

Clean Growth in Energy & Utilities

**Inventing the Sustainable Business Models,
Products and Services of the Future**



“Climate change has become a defining factor in companies’ long-term prospects. Climate risk threatens the future profitability of many businesses and economies.”

Larry Fink, CEO of BlackRock
Annual Letter to CEOs, January 2020

“Companies that don't adapt to climate change will go **bankrupt**, without question.”

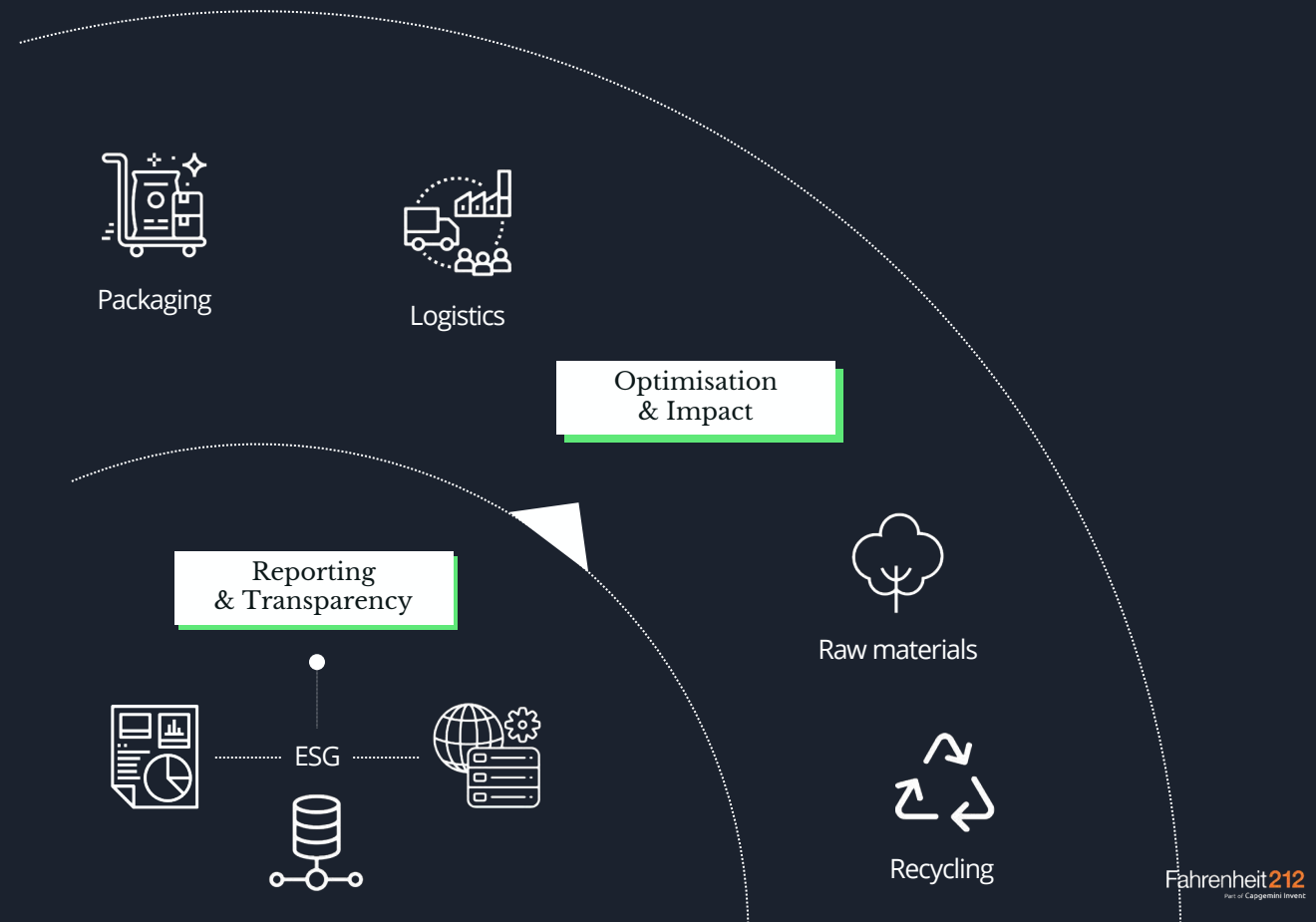
Mark Carney, Governor of the Bank of England & UN Special Envoy on Climate Action



