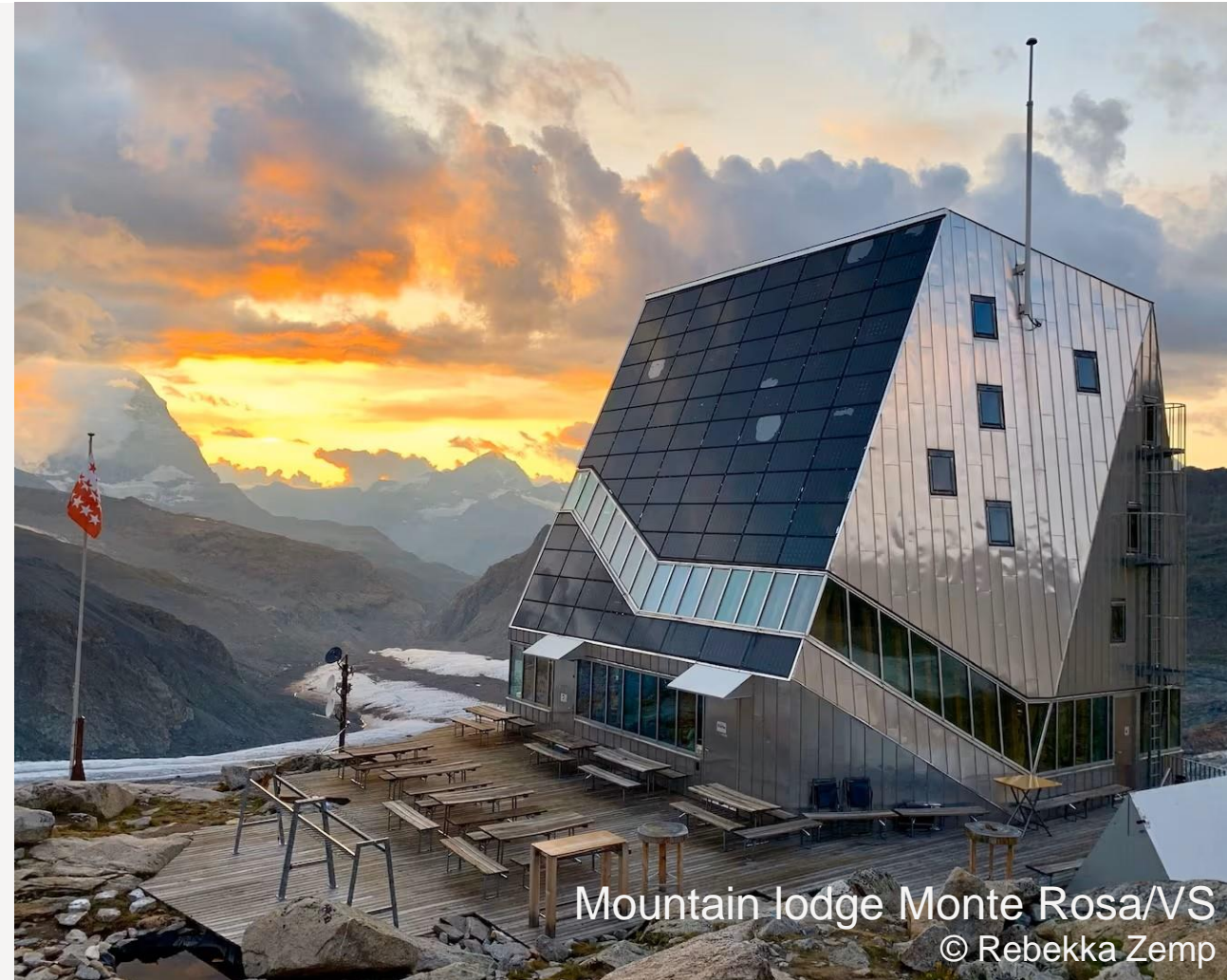


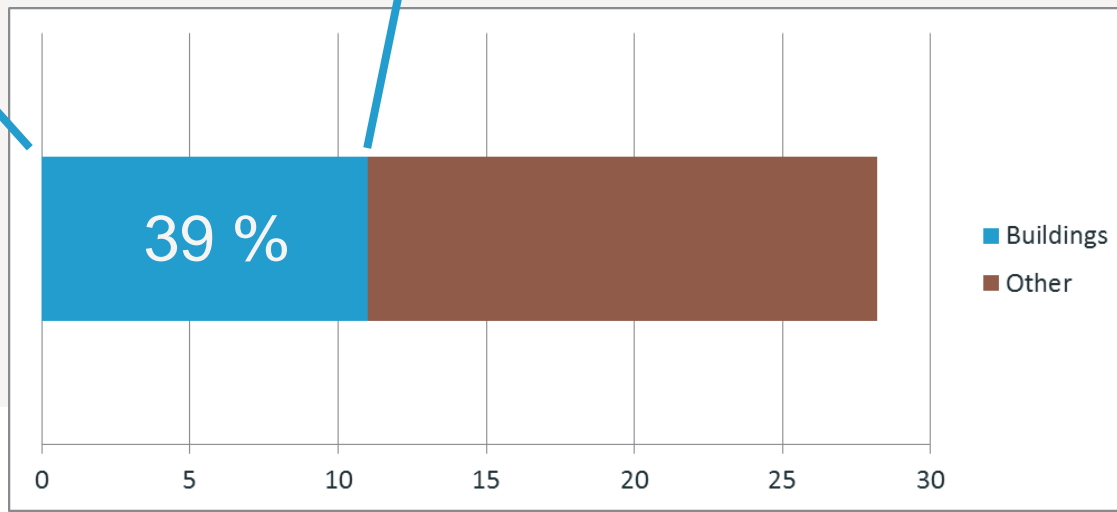
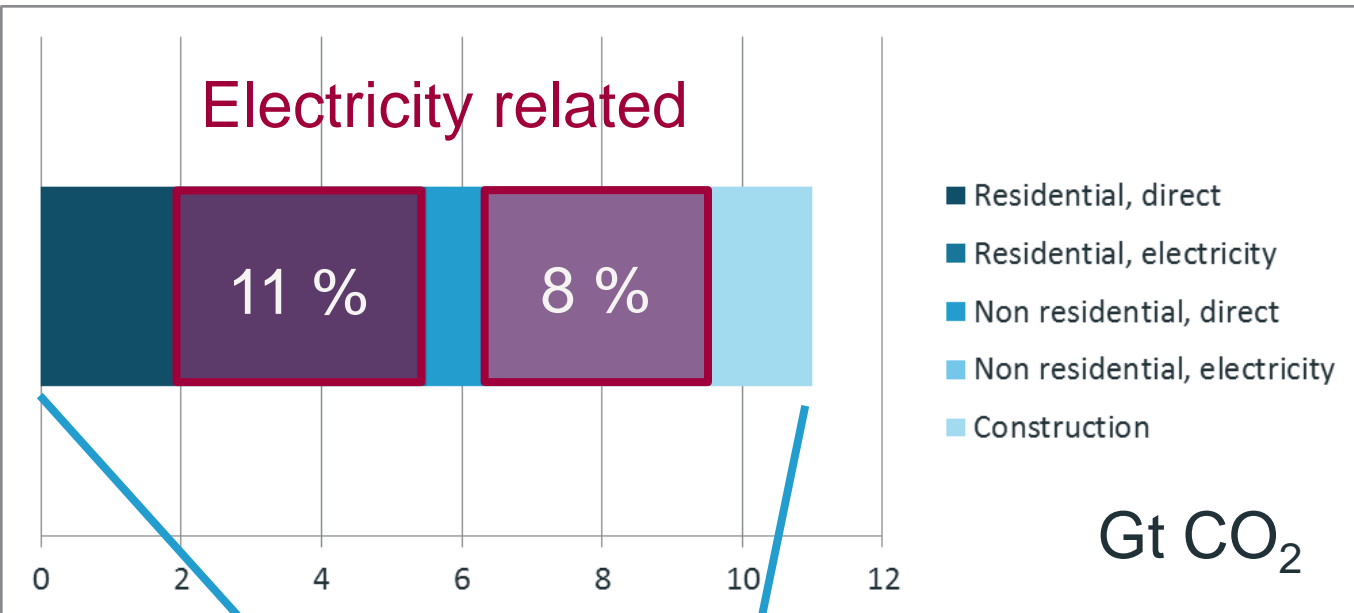
Electricity in buildings LCA: State of the art, challenges and ways ahead

Rolf Frischknecht
treeze Ltd.

