Prosume provides utilities, aggregators, TSOs/DSOs and technology providers the blockchain software and support necessary for their product and solution offering to end-users, allowing them to regulate energy data management, trace all data flows and rest assured that all information provided is 100% verifiable and secure.
The perks of using
Blockchain

SECURE, INCORRUPTIBLE DATA
The immutable quality of distributed ledger means that consensus amongst all nodes in a network is required for information to be validated, resulting in tamper-proof data storage.

ENHANCED TRUST IN A TRUSTLESS SYSTEM
A decentralised approach to certifying all energy transactions between validated players in the ecosystem: consumers, prosumers, suppliers (utilities) and grid operators (distribution and transmission) means that power is not concentrated in the hands of a few, but spread out amongst many.

TRANSPARENCY & RELIABILITY
The universally accessible nature of blockchains means that each and every stakeholder can verify data with the assurance that it is correct and indisputable.
Our customers

- Utilities
- TSOs/DSOs
- Aggregators
- Energy communities
- ESCOs
- Technology providers
Our services

6 ways Prosume revolutionises the energy sector:

i) Smart contracts

ii) Smart billing & Automated payments

iii) Peer-to-peer energy exchange

iv) Grid balancing

v) Trading processes optimization

vi) Energy source traceability
Our services

i. Smart contracts
Automatic regulation and settlement of transparent, on-demand energy flows and transactions.

ii. Smart billing & Automated payments
- Precise and instant monitoring of prosumers’ energy consumption, production and energy expenditure.
- Regular, intervalled payment methods, with minimum delays and reduced collection costs.

iii. Peer-to-peer energy exchange
Prosume’s solution integrates existing suppliers/aggregators as partners in the platform. Suppliers manage P2P interactions between prosumers through matching bid and ask conditions. All data will be easily retrievable by the supplier, easing internal billing processes.
iv. Grid balancing
Algorithmic management for the profiling and scheduling of prosumers’ production and consumption by aggregators and in turn, grid operators.

v. Trading processes optimization
Adopting blockchain technology, energy traders and market stakeholders can integrate processes and data (i.e. deals) coming from market exchanges or legacy systems on to a shared platform on which every entity can manage its own data and share such information with counterparts, grid operators, regulators and authorities.

vi. Energy source traceability
Tracing an energy’s source, from production to consumption
Timeline

- Jan 2015: Birth of Dajie LTD
- Apr 2017 – Apr 2018: Energie Steiermark project
- May 2018: Birth of Prosume srl
- Jun 2018: Joint venture with Evolvere: birth of E-Prosume
- Nov 2018: Win of Barcelona grant
- Feb 2019: Integration of software with Evolvere’s IoT device
- Jun 2019: Win of Ledger Program (Horizon 2020)
- Jun 2019: Integration with smart meters: birth of Grid Agility Consortium
The team

Mattia De Vecchi
CEO
Alex D’Elia
CIO
Daniele Morisco
CFO
Giacomo Beretta
Business developer
Fabio Cedronio
Business developer
Italy
Pierluigi Maori
CTO
Massimo Ferronato
CTO

Karolin Langfeldt
Global business
developer
Carlo Riganti
Legal
Giovanni Quaglino
Marketing & Product
Strategy
Alessia Borge
Country manager
Spain
Amanda Lim
Communications &
Branding
Luise Müller-
Hofstede
Global business
developer
Super cute
developers
In 2017 Prosume (previously Dajie ltd) developed a pilot for Energie Steiermark (an Austrian utility company) and Next (the company’s digital branch) with the goal of demonstrating a feasible peer-to-market use case amongst a utility’s customers. The project started in April 2017 and remained active for a year.

Main features included the following:
- Multiple assets on a single blockchain.
- Assets, issuable at any time.
- Decentralized asset exchange with bid & ask order book.
- Embedding of memos within transfers (encrypted messages).
- Easy implementation of smart contracts can easily be implemented to match bid & ask orders.
- Use of a permissioned blockchain, where blockchain owners control their account management for private use.
- Triple asset setup: payment token (DEC), transaction token (DAJIE) and kWh log token (KWH).

