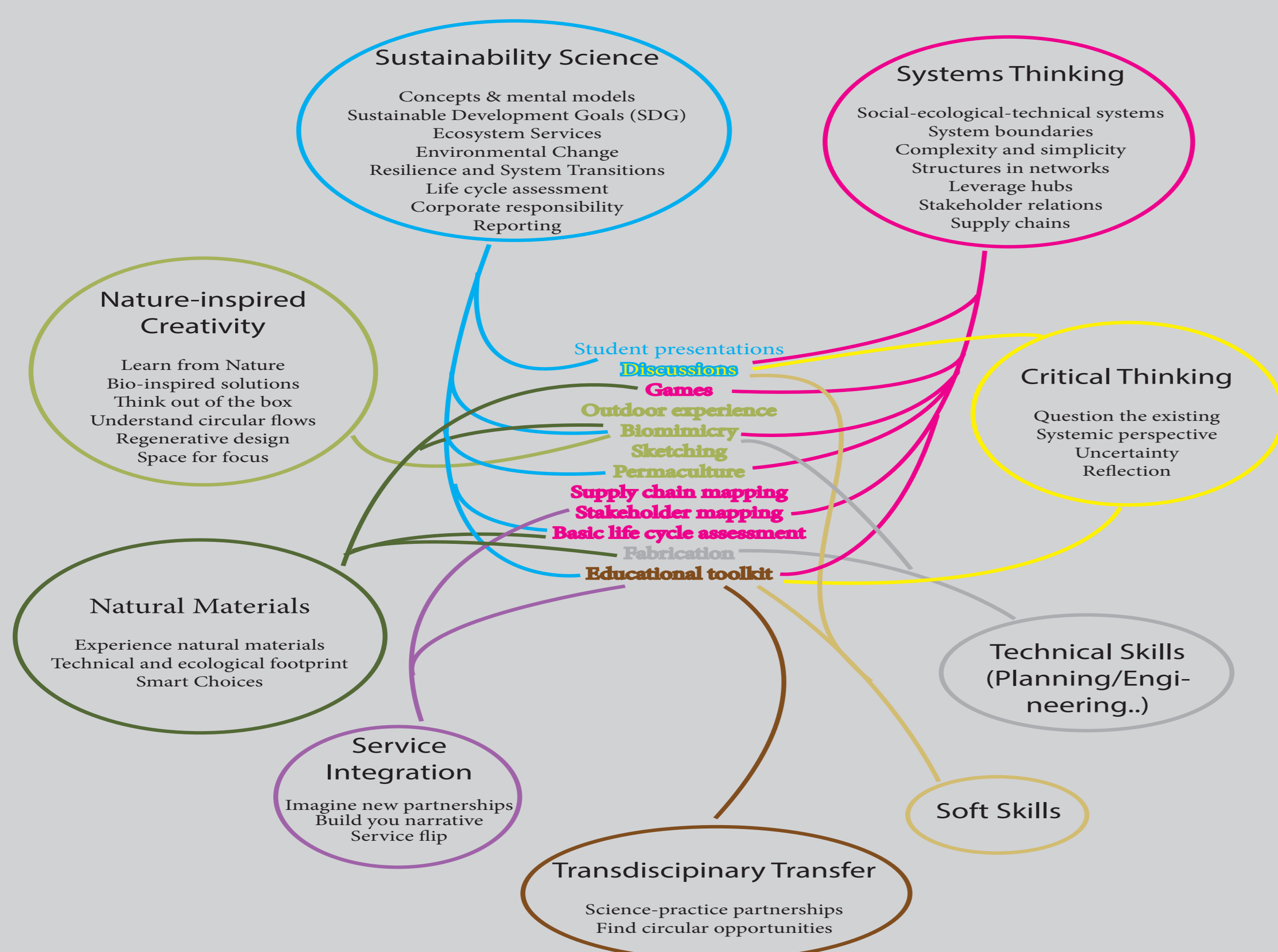


Systemic Design Labs (SDL)

