



International workshops

**The art and science of imagining energy futures**

29 March 2023, 14h00 – 17h30

**Decarbonizing Europe's energy system:**

**Checking and choosing indicators for a sustainability assessment**

30 March 2023, 10h00 – 16h00

Club University Foundation  
Rue d'Egmont 11 - 1000 Brussels

<https://ecosens-project.eu/>

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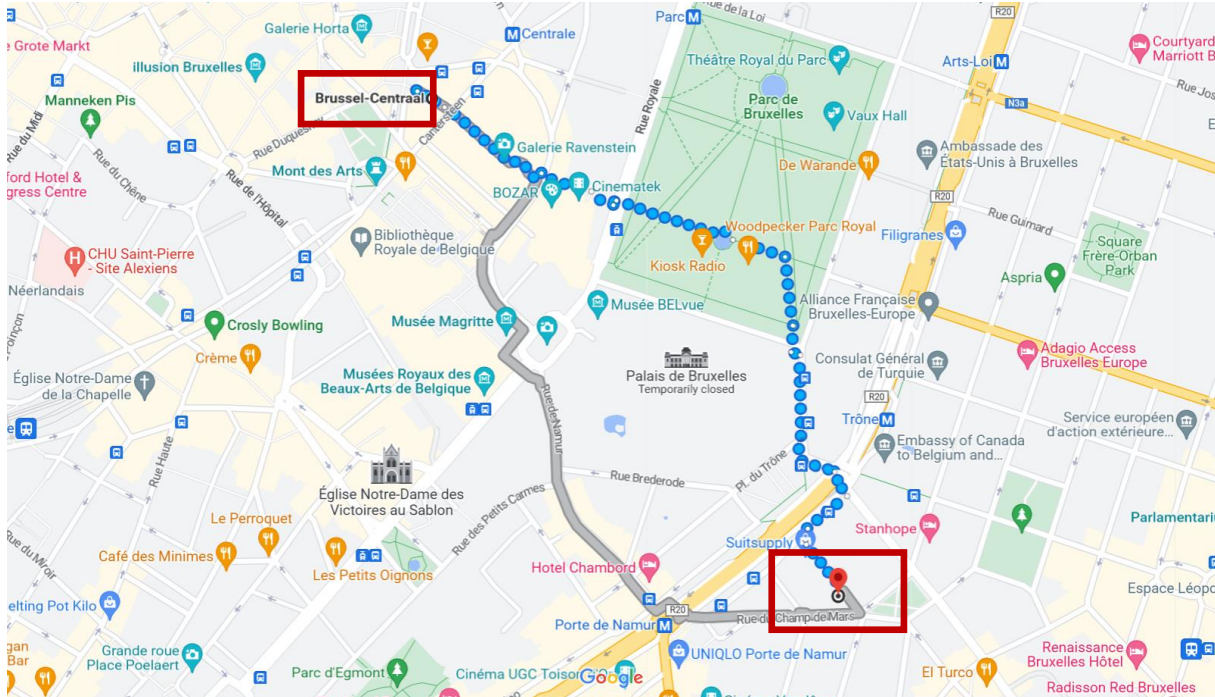


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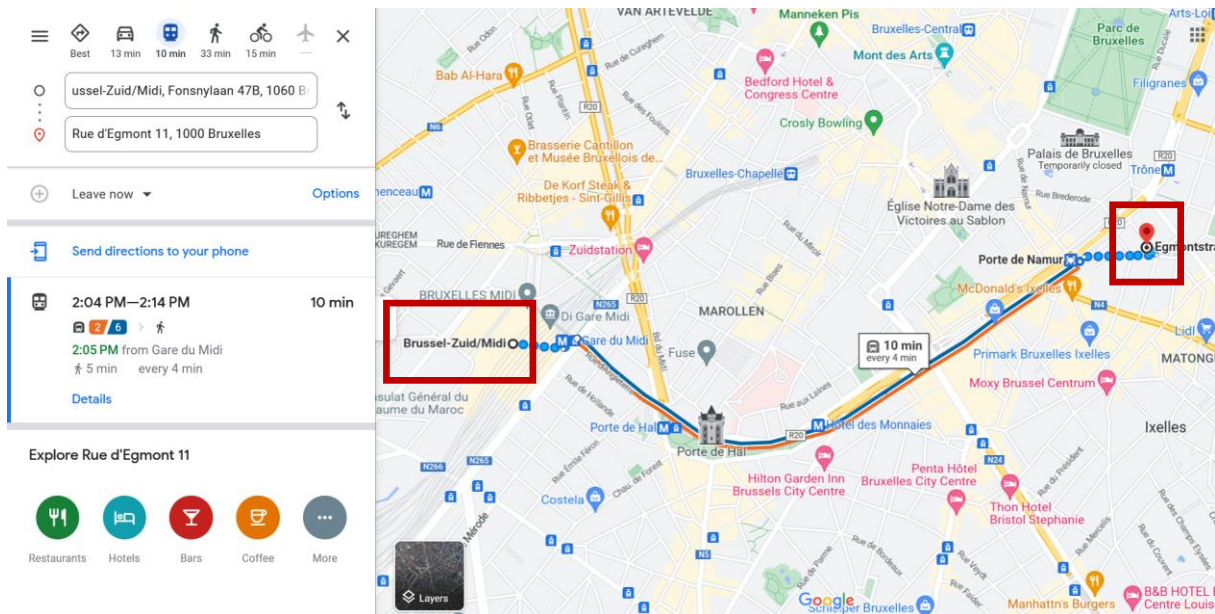
### Venue

