re-sourcing

Roadmap Workshop

Responsible Sourcing in the Renewable Energy Supply Chain: A reality or still a long way to go?

Workshop Minutes

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http://re-sourcing.eu

Session 1

In session 1 participants were introduced to the RE-SOURCING project, its work on the renewable energy sector and topics relevant for responsible sourcing in the renewable energy supply chain.
The PowerPoint presentations can be downloaded at:
https://www.re-sourcing.eu/files/RE_Virtual_Roadmap_Workshop_Presentations.zip

Introduction of the RE-SOURCING Project

Scope, Goals & Aspirations – Andreas Endl, Vienna University of Economics and Business

Andreas introduced the RE-SOURCING project, its scope, goals and aspirations. RE-SOURCING builds on a consortium of 12 organisations with different backgrounds to provide a broad perspective of responsible sourcing. The project is funded by the Horizon2020 programme and has a lifespan of 4 years. It is aiming to establish a common understanding and common visions for responsible sourcing for the industries renewable energy, mobility, and electronic and electric equipment by building a global responsible sourcing community and increasing responsible practices in business and policy.

The Renewable Energy Sector & Responsible Sourcing

Introduction of the Workpackage, State of Play – Marie-Theres Kügerl, Montanuniversität Leoben

The roadmap development for the renewable energy sector started with an investigation of the current state of the renewable energy supply chain with focus on prevailing sustainability challenges in copper, rare earth, and silicon mining, wind turbine and solar PV manufacturing and recycling. In the preparation of the state of play report (D4.1) desk research, expert consultations, and a narrative analysis were conducted to assess issues that need to be addressed in the further work of the RE-SOURCING project.

The Importance of Raw Material's Traceability for the Responsible Sourcing Agenda

Keynote Presentation – Steffen Schmidt, Wolfram Bergbau und Hütten AG

Steffen introduced us to the challenges of traceability for the responsible sourcing of tungsten. Most available tracing systems ("bag&tag", blockchain, etc.) rely on people on site tagging the raw materials to provide proof of origin and certify the production conditions. Intermixture with raw materials from other production sites is possible and methods depend on the trustworthiness of on-site investigators which is why 100% reliability is not possible. Analytical fingerprinting provides the proof of origin while eliminating the "human-factor, drawbacks are the costs and a low resolution if mining sites are very close to each other. So far, no reasonable solutions to provide proof of origin and traceability have been found.

Respondent – Rebecca Burton, Initiative for Responsible Mining Assurance IRMA

IRMA is a voluntary certification scheme for large-scale mines with best practice requirements on 26 topics that were developed through a multi-stakeholder process and relies on third-party audits of each mine site individually (rather than a mining company). It defines what it means to mine responsibly for all minerals and defines how this can be measured. Transparency of mining operations and the supply chain is the first step of improving mining conditions and this is supported by traceability of raw materials. However, traceability itself does not solve any sustainability issues.

Responsible Practices in the Renewable Energy Sector

Keynote Presentation – Raffaele Rossi, Solar Power Europe

One of the crucial sustainability aspects in the solar PV production is the GHG emissions. The highest GHG emissions are located in manufacturing phase, enhanced end-of-life management has the potential of carbon savings. Best practices by PV manufacturers to improve the carbon footprint include the change to 100% renewable energy for the production processes. Another key issue is the material intensity and the use of critical raw materials. The industry is working on increasing manufacturing efficiency to decrease the material consumption and substituting or reducing critical materials use. End-of-life management is becoming increasingly important due to the expected increase in waste volumes after 2030.

Respondent – Jessie Cato, Business and Human Rights Resource Centre

The renewable energy sector is central for a transition to a net-zero-carbon economy which in turn is a human rights imperative as climate change will disproportionally impact the most vulnerable people. Negative human rights records threaten the success of the energy transition. The Renewable Energy & Human Rights Benchmark records an increasing number of human rights allegations in the renewable energy sector. Allegations (incl. violations of indigenous peoples' rights, violence, land grabs, working conditions, etc.) have occurred across the value chain, in every region and related to every renewable energy source.

Session 2

The participants were divided into three working groups for session 2: mining, manufacturing, and recycling. The report on the state of play was the discussion basis for the workshop and feedback and comments are welcome.

Mining

Participants found some relevant challenges have not been addressed in D4.1 and should be included, e.g. impact of climate change on mining, reclamation vs closure, impact of Covid-19 or global crises in general, deep-sea and extraterrestrial mining. For the roadmap an important objective is the improvement of transparency along the entire value chain. The end user should be able to receive information on the production of the raw materials used in his/her consumer goods. This also includes the enhanced communication and dialogue between all stakeholders across supply chains. Another important issue that needs to be tackled is the development of a level playing field for all players in the supply chain, including the formalization of artisanal and small-scale mining. International legislation has to ensure societal and environmental protection and needs to build a common understanding of responsible business practices. Mandatory human rights due diligence needs to be implemented. Mining also needs to consider the reduction of resource consumption in general, mining operations can contribute by improving water and energy efficiency.

Manufacturing

Some suggestions for standards that can be included in the report were mentioned. Three questions were discussed in more detail: (i) from the perspective of an EU manufacturer, what is the timeline and what is the most important aspect to increase responsible sourcing/sustainability in renewable energy supply chain? Carbon pricing, material use, and market pull regarding electricity sourcing standards were some suggestions. The importance of a level playing field for all players on a global level was discussed. (ii) From the point of view of an EU government, what is the most important aspect? Many different points were raised – short term: carbon pricing, protecting livelihoods and rights of local communities; medium term – international standards across all value chains, maximizing circular economy principles and reduction of material consumption; long term – addressing material needs of renewable energy deployment. (iii) what international standards are necessary? Carbon pricing, energy mix, reducing GHG emissions, labour rights (e.g. how can a European company control the labour conditions of suppliers in China), etc. An agreement on certain standards (at least basic denominator) across jurisdictions is necessary.

Recycling

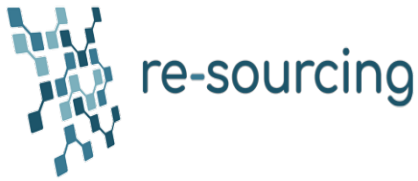
Standards relevant for D4.1 were suggested. For the roadmap, especially environmental aspects were deemed most important – the design thinking from the very beginning of product life towards end-of-life recycling and the substitution of critical raw materials. These were followed by social aspects such as skills transfer and building of recycling infrastructure in developing countries, and urban mining of e-waste has the potential of improving economic and environmental conditions in Africa. Many steps for improving the recycling situation need to be taken between now and 2030 incl. legislative framework, mandatory recycling quotes, incentivizing substitution of critical raw materials, etc. Also informing the public and raising awareness on issues related to recycling and raw materials consumption in general. From a medium-term perspective design for recycling needs to be improved and the recycling processes need to become more efficient. An important aspect is the development of skills and infrastructure to be able to master the increasing amounts of waste without putting more strain on the environment (landfills, waste incineration, etc.). The long-term goal is to recycle more than 90% of all PV modules and wind turbines and reduce GHG emissions along the whole value chain by more than 90%.

Session 3

Session 3 provided an overview of the discussions and results from the working groups and questions by the participants were addressed by the expert panel.

Next steps

- Participants have the opportunity to provide feedback on the state of play report (D4.1) until 30 November, 2020
- The organisers will contact the participants for collaboration on the future development of the roadmap and flagship cases.
- Opening Conference: 18-19 January, 2021
  Information & Registration: https://re-sourcing.eu/events?tab=Virtual%20Conferences



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