

Master in Process Engineering

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What is Process Engineering ?

Process Engineering =

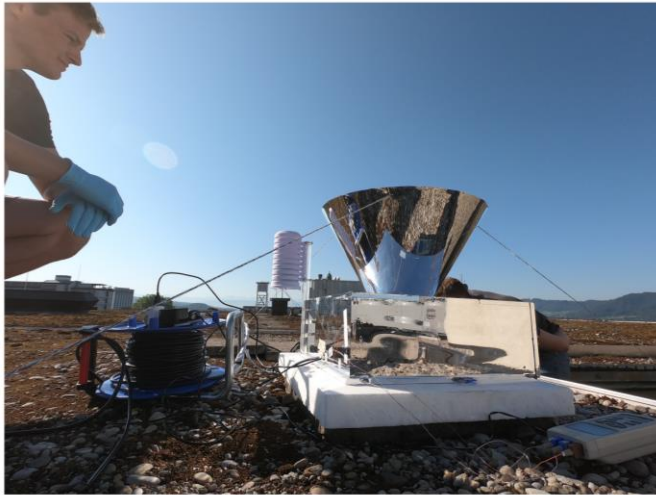
Chemical Engineering

+

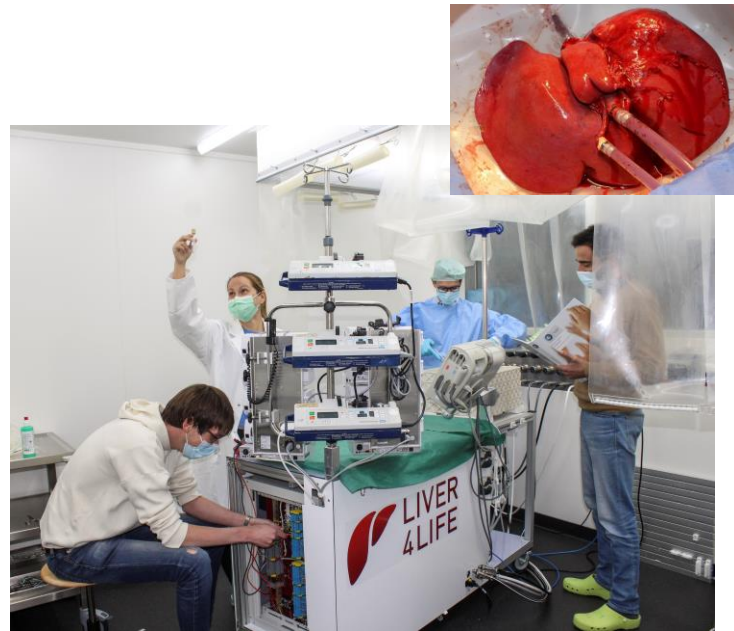
Mechanical Engineering



Contributes to the grand challenges of today's societies, including



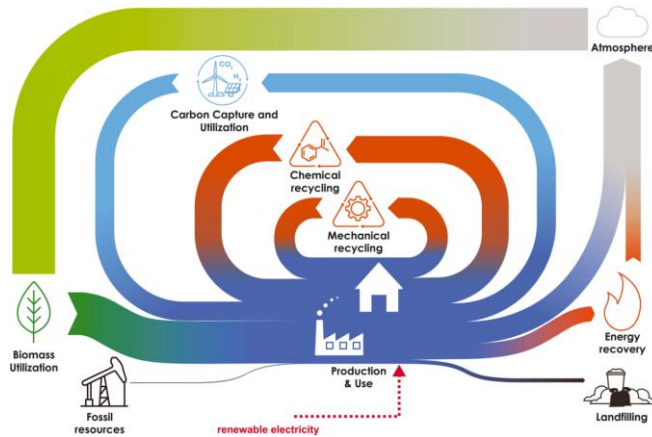
Supplying clean water



Ensuring healthy lives



Mitigating climate change



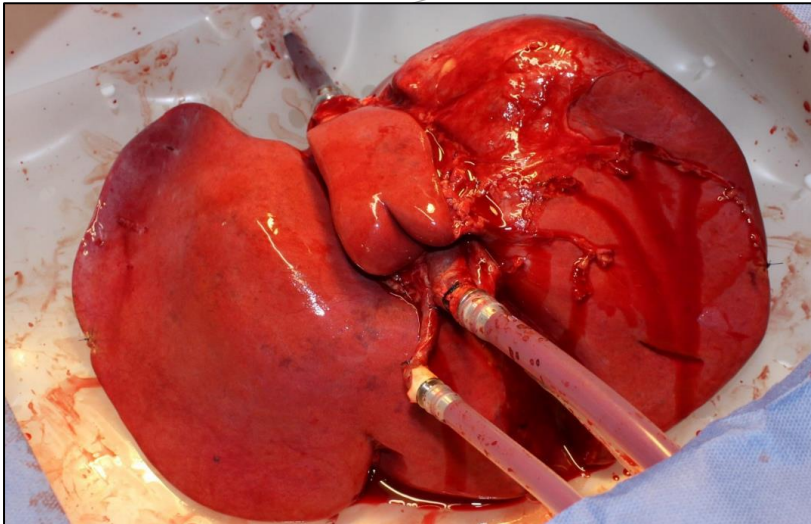
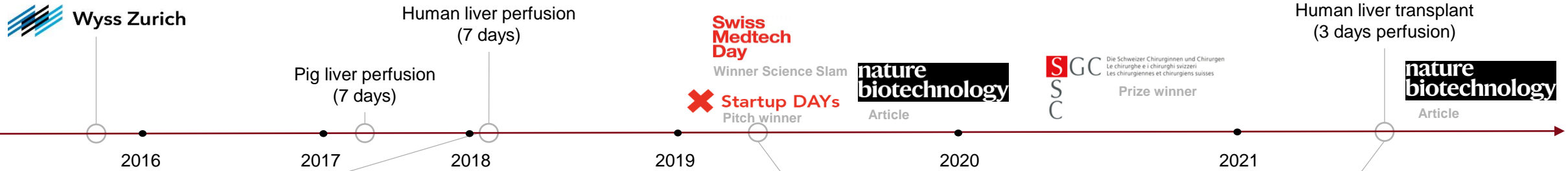
Circular economy for plastics



