I would like to bring attention to a project that we have been developing atCartesi

We are building a strong platform for the scaling of computations on Ethereum, using interactive verification “à la TrueBit”.

The main contribution of our project is to replace the specialized virtual machines (such as EVM or WASM) with a more realistic architecture based on RISC-V. Our reproducible RISC-V emulator is able to boot a full fledged Linux operating system, so that developers can benefit from various languages, libraries, services and so on.

Our alpha release includes all the necessary infrastructure (both on-chain and off-chain) to handle interactive disputes. Take a look at our GitHub page

All our software is open source and released under a very permissive license. We have designed our architecture to be modular, easy to integrate with and resilient to power and connection failures.

We are providing tools to assamble machines on-chain: insert-remove drives, boot, halt and read outputs. Moreover our design is modular and we offer optional economic tools to outsource verification. Moving forward, we plan to provide many other tools to facilitate development, such as integration with other scaling solutions for high transaction throughput.

Our vision is that DApps should be mainly developed in Linux, with only a few economic incentives written in Solidity. This way, the Web 3.0 will benefit from the existing infrastructure over which the Web 2.0 was built.

A more in-depth overview of the project can be found inMedium

We are very much looking forward to input, criticism, questions and requests from the comunity! Here is the link to our Discord channel