

New publication sheds light on the power of decentralised databases for climate action initiatives

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A report suggests blockchain and other decentralised systems could help unlock the much-needed funds for a successful transformation towards a zero-carbon economy.

Despite the overwhelming consensus about the need for collective action to combat [climate](#) change and adapt to its effects, global efforts have not yet led to substantial carbon reductions. With the increased recognition that a decentralised, multi-stakeholder, bottom-up approach is required to address this issue, innovative and disruptive technologies have entered the spotlight. However, in the rapidly changing world of digital transformation, keeping up with such initiatives could be challenging.

A report commissioned by EIT Climate-KIC (Knowledge and Innovation Community), the EU's biggest private-public partnership on climate innovation funded by the European Institute of Innovation and Technology (EIT), analyses the potential of distributed ledger technology (DLT) for assessing [climate action](#) approaches. "DLT is the term to collectively describe IT systems that replicate, share, and synchronise digital data

geographically spread across multiple sites, countries, or institutions." It adds: "DLT is a technology to manage a database, without a central administrator or centralised data storage." The report refers to blockchain as one component of DLT. Climate action includes all industries, actors and projects aimed at decreasing greenhouse gas emissions.

Launched on 8 November at the Climate Innovation Summit organised by EIT Climate-KIC in Dublin, the report examines the benefits and drawbacks of DLT and summarises its use cases. These include energy, supply chain management, carbon trading and transportation, as well as other areas that incentivise climate-positive behaviours like recycling or conscious consumption. Open government, philanthropy, and measurement reporting and verification (MRV) are some other categories where DLT could be utilised.

The report also highlights green finance as an all-encompassing theme across all use cases. "By improving data availability and MRV, new ways of financing climate projects are enabled. The Paris Agreement represents a USD 23 trillion green investment market between now and 2030." It emphasises that finance DLT projects are aimed at bringing down the "costs of developing new green finance products," as well as "reducing information asymmetry and improving certification systems."

Climate action ecosystem

The document also provides a landscape map of 222 actors active in the DLT for climate action ecosystem (as of August 2018). The works of these actors involve several system functions, including entrepreneurial activities, knowledge development, knowledge diffusion, resource mobilisation and advocacy support.

The report indicates "that now might be a good moment to get involved, even though the DLT for climate action ecosystem is still in its early development stage." In an [article](#) published by online news and analysis service Environmental-Finance.com, Dr. Harald Rauter, Innovation Lead for EIT Climate-KIC DACH Region, argues that UN sustainable development goals challenge current economic models. He notes that these goals underscore two main questions: "(1) How will the world collectively come together and agree on a new economical paradigm that holistically accounts for ecological-, social- and economic value? And (2) how will the costs of ecological- and human externalities be shared?" He adds that current economic models fail to give answers to these questions.

Dr. Rauter stresses the importance of developing climate action funds that are earmarked for DLT: "They should ideally offer financing, network and support structures for start-ups and help to excite the start-up community about climate action and attract their investment. Technological progress, awareness building, resource allocation and community mobilisation can only unleash their full potential if there is regulatory certainty."

More information: Distributed Ledger Technology for Climate Action Assessment: [www.climate-kic.org/wp-content ... essment-Nov-2018.pdf](http://www.climate-kic.org/wp-content/uploads/2018/11/Assessment-Nov-2018.pdf)

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