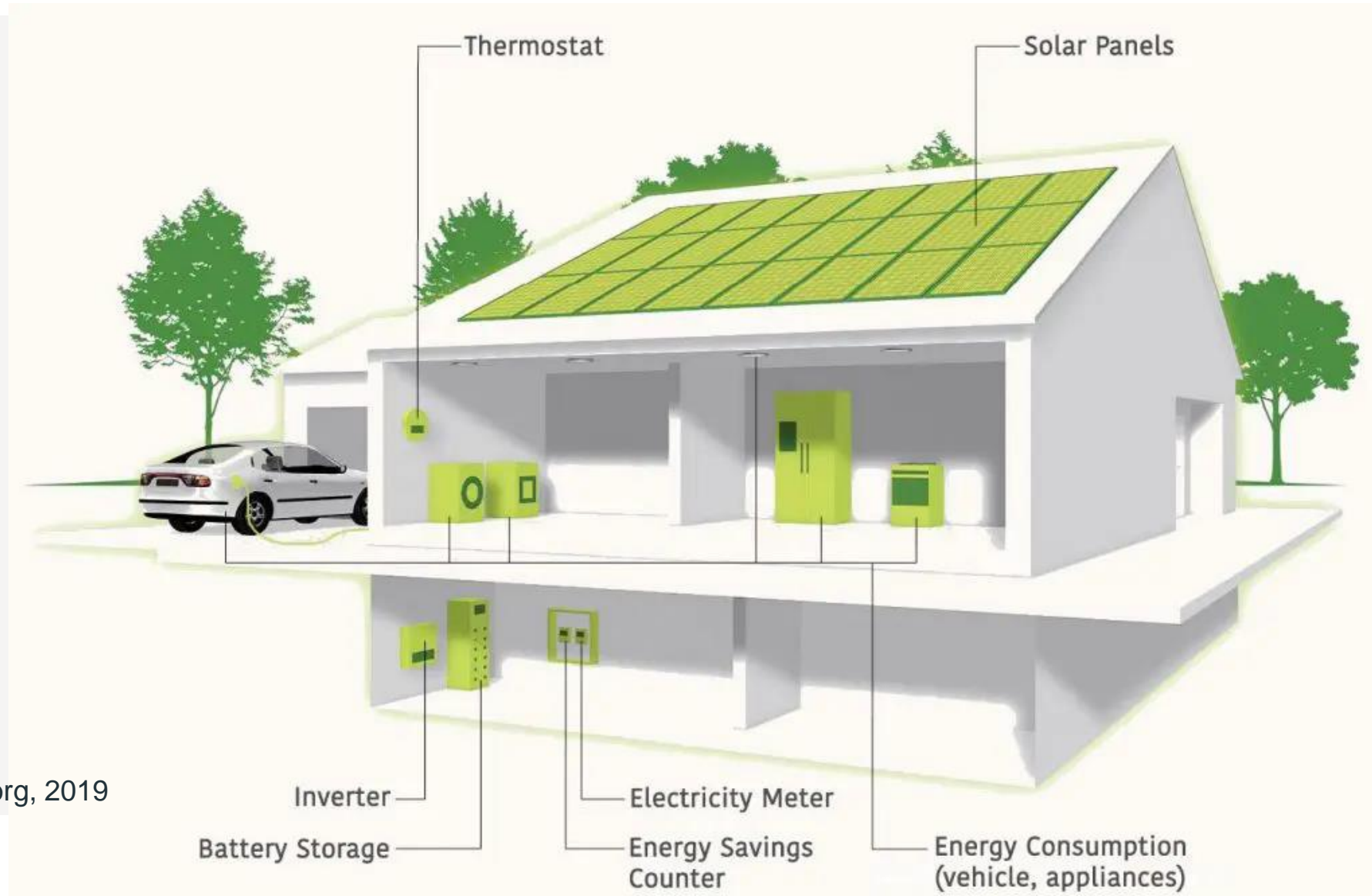
85th LCA forum
ETH, Zurich, 9 November 2023



