STUBA 2030(+): carbonless university

BIP: Energy Positive District

11.5.2023

The university environment is inherently predestined to create a "better" future and defining the world around us.

We look for solutions for a sustainable future every day

FORM
FOLLOWS
RESOURCES

Student and graduate theses:
Nina Kákošová, Miroslava Kamenská, Ján Forgáč, Vlasta Kubušová

What is the reality of everyday processes?

- low awareness and interest in sustainability and emissions reduction in practice
- "school's not mine" (energy, spaces, attitudes...)
- although we are slowly progressing still not paperless
- lack of funding for implementation of systemic sustainability principles

Potreba proaktívneho prístupu

vznik skupiny pre bezemisnú univerzitu s cieľom

- iniciačný tím pre definovanie vízie a prípravu stratégie
- akčný tím pre koordináciu implementácie

Workgroup for university sustainability

- Reason/motivation: to create a fundamental driving force for STU's journey towards sustainability
- Task:
  - joint formulation of strategy, objectives, milestones, tools
  - launching implementation and monitoring progress
  - laying the operational foundations for this journey with the support of the STU leadership
  - anchoring STU's position in the international professional and domestic social context
- core group + external consultants

Pracovná skupina pre bezemisnú univerzitu

- zloženie skupiny
  - **CORE GROUP - jadro skupiny - hybná sila pre nastavenie, rozbehnutie a riadenie**
    - Maximilián Strémy - prorektor pre rozvoj - predseda pracovnej skupiny
    - Peter Morgenstein - líder pracovnej skupiny
    - Henrich Pifko - člen pracovnej skupiny - Core team
    - Lorant Krajcsovics - člen pracovnej skupiny - Core team
    - Lukáš Šíp - člen pracovnej skupiny - Core team
    - Robert Špaček - člen pracovnej skupiny - Core team + ADVISORY BOARD
    - Vladimír Ondrejička - člen core team pracovnej skupiny
    - Martina Majorošová - členka core team pracovnej skupiny
    - Roman Rabenseifer - pokiaľ možno člen pracovnej skupiny - Core team
    - Boris Bielek - pokiaľ možno člen pracovnej skupiny - Core team
    - Erika Kučerová - asistentka pracovnej skupiny
    - + doplniť vhodne aj z iných fakúlt

Pracovná skupina pre bezemisnú univerzitu

- zloženie skupiny
  - **ADVISORY BOARD - medzinárodný poradný orgán, inšpirácia, networking, vzor a skratky k overeným riešeniam**
    - Ľubica Šimkovicová - Advisory board member, IEPD, Manifest 2020
    - Nora Vranová - Advisory board member, podpredsedníčka SKA
    - Martin Stohl - Advisory board member, odborník na udržateľnosť vo výstavbe
    - Robert Špaček - Advisory board member, FAD STU
    - Didac Ferrer Balas - international member of advisory board UPC Barcelona
    - Franz Fehr - international member of advisory board BOKU Wien
    - Kati Koikkalainen - international member of advisory board LUT Lappeenranta–Lahti (EULIST partner)
    - + možnosť postupne rozšíriť

Vision:

STU - low carbon, innovative, green, energy efficient, sustainable, decent and socially responsible institution, efficient in its use of resources and committed to the SDGs (Sustainable Development Goals according to the United Nations)

Strategy

define a new prism for carbon footprint reduction and apply it to all core and supporting areas of the university's activities (science and research, education, administration, infrastructure, operations, outreach...)

