



Leverage digitalisation to accelerate the financing of the energy and ecological transition

Sustainable development and the fight against climate change require quick and concrete solutions. The Paris Agreement has put finance at the heart of these issues. The UN estimates the financing needs to reach the Sustainable Development Goals (SDGs) at \$ 5,000 billion a year. Faced with the magnitude of the challenges, pioneering players in the financial sector have committed to reorienting capital flows. It is also essential to mobilize our capacity to innovate, to imagine solutions and to scale up.

Paris has a strong fintech ecosystem. We should aim to deploy these technologies to mobilize financing for the energy and ecological transition.

Finance for Tomorrow and ADEME, the state's key operator for the ecological and energy transition, launched the "Challenge Fintech for Tomorrow" to reward solutions able to transform financial sector practices and reorient capital flows. The aim is to identify, support, and promote a pool of innovative projects.

Discover the laureate and the other projects selected for this first edition of the Challenge, as well as the special mention of the Jury!



Arnaud Leroy, Chair of ADEME & Anne-Claire Roux, Managing Director of Finance for Tomorrow, Paris EUROPLACE

Organiser



Launched in June 2017 as part of Paris EUROPLACE, Finance for Tomorrow is an initiative whose aim is to make green and sustainable finance a driving force in developing the Paris Financial Centre and positioning Paris as the leading financial centre on these issues. Members of Finance for Tomorrow are signatories of a shared charter with the goal of redirecting financial flows of capital toward a low-carbon and inclusive economy, in line with the Paris Agreement and the United Nations' Sustainable Development Goals (SDGs). The initiative brings together more than 60 members and international observers representing the entire financial ecosystem, as well as municipalities and public authorities.

In addition to its role as an ambassador internationally, Finance for Tomorrow provides members of the Paris Financial Centre a stage for ongoing work and dialogue to promote greater momentum. Furthermore, Finance for Tomorrow contributes to progress on these issues at the international level via the FC4S network of Financial Centers for Sustainability, which F4T co-chairs alongside Shanghai for the 2018-2020 tenure.

www.financefortomorrow.com @finfortomorrow

Challenge Partner



The French Environment and Energy Management Agency (ADEME) is active in the implementation of public policy in the areas of the environment, energy and sustainable development. The Agency provides expertise and advisory services to businesses, local authorities and communities, government bodies and the public at large, to enable them to establish and consolidate their environmental action. As part of this work ADEME helps finance projects, from research to implementation, in the areas of waste management, soil conservation, energy efficiency and renewable energy, raw materials savings, air quality, noise abatement, circular energy transition and food wastage abatement.

ADEME is a public agency under the joint authority of the Ministry for an Ecological and Solidary Transition and the Ministry for Higher Education, Research and Innovation.

www.ademe.fr @ademe

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Ecosystem Partners



Founded in 2007 by the French Public Authorities, FINANCE INNOVATION is the unique cluster for innovation in the French financial sector. It has directed concrete actions to accelerate the creation and development of innovative projects devoted to economic, societal and environmental challenges in the service of growth and employment.

www.finance-innovation.org



Committed to a tech, civic, and social innovation, the Liberté Living-Lab brings together start-ups, large scale companies, researchers, designers and public services within 2000sq meters in the center of Paris. All merging entrepreneurship, tech and data, with large societal challenges.

www.liberte.paris



Initiated jointly by the French government and the private sector in 2017, and with Paris&Co as an operator, Le Swave is the first French platform dedicated to the incubation and business acceleration of fintechs / insurtechs.

swave.parisandco.paris



Within the heart of the emblematic Palais Brongniart, around the Corbeille of the former stock exchange place of Paris, La Place is the new hub open to all players of innovation in finance. Its purpose: to foster meetings and to create connections between startups, financial institutions, large corporates and investors related to innovation in finance, bank and insurance, but also to enable a larger public to get to know the fintech world. www.laplace-fintech.com

Selection Committee

We would like to thank the members of the Selection Committee for their time in preparing the Challenge Fintech for Tomorrow and assessing the projects.

Composition of the Selection Committee of the Challenge 2018

Cyril Armange

Director for Parternships and Communication. Finance Innovation

Stéphane Buttigieg

Deputy General Director, Institut Louis Bachelier

Xavier Chevalier

Head of IT and Operations, Triodos Finance

Christophe Connille

Senior Relationship Manager, Business Continuity Management, HSBC

Fabrice Dumonteil

Chair and CEO, Eiffel Investment Group and Board Member of Finance for Tomorrow

Nicolas Gaultier

Support to Investments COO & CDO, La Banque Postale AM

Patrick Jolivet

Deputy Chief of the Economy and Prospective Service, ADEME

Farida Poulain

Incubation Manager, Le Swave

Anne-Claire Roux

Managing Director of Finance for Tomorrow, Paris EUROPLACE

Angela de Santiago

Advisor Innovation Programs, Liberté Living Lab

Maella Sourivong

Manager, La Place

Philippe Taffin

Chief Investment Officer, Aviva

In addition, we would like to thank the members of the Finance for Tomorrow Fintech working group and the teams of our partners, who made the Challenge possible by participating in its structuration and preparation: Guilain Cals et Hervé Pernin (ADEME), Natacha Boric (Finance for Tomorrow), Christine Gardies (Finance Innovation), Edouard Plus (Le Swave), Julien Raimbault (La Banque Postale AM), Pierre Ducret (Caisse des Dépôts), Lea Frydman (Liberté Living-Lab), Mohamed Taleb (EDF), Jean-Benoit Gambet (Eiffel IG), Paul Grimal (Société Générale).

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Laureate Project





Descartes Underwriting develops new insurance products to increase the resilience