Electricity used in Buildings – an important source of CO₂-Emissions

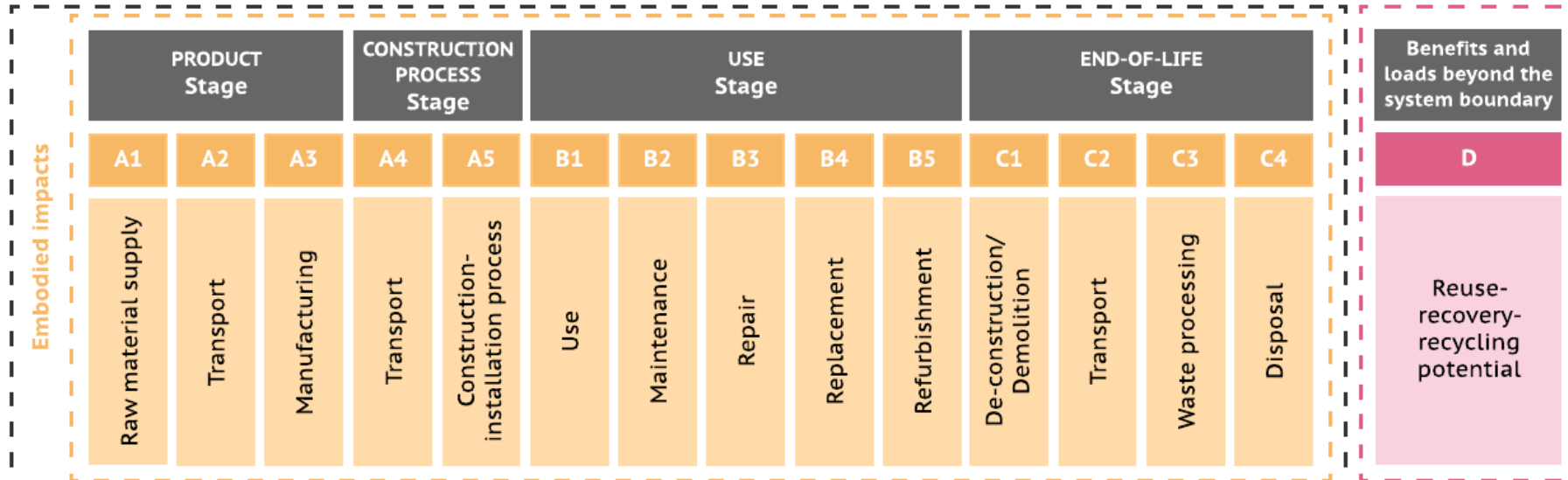


Electricity used and produced in and on buildings



Which electricity consumption to consider?

