Smart grid
just got smarter
TRAKEN

Problem

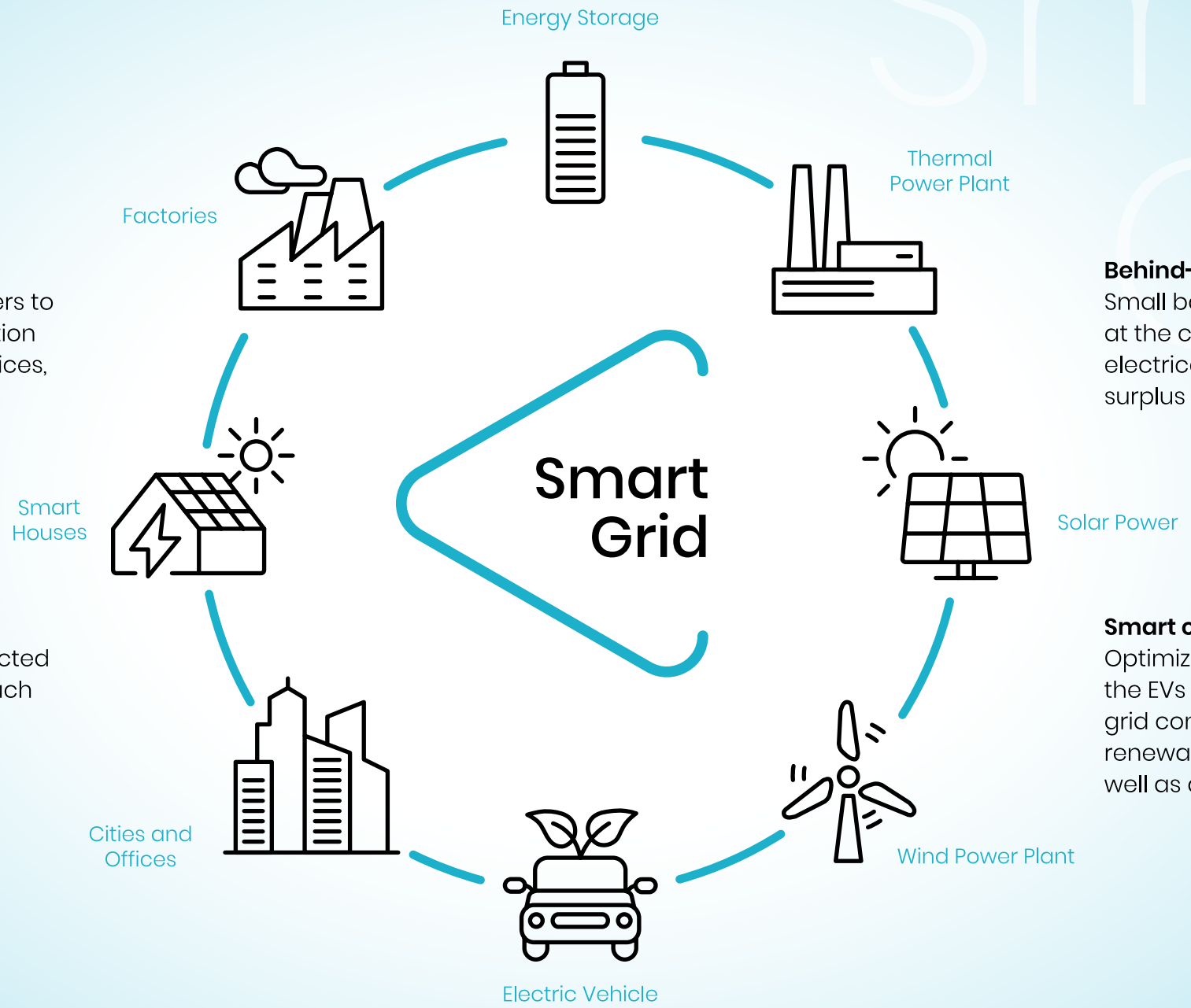
/ Electricity supply system is heavily convoluted
/ Technology and regulatory demands are being shifted
/ Business models and operational approaches are being stretched to their limits

In this environment of uncertainty and market disruption, energy providers must reinvent their organizations with the focus on >>>

Visibility of assets

Demand Response
Process that enables consumers to alter their electricity consumption patterns and provide grid services, individually or through an aggregator.

