Fachhochschule Nordwestschweiz
Hochschule für Life Sciences

Facilitating Circular Economy (CE)

CELERO – a digital tool to facilitate CE decision making in industries – supported by the environmental technology fund of FOEN

Shaping a sustainable digital world
Virtual Policy-Kitchen Workshop on 8 May 2020

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Content

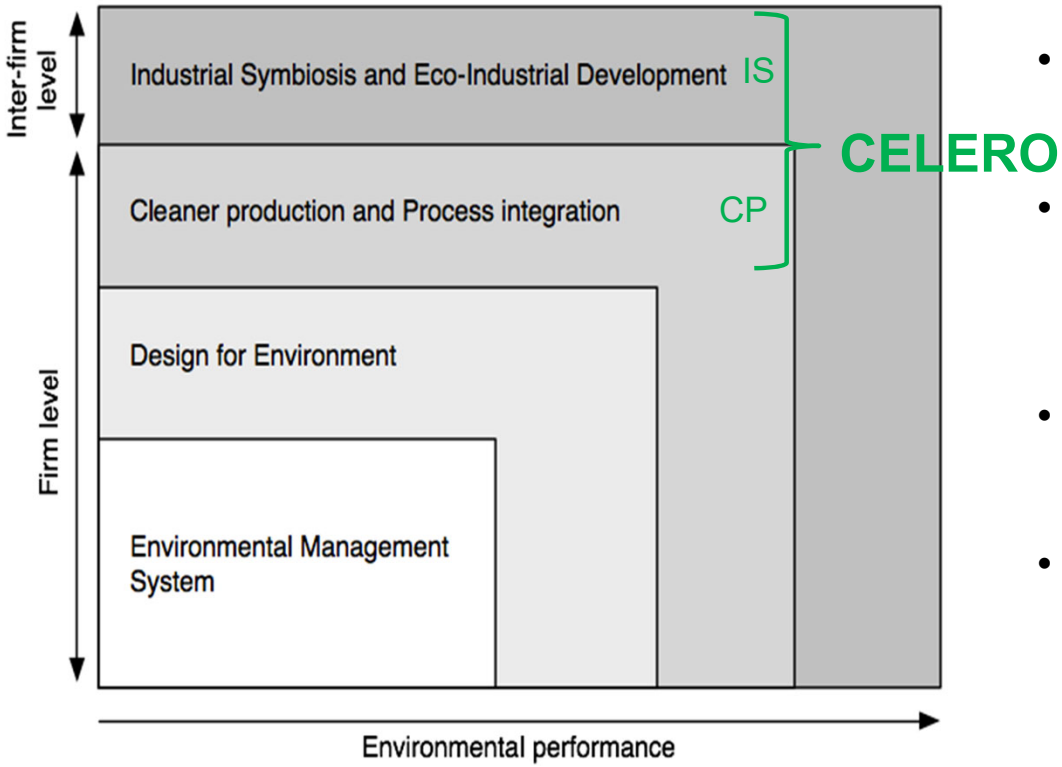
- Environmental technology promotion of the Federal Office for the Environment (FOEN)
- CELERO – a digital tool to facilitate CE decision making in industries
- Challenges in the use and uptake of CELERO

Environmental Technology Promotion of the Federal Office for the Environment (FOEN)

- Support of development of **technologies**, **installations**, **processes** and **goods / services** that can **reduce environmental pollution** and enable the **sustainable use** of **natural resources**.
- Annual budget of **Environmental Technology Fund (UTF)** ~ CHF 4 million
- UTF covers **50%** of **project costs** of public **research institutions** and private **companies** (e.g. “Innosuisse” covers only costs from public research institutions)
- For more information, please visit the FOEN website https://www.bafu.admin.ch/ Topic Education, Research and Innovation / Innovation

