Challenge

01 Buildings: 40% of EU energy consumption!!!
36% of the greenhouse gas emissions!

02 Full-blown energy crisis in EU

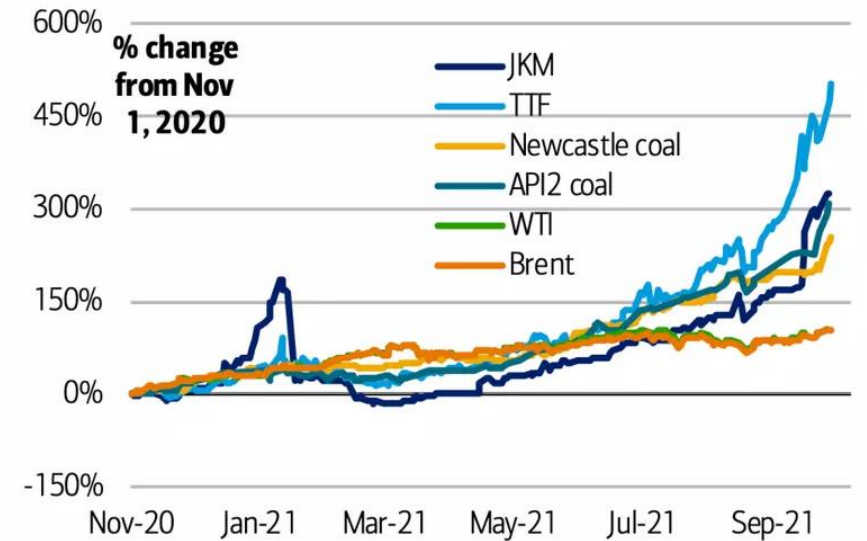**03** Technological shift

A Perfect Storm: Understanding the European Energy Crisis
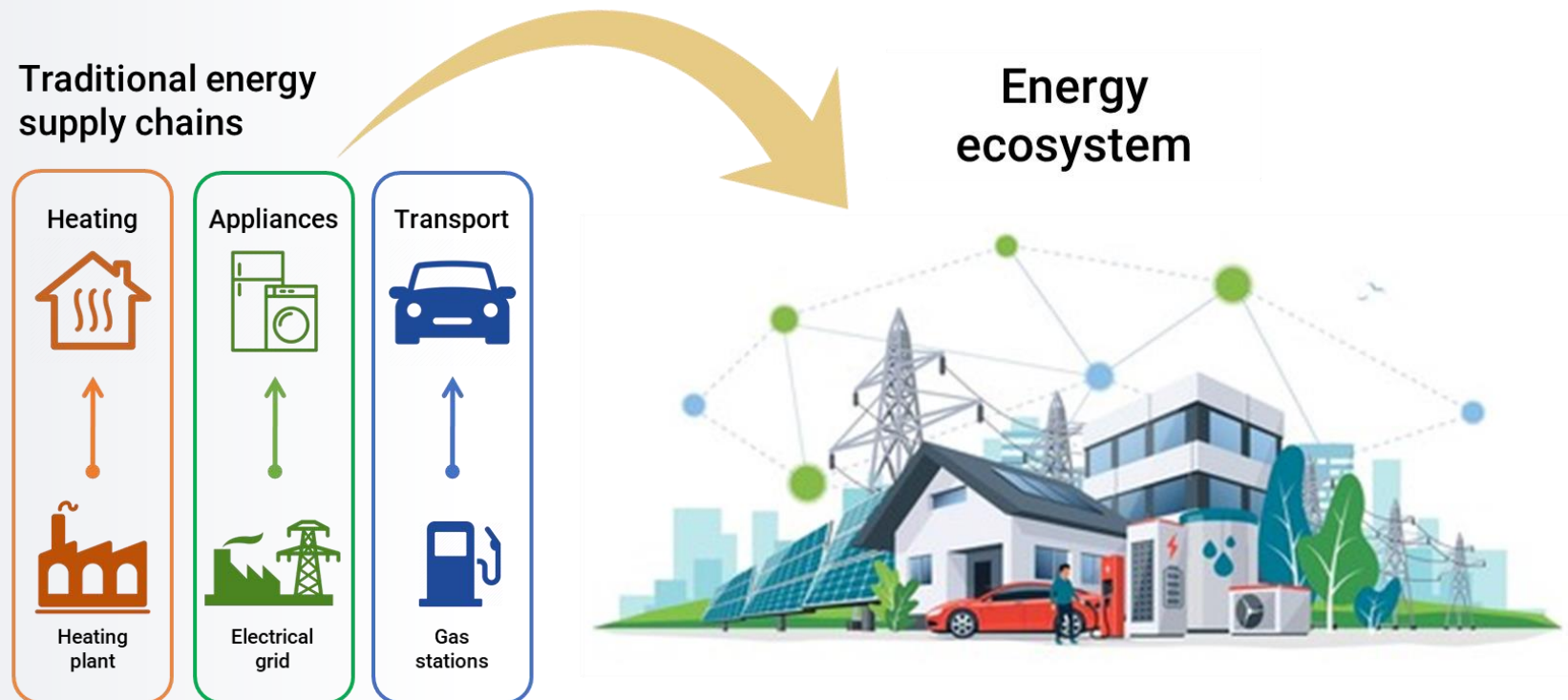
Market Insights
October