Distributed generation
Generation from plants connected at low and medium voltage, such as solar rooftops, micro wind turbines, etc.



Behind-the-meter battery
Small batteries that are connected at the consumer end and store electrical energy during periods of surplus generation

Smart charging electric vehicles
Optimizing the charging cycle of the EVs according to distribution grid constraints and local renewable energy availability, as well as driver preferences.

Product

TRAKEN is a data tracking, management and exploitation tool for smart electrical grids, that provides a distributed ledger to manage metering records, track physical objects and transfer value without a third party or manual reconciliation.

Protocol
Interoperability and seamless flow of data between different networks

Product passport
Framework for standardized product passports generation and protocol for recording of such data to DLT

Distributed energy registry (DER)
validation, time tampering and storing of data

Team

Executive

Strahinja Vukoičić

MSc electrical engineering

Operations

Nemanja Petrović

MSc economics

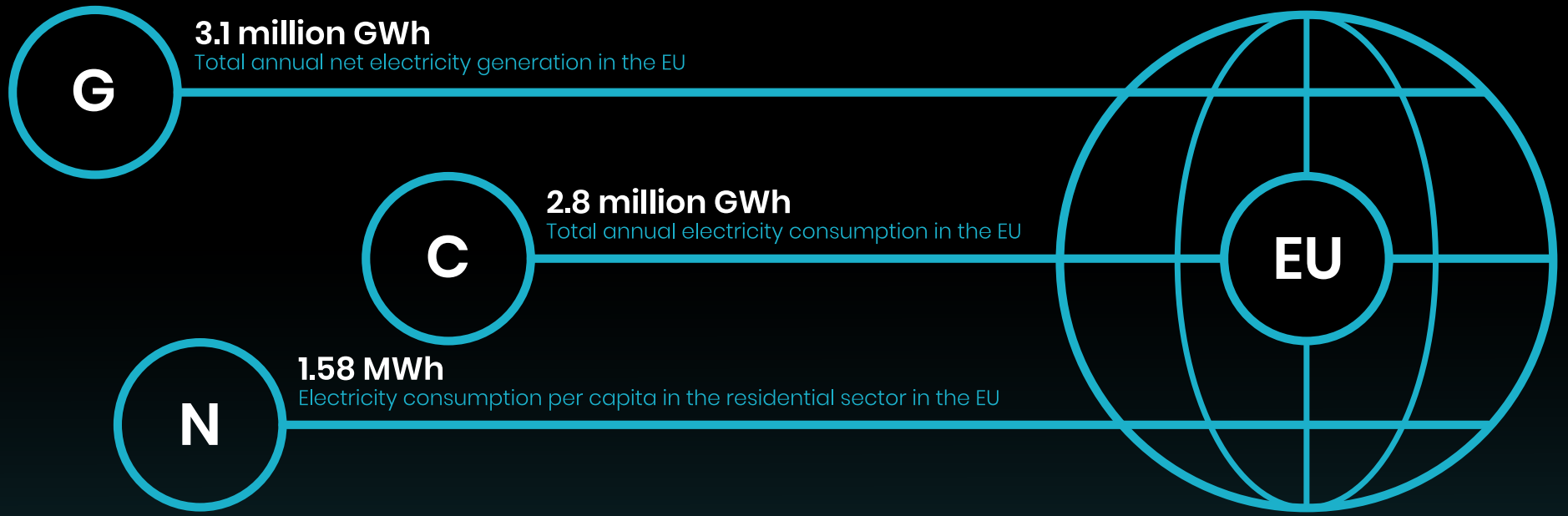
Tech

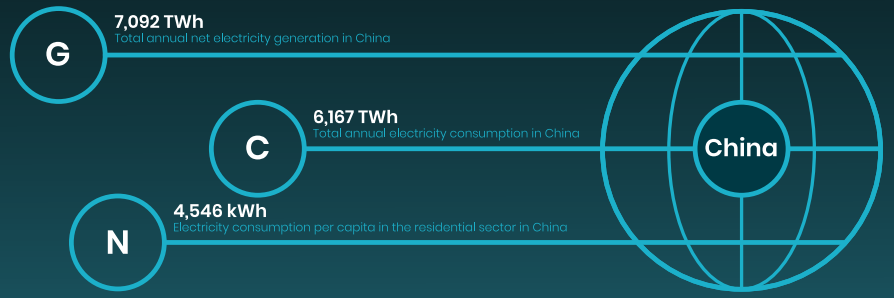
Pavle Batuta

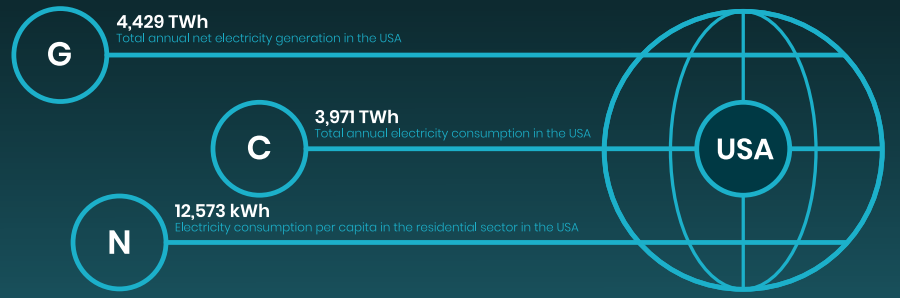
Software engineer,
Blockchain architect

Market **potential**

// 160 billion EUR market potential in residential sector in the EU

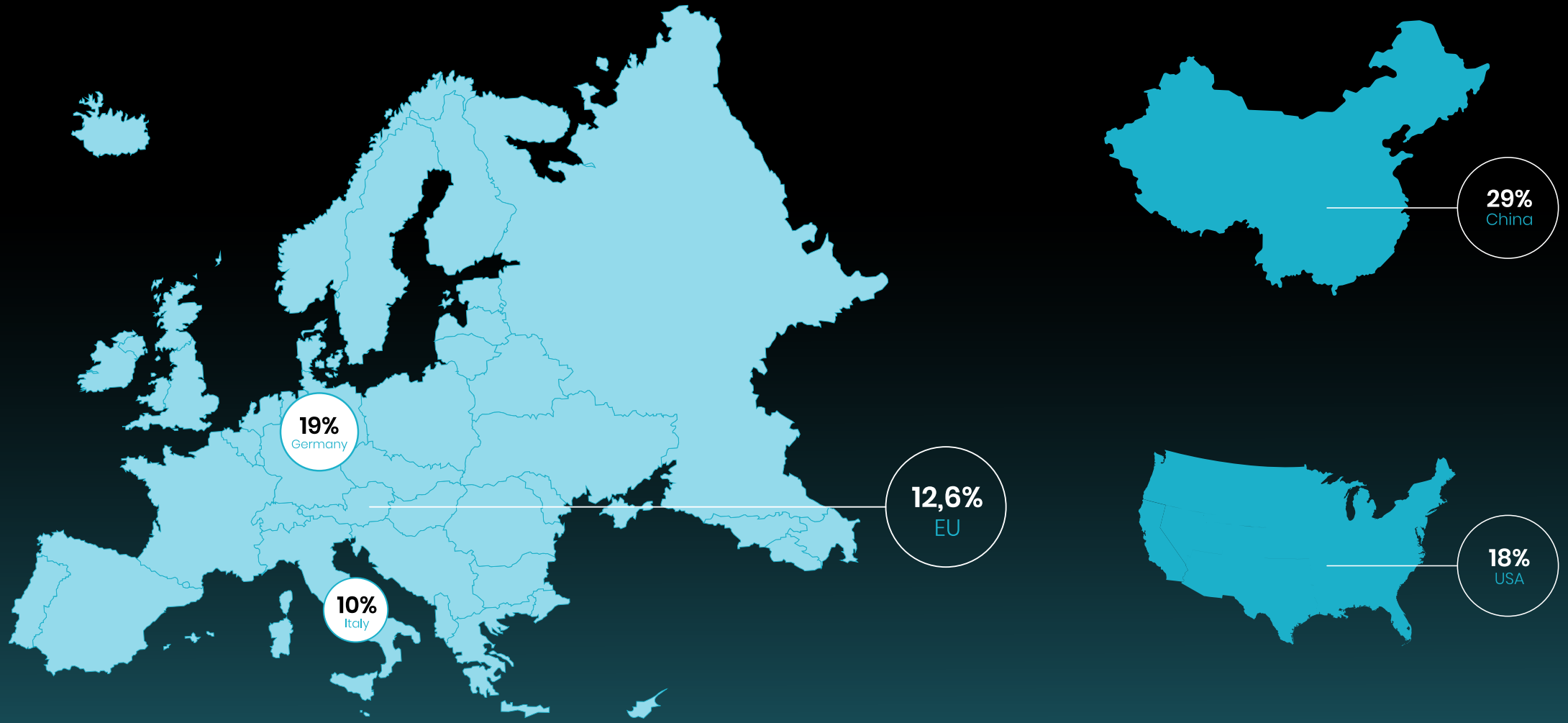






Market **potential**

Currently, the EU is on track to meet its 20% target established for 2020. The EU could double the renewable share in its energy mix, cost effectively, from 17% in 2015 to 34% (target 27%) in 2030, wind and solar mostly. (IRENA)



Demand response installed distributed energy capacity: 21 GW (Jiménez, 2017)
EV: 537 340 cars (IEA, 2018)