Club University Foundation  
Rue d'Egmont 11 - 1000 Brussels

<https://goo.gl/maps/SEXoiuwmeGdL8nam7>



17 minutes walking from Brussels Central Railway Station



10 minutes by underground (line 2 or 6) from Brussels Midi Railway Station  
(go to underground station Gare du Midi, get out at station Porte de Namur)



International workshop

### The art and science of imagining energy futures

Wednesday 29 March 2023, 14h00 – 17h30  
Club University Foundation, Rue d'Egmont 11 - 1000 Brussels

#### Introduction

What energy future do we desire? What energy future is possible? 'The Future We Want' was the title of the outcome document of the *United Nations Conference on Sustainable Development* in Rio de Janeiro in 2012. The conference marked the 20<sup>th</sup> anniversary of the historic *Conference on Environment and Development*, known as 'The Earth Summit', held in the same city in 1992. That event laid the ground work on which sustainable development thinking still builds today. What became clear at the 2012 conference is even more evident today: the exercise of imagining 'the future we want' for humanity and planet Earth is first and foremost a tough and complex political discussion, which is steered not only by economic strategies, environmental threats such as climate change and considerations of social justice, but also by conflict and war in which energy is used as a tactical weapon. Within this turmoil, scientists, politicians, activists and citizens alike may disagree on what energy future is needed and possible but, apparently, there is also no consensus on what future we desire. While anyone would reasonably support the idea that energy should be produced in an environmentally friendly way and be affordable for all, different visions exist on how to get there.

Taking into account current societal challenges and opportunities and existing and new energy technologies, the workshop will discuss 'the art and science of imagining energy futures'. A first discussion will focus on what worldviews and values are behind imagined energy futures and which artefacts (storylines, narratives, concepts, images, symbols, models, ...) we use to 'express' these imaginations. In a second round, participants will discuss the deliberative character of sustainability assessment, with a focus on how to 'translate' worldviews and values into formal assessment approaches.

Unveiling what references we use to express what we desire, hope, fear and believe may be the first step to come to a more open and effective dialogue on our energy future. From this perspective, this workshop aims to serve as an illustrative exercise and hopes to provide food for thought for anyone concerned with 'the energy future we want'.

<b>Agenda</b>	29 March 2023, 14h00 – 17h30
14h00 – 14h10	<b>Welcome &amp; introduction to the ECOSSENS project</b> <i>Catrinel Turcanu, SCK CEN</i>
14h10 – 14h25	<b>Welcome address</b> <i>Domenico Rossetti Di Valdalbero, EC EURATOM Unit Head</i>
14h25 – 14h45	<b>The art and science of imagining energy futures – introduction</b> <i>Gaston Meskens, SCK CEN &amp; Ghent University</i>
14h45 – 15h45	<b>First discussion in 3 groups</b> <b>Imagining energy futures</b>  <i>How to recognise and take into account the existence of multiple possible and desired energy futures? How do worldviews and values ‘work’ in imagining energy futures? Which artefacts (storylines, narratives, concepts, images, symbols, models, ...) do we use to ‘express’ these imaginations and why do we prefer some over others? ...</i>
15h45 – 16h00	break
16h00 – 17h00	<b>Second discussion in 3 groups</b> <b>Sustainability assessment - a deliberation process in itself</b>  <i>What is the meaning of ‘sustainability’ in the theory and practice of sustainability assessment (SA)? And what is the meaning of <u>social</u> sustainability and how can it be taken into account in SA knowing one cannot rely on quantifiable information? What values are usually missing in traditional SA approaches? How can we ensure that sustainability assessment criteria are reflective of a diverse range of worldviews and values? ...</i>
17h00 – 17h30	<b>Summary of key ideas for the second workshop &amp; wrap up</b> <i>Claire Mays, SYMLOG</i>