THE STATUS QUO

We know that businesses are already investing heavily in better ESG reporting, and a portfolio of programmes, projects and initiatives to reduce climate impact.

The question is will this be enough?



RISING TO THE CHALLENGE

There is an inherent **tension** between continued economic growth and reduced environmental impact.

Our **proposition**, delivered in conjunction with two climate impact partners, is to help forward thinking organisations identify how they can grow in a way that doesn't cost us the planet.



OUR DEFINITION

Clean growth enables **economic growth**₁ through net carbon neutral or carbon negative **business models**₂. It goes **beyond purpose**₃ and considers the **total environmental impact**₄ involved in the production, distribution, and disposal of products and services.

THE KEY PRINCIPLES

1

Clean Growth doesn't mean de-growth. It means eliminating the negative environmental externalities of economic activity, whilst unlocking new revenue streams.

2

How businesses transition from a stakeholder value model to one where positive environmental impact is rewarded is at the heart of the challenge.

3

A responsibility to employees, protecting the environment, suppliers and communities is not enough. It needs to translate into measurable carbon reduction.

4

Global carbon reduction requires us to think in systems and interdependencies, and go beyond greenwashing.

WE HAVE IDENTIFIED NINE DISTINCT OPPORTUNITY SPACES ACROSS E&U, FS & CPG WHICH UNLOCK CLEAN GROWTH FOR OUR CLIENTS

OPPORTUNITY AREA 01

The Power of the Neighborhood

Providing new types of urban or rural neighborhoods with custom-designed product bundles and service offerings that pioneer new consumption concepts on a micro-level and hold the potential to disrupt the bigger system.

MARKETING | PRODUCTION | DISTRIBUTION | SUPPORT

OPPORTUNITY AREA 02

Clean Lifestyle

As the relationship between consumers and energy changes, electricity and heat are no longer commodities but will increasingly be seen as personal and lifestyle products purchased on decisions conforming their values and identity.

ESG | ESG | ESG

OPPORTUNITY AREA 03

Circular Assets

A new understanding of financial services in times of increasing non-linear and immaterial value enhancement.

Circular Value | Sustainable Assets | Risk Reduction

OPPORTUNITY AREA 04

Ingredients of the Future

Opening up new ingredient sources by creating the infrastructures and processes for (crowd) sourcing and creating access to the clean ingredients and raw materials of the future.

MARKETING | PRODUCTION | DISTRIBUTION | SUPPORT

OPPORTUNITY AREA 05

Making markets

The energy system is getting more decentralised, digitised, democratised and decarbonised, and with it the dynamics of energy marketplaces are also drastically changing. Big energy players have a major role to play in creating efficient new markets that not only connect smaller players, producers and businesses, but set the right incentive to trade.

ESG | ESG | ESG

OPPORTUNITY AREA 06

The Green Value Chain

A business's green credentials are dependent on its constituent parts in the value chain and financial services combat green washing by creating trust through traceability and transparency.

Sustainable Partners | Enabling the Impact | Transparency

OPPORTUNITY AREA 07

Escape Reality

Providing a haven for the fearful ones in light of a possible climate apocalypse by providing serenity and distraction.

MARKETING | PRODUCTION | DISTRIBUTION | SUPPORT

OPPORTUNITY AREA 08

B2B-to-clean

More and more businesses, big and small, want to play an active part in the transition to a cleaner economy, and we forecast that the demand for specialist support will grow especially in the small and medium energy sectors space. This opportunity space goes over and above energy efficiency optimisation and carbon offsetting, and considers how energy can be a key lever for achieving net carbon neutrality.