by
Fred

% change from Nov 1, 2020
- JKM
- TTF
- Newcastle coal
- API2 coal
- WTI
- Brent

Source: Bloomberg

BofA GLOBAL RESEARCH

Full-blown energy crisis in Europe!!!

HEATwin

Transformation of energy landscape

▶ Shift from viewing actors as independent to viewing them as part of a **continuously adapting ecosystem**

Traditional energy supply chains

Energy ecosystem

Heating

Appliances

Transport

Heating plant

Electrical grid

Gas stations

Solution

HEATwin

A comprehensive energy management tool that will **completely automate finding an optimal pattern in energy consumption and production of HVAC systems**
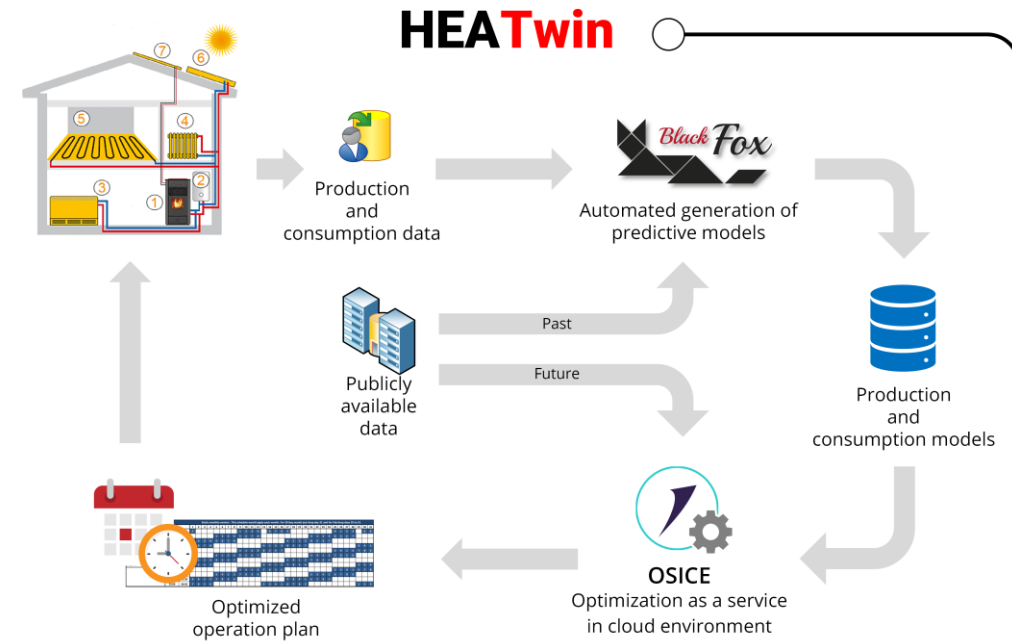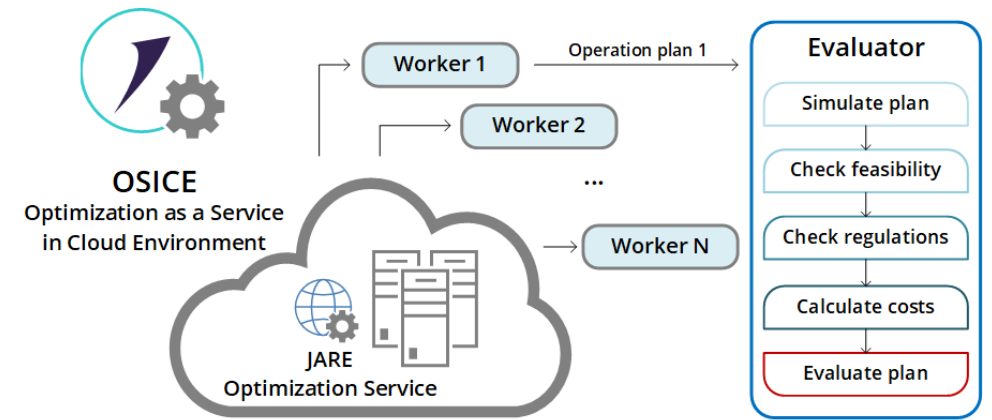
Technology

