

## **The 2020 race and the materialisation of a bio-economy**

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International agreements on climate change (UNFCCC, Kyoto protocol) have been conceptualised as market expansions in the form of new commodities such as carbon trade. The European renewable energy policies – though championed as front-runners in the global battle against climate change – produce similar effects that often materialise in anticipation of new economic opportunities, the promotion of local projects and enforcement of regional programs. However, the renewable energy directive has never truly stabilised its role as a legislative and calculative space governing the material processes of energy production. This is partly due to interpretations, tensions and rejections that policies face while travelling from transnational contexts via national initiatives to local livelihoods and partly due to the emerging 2030 framework that carries a new set of rules and expectations. The regional carbon neutrality programs and bio-refining projects put forward in North Karelia, Eastern Finland provide an example of material developments of bio-economy triggered by the European paradigm of low-carbon economy. This paper takes a regional approach to the twists and turns of carbon reduction policies in Europe.