

# BIOPLACE™

## THE DIGITAL MARKET FOR BIOENERGY IN EUROPE



This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement N° 101016854.

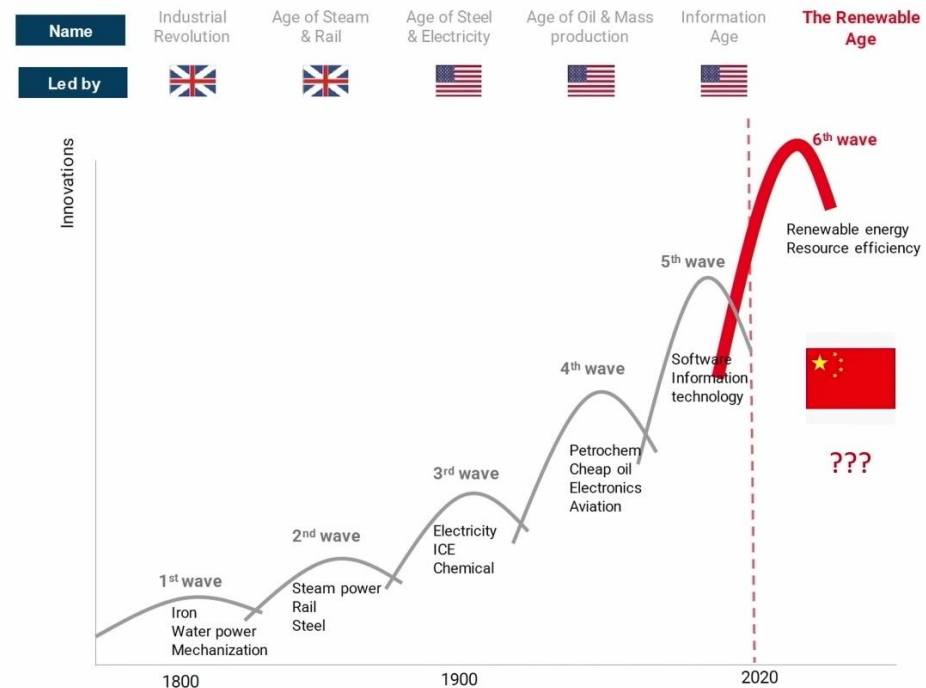


# Strategy: Vision (I/II)

## Climate change projects us into Renewable Energy Sources

### Finally, we are entering the Renewable Age

*It's a huge growth opportunity and challenge for all of us!*



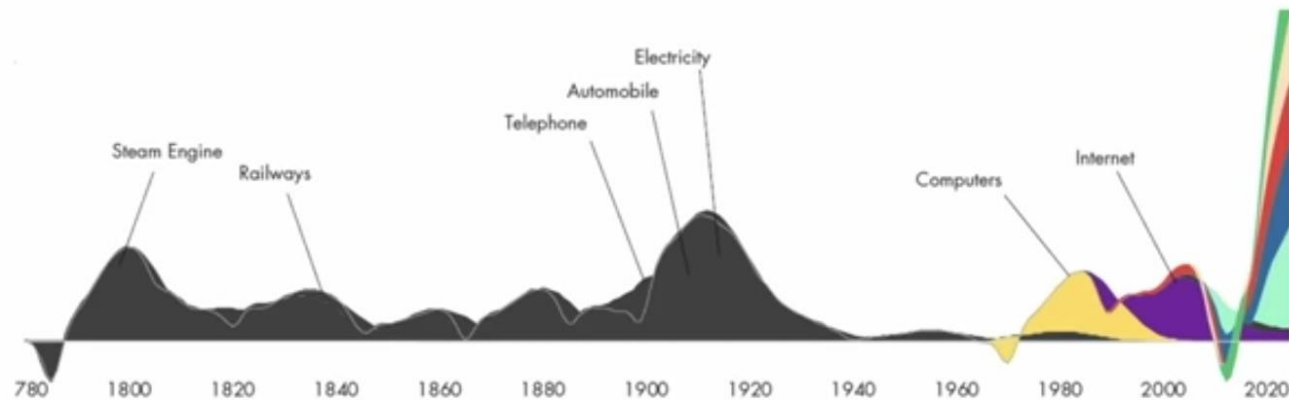
Font: Gerard Reid, Energy Disruption

# Strategy: Vision (II/II)

## Energy intelligence is the key

**ENERGY INTELLIGENCE: EI is the glue that binds everything together**

Impact of Big Technology Shifts on Economic Development



-  Connectivity
-  Power Electronics
-  Software
-  AI

Font: Gerard Reid, Energy Disruption

# Problem

## The bioenergy sector is fragmented

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- Agroforestry ancestral origin makes transactions manually managed
- Rural industry is lacking digital connectivity to automate processes
- Remote environments lack of smart communities capabilities
- There's no single platform to integrate commercial offer
- Promoting bioenergy adoption is difficult and slow
- Forests lack maintenance due to costs and wild fires are spreading
- Biomass by-products are poorly revalorised
- Organic waste is not utilised