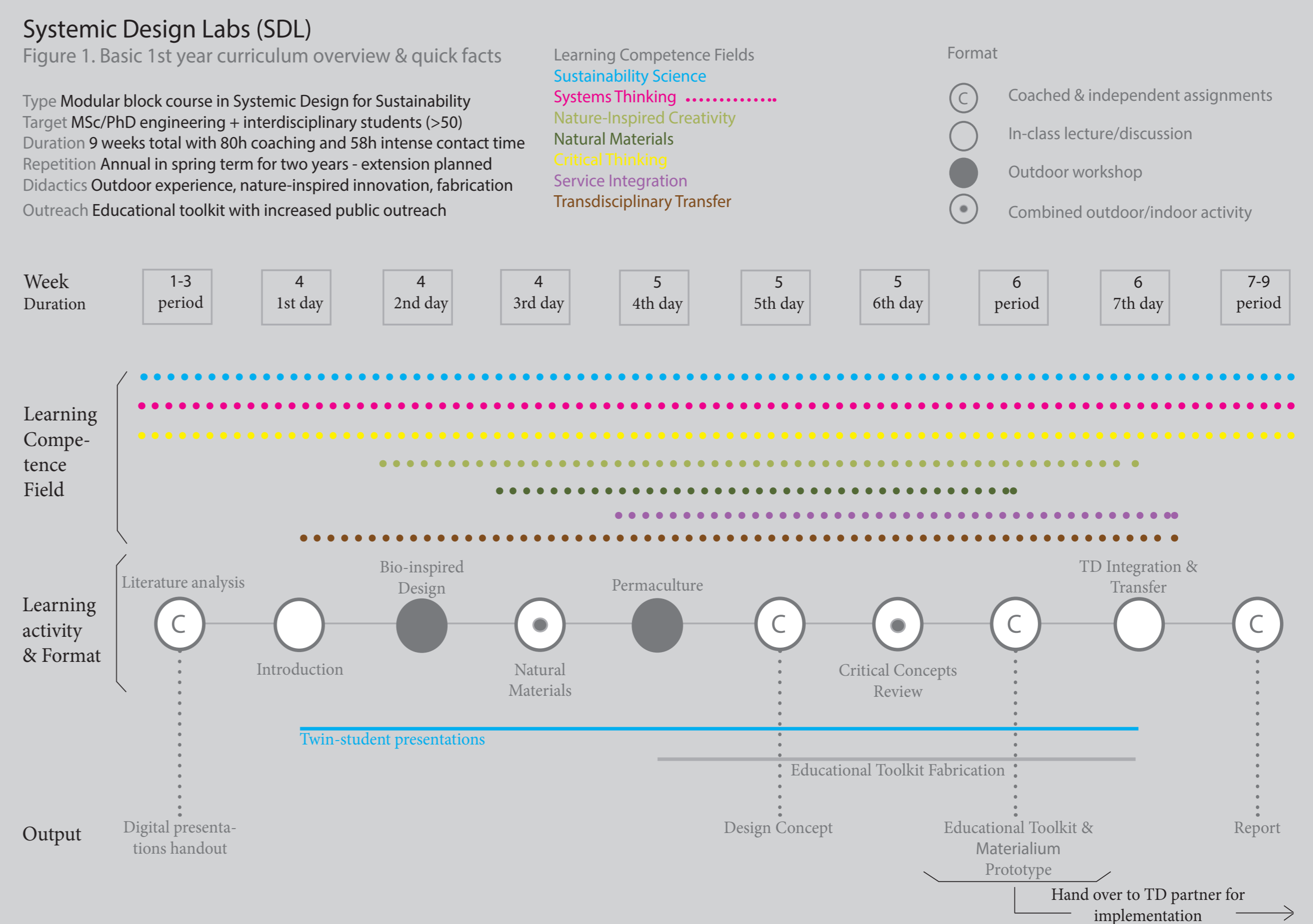
Incubating systemic design and planning skills by experiential didactics and nature-based creativity

Outdoor experiences, systems planning, fabrication and transdisciplinarity empower students as change agents for sustainability, developing skills in critical systems thinking, bio-inspired creativity, circular design and service understanding.