Information on whole life impacts

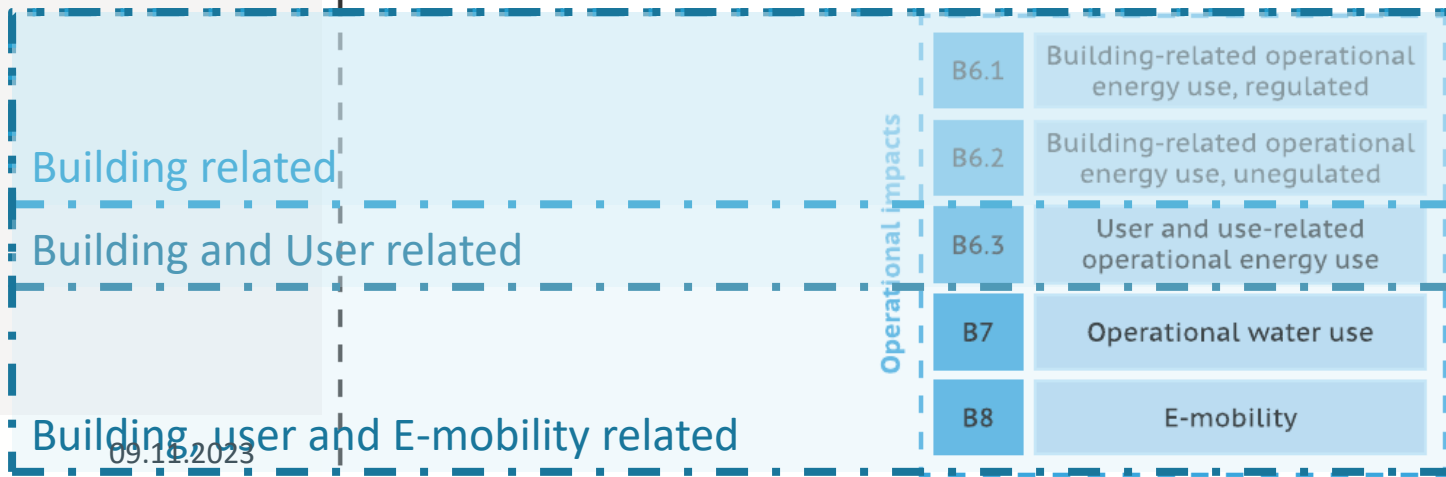


Additional information

Benefits and loads beyond the system boundary

D

Reuse-recovery-recycling potential



Building related

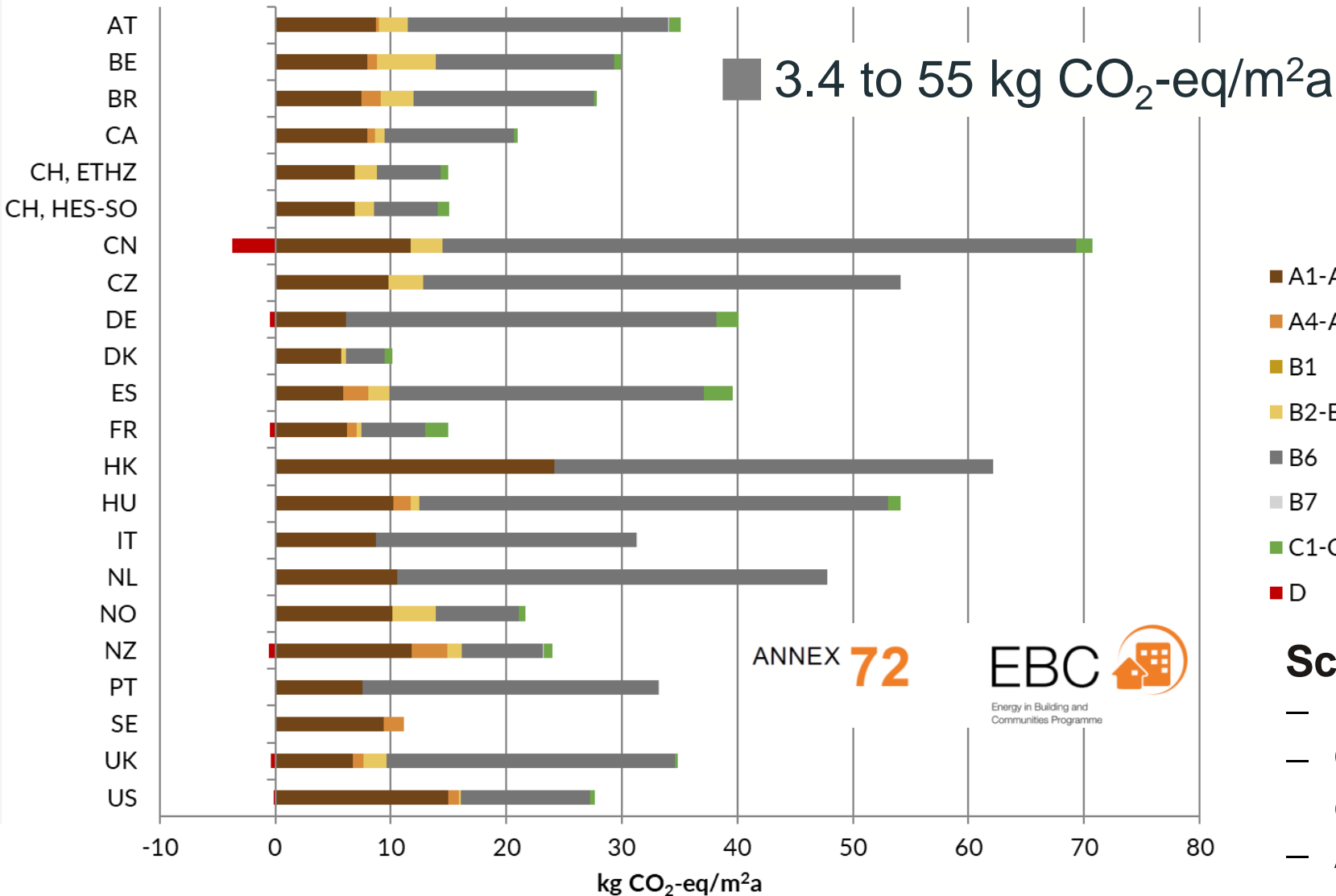
Building and User related

Building, user and E-mobility related

09.10.2023



Same building built and operated in different countries: variation in electricity related GHG-footprint



Scope electricity consumption:

- Lighting
- Operational facilities (elevators, electric doors, shadowing equipment)
- Auxiliaries

