



AICA

**AI-Powered Carbon
Border Adjustments**

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AI as a shield against carbon leakage - Progress and reflections from AICA

During the summer, the AICA project continued to focus on creating a robust AI solution to improve the calculation of products' carbon dioxide emissions and prevent carbon dioxide leakage within the EU's emissions trading system. Our work, which started in autumn 2021 and is financed by Vinnova, is a collaboration between Linköping University, 2050 Consulting, Toyota Material Handling, Alfa Laval and Hexatronic.

During the holiday season, our progress on the AICA project remained steadfast. One of our primary challenges has been securing reliable data. Markus Ekelund, the Project Manager for AICA and CEO at 2050 Consulting, underscores its importance, saying, "Imports during Q4 that are subject to carbon duties need to be reported at the start of 2024. This urgency amplifies the necessity of an automated solution. Our objective is to demonstrate how AI can play a pivotal role in achieving this."

During Almedal Week, 2050 Consulting hosted a seminar titled, "AI in the Service of Climate." Markus Ekelund, alongside Björn-Ola Linnér from Linköping

University, presented the AICA project and delved into its associated challenges.

A focal point of the seminar was the EU's border adjustment mechanism. It emphasized the need for this mechanism to be both fair and balanced, mirroring the AICA project's commitment to crafting solutions that are effective, equitable, and sustainable. The rich insights and debates from Almedal Week will persistently shape our direction in the AICA initiative.

We are also excited to share that the AICA project has actively engaged in consultations concerning the EU's Green Deal and the transition period for the Carbon Border Adjustment Mechanism (CBAM). Our team consistently offers insights and recommendations, drawing from our deep research into AI-enhanced carbon cap adjustments.

Among our key proposals, we stress the reconsideration of standard value determination and underscore the necessity for evolving measurement methodologies.

Björn-Ola Linnér, a leading figure within the AICA project, serves as professor for global climate change policy and sustainable development at Linköping University, and is program manager for Mistra Geopolitics .

Can you tell us why the AICA project is so important?

Linnér explains that the importance of the AICA project lies in its potential to utilize AI to address climate change policy challenges. AICA is specifically investigating how machine learning can help process the colossal amount of data required for climate work that will be collected globally.

"We are mainly investigating how AI and machine learning can influence governance and, above all, how they can be considered legitimate. We focus on practical case studies, such as how these technologies can facilitate making climate tariffs more transparent and fair," explains Linnér.

The project also examines the challenges associated with the implementation of such technologies, especially in terms of availability and comparability of data.

What role does AI play in climate change research?

Before the start of the AICA project, Linnér and his team investigated how AI can be applied in international environmental governance. Through the research program "Geopolitics of Sustainable Development", they have studied how international organizations look at how AI can support the governance and fulfillment of the 2030 Agenda goals.

What expectations do you have for the AICA project's results?

Linnér hopes that the AICA project will demonstrate how AI can promote increased transparency in carbon dioxide emissions and life cycle analyses.

He adds: "It would be outstanding if the use of these technologies could actually increase the confidence of decision-makers and consumers to place higher demands on companies, both inside and outside the EU, to report their emissions and ultimately contribute to a more sustainable and fairer world".

We are in the starting pits of a comprehensive exploration of AI's role in how we can meet global climate change challenges. We look forward to following Linnér's continued work and the significant contribution his research will make to making our world more sustainable and fair.



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Vill du veta mer om AICA-projektet?

Besök hemsidan <https://2050.se/aica-ai-powered-carbon-border-adjustments/>
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