⭐ ## Black Fox

Automates most of the tasks associated with constructing and implementing a machine learning pipeline that would normally be engineered by specialized teams.

⭐ ## OSICE

Mimicking nature, OSICE uses distributed computational resources to generate optimal operational plan through an evolutionary processes.

Market Size

142 Billion

HVAC sector (*2021 figures)

The global heating, ventilation, and cooling system market is projected to grow from $149.80 billion in 2022 to $215.23 billion by 2029, at a CAGR of 5.3% during the forecast period

2.1 Billion

HVAC software market size

The global HVAC Software market size will reach USD 2,107 million in 2028, growing at a CAGR of 18.3% over the analysis period

210M

Our Market Opportunity

10% of available market

Business Plan

Pricing

HEATwin targets **large utility companies** and **building and factory managers** with the following offering:

Licence and installation on private infrastructure for large utility companies
7,500 EUR/month

Software as a Service for building and factory managers
2,000 EUR/month

In addition to increased resilience and reliability, HEATwin enables end users to make **significant savings by optimizing energy generation and consumption** (up to 20%*)

Sales

Initial sales channel: direct sales involving an in-house sales team
With the maturation of the product, we will start indirect sales, and our target channels will be Value-added resellers, affiliate partners, and system integrators.

Launch

Our plan is to enter the market in H2 2023, and to achieve sales of 2 licenses with a total income of 260K EUR.

Key team members

Business

Boban Stojanović, PhD
CEO & Founder of Vodena, project leader. Responsible for the development of the HEATwin platform.

Miroljub Krstić
Business development manager. More than 15 years of business development and operational experience.

Dejan Ćušić
Chief commercial officer. Twenty years of experience and impressive track record of growing the businesses and delivering innovative solutions.

Technology

Miloš Ivanović, PhD
Professor of high-performance computing, responsible for the HEATwin computing infrastructure.

Branka Jovanović, MSc
Data scientist, responsible for the development of AI methods.

Dušan Stefanović, MSc
Lead software engineer, responsible for the software implementation.

