Summary Workshop Groups 22. April 2024

BATTERY REGULATION AND STANDARDISATION: QUO VADIS SWITZERLAND?

Group 1: EU Battery Regulation and Swiss Policy-making

The workshop on "EU Battery Regulation and Swiss Policy Making", moderated by Willy Tomboy and Alessa Hool, delved into the interconnection between the EU's progressive battery regulation and Switzerland's policy-making landscape. It highlighted the necessity for Switzerland to synchronize its policies with international standards, particularly those set by the EU, given the significant advancements in battery regulations concerning production, utilization, and end-of-life. The workshop underscored the importance of proactive engagement by Switzerland in shaping battery policies, balancing alignment with the EU's standards while safeguarding Swiss interests and expertise. Close collaboration between stakeholders and active participation in regulatory processes were deemed essential for effectively navigating the evolving landscape of battery regulations.

Benefits and Challenges: The discussion centered on the potential benefits and challenges of aligning Swiss battery policy with EU regulations. Alignment could enhance market access, harmonization, regulatory compliance, and joint R&D goals with EU Member States. Challenges include data harmonization, data privacy protection, and the danger of over-regulation, which might be associated with a high burden of compliance and costs, as well as negative impacts on innovation and market competitiveness. Additionally, concerns were raised regarding the feasibility of large-scale recycling due to insufficient quantities of scrap in Switzerland, thus limiting Switzerland’s capacity to contribute to recycling rates meaningfully.

Opportunities: Despite challenges, opportunities such as new business avenues and leveraging Switzerland's expertise in second-life applications as well as conducting specific steps in the recycling chain for certain battery chemistries were identified.

Framework conditions. Switzerland's small size creates favorable conditions for implementing collaborative solutions. Key stakeholders, including INOBAT, the Swiss Federal Office for the Environment, recyclers, and EU importers, already engage in constructive and close collaboration. Maintaining and fostering these relationships is crucial for continued success. Additionally, Switzerland's participation in European Horizon programs is essential to sustain competitiveness and industry skills. This integration ensures that Swiss industries remain at the forefront of innovation and development within the European market.

Integration: Emphasis was placed on fostering cross-border cooperation and innovation clusters through the integration of EU battery policy. Joint R&D initiatives were highlighted as essential for

staying abreast of technological advancements.

Legal Implementation: Although participants acknowledged the innovative value of the EU Battery Regulation, the necessity for Switzerland to adopt the same regulatory framework as the EU was questioned. Already relatively basic steps such as data collection could present obstacles due to different practices. Suggestions for alternative approaches such as voluntary standards, and intra-industry auditing, were made.

Collaboration: Collaboration between Swiss and EU regulatory bodies, industry stakeholders, and research institutions was deemed vital for exchanging best practices and aligning R&D goals.

Battery Passport Development: The importance and necessity for all market actors of complying with the battery passport irrespective of legal status was underscored. The crucial question of who develops the battery passport was highlighted, as well as concerns of disclosing data to (European) companies. It is important for Swiss companies that data protection is fully ensured. Especially for SMEs, the burden to comply with data gathering as well as disclosure must be reasonable.

Co-creation: Switzerland's role in shaping future revisions and expansions of EU battery policy was discussed, emphasizing the need to ensure Swiss interests are represented in the regulatory process. The working group, therefore, strongly agreed that Swiss delegates should participate in this process where feasible.

Group 2: Recovery rates and circularity measures

The workshop group 2 on “Recovery Rates and Circularity Measures”, moderated by Juliane Seika and Merla Kubli, yielded outcomes regarding the importance of regulatory frameworks, the harmonization of standards, and key takeaways for Switzerland's approach to battery recycling and circular economy.

Relevance and Role of Regulatory Bodies

- **Necessity for regulation:** Participants emphasized the necessity for regulation to support that used batteries remain within Switzerland. This approach ensures that knowledge regarding EV batteries, recycling, and reuse remains within the country, fostering the development of a national circular economy.
- **Retaining value:** Regulatory frameworks offer economic advantages by not only providing economic value through knowledge but also material value. Batteries' materials can be processed locally, fostering a closed-loop system.
- **Competitiveness:** Closing the battery loop creates ecological benefits by embedding battery capacities in circular pathways, which reduces the consumption of new materials. Switzerland can gain a competitive advantage over other countries, offering broader economic benefits.
- **Safety:** Regulatory frameworks ensure safety by allowing the reuse of batteries with consistent standards, enhancing consumer confidence and market stability.
- **Sustainability**: Regulations guide the market towards environmentally sustainable solutions,

promoting effective ecological outcomes.

Harmonization of Standards

- **Adoption of EU standards:** Participants advocated for harmonizing standards to enhance process efficiency. Given the EU's investment in developing regulations, adopting these standards would reduce administrative burdens and expedite Switzerland's transition to a circular economy.
- **International solutions**: A challenge might be how to deal with cheap imports that do not comply with local environmental standards. International markets require international solutions: using common international standards will facilitate the establishment of a circular economy for business owners operating in a European market.
- **Adaptation**: While global regulatory concepts should be adopted, local implementation may vary. Therefore, it is important to provide a certain degree of autonomy for adaptation to local contexts.
- **Market competition**: Some participants argued against harmonization, citing competition as a driver for improving standards. Multiple standards may spur market competition and innovation.
- **Risk of over-regulation**: Harmonization on an international scale was deemed challenging and potentially costly, with concerns about delaying or hindering progress.