# Solution

## Bioenergy marketplace for B2B & B2C transactions

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- Foster sustainability and proximity (“Glocal” perspective)
- All types of bioenergy products:
  - CONSUMABLES / FUELS, max radius 300Kms
  - PRODUCTS, Europe only with local/national preference
  - SERVICES, without limitations
- Meet criteria in 80% of transactions/sales volume
- Exclusion of products harmful to the environment and health (i.e. fossil fuels, petrochemicals, etc.) and illegal products

# Auroral IoT platform

## EU pilot regions

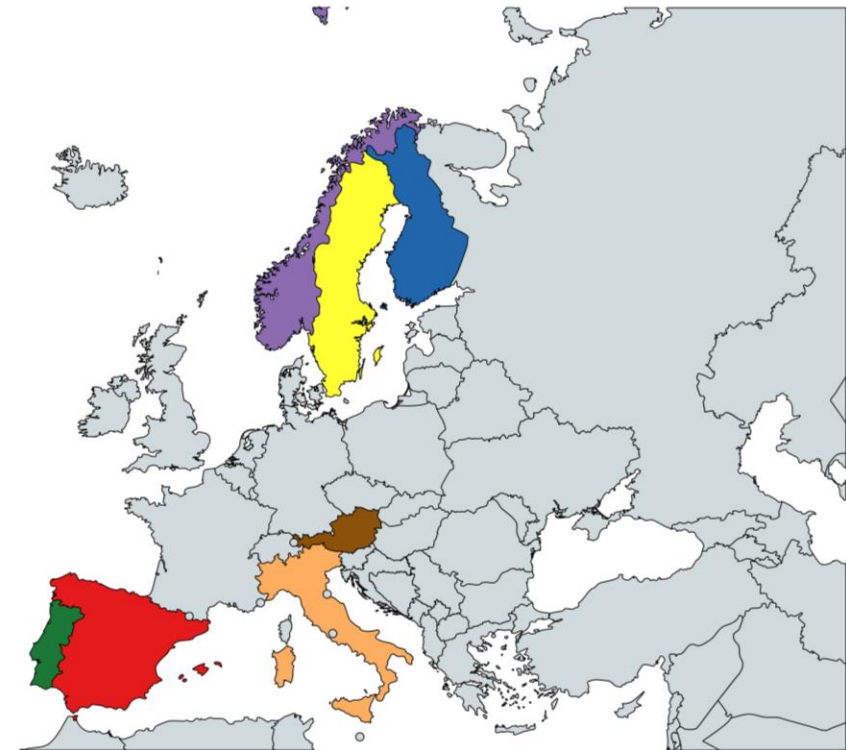
➤ Digitalise rural areas, connect smart communities in 5 domains:

- Farming
- Tourism
- Mobility
- **Energy**
- Health

[www.auroral.eu](http://www.auroral.eu)

**Auroral**

- Austria
- Finland
- Italy
- Norway
- Portugal
- Spain
- Sweden



# Strategy

## Digitalise rural areas & connect smart communities

Prior ity rank	AURORAL Pilot region	Main industry	Region surface Km2	Region population	Country	Country surface Km2	Country population	Country GNP/capit a
1	El Penedès	Winery	888	213,000	Spain	505,000	49,000,000	28,200€
2	S. Burgerland	Agriculture	1,128	80,000	Austria	83,700	9,000,000	49,500€
3	Västerbotten	Paper	55,400	228,000	Sweden	450,000	10,300,000	51,900€
4	Lapland	Forestry	100,300	176,700	Finland	338,000	5,500,000	39,000€
5	Piedmont	Livestock	25,400	4,300,000	Italy	301,000	58,800,000	33,000€
6	Alentejo	Cork	27,200	790,000	Portugal	92,200	10,300,000	23,500€

Then, rest of Europe: Germany, France, Benelux, Poland, UK...