SDL learning goals and aligned teaching methods



SDL block course curriculum - 1st year



Design brief FS 2018:

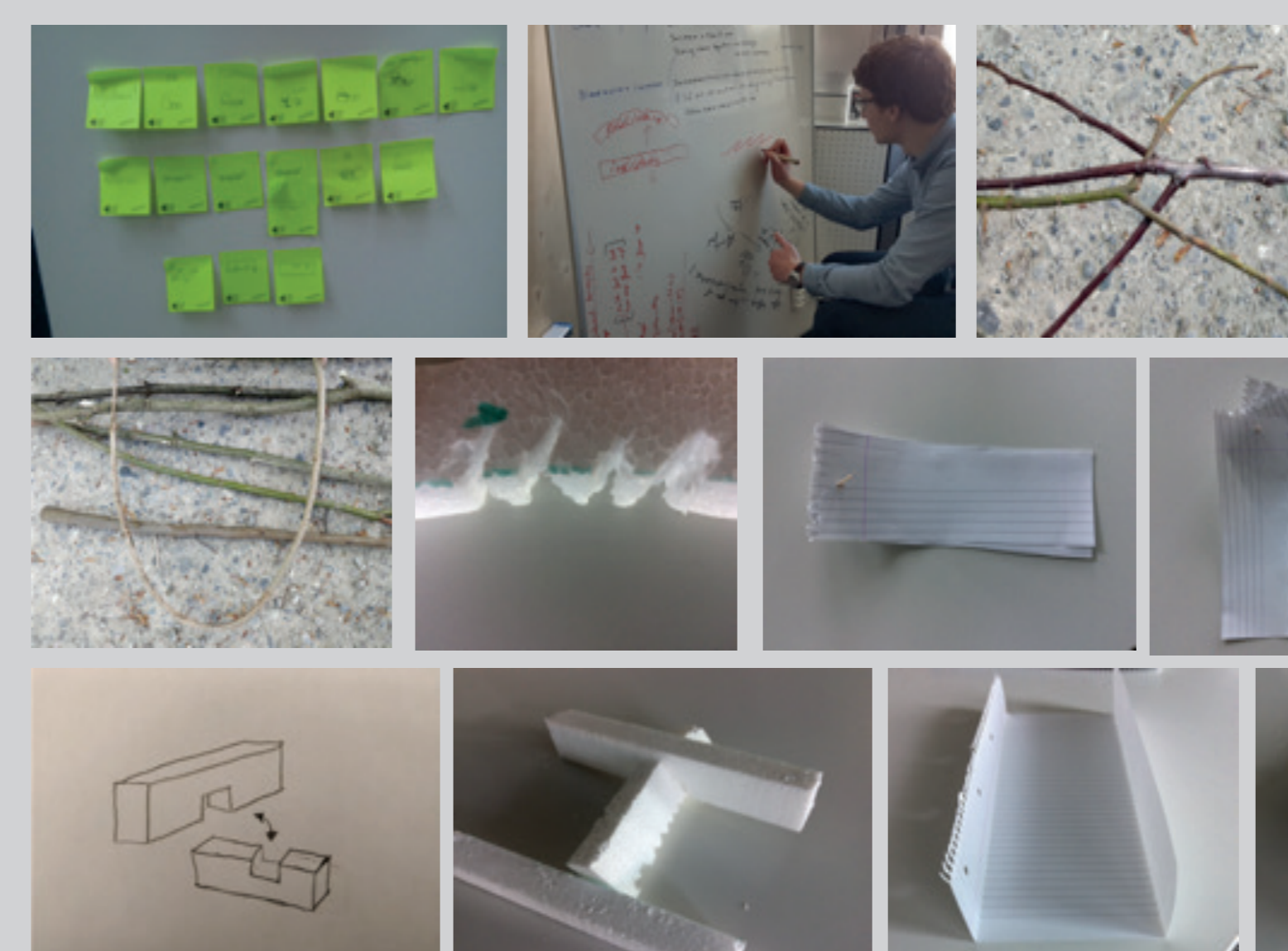
- Develop an educational snowshoe toolkit for (school) kids
- Bring kids to snow AND educate about sustainability the experiential way
- Re-think the functions of a snowshoe - climb, glide, float, play, carry,...
- Demonstrate systemic regenerative design, circularity, upcycling, natural materials,...
- Make systemic design and sustainability experiential for users of the kit

- *Climate change requires new strategies for future winter tourism
- *Snowsport experiences have great potential for educating on sustainability
- *Transdisciplinary partnership with Swiss Snowsports Initiative, schools and industry



Next steps: transdisciplinary integration (external follow-up funding)
Moving from prototype to test production line. Product field testing.
Didactic test winter with partnering schools.
Outlook to market final toolkit version for winter 2019/20.