ESG | ESG | ESG

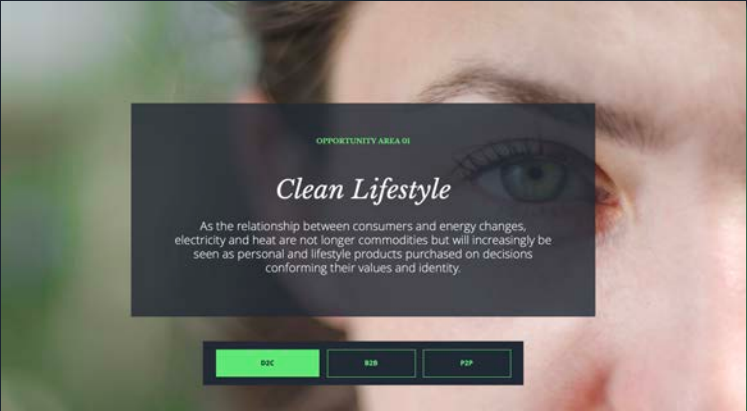
OPPORTUNITY AREA 09

Sustainable Ventures

New ventures and business investments that unite economic and sustainable profits in new business models and achieve sustainable growth.

Investment | ESG vs. ESG | Impact Ventures

IN THIS DOCUMENT WE PRESENT OPPORTUNITY SPACES FOR E&U, THE ENERGY & UTILITIES SECTOR



OPPORTUNITY AREA 01

Clean Lifestyle

As the relationship between consumers and energy changes, electricity and heat are no longer commodities but will increasingly be seen as personal and lifestyle products purchased on decisions conforming their values and identity.

D2C B2B P2P



OPPORTUNITY AREA 02

Making markets

The energy system is getting more decentralised, digitised, democratised and decarbonised, and with it the dynamics of energy marketplaces are also drastically changing.

Big energy players have a major role to play in creating efficient new markets that not only connect smaller players, prosumers and businesses, but set the right incentive to trade.

D2C B2B P2P



OPPORTUNITY AREA 03

B2B-to-clean

More and more businesses, big and small, want to play an active part in the transition to a cleaner economy, and we forecast that the demand for specialist support will grow, especially in the green B2B energy solutions space. This opportunity space goes over and above energy efficiency optimisation and carbon offsetting, and considers how energy can be a key lever for achieving net carbon neutrality.

D2C B2B P2P

OPPORTUNITY AREA 01

Clean Lifestyle

Consumers are becoming increasingly aware of the impact that home energy consumption has on the environment, which means how and where we buy our heat and light will say as much about our values and identity as the way we eat, travel and shop. Energy will no longer be a commodity, but a lifestyle product.

D2C

B2B

P2P

Key Insights

CONSUMER INSIGHT

It is an accepted truth that purchase decisions for energy products are driven by cost savings, but this ignores the fact that more and more consumers are switching to green tariffs because they understand the potential of energy consumption to reduce our total environmental impact, and to address higher, more aspirational needs.

DATA

41%

of survey participants state that they choose their energy products in order to save money

64%

of survey participants justify their interest in energy solutions to save the environment

COMMERCIAL INSIGHT

Consumers have until recently been unable to make a qualitative distinction between the energy that powers and heats their homes, and have therefore treated it as a uninteresting, commodity product. But an increasing understanding of where it comes from, and how it is produced is creating the opportunity for differentiation and greater engagement in purchase decisions.

