



**Enabling Prosumers to  
participate into the  
Energy Transition  
SolarCoin**

-

**European Utility Week**

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**Amsterdam**

**October 2017**

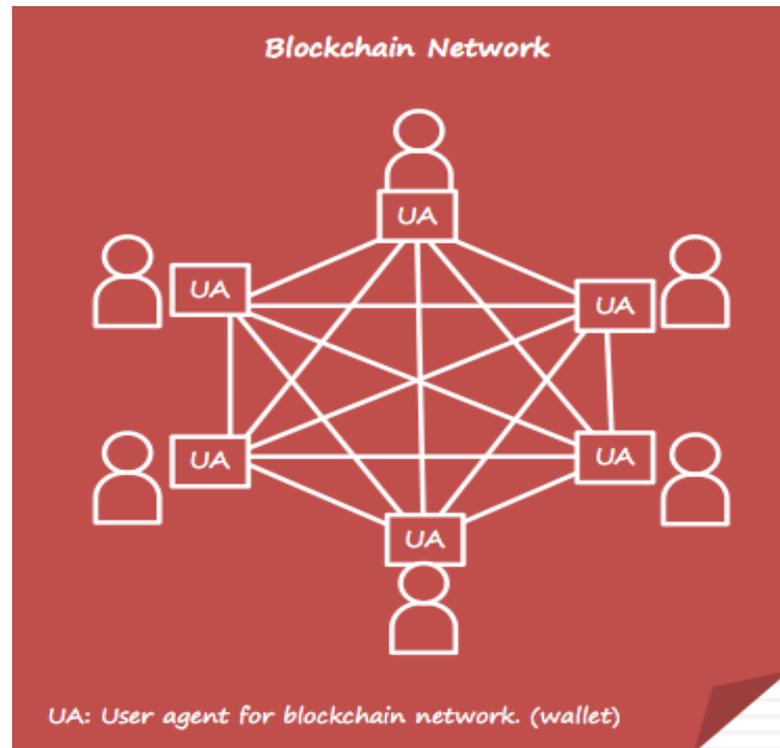


# What is a Blockchain ?



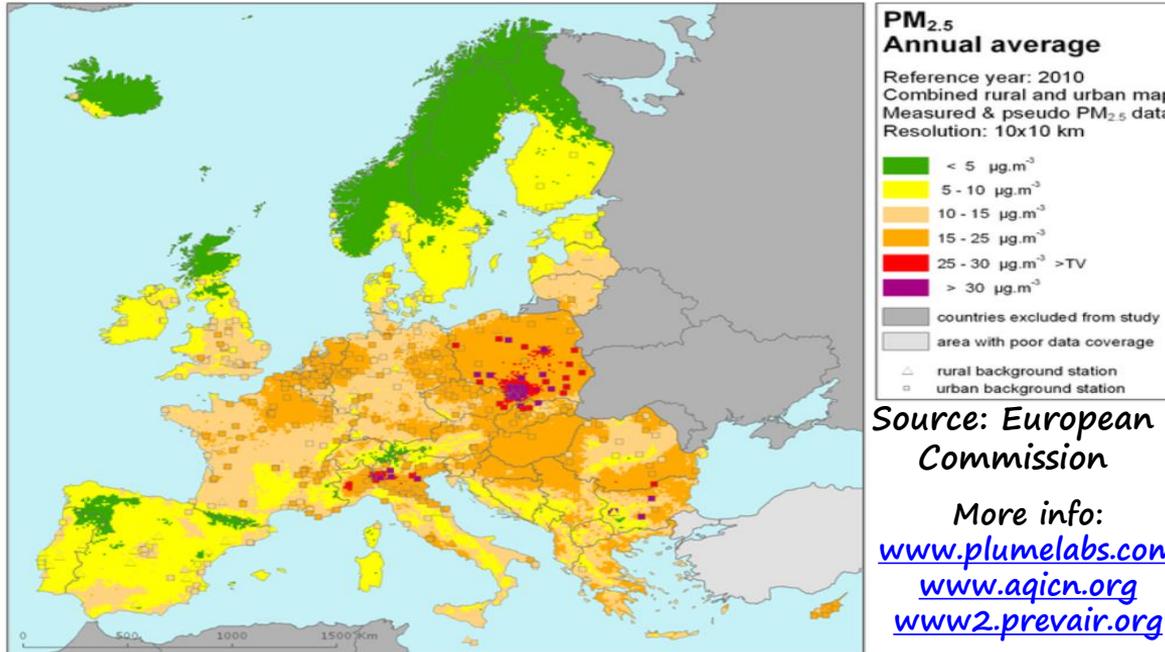
## ***A Database***

- A Blockchain is a Database for a specific use where EVERYBODY who participates owns a complete copy of it locally.
- No master Blockchain and no central authority for an open Blockchain
- Verification at each stage (every minute) for SolarCoin increases security as “stakers” must verify and exclude the wrong transactions when making a new block, stakers and participants who have the Blockchain must verify a new block when synchronizing.
- Some technology examples:  
voting, sharing, renting, land register, notary deeds, DAO, BitCoin, Ethereum, Government departments....
- R3: Big Banks Consortium developing Private Blockchain for Back Office purposes (Clearing, Settlement and Custody), trading...
- Private Blockchain
- Public Blockchain vs Side-chains