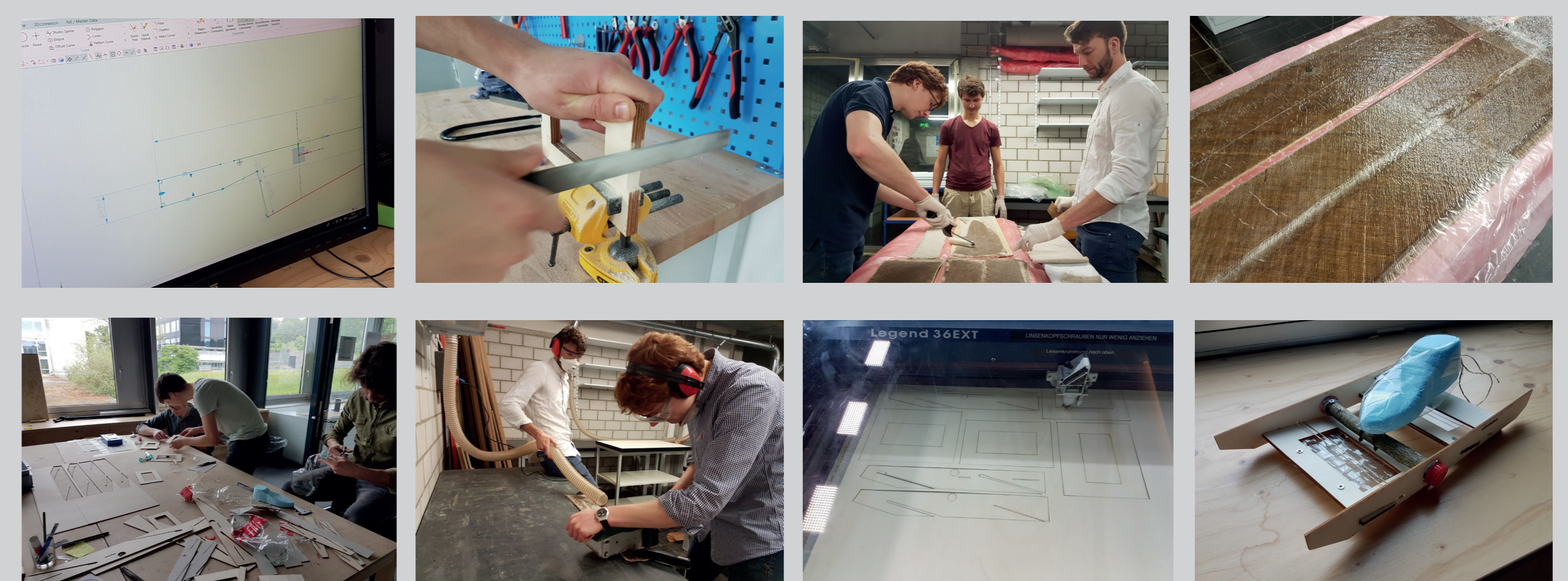
Design Thinking and Doing - Inspired by Nature's Creativity



Biomimicry task:
Go outside, re-connect, discover, identify and observe systems in nature that have elements, interconnection, and function.
Look for potential solutions of the identified functions for our design challenge (snowshoes): extended surface, traction/ grip, fixation

Technical skills: planning and engineering

CAD drawing, material footprinting, laser cutting, 3D printing, laminating with flax/ Paulownia wood and eco-resins, mastering handtools...



Upcoming Systemic Design Lab 2019

Circularity: From product design to landscape planning for circular mountain economies
A real-world laboratory block course on systemic design and planning on the example of industrial hemp