+ defining a new "we" at STU (identification and motivation)

Goals

Identify key areas that have the potential to contribute to neutralizing STU's carbon footprint

Objectives by area:

- Protecting natural resources
- Encouraging green thinking and behaviour
- Renovating and building in harmony with nature
- Purchase in accordance with ecological criteria
- Research and teaching in terms of sustainable development
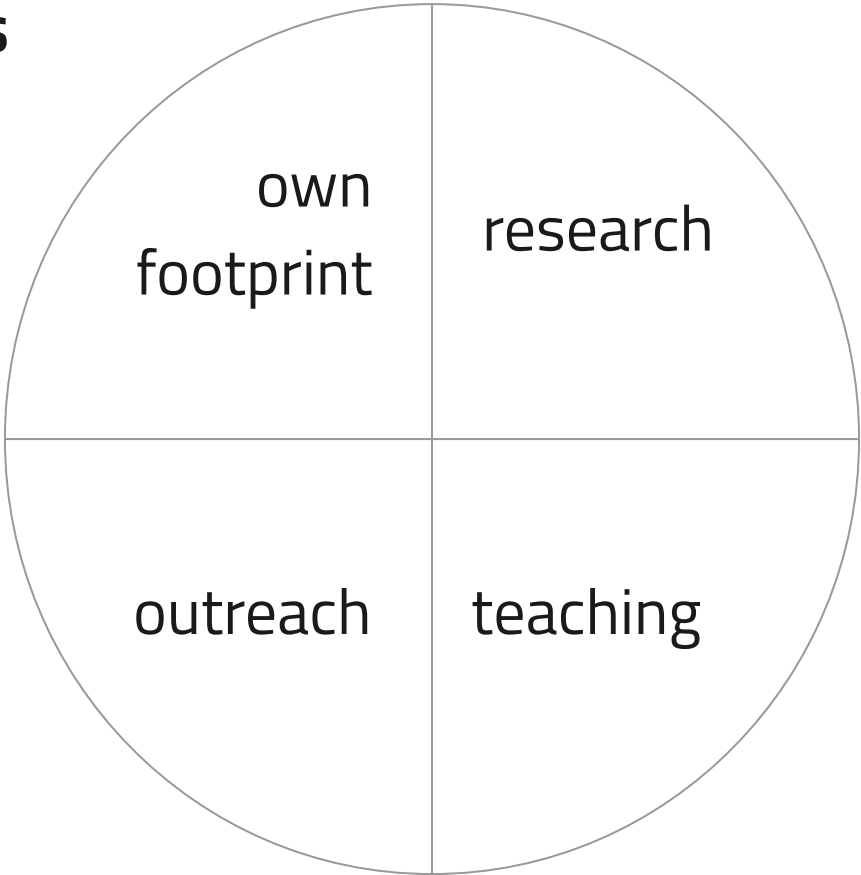
UN Sustainable Development Goals

Milestones

1. Define the mission, formulate and adopt a strategy
2. Raise awareness of the topic and engage staff and students through tools
3. Monitor status, define and track milestones (quick wins & long term goals)

Action fields

own footprint

research

outreach

teaching

Examples of activities within the area
Research

- priradenie minulých, súčasných a pripravovaných projektov k jednotlivým SDGs
  - prehľad projektov prispievajúcich k SDGs – dôležité pre strategické nasmerovanie a partnerstvá

Examples of activities within the area Teaching

- mapping of programmes/courses/courses on sustainability
  - interdisciplinary list of courses – possibility of targeted selection of courses based on sustainability issues, links with foreign partners

Examples of activities within the area Outreach

- the creation of tools to support the activities of students and staff towards the public
  - positive image among applicants and students
  - inter-university partnerships, memoranda
  - events and grants for bottom-up (middle-out) activities
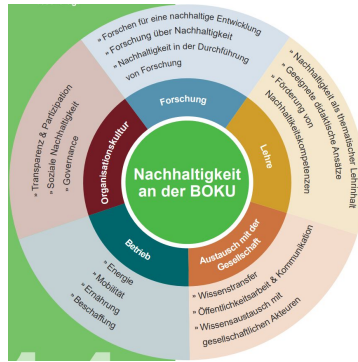
Examples of activities within the area
Own footprint