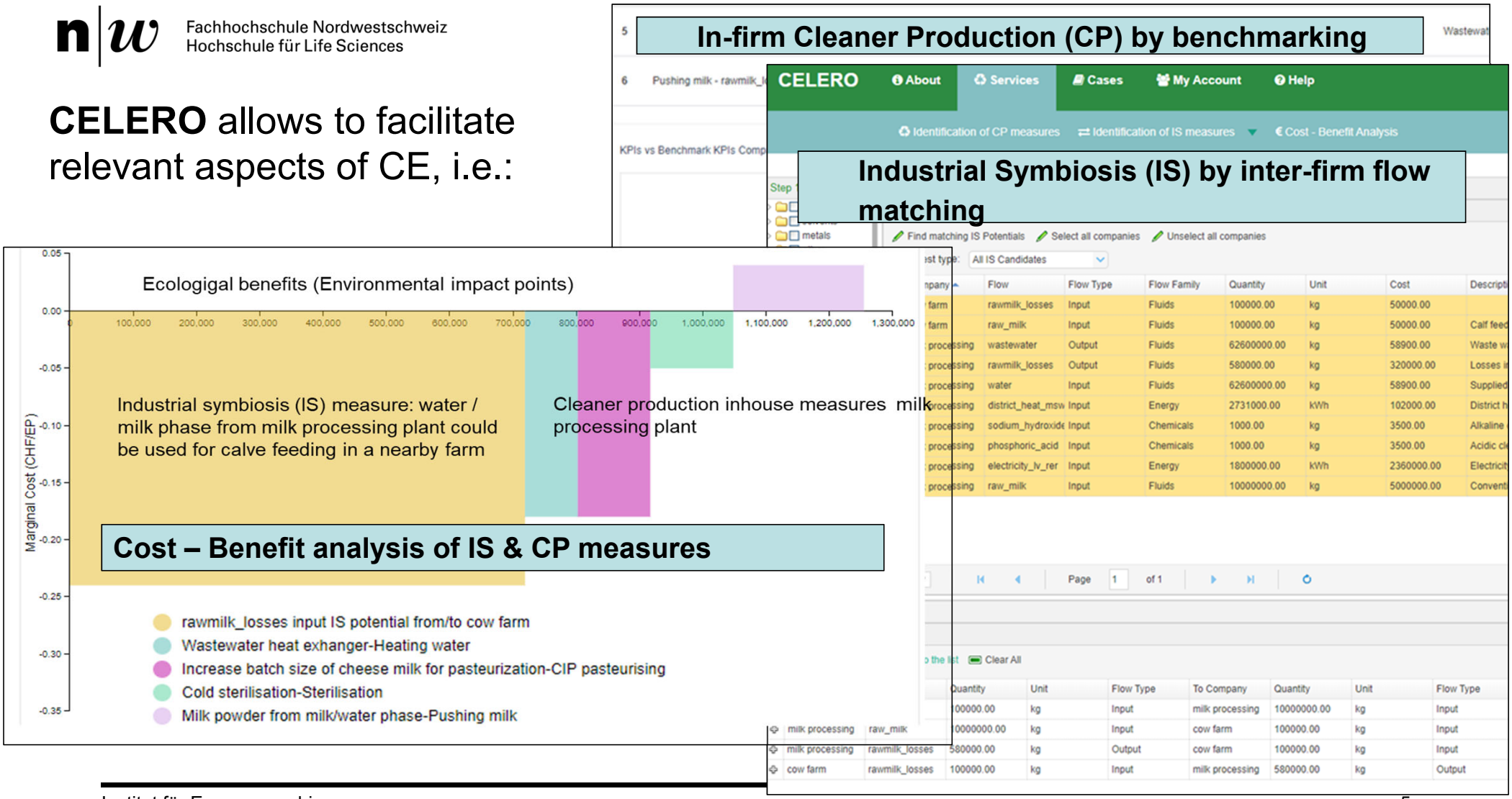
  Direct link https://www.bafu.admin.ch/bafu/en/home/topics/education/innovation/umwelttechnologiefoerderung.html

CELERO – a digital tool to facilitate CE decision making in industries



- **Free** of charge web-based **open source** software platform (currently on request)
- Initial version was **developed** with partners from enterprises and research institutions in **TR and CH**
- **Supported** by the **Environmental Technology Fund** (UTF)
- **Beta version** used in teaching and soon in Reffnet.ch

CELERO allows to facilitate relevant aspects of CE, i.e.:



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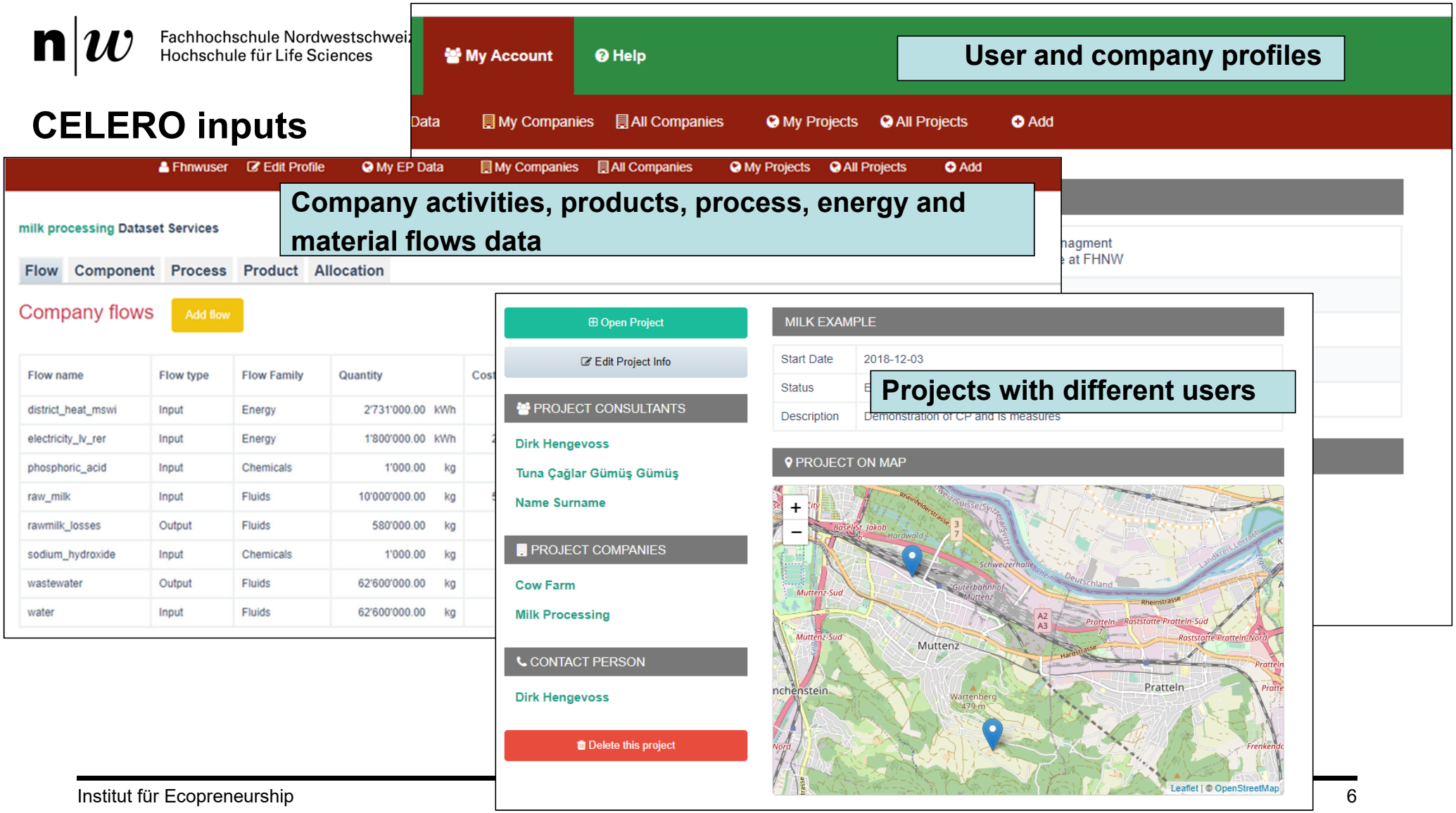
CELERO inputs



Challenges in the use and uptake of CELERO

- Currently the use of CELERO requires **expert knowledge** on CE→ For a **broader uptake** by industries, the user friendliness should be improved in **data input** and **process & flow modelling.**
- Required **BAT** and **benchmark** values (e.g. generated waste / input material) have to be manually searched. → **Guided web search** (machine learning?) could simplify the work.
- Lack of **CE understanding** and **competencies** in industries → A **gamification** of CELERO may motivate companies to learn about and to contribute to improve the circularity of the industrial network (e.g. in a industrial park).

Questions & Answers