***global electricity consumption**

50 billion EUR
addressable market

0,5%

5th YEAR
4.5 million EUR in license fees / 3 million EUR in transaction fees

0,35%

3rd YEAR
2.5 million EUR in license fees / 1.5 million EUR in transaction fees

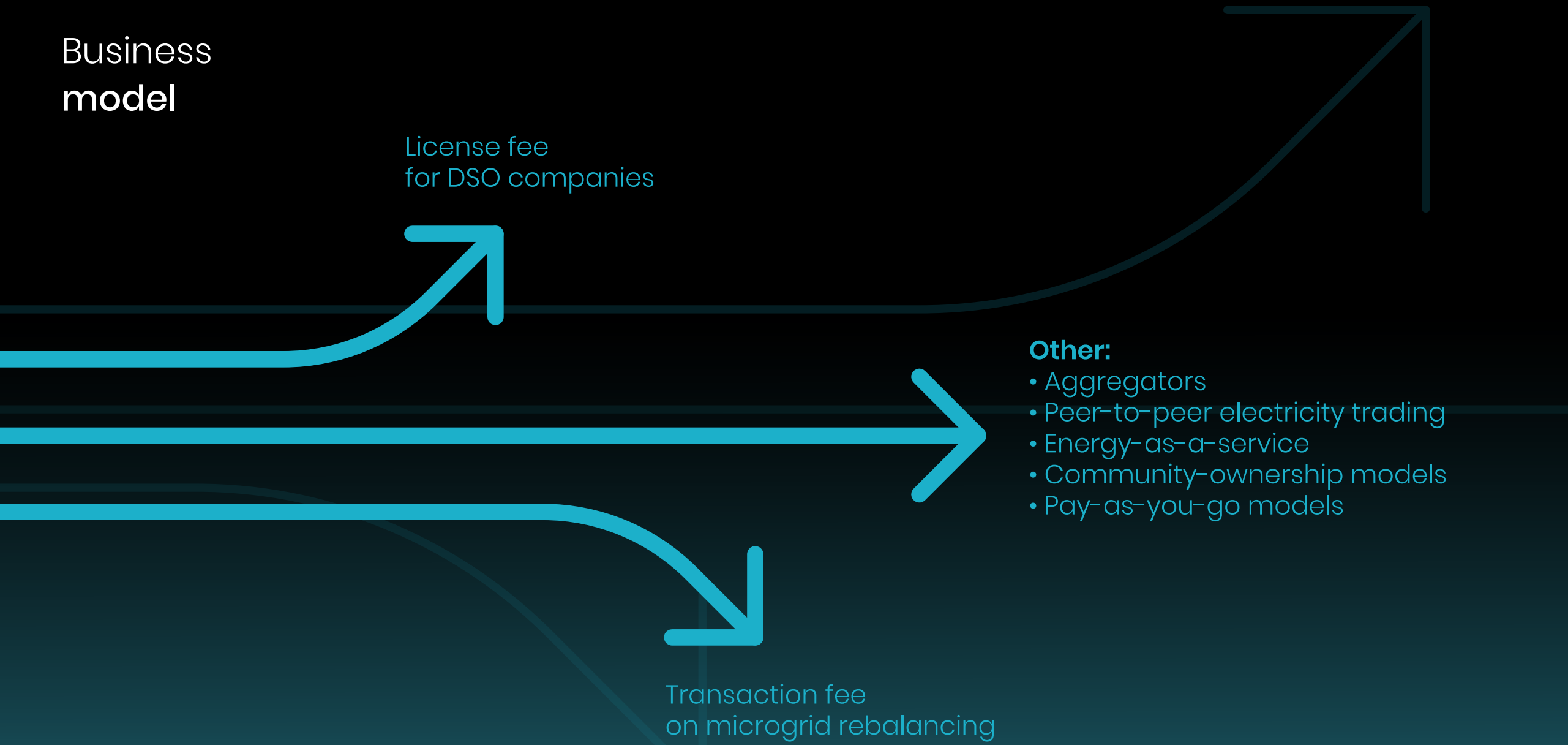
0,15%

2nd YEAR
1 million EUR in license fees / 500 thousand EUR in transaction fees

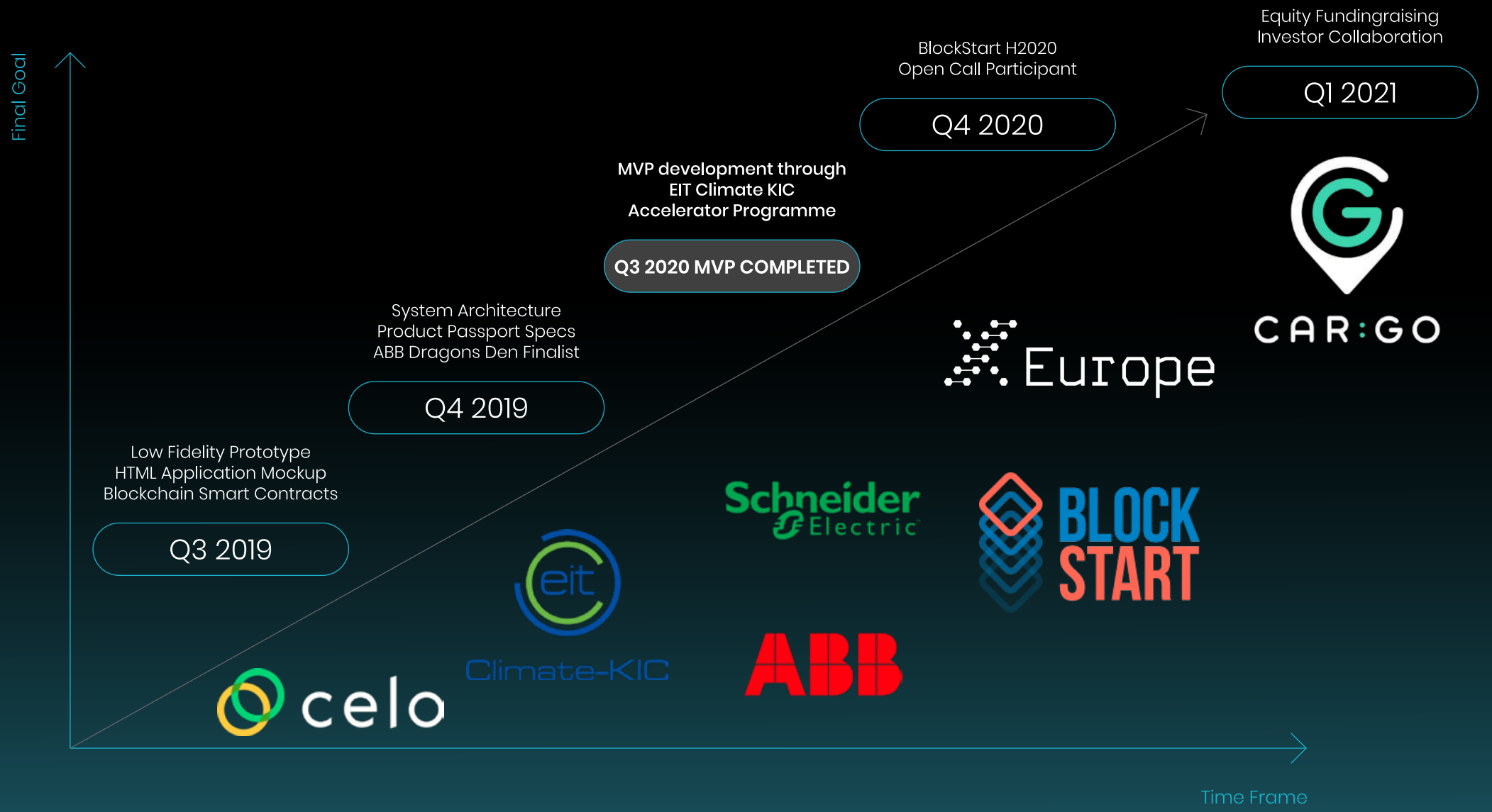
0,03%

1st YEAR
0.5 million EUR in license fees

Business **model**