- Existing Government Subsidy Schemes for solar energy are inadequate
- Access to finance for small and large-scale solar projects is difficult
- Pollution levels worldwide are on the rise (particulate matter PM2.5 and PM10, Nox...)

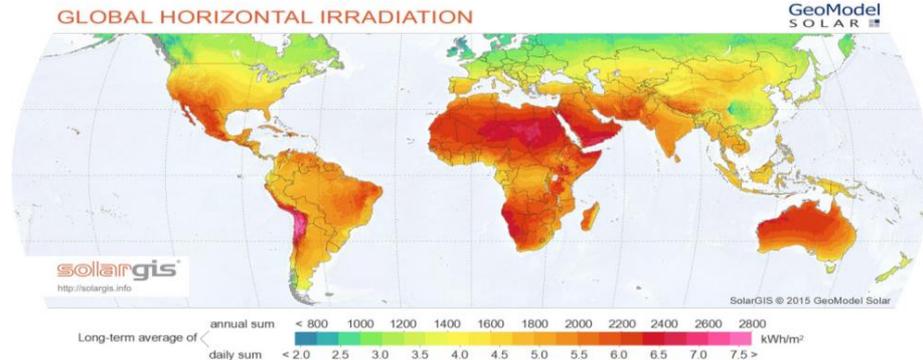
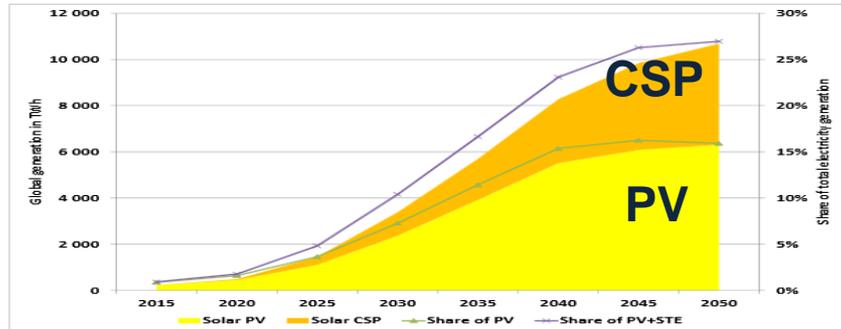
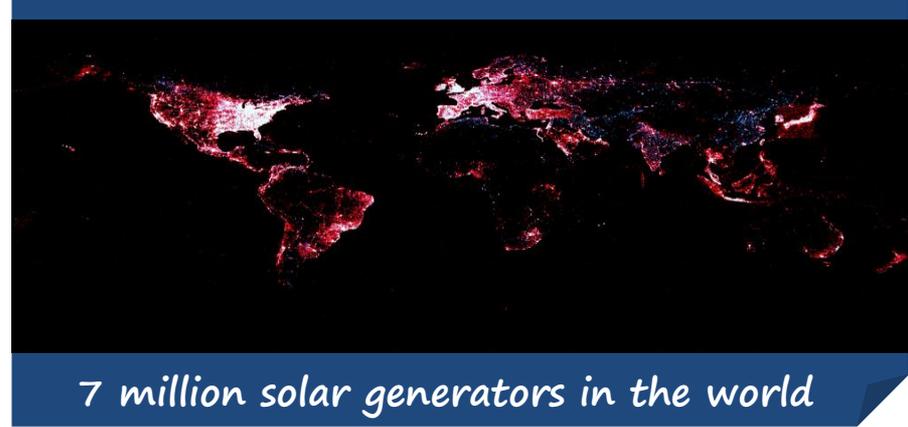




# Market Indicators

## Solar Industry

- 300GWp at end 2016 vs 7GWp in 2006
- 7 million Solar Facilities worldwide
- Increasing to +200million (household) according to IEA and BNEF figures and 5500GWp by 2040
- Trends in target market, growing 20-35% p.a
- Zero knowledge proof and trustless data for a sector that really needs innovation. (Energy/Utility sector)





