

## Job Description

**Name of organisation unit:** Technology Assessment Group (4501)

**Line Manager:** Peter Burgherr

**Thesis advisor:** Prof. Dr Russell McKenna, ETHZ

**Supervisor:** Christopher Mutel

<b>Function:</b>	PhD Student
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**Position holder:** Michael Weinold (1995)

### Main tasks:

- PhD thesis in research projects "Web of Interoperable Digital Services for Knowledge on Decarbonisation Pathways" (WISER) and "Sustainability at the heart of a resilient Swiss energy system" (SURE)
- Develop a toolbox of innovative methods to process novel data sources, perform automated quality assurance, harmonize nomenclatures and ontologies, and conduct innovative temporal- and site-dependent prospective life cycle assessment
- Analysis of their future role within the Swiss (and European) energy system and economy in the context of "net-zero" carbon dioxide emissions
- Case studies on Swiss cities and international firms, and Swiss energy and household consumption pathways
- Support teaching activities generally at the institution of the thesis advisor and/or perform specific maintenance tasks, decided on a case-by-case basis

### Individual related tasks:

- Development of the Brightway life cycle assessment framework and associated libraries to support novel open sustainability assessment

### Education/skills:

- Master degree in natural science, computer science, or engineering
- Good knowledge of English
- Experience in open software development
- Basic knowledge of Python
- Intrinsic motivation to improve state of open sustainability assessment
- Communication skills to work well in a small team

### Specifics/special working conditions:

- Ability to work in a diverse and flexible academic environment

<b>Valid from:</b>	01.07.2022
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**Date of issue:** 28.04.2022