DATA

75%

of Unilever's turnover growth is generated by purpose-led brands (brands which communicate strong environmental/social purpose)

> 30%

of survey participants state the interest to buy energy from TV streaming service providers, such as Netflix

From

a **homogeneous** product in a **low-engagement** and price-driven category, which consumers engage with once a year

To

a **purposeful product** differentiated by how it is produced and where it comes from, which becomes a conscious purchase decision and says something about the **values and identity** of the buyer

OUR INVESTMENT HYPOTHESIS

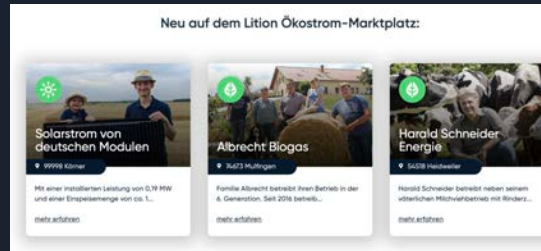
D2C propositions not only increase customer engagement, but can unlock system level benefits by encouraging mass market behaviour change which has a calculable monetary value (e.g. reduced opex costs)

Market Signals

Products and services, we see as leading indicators for the trends and insights we have identified



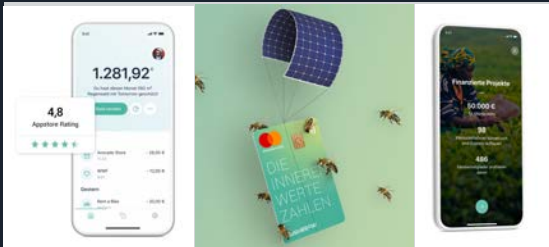
EET | Portable solar panels for gardens or balconies which are easy to install and consciously designed as a sustainable lifestyle product.



Lition | Platform to connect consumers directly to wind and solar power producers without additional costs.



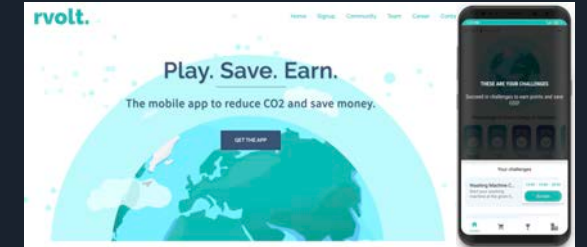
Pinguin | Insurance company solely supporting charitable projects. A tree is planted with every new policy.



Tomorrow bank | Has turned how we manage and invest our money into a social impact service, by giving consumers transparency and helping them decide what causes to support.



Klean Kanteen | Necessity of hydration turned into a lifestyle product which is plastic-free and supports users in reducing waste from plastic bottles.



rvolt | Helps network providers smooth energy demand across the day by encouraging users to behave differently through gamification e.g. start their washing machine on at 2pm instead of 6pm.

How does this Opportunity Area unlock Clean Growth?

NEW SUBSCRIBERS & NEW REVENUE STREAMS



By harnessing changing consumer needs a Clean Growth proposition can attract new customers, through organic acquisition or switching and unlocking additional revenue streams, beyond your core.

BEHAVIOUR CHANGE



Clean Growth propositions help consumers to change their consumption habits, and convert good intention into action. By enabling this change your organisation is capturing value (new revenue and new customers), with likely positive spillover effects into other categories like mobility and work travel.

REDUCED OPEX COSTS



Energy networks are characterised by peaks and troughs in demand and load, which in turn generate costs (firing up a power station, stress on the physical grid etc). Propositions that enable networks to smooth demand, by changing businesses and consumers behaviour, can reduce the cost side of the clean growth equation.

MEASURABLE ENVIRONMENTAL IMPACT



Purpose statements created by PR departments don't convince consumers anymore (if they ever did). By creating products and services that measure the impact (and reduction in carbon) from purchasing decisions, you will help consumers and businesses track and reach their carbon reduction goals.

OPPORTUNITY AREA 02

Making markets

The energy system is getting more decentralised, digitised, democratised and decarbonised, and with it the **dynamics of energy marketplaces** are also drastically changing.

Big energy players have a major role to play in creating **efficient new markets** that not only connect smaller players, prosumers and businesses but set the right incentive to trade.