# Market Overview





# “ElectraSeed” based on Swarm Electrification

In-home optimization & accounting for

- adaptive pricing

Local marketplace for P2P exchange

- incentives for O&M



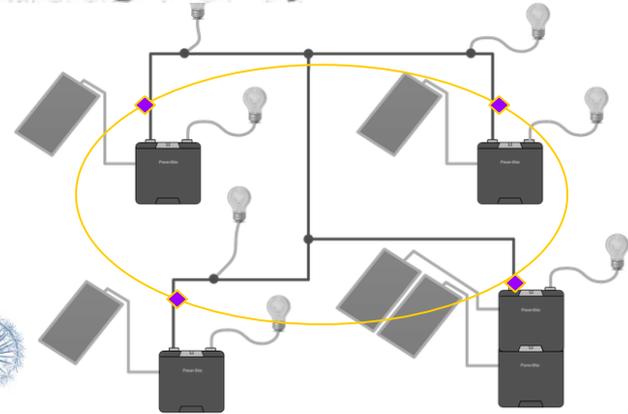
**Gridgularity**

  
ElectriCChain

Adpt<sup>e</sup>ve  
inside

 smappee  
controllable loads

Electra  
Seed  
100Wh/day/1.4b people



**EPIC** Energy Productivity Innovation Challenge  
EPIC 2016 CATEGORY WINNER: HOMES  
ElectraSeed (www.electraseed.com) / Europe  
**ENERGYUNLOCKED**



MARRAKECH COP22 | CM P12  
UN CLIMATE CHANGE CONFERENCE 2016

source: <https://www.power-blox.com/>



# SolarCoin



SolarCoin works like a global airmiles reward program for solar energy producers; counterintuitively the more people claiming those airmiles, the more they are worth in \$'s. Registering is done at [www.solarcoin.org](http://www.solarcoin.org)

$$1 \text{ Solar MWh} = 1 \text{ SolarCoin (SLR)}$$

SolarCoin is at the basis of a virtuous circle in creating value into the solar energy industry and economy  
Comes on top of Government-backed subsidies  
Coupled to Carbon Credits  
SLR Blockchain is POST, uses 3% of Blockchain energy and stakes at 2% interest



# How can you get involved



## • Solar Producers

- Register your installation to start earning Solar Coins
- Track Solar Coin prices and trade them on public Exchanges.



## • Solar Installors

- Get solar producers to register and claim their SolarCoin and get up to 5% of these SolarCoin
- Distribute SolarCoin-ready dataloggers and inverters.

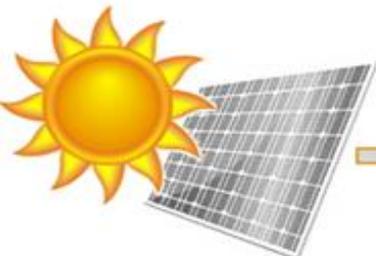


## • Solar Manufacturers

- Embed SolarCoin technology in your Hardware
- Get it certified by SolarCoin Foundation
- Include this as a value-added feature



# Claiming SolarCoins



1.

2.

3.

➤ Three steps:

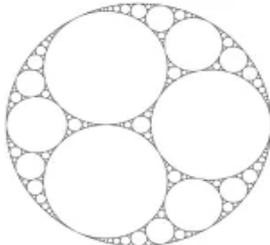
- Validation of solar energy produced
- Integration through monitoring platform, inverters, dataloggers
- SolarCoins granted to SolarCoin Wallet
- SolarCoins circulated within the solar industry/montized with Lykke



SolarCoin Earned			
Day	Week	Month	Year
5KW Solar Panels \$6.55 per year			
Frequency GHz	1416x	Power	1.132 W
Duration GHz	25s	Energy	13 kWh
Total ON	11m 03m	Cost	3.13 €



# The SolarCoin ecosystem



The ElectriCChain is a global platform to accelerate the growth of solar energy, IoT and Blockchain data technology with impacts ranging from the heights of commercial space and climate change research, to the micro-generation & finance in Africa.



SolarCoin is like a free (!) airmiles reward program for solar generators and given at the rate of 1SLR/MWh. The SolarCoin Foundation aims to power the 3rd Industrial Revolution with clean, cheap solar energy, leaving a better world to future generations.



