



ARTICONF

smART social media eCOsytstems in a blockchaiN Federated environment

Radu Prodan

University of Klagenfurt, Austria



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825134, the ARTICONF Project.

18.05.2022

EU Day, CCGrid 2022

- sm**ART** social media e**CO**syststems in a blockchai**N** Federated environment
 - € 4.16 million
 - January 2019 – June 2022
- H2020-ICT-2018-2020, ICT-28-2018
 - Future hyperconnected sociality
- Partners
 - University of Klagenfurt, Austria
 - University of Amsterdam, Netherlands
 - University of Edinburgh, UK
 - University for Information Science and Technology, Macedonia
 - MOG Technologies SA, Portugal
 - Agilia Center SL, Spain
 - bitYoga AS, Norway
 - Vialog Ltd, UK

- Open-source PaaS toolset for integrated decentralized application (DApp) development

Blockchain-as-a-Service (BaaS)

Hyperledger Fabric

Cloud

Democratic decision-making

Guided analytics



Decentralized Apps (DApps)

Social media

Collective business



ARTICONF Use Cases

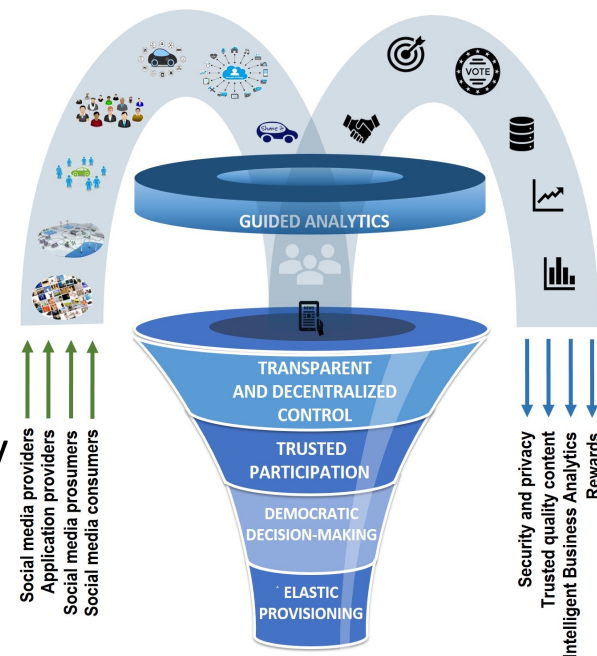
Citizen journalism

Video discussions

Car sharing

Energy marketplace

- **TIC:** BaaS for transparent, decentralized and federated infrastructure deployment
 - <https://gitlab.articonf.eu:4430/by/tic>
- **CONF:** elastic provisioning of distributed Cloud infrastructures for DApp
 - <https://gitlab.articonf.eu:4430/uva/conf>
- **SMART:** democratic decision-making for community evolution, personalized recommendations, trustworthy content generation and tokenized rewarding
 - <https://gitlab.articonf.eu:4430/uni-klu/smart>
- **TAC:** guided visual analytics for improved collaborative economy
 - <https://gitlab.articonf.eu:4430/uist/tac>

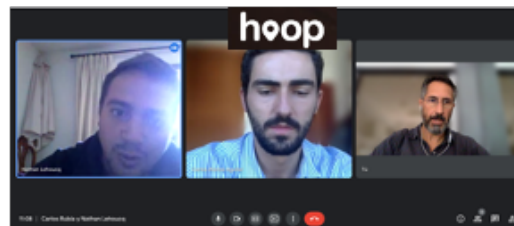


- **Hyperledger Fabric** (open source) for blockchain implementations
- **OpenStack** (open source), **Amazon Web Services**, and **Google Cloud** for federated BaaS deployment
- **Gluster File System** (open source) for distributed, scalable, resilient, and concurrent blockchain data storage for social DApps
- **Kubernetes** for reliable and scalable Cloud-native BaaS orchestration
- **TOSCA** for describing and mapping the Cloud infrastructure topology with performance requirements of social DApps
- **Elasticsearch** and **Kibana** (open source) for blockchain transaction analysis and visualization
- **Docker CE** (open source) for the ARTICONF tools packaging and delivery
- **SonarQube** (open source) for measuring and analyzing source code quality
- **Jenkins** (open-source) based for continuous development, integration, and delivery of the toolset microservices

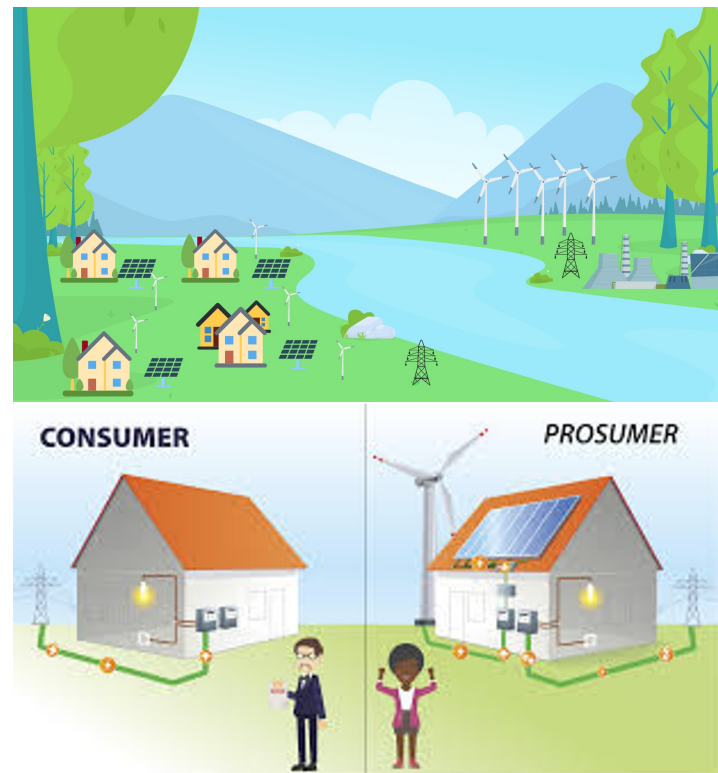
**SHARE
AND
DRIVE**



- Over 500 beta testers
 - Horizon 2020 ReachOut project
 - Adalab Software Bootcamp
- Mobility operator and expert interactions
 - Eccocar, Journify, Carhoop, Activacar
- Pilot H2020 EOSC DIH use case
 - European Open Science Cloud – Digital Innovation Hub
 - EGI-ACE: Advanced Computing for EOSC



- DApp for renewable energy sources integration and transaction
 - Solar panels and wind mills
 - Smart meters
- Stakeholders
 - Energy prosumer
 - Energy consumer
 - Energy service provider
 - Energy service regulator





Renew Ledger

Secure
Transparent
Reliable
Efficient



<https://articonf.eu/>

<https://www.youtube.com/c/ARTICONF>

Radu Prodan, University of Klagenfurt, Austria



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825134, the ARTICONF Project.

18.05.2022

EU Day, CCGrid 2022