Anđela Marinković, MSc
QA manager, responsible for the software implementation.
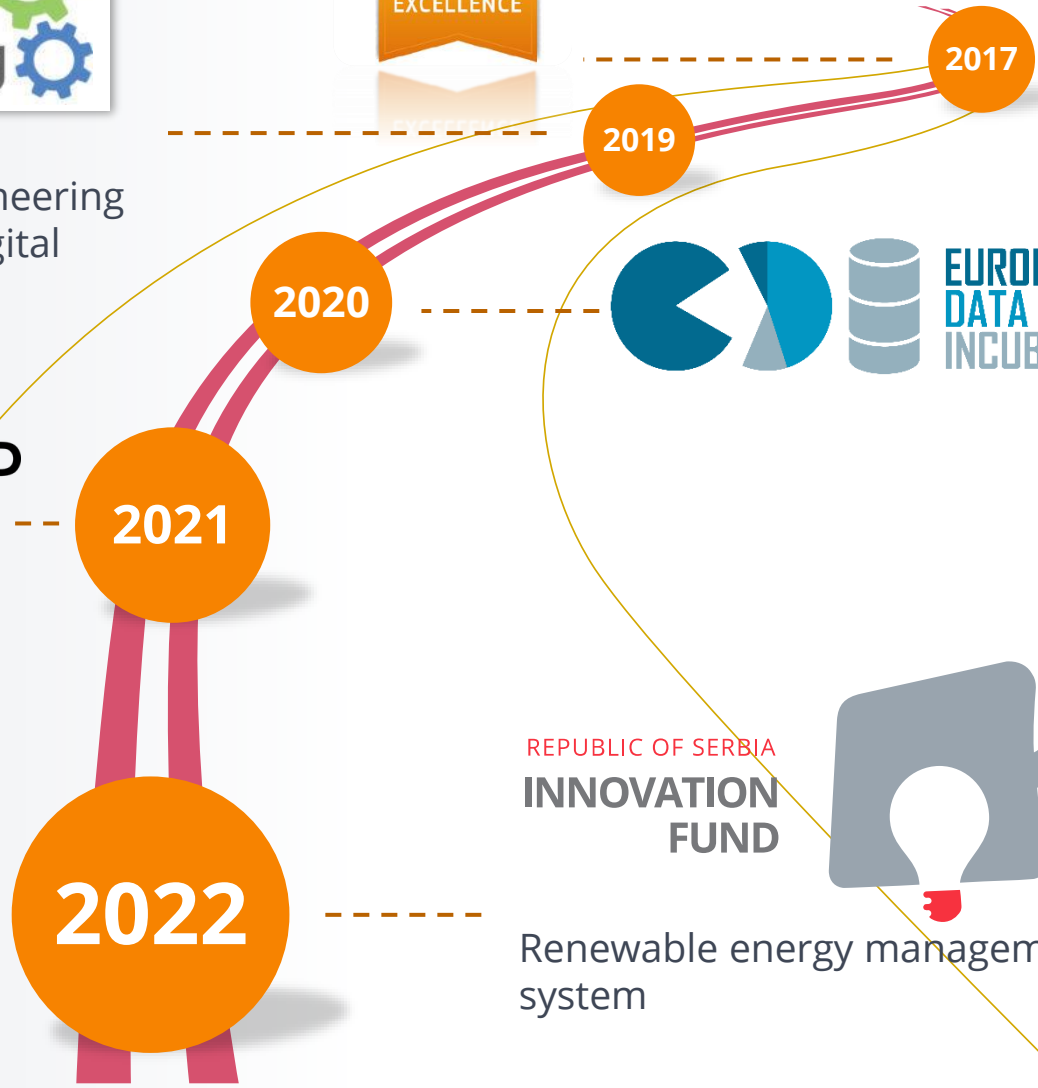
Always keep innovating

Cloudi Facturing — Cloudification of production engineering for predictive digital manufacturing

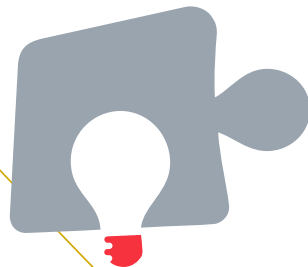Dam health assessment based on evolving artificial neural networks

SEAL OF EXCELLENCE

INNOVATION CHALLENGE 2017 Verbund FINALIST — Artificial neural networks in energy sector

2017

2019

2020 — EUROPEAN DATA INCUBATOR

HUBCAP — Collaborative platform for cyber-physical systems

2021

2022 — Renewable energy management system

REPUBLIC OF SERBIA INNOVATION FUND