# Design tactics

## *DREAMS* principle

➤ *Declared*: verified vendor

➤ *Rated*: rated store

Bio Place – October 31, 2024 5:12 pm



### Innovative solutions for the biomass industry

The shop delivers a break-through strategy with game-changing products and solutions

Edit



## Biohome



📍 Maria Aurèlia Capmany i Farnés,  
4, El Vendrell, T 43700 ES

☎ +34633603226

✉ Send Email

✓ Enabled

# Design tactics

## *DREAMS* principle

➤ *Engaged shops:*  
(products & services availability)

### 4G Smart-Meter for pellets aerial silos in buildings

585.00 €




















4G Heavy duty smart-meter to automated biomass pellets deliveries in aerial silos for heating buildings. Affordable, easy to use and install with top technology



1 [Add to cart](#)

Categories: [Products and accessories](#), [Sensing & Monitoring](#), [Smart-meters and sensors](#) Tags: [automated deliveries](#), [automated payments](#), [digital platform](#), [IoT 4G](#), [IoT Wifi/Ethernet](#)

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-  **Consumables & fuels**
-  **— Fertilisers**
-  **— — Biochar**
-  **— — Compost**
-  **— Wood pellets**
-  **— — Standard wood pellets**
-  **— — Quality wood pellets**
-  **Products and accessories**
-  **— Boilers and stoves**
-  **— — Biomass boilers**
-  **— — Industrial boiler**
-  **— — Mobile boiler unit**
-  **— — Biomass burner**
-  **Services**
-  **— Clearing services**
-  **— Engineering services**
-  **— Maintenance services**
-  **— Cleaning services**
-  **— Consulting services**


# Design tactics

## *DREAMS* principle

➤ *Active shop:*


 Years Active


 Number of Orders

 Products Published

 Customer Review

 Number of Items Sold

 Store Support Count

 Featured Products

 Featured Seller

 Trending Product

 Verified Seller

# Design tactics

## *DREAMS* principle

➤ *Moderated*: tagged products

<input type="checkbox"/> <b>IoT 4G</b> <a href="#">Edit</a>   <a href="#">Quick Edit</a>   <a href="#">Delete</a>   <a href="#">View</a>	IoT 4G communication equipped	<input type="checkbox"/> <b>BCorp</b>	BCorp sustainability certified
<input type="checkbox"/> <b>IoT 5G</b>	IoT 5G communication equipped	<input type="checkbox"/> <b>digital platform</b>	—
<input type="checkbox"/> <b>IoT Wifi/Ethernet</b>	IoT Wifi/Ethernet communication equipped	<input type="checkbox"/> <b>DIN Plus</b>	DIN Plus certified
<input type="checkbox"/> <b>ISO 14001</b>	Environmental Management System certified	<input type="checkbox"/> <b>EN Plus</b> <a href="#">Edit</a>   <a href="#">Quick Edit</a>   <a href="#">Delete</a>   <a href="#">View</a>	EN Plus certified
<input type="checkbox"/> <b>ISO 26000</b>	Social Responsibility certified	<input type="checkbox"/> <b>EU Ecolabel</b>	EU Ecolabel certified
<input type="checkbox"/> <b>ISO 50001</b>	Energy management systems certified	<input type="checkbox"/> <b>EU Organic</b>	EU Organic certified
<input type="checkbox"/> <b>PEFC</b>	Programme for the Endorsement of Forest Certification	<input type="checkbox"/> <b>Fairtrade</b>	Fairtrade certified
<input type="checkbox"/> <b>Rainforest Alliance</b>	Rainforest Alliance certified	<input type="checkbox"/> <b>FSC</b>	Forest Stewardship Council certified
<input type="checkbox"/> <b>SURE</b>	SURE sustainability certified	<input type="checkbox"/> <b>IoT 4G</b>	IoT 4G communication equipped

# Design tactics

## *DREAMS* principle

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➤ *Social*: store present on networks



➤ *Social*: platform present in communities

- Energy
- Technology
- Rural
- Humanistic
- Ecology
- Business

# Auroral

## Connectivity instruments & sensors

- Automated processes for industry



### Auroral Node Agent 3.4.0 OAS3

[src/docs/swagger.json](#)

AURORAL Node interface - developed by bAvenir. Standard API to interact with the AURORAL platform.

