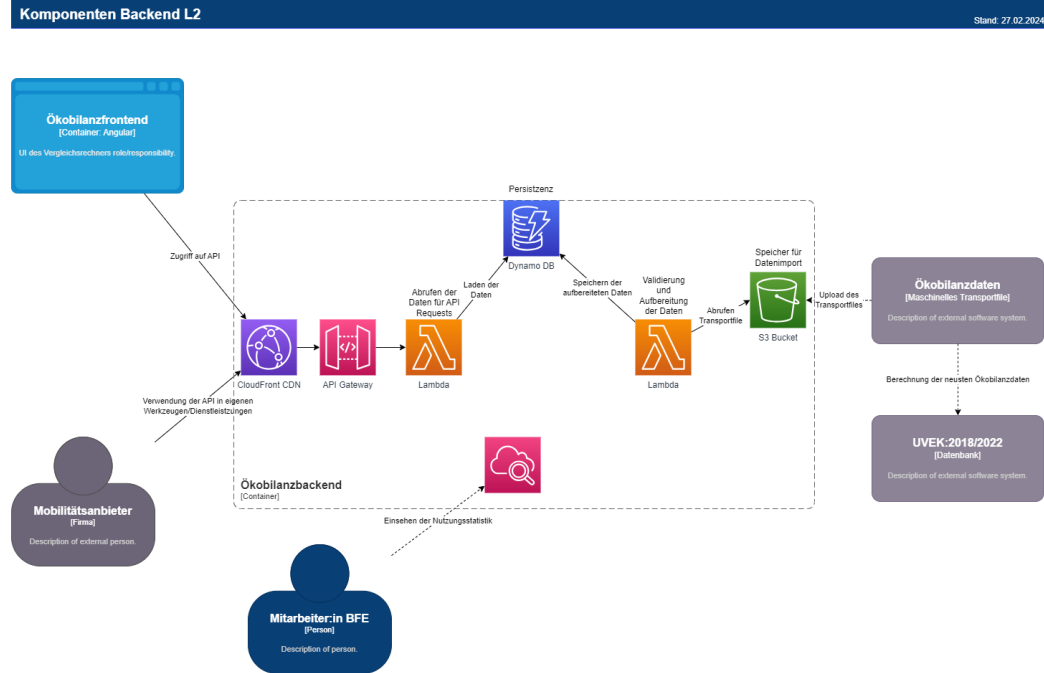


<https://www.energieschweiz.ch/programme/umweltrechner-verkehr/>



# Serverless stack

- Low energy consumption
- Low operating costs
- No provisioned concurrency
- Use a CDN



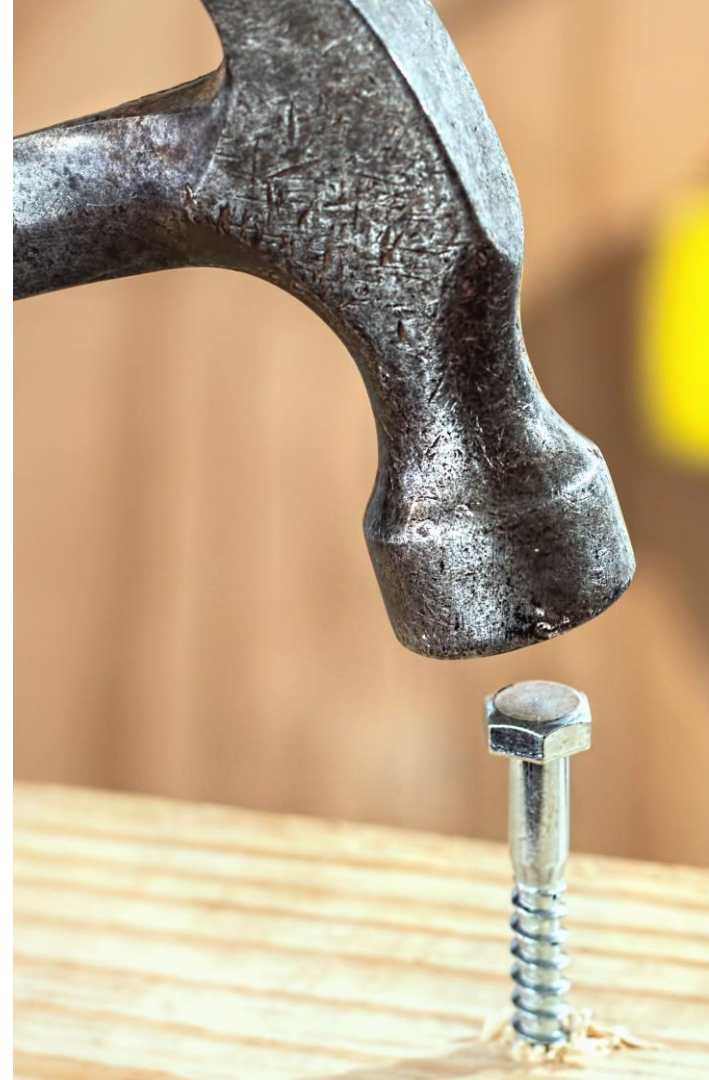
Caching significantly reduces response time





## Lessons learned

- Different entry points for different usecases
- Excel is turing complete
- Static data fits serverless hosting



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