- identifying quick wins targets in the areas of operations, administration, processes, development...
  - carbon footprint analysis
  - workshops with responsible STU departments
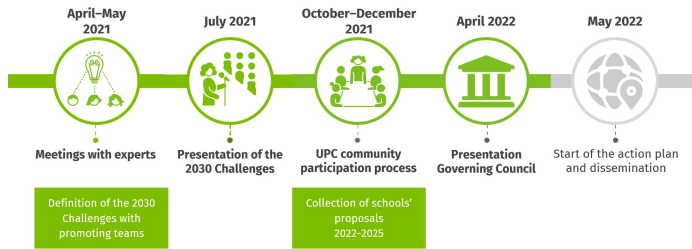
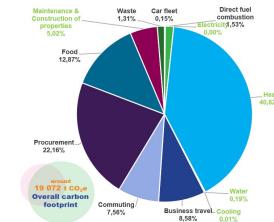# Inspiration from foreign partners

CAMPUS UPC SOSTENIBLE 2030

Nachhaltigkeit an der BOKU

Timeline

- Environment Plan
- Second Environment Plan
- First UPC Sustainability Plan
- Second UPC Sustainability Plan
- Energy-Saving Plan
- Sustainable mobility policy
- 2020 UPC Energy Plan
- UPC Recircula strategy
- Social Engagement Plan
- Climate action strategy

1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

- Baix Llobregat Campus Environment Plan
- Sustainable Development commissioner
- UPC Sustainability Declaration
- Energy-saving action programme
- Torre Girona Biodiversity Plan
- Office of the Vice-Rector for Social Responsibility and Equality

Process calendar

April–May 2021	July 2021	October–December 2021	April 2022	May 2022
Meetings with experts	Presentation of the 2030 Challenges	UPC community participation process	Presentation Governing Council	Start of the action plan and dissemination

Definition of the 2030 Challenges with promoting teams

Collection of schools' proposals 2022-2025

Topical matters in campus operations

Maintenance & Construction of properties 5,02%
Waste 1,31%
Car fleet 0,15%
Direct fuel combustion 0,00%
Electricity 1,53%
Food 12,87%
Heat 40,62%
Procurement 22,16%
around 19 072 t CO₂e Overall carbon footprint
Commuting 7,56%
Business travel 8,58%
Water 0,19%
Cooling 0,01%

The action plan for sustainable everyday life on campus has been published in 2021

We are investigation the employee bicycle benefit option for staff

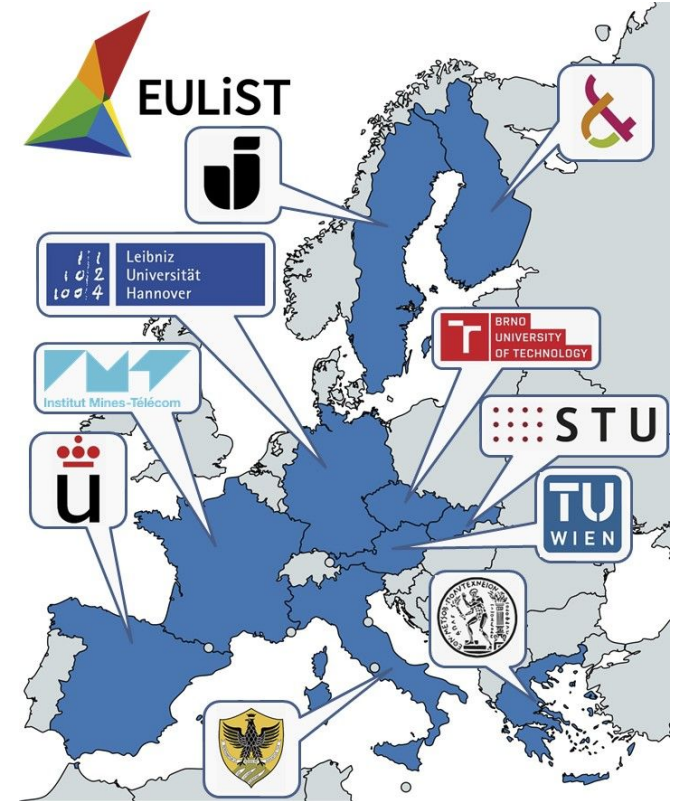We are updating our travel policy into a more sustainable direction

We are investigating the possibility to join the Nature Positive Universities network

Carbon footprint calculation: the goal is to reduce it 50% by 2025 from 2019 level