The project has since been put on hold, awaiting smart meter deployment.
### Energie Steiermark pilot: metered data

<table>
<thead>
<tr>
<th>Active power</th>
<th>Active energy</th>
<th>Reactive power</th>
<th>Reactive energy</th>
<th>Apparent power</th>
<th>Supply frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>279.10 W</td>
<td>5.084 kWh</td>
<td>0 var</td>
<td>1.566 kvarh</td>
<td>0 VA</td>
<td>50.00 Hz</td>
</tr>
<tr>
<td>3.408 kWh</td>
<td>0 W</td>
<td>295.50 kvarh</td>
<td>283.30 VA</td>
<td>3.535 kVAh</td>
<td></td>
</tr>
<tr>
<td>48.30 var</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.478 kVAh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.99 -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Energie Steiermark pilot: metered data graphs
Energie Steiermark pilot: transactions on the blockchain
In Q4 2018, Prosume (through its subsidiary branch Prosume Solutions SL) won a grant from the city council of Barcelona to develop a pilot project for its community.

The project, “Barcelona Energy Community”, focuses on the blockchain registration of data related to consumption, production and energy storage of the town buildings.

Due to the latest regulation permitting actual peer-to-peer energy exchange amongst communities (Real Decreto 15/2018), the pilot’s main aim is to simulate energy exchange between city buildings.

The project will install around 20 blockchain light nodes in these buildings, adding to the nodes that will be cloud-hosted by June 2019. The project’s validation will begin in September 2019 and conclude in December 2019.

We’re currently in talks with the city of Barcelona in order to translate this project simulation into a real-life peer-to-peer situation by 2020.
The main features of the service platform are:

- Deployment and validation of blockchain based tools that support smart communities of energy prosumers.
- Integration of power plant, storage systems and consumption sites.
- Peer-to-peer exchange of electricity between prosumers on a distributed micro-grid.
- Micro-grid management tools.
- Integration of the tools developed by the city council through the EU-funded DECODE project (development of the blockchain framework for energy will be based also on the specific requirements provided by the DECODE steering Committee).
Blockchain technology enters the household

Italian energy aggregator Evolvere has allied with Prosume in an unprecedented partnership between a leader in the distributed generation sector and a blockchain solutions provider.

Managing around 12,000 PV plants, Evolvere’s large network is significant: it will be the first time an aggregator has shook on a blockchain development plan, making e-Prosume the first project of its kind and proportions.
Aimed at bringing the blockchain into smart homes, the joint venture’s first plan of action is to integrate Prosume’s software with EUGENIO, a smart home gateway manager.

Through an app on a device, e-Prosume allows homeowners to manage various aspects of their everyday lives: energy savings, safety, comfort and smart payments, in a wholesale upgrade of the definition of ‘smart living’.

Smart homes: the future
Integrated and installed into homes (within a year) would be some of the first 2,000 smart home devices in the world that would represent the nodes on an energy blockchain network.

Through a customised cloud platform, this integration enables production and consumption data collection, progressing the liberalisation of the local energy market and evolving its smart grids. From the real-time collection and analysis of such data, end-clients will also enjoy new services made possible by recent IoT and Big Data technologies. The possibilities don’t end there: e-Prosume will also offer Balance of System services to grid operators.
e-Prosume interface: measures and payments
## e-Prosume interface: “blocks”

### Block 3767052

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Number</td>
<td>3767052</td>
</tr>
<tr>
<td>Wallet Type</td>
<td>OperationTypeTransfer</td>
</tr>
<tr>
<td>From</td>
<td>evo1</td>
</tr>
<tr>
<td>To</td>
<td>evo1ere</td>
</tr>
<tr>
<td>Asset</td>
<td>TFT</td>
</tr>
<tr>
<td>Amount</td>
<td>1,000,000,000</td>
</tr>
<tr>
<td>purchasedEnergy</td>
<td>24993900</td>
</tr>
<tr>
<td>energyDiff</td>
<td>44</td>
</tr>
<tr>
<td>txID</td>
<td>b666e13d4c5b97d8f82aef329b9a952</td>
</tr>
<tr>
<td>purchasedPower</td>
<td>177</td>
</tr>
<tr>
<td>reactiveEnergy</td>
<td>4516803</td>
</tr>
<tr>
<td>autoConsEnergy</td>
<td>0</td>
</tr>
<tr>
<td>consumedEnergy</td>
<td>44</td>
</tr>
<tr>
<td>buyPrice</td>
<td>0.01</td>
</tr>
<tr>
<td>sellPrice</td>
<td>0.01</td>
</tr>
<tr>
<td>subID</td>
<td>20934</td>
</tr>
<tr>
<td>Timestamp</td>
<td>2019-04-09 14:31:00</td>
</tr>
</tbody>
</table>
e-Prosume interface: chart example
Thank you

Contact us for more
Corso Venezia 54
20121 Milan
info@prosume.io

PROSUME
decentralizing power