SolarChange is a web & mobile platform working with the SolarCoin Blockchain in incentivizing and enhancing the use of solar energy worldwide. SolarChange presents smart solar energy monitoring, providing verified, multi-sourced,



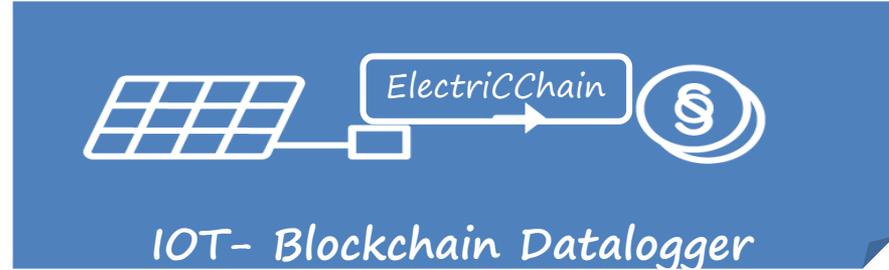
Solcrypto acts as Claims Facilitator to the SolarCoin Foundation over the Asia-Pacific region and as a peer-to-peer broker for SolarCoin trades. Solcrypto also provides the bulk of engineering resource for the ElectriCChain projects.

smart insights and predictions, for a variety of applications: from residential energy efficiency, to grid-scale energy management. SolarChange is integrating the IBM Alpha Zone Accelerator program.

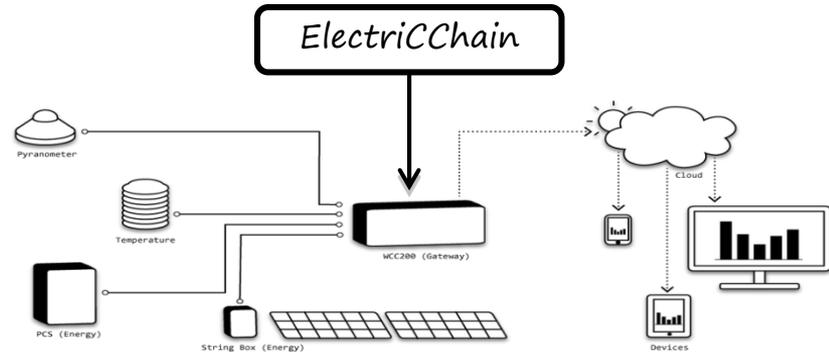


# Solcrypto Datalogger

Internet of Things (IoT) Datalogger method that connects to the Blockchain. The device then sends production Data to the corresponding user account, then the affiliate site logs this and uses an API to get claims from the SolarCoin Foundation.



Separately, an blockchain records data IRT. Reflects to SolarCoin blockchain/ElectricChain: 3nodes





# Solcrypto Datalogger



Solar panels    Data loggers & monitoring    Data Collection    Data Aggregation & digestion    Users

today energy system



## ElectricChain

**1 platform**  
**3 data - layers**  
 Solarcoin: 15 min  
 Ethereum: 1 min  
 IOTA: continuous

new business opportunities

TSO  
 DSO  
 Energy companies  
 Meteorologists  
 Smart grid  
 Energy as a Service (EaaS)

SolarCoin Ecosystem	85 000	
Global (2014)	7 mio	> 50 OEM
Global (2030)	200 mio	

tomorrow information system





# Impacts on Crowdfunding

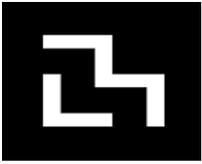
Crowdfunding solar installs with Bitcoin anywhere in the world



Being rewarded in SolarCoins as additional incentive to initiate the Energy Transition



# Partners, Observers & Awards



solarly



EUROPEAN CROWDFUNDING NETWORK



MARRAKECH COP22|CMP12  
UN CLIMATE CHANGE CONFERENCE 2016

# Thank you for your Attention!

- **Francois Sonnet**- Solar Consultant, Based in Andorra, Advisor to SolarChange & SolcryptoJV and Co-Founder ElectricChain
- **Luke Johnson**- Expert Solar Engineer, Based in Tokyo, JP, Co-Founder & CEO Sunpulse K.K./ SolcryptoJV & Advisor ElectricChain
- **Christopher Altman**- NASA-trained Astronaut, Based in San Francisco, CA, Advisor ElectricChain and Chief Scientist SolarCoin Foundation
- **Nick Gogerty**- Financial Analyst, Based in Greenwich CT, Co-Founder SolarCoin Foundation, expert in Financial modeling and Macro-Economics
- **Richard Olsen**- Financial Expert, Based in Zurich, CH, CEO Lykke Corp and Co-Founder OANDA Forex, professor at the Centre for Computational Finance and Economic Agents at the University of Essex
- **Alex Raguet**- Renewable Energy Financial Expert, based in La Rochelle, FR, CEO at Lumo-France and President of the European Crowdfunding Network ECN



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Check out the SolarCoin Foundation website at [www.solarcoin.org](http://www.solarcoin.org) and ElectricChain at [www.electricchain.org](http://www.electricchain.org) and affiliate websites [www.solarchange.co](http://www.solarchange.co) in EMEA&Americas and [www.solcrypto.com](http://www.solcrypto.com) in APAC regions

Register your solar installation with the SolarCoin Foundation and trial-test your SolarCoin Wallet at [www.solarcoin.org](http://www.solarcoin.org)