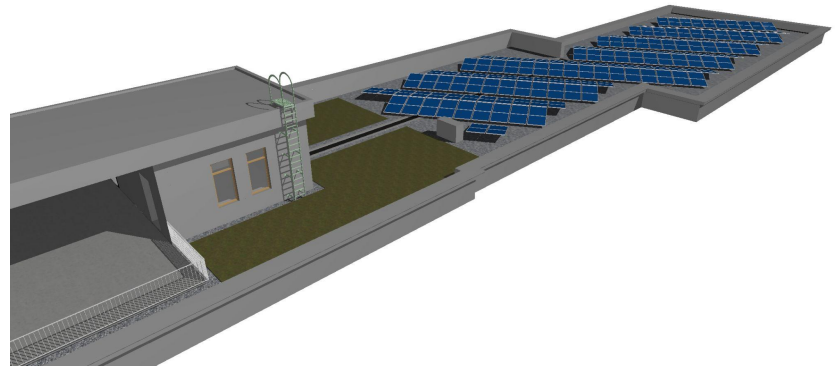| AREA	COMMITMENTS FOR 2030		2025 MILESTONES	SDG MILESTONES
CLIMATE ACTION	AC1	In 2030 everyone will be able to check the carbon footprint of their campus, unit and degree.	To publish the carbon footprint of campuses, units and degrees.	13.2
	AC2	In 2030 the UPC will be carbon neutral for its direct emissions.	Institutional adherence to emission compensation initiatives.	13.1
	AC3	In 2030 the UPC will have a plan for adapting to climate change in which the cities in which it is present will participate.	UPC Climate Adaptation Plan	13.2 13.1
ENERGY TRANSITION	TE 1	In 2030 the UPC will have reduced its energy consumption to ensure that it is as self-sufficient as possible in energy terms and to contribute to its economic and environmental sustainability.	Reduce energy consumption through an energy contingency plan.	7.1 7.2
	TE2	In 2030 the UPC will reach 15% self-supply of renewable energy by making the most of the potential of its buildings and campuses.	To have solar photovoltaic production plants to advance towards electrical self-supply on all campuses.	7.2
	TE3	In 2030 the UPC will have planned the energy-efficiency rehabilitation of its buildings.	To have a plan for prioritising actions, economic needs and funding proposal to reach carbon neutrality in 2030.	7.3
	TE4	In 2030 the UPC will have reduced the energy and environmental impact of its data centres and servers.	To have an energy management policy for ICTs.	7.3
RESPONSIBLE CONSUMPTION	CR1	In 2030 all of the UPC's tenders will include responsible public contracting measures covering social, environmental and ethical dimensions.	Drawing up and approval of a guide to socially and environmentally responsible contracting and procurement at the UPC	12.7
	CR2	In 2030 we will have reduced waste at the UPC by 20% and single-use plastics and disposable products will be a thing of the past.	To reduce waste at the UPC by 10% and eliminate single-use plastics associated with food consumption.	12.3 12.5
	CR3	In 2030 reuse and sharing strategies will have been fully integrated into the model for resource use at the UPC.	Reuse will be the priority for managing computers that have been replaced.	12.5
	CR 4	In 2030 waste destined for controlled waste disposal will tend to zero and the waste hierarchy will be applied in its management.	About 70% of waste at UPC Recircula points will be sorted and collected separately.	11.6 12.5

...we are not starting completely from scratch

- ## EULiST
  - creating a sustainable green campus and sharing common resources and information within the consortium

- ## accord
  - CO2 reduction programme - modernisation and reconstruction of existing spatial infrastructure (6 buildings in total) for higher education, research and innovation

...we are not starting completely from scratch

- replacement of light sources with energy-saving LED sources
  - savings of approx. 70 - 80 %

- vegetation and photovoltaic roof of the FAD
  - vision, preparation of project documentation

Postupne pripravujeme ďalšie aktivity
– príležitosť' pre študentov zapojiť' sa...

What activities do you consider essential?

Ďakujem
za pozornosť

Peter Morgenstein

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