International workshop  
**Decarbonizing Europe's energy system:**  
**Checking and choosing indicators for a sustainability assessment**

Thursday 30 March 2023, 10h00 – 16h00  
Club University Foundation, Rue d'Egmont 11 - 1000 Brussels

## Introduction

The European Green Deal is the ambition to create the first carbon-neutral continent by 2050. To get there, Member States commit to cutting greenhouse gas emissions into less than half by 2030. This interim target depends on achieving changes in the energy mix: a higher share – 40% – should be supplied by renewable energy sources. How should that mix be composed? Which are the favored technologies? Are they available and how will they perform? What may be the place for nuclear generation technologies, old and new, in the mix? What are the criteria for proposing and evaluating respective shares? Who has a voice in selecting those criteria and in checking whether they are met?

Horizon Europe [ECOSENS-project.eu](https://ec.europa.eu/horizon-europe/) tasks include **development and testing a sustainability assessment methodology integrating a societal perspective on Europe's future energy system that includes advanced and innovative technologies (comparing renewable and nuclear sources)**. On 30 March 2023 we convene a group of specialist and non-specialist stakeholders to **review** the proposed assessment approach and help **refine** it through critical perspective and judgments. Integrating optional follow-up short webinars, the task will result in **recommendations** to European policy makers.

The 30 March workshop presents three candidate methodologies for sustainability assessment, and a combination method is proposed in a pre-decision-in-principle. Stakeholders and experts are invited to debate and appraise criteria to critique and validate this proposal

The workshop furthermore considers a set of quantifiable indicators useable in life cycle impact assessment. Precise definitions, and moreover the weight to be given in the future ECOSENS assessment to each indicator, will be discussed and appraised by workshop participants. The outcome of the workshop will be recommendations regarding the selected methodology, the set of indicators, and desired weights to guide the ECOSENS assessment (for completion by September 2024).

**A working paper is circulated before the workshop, to provide background and specific appraisal tools:**

*Sustainability Assessment for Electricity Generation Systems: Overview of some existing methodologies and the selection process for the ECOSENS project; Deliverable 2.1.1 by M. Constantin, version 20 March 2023.*

Stakeholder participants are requested to read this paper in preparation for the group work.

- Agenda** 30 March 2023, 10h00 – 16h00
- Timing below includes unstated 5- or 10-minute transition breaks, some including the possibility of refilling a tea or coffee cup*
- 10:00 – 12:00 **Selecting Among Existing Energy System Assessment Methodologies**  
**With reference to the circulated working paper, sections 1, 2, 3**
- Introductions by Claire Mays (Symlog) and Marin Constantin (Raten)
  - Plenary comments
  - Review and appraisal in assigned subgroups
  - *Coffee break 11:15-11:30*
  - Plenary feedback of subgroup outcomes
- 12:00 – 13:00 **Scoping and Bounding: Selecting High-Level Objectives (HLO) for the European Energy System to 2030 or 2050**  
**With reference to 29 March 2023 Workshop findings on worldviews, values and sustainability; and the circulated working paper, section 2**
- Introduction by Claire Mays
  - Appraisal in new assigned subgroups
  - Plenary feedback of subgroup outcomes
- 13:00 – 13:45 **Light lunch on site**
- 13:45 – 14:00 **Joint review of Findings and Directions**
- Moderation by Claire Mays
- 14:00 – 15:00 **Selecting and Weighting Assessment Criteria at Indicator Level**  
**With reference to the circulated working paper, section 4**
- Introduction by Marin Constantin
  - Sub-group deliberations on Environmental, Economic, Social Life Cycle Assessment criteria/indicators and weighting (*choose your domain/subgroup*)
  - Plenary feedback of subgroup outcomes
- 15:00 – 15:40 **Revealing and Analyzing Differences in Interpretation and Weighting**  
**With reference to the circulated working paper, section 4**
- Introduction by Claire Mays
  - Walkabout exercise with post-its
- 15:40 – 16:00 **Round Table Debrief, and Next Steps for ECOSSENS**  
**Including invitation to follow-up online short workshops in 2023 and later**
- Moderation by Claire Mays
  - ECOSSENS next steps by Marin Constantin