Results


Final Goal
Low Fidelity Prototype
HTML Application Mockup
Blockchain Smart Contracts
Q3 2019
System Architecture
Product Passport Specs
ABB Dragons Den Finalist
Q4 2019
MVP development through
EIT Climate KIC
Accelerator Programme
Q3 2020 MVP COMPLETED
BlockStart H2020
Open Call Participant
Q4 2020
Equity Fundingraising
Investor Collaboration
Q1 2021
Europe
CAR:GO
Schneider Electric
BLOCK START
eit
Climate-KIC
ABB
celo
Time Frame

We are looking for »»»
an investment
a smart partnership

Competition

Power Ledger

Jade Power

WePower

Flexidao

and others

TRAKEN

ARCHITECTURE WITH REACH

METER PRODUCT PASSPORT

USER MANAGEMENT

SMART CONTRACT GENERATOR

KAFKA

GATEWAY PROTOCOL

DATA INGESTION LAYER

Data Flow

EXECUTOR MODULE

PRIVATE PERMISSIONED BLOCKCHAIN

SMART CONTRACT GENERATOR

API

TRADER DASHBOARD

PROSUMER APPLICATION

PUBLIC BLOCKCHAIN NETWORKS

EUROPEAN BLOCKCHAIN SERVICE INFRASTRUCTURE

Data Interoperability

EVM COMPATIBLE CHAINS