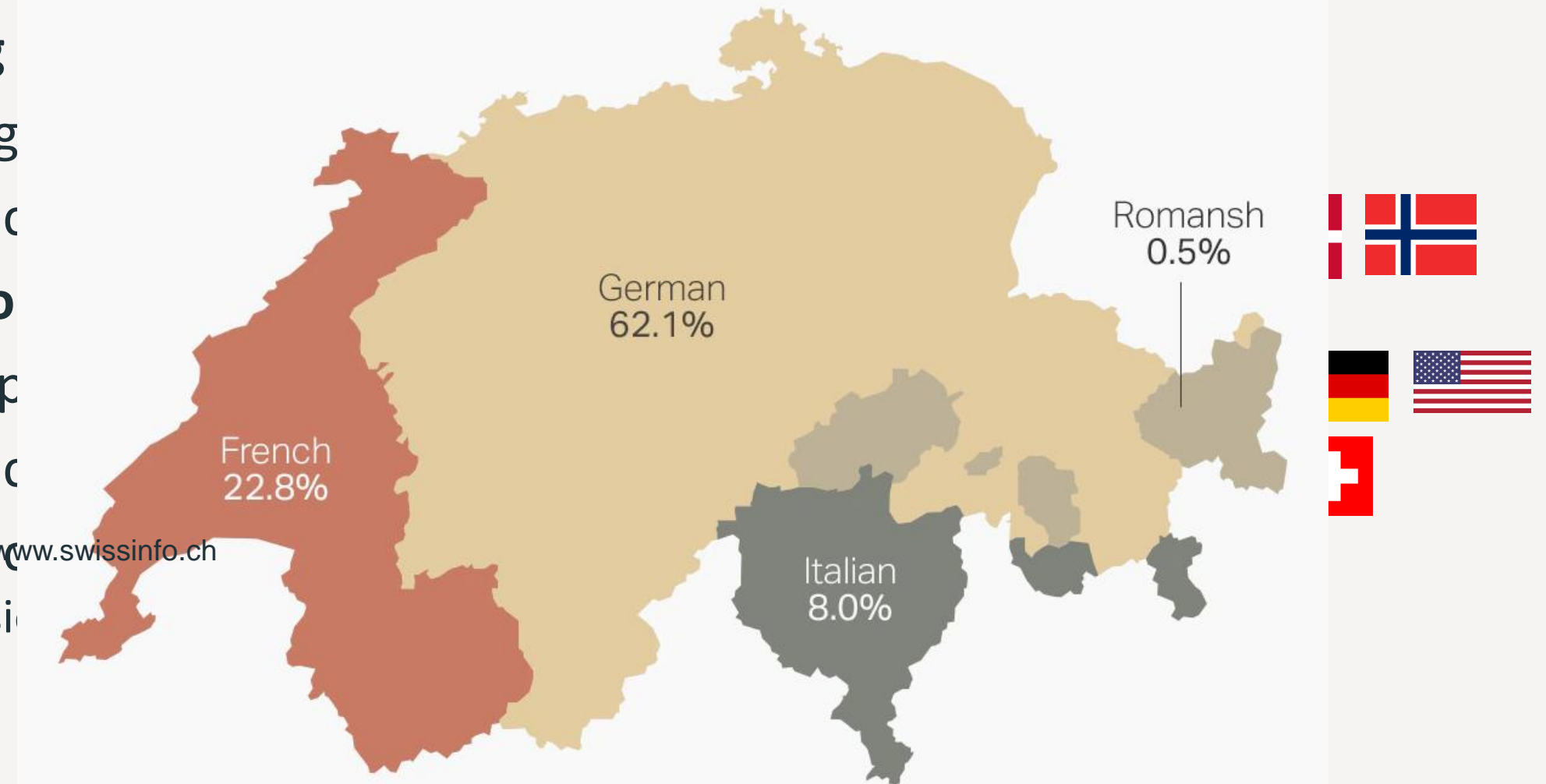
Your day today

Morning

- Setting
- Electric

Afternoon

- Short p
- Electric
- Electric
- Discussi



1. Modelling of electricity mixes based on physical production or quality

Moderator: Rolf Frischknecht, treeze

2. Static or dynamic modelling of use phase electricity consumption of buildings

Moderator: Bruno Peuportier, Ecole des Mines

3. Modelling in situ PV electricity production and self-consumption

Moderator: Martin Jakob, TEP Energy

Breakout groups

Where to go

2. Static or dynamic modelling of use phase electricity consumption of buildings
Bruno Peuportier
Main building HG E 3

3. Modelling in situ PV electricity production and self-consumption
Martin Jakob
Main building HG D 3.3

1. Modelling of electricity mixes based on physical production or quality
Rolf Frischknecht
Alumni Pavillon (stay here)

**Please
appoint a rapporteur
be back at 16:30h**

from Alumni Pavillon ↗

from Alumni Pavillon ↘