D2C

B2B

P2P

Key Insights

CONSUMER INSIGHT

Energy users will have more options than ever before to buy and sell their energy, which means there will be a huge need for effective markets that support decentralisation. Large providers will be wiser to position themselves as system managers, than protect market share.

DATA

80%

of power generation capacity was based on E.ON, Vattenfall, EnBW and RWE in 2011, in 2015 only 65%

COMMERCIAL INSIGHT

Increasing spot price volatility, arising from demand increases in electro mobility on the demand side, and variable supply from renewables (wind and solar) on the supply side will create win win opportunities for energy markets to create financial upside, whilst helping individuals and businesses secure price stability.

DATA

**< 0 €/MWh up to >
100 €/MWh**

is the expected range of electricity prices anticipated from 2025 in Europe. Until 2050, the occurrence of these extremes will increase

25%

of the current electricity demand in Europe would be needed to electrify cars if 100% of private cars were electric in 2050

From

a product that is **produced and distributed by an oligopoly** which controls 80% of the market, and traded by professionals on energy exchanges

To

a product which is **produced and traded by a range of prosumers, small businesses and communities** at prices which are determined by **more transparent, democratised markets**

OUR INVESTMENT HYPOTHESIS

Energy companies need to take an active role in creating the right incentives for producers and consumers to meet and exchange by building new markets, that transcend traditional sector siloes

Market Signals

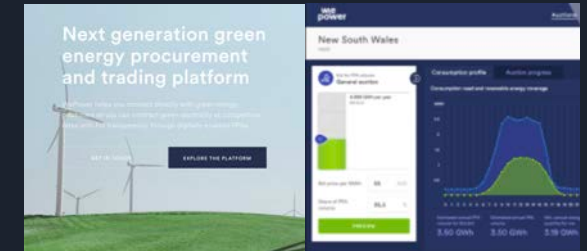
Products and services, we see as leading indicators for the trends and insights we have identified



enmacc | SaaS-platform for bilateral energy trading making it possible to negotiate with several providers at the same time.



Piclo | Independent marketplace for trading energy flexibility services accessible for DERs, providers, industry, communities and other participants.



wepower | Platform users are able to exchange green energy directly via digital blockchain-enabled PPAs, are able to decrease risk by hedging and an aggregation of smaller companies.



Feldheim | An energy self-sufficient village got independent from larger providers, consuming 100% renewable energy for electricity and heat.



Sono Motors | Drivers of solar battery-including cars choose the price of their amount shared with others, being not only prosumers but becoming supplying prosumers, shifting how value is created.



Social.Energy | Connecting solar panels to home batteries and trade it via the National Grid through artificial intelligence software and utility.



OPPORTUNITY AREA 03

B2B-to-clean

More and more businesses, big and small, want to **play an active part** in the transition to a cleaner economy, and we forecast that the demand for specialist support will grow, especially in the **green B2B energy solutions space**. This opportunity space goes over and above energy efficiency optimisation and carbon offsetting, and considers how energy can be a key lever for achieving net carbon neutrality.

D2C

B2B

P2P

Key Insights

CONSUMER INSIGHT

Environmental performance is having an ever increasing impact on brand, consumer trust and business performance. Those who do not take concrete steps to do more are not only exposing themselves to avoidable reputational, regulatory and brand risks, but will concede advantages to proactive competitors.

DATA

228 to 8846

Increase in the total number of companies worldwide disclosing on climate change from 2003 to 2019

COMMERCIAL INSIGHT

A lack of market transparency and robust regulation means future carbon emissions are underpriced. Companies who fail to reduce the carbon intensity of their operations will almost certainly face higher operating costs, that will destroy margins and potentially make entire business models inviable.