Key Takeaways

- In the context of Switzerland and considering its specific strengths, efficiency considerations in battery re-use and recycling outweighed concerns about time and competition.
- Switzerland's integration into the European market was deemed crucial when considering adopting EU regulations.
- The overarching conclusion was a call for action over prolonged discussion, emphasizing the need for tangible progress in implementing circular economy measures.

Group 3: Data Requirements, Ownership, and Sharing of Battery Data

Working group 3 on “Data Requirements, Ownership, and Sharing of Battery Data”, moderated by Priscilla Caliandro and Uwe Rüdel, delved into the landscape of battery data, exploring regulatory frameworks, ownership dynamics, and collaborative avenues for data exchange. The discussion revolved around key questions ranging from required data to ownership.

Data Types: Participants emphasized the need to distinguish between static and dynamic operational data, underscoring the importance of incorporating environmental impacts, notably CO_2 emissions, and overall energy consumption throughout the battery supply chain.

Obligation: Participants acknowledged that Original Equipment Manufacturers (OEMs) are inclined to share data only when required. Thus, there was a consensus on the necessity for mandatory data requirements rather than optional ones, ensuring a more comprehensive and standardized approach to data sharing across the battery industry ecosystem.

Universality: The consensus pointed towards the necessity of a universal and generic protocol,

encompassing battery packs and accommodating various cell types.

Granularity: A critical consideration was the granularity of required data, prompting discussions on the required scope and determining relevant timeframes for data collection. Determining different levels of detail and sharing the right KPIs will be crucial to ensuring transparency as well as protecting privacy.

Responsibility and Privacy: The dialogue underscored the importance of protecting intellectual property while facilitating data sharing. Strategies included translating sensitive data into equivalently informative formats, ensuring full traceability via serialization with global unique identifiers, and adopting a need-to-know basis for sharing user-specific information.

Group 4: Regulations and standards for second-life batteries

Working group 4, moderated by Marcel Knecht and Christian Ochsenbein, focused on "Regulation and standards for second-life batteries", recognizing their potential to prolong battery lifespan and meet escalating energy storage demands. The discussion underscored the multifaceted considerations surrounding the regulation and standardization of second-life batteries, emphasizing the need for concerted efforts to ensure safety, quality, and transparency throughout their lifecycle.

Regulatory Landscape

Current regulations vary across countries regarding the use, transportation, and disposal of second-life batteries, alongside guidelines for applications and recycling fees. Switzerland's alignment with the EU Battery Regulation is advised, but tailored adaptations considering Swiss specificities are essential for effective implementation.

Quality Assurance and Performance Standards

Industry certification is pivotal in validating the quality and performance of second-life battery systems, yet standardized test methods are lacking, leading to disparate results from different laboratories and testing sites. The need for standardized test methods, universalized data sheets, and specified testing procedures in the Digital Product Passport was highlighted to ensure consistent quality assessment.

Swiss Needs

Full technical data and product history disclosure, along with recyclability labeling, was deemed crucial. Standardization is imperative to maintain a level playing field, especially considering that second-life products may not always be cheaper than new ones. Standardizing form factors is essential for seamless integration and compatibility. Ensuring that recycling fees are not duplicated and establishing contingency plans for scenarios like the bankruptcy of fee-collecting entities were emphasized.

Safety

Current safety standards, particularly regarding battery fires, are lacking. Collaboration with organizations like SUVA to develop protocols in Switzerland is suggested to enhance safety measures.

CONCLUSIONS

1. **Alignment with EU standards is vital:** There is a consensus among participants regarding the necessity for Switzerland to synchronize its battery policies with EU regulations. This alignment not only ensures market access and harmonization but also facilitates collaboration in research and development.
2. **Opportunities in Circular Economy:** Switzerland stands to benefit economically and environmentally from embracing circular economy principles in battery management. Regulatory frameworks play a crucial role in retaining value, ensuring safety, and promoting sustainability within the circular economy framework.
3. **Data Sharing is essential, but challenges exist:** While there is agreement on the importance of sharing battery data, challenges such as data ownership, granularity, and privacy concerns need to be addressed. Establishing universal protocols and balancing transparency with privacy protection are key considerations.
4. **Standardization for second-life batteries:** The regulation and standardization of second-life batteries require concerted efforts to ensure safety, quality, and transparency throughout their lifecycle. Standardized test methods, data disclosure, and safety standards are vital for fostering trust and facilitating the integration of second-life batteries into the market.
5. **Collaboration and adaptation are key:** Cross-border cooperation, industry collaboration, and flexibility in regulatory adaptation to local contexts are essential for navigating the evolving landscape of battery regulation and standardization. Switzerland's integration into the European market and participation in regulatory processes are crucial for shaping future policies while safeguarding Swiss interests and expertise.