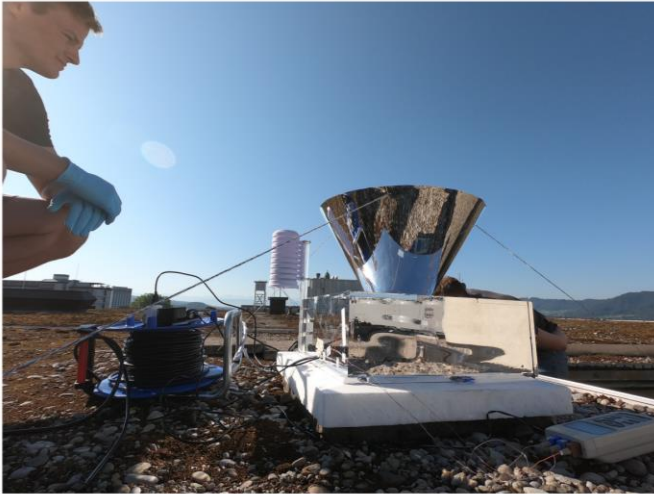
Providing clean and reliable fuels
<https://www.youtube.com/watch?v=s1-soaZn4B0>

Liver4Life Project

We can maintain human livers outside the body for up to 10 days and recently demonstrated a first-in-man life-saving transplant.



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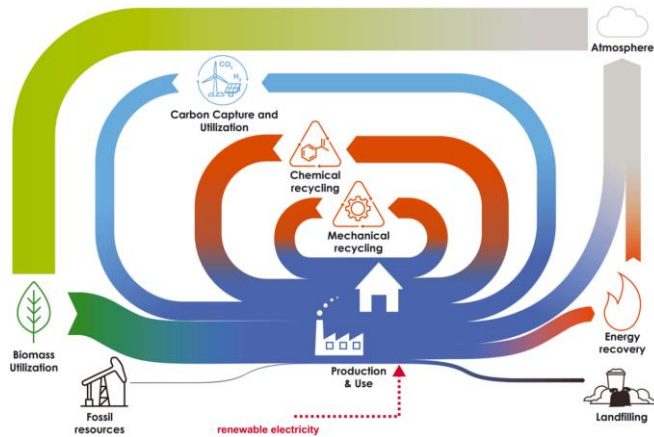
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How do you become a process engineer ?

Curriculum

1 st Semester	2 nd Semester	3 rd Semester	ECTS
Core Courses			36
Multidisciplinary Courses			6
Science in Perspective			2
Industrial Internship			8
	Semester Project		8
		Master's Thesis	30
Master of Science ETH*			90


- Foundation of the Master's Program
- Core knowledge in the area of interests
- Deepen degree-specific knowledge
- Courses in humanities, social & political sciences offered by ETH
- 12-week internship in a company
- Experience in the solution of a specific engineering problem
- Independent scientific work

<https://master-process-engineering.ethz.ch/>

Core Courses - Examples

- Theory and Modeling of Reactive Flows
- Heterogeneous Reaction Engineering
- Computational Methods for Flow, Heat and Mass Transfer Problems
- Electrochemical Energy Conversion and Storage Technologies
- Micro- and Nanoparticle Technology
- Separation Process Technology
- Rate-Controlled Separations in Fine Chemistry
- Mass Transfer
- CO₂ Capture and Storage and the Industry of Carbon-Based Resources
- Medical Technology Innovation - From Concept to Clinics
- Introduction to Photonics
- Process Design and Safety
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Curriculum – Tutor system

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			36
			6
			2
			8
			8
			30
Master of Science ETH*			90

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Tutor system

- The Master program is tutor-driven
- Each student is entitled to a tutor
- Tutor and student define an individualized curriculum
- Tutor coaches students in course planning, research, mobility, industrial training and monitors progress
- Changing the tutor is possible

Tutors in Process Engineering



How to apply ?

Admission is made by the admission committee of the Master's Program, based on an individual evaluation of the application file (evaluation sur dossier):

- Assessment of the profile;
- Performance and grades;
- Academic ranking;
- CV and motivation letter describing personal goals and motivation for studying for the Master's in Process Engineering at ETH Zurich;
- Three preferred tutors and their order of preference;
- 2 letters of recommendation;
- GRE Test;
- An English test (Level C1) for non-native speakers (TOEFL, IELTS or equivalent).

For details, see

<https://master-process-engineering.ethz.ch/>

Tutors in Process Engineering



Thank you for your attention.

Questions ?