DATA

€ 23 > € 48

European Emission Allowance (EEA)
price per tonne (2020) vs forecast
price per tonne by 2030

From

companies optimising energy consumption **to reduce operational costs** and to **meet minimum regulatory requirements** with little transparency over outcomes and minimal customer communication

To

using energy as a **vital lever for environmental impact and carbon reduction** to gain competitive advantages across brand, customer engagement and operations

OUR INVESTMENT HYPOTHESIS

Businesses are seeking simple and explainable ways to reduce their carbon output, that are measurable, trackable and allow achieved objectives to be quickly and easily communicated

Market Signals

Products and services, we see as leading indicators for the trends and insights we have identified



Planety I | Tool for businesses to analyse, reduce and offset their carbon footprint.



FlexiDAO | Helping energy retailers to create a new revenue stream by tracking the origin of local renewable energy real-time.



Climate Partner | Corporate carbon footprint measurement and reduction, certification and customer communication

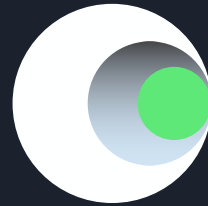
HOW TO DO IT

Transforming the core of your business, whilst simultaneously building the **cleaner** and **greener** products and services of the future.



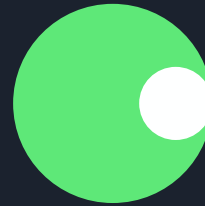
Existing

Optimising value propositions within your existing business model



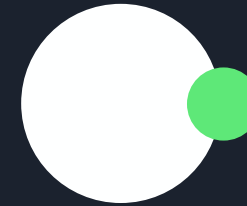
Altered

Developing value proposition that alters your existing business model



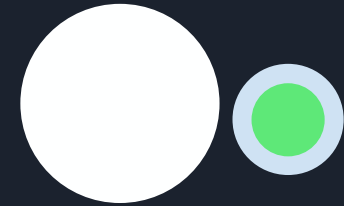
Different

Developing value propositions that require a different business model



Extended

Developing value propositions that extend the existing business model



Separate

Building value propositions that require a standalone business model

WHAT A CLEAN GROWTH PROJECT WITH FAHRENHEIT 212 *COULD* LOOK LIKE

THE STRATEGY SPRINT



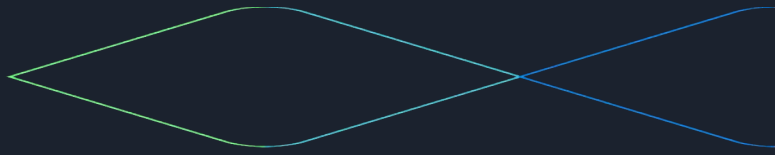
4-6 weeks

OUTCOMES

Vision & Strategy

Defined areas with the potential to shift your business model and reduce environmental impact

THE OPPORTUNITY FINDER



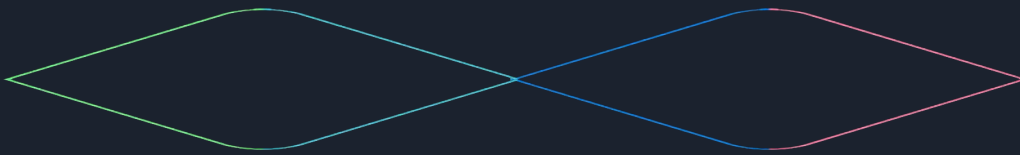
6-8 weeks

Vision & Strategy

+ Clean Growth Opportunity Spaces

Defined and customised opportunity spaces that meet consumer needs and unlock new revenue potential, whilst reducing environmental impact. We will quantify the commercial opportunity and possible business models.

THE CONCEPT BUILDER



8-12 weeks*

Vision & Strategy

Clean Growth Opportunity Spaces

+ a portfolio of concepts with supporting Investment Case. We recommend a minimum two testing cycles to determine Problem Market Fit

Defined concepts that point to possible products and solutions that meet consumer needs and unlock new revenue potential within and beyond your category, whilst reducing total environmental impact

* Timespan dependent on the number of testing cycles completed

A band of restless minds blending commercial strategy with big visionary thinking, united by the ambition to make better things, and to make things better.

These are just a few of the people that would love to speak further.

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