[API Support - Website](#)

[Apache 2.0](#)



[AURORAL platform](#)

Authorize 

#### Authentication Login/Logout of local infrastructure into AURORAL

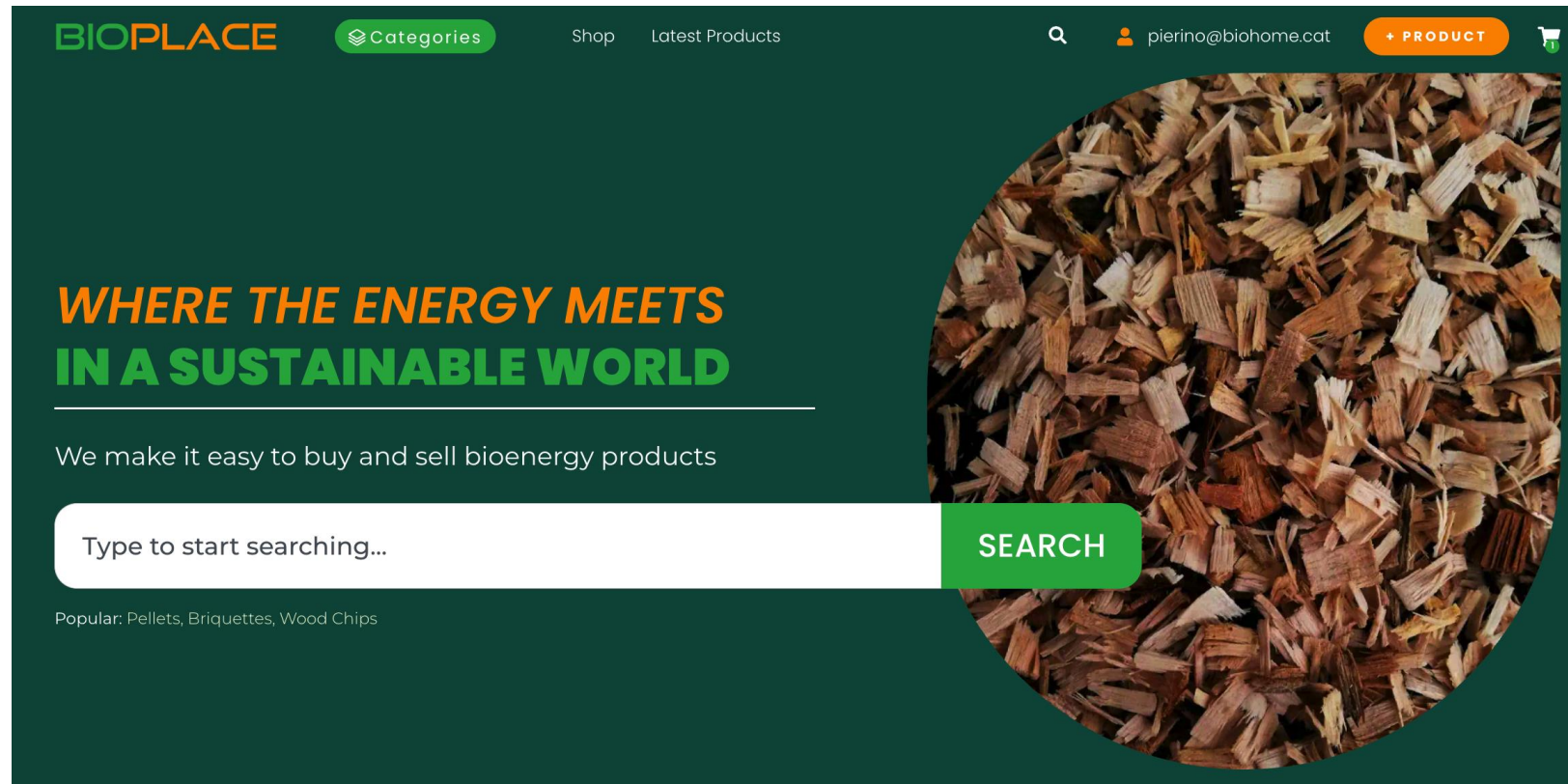
GET	<code>/api/auth/token/{id}/{oid}/{pid}</code>	Generating JWT token	▼	
GET	<code>/api/auth/validate</code>	Validate JWT token	▼	
GET	<code>/api/login/{id}</code>	Connect an item	▼	
GET	<code>/api/logout/{id}</code>	Disconnect an item	▼	

#### Registry Registration of new devices or services into AURORAL

POST	<code>/api/registration</code>	Register an item	▼	
GET	<code>/api/registration</code>	Get all item OIDs	▼	

# Product released

www.bioplace.biz

A screenshot of the Bioplace website interface. The top navigation bar includes the "BIOPLACE" logo, a "Categories" button, "Shop" and "Latest Products" links, a search icon, a user profile icon for "pierino@biohome.cat", a "+ PRODUCT" button, and a shopping cart icon. The main content area features a large circular image of wood chips. Overlaid on the left is a search bar with the placeholder text "Type to start searching..." and a green "SEARCH" button. Below the search bar, it says "Popular: Pellets, Briquettes, Wood Chips". The background text reads "WHERE THE ENERGY MEETS IN A SUSTAINABLE WORLD" and "We make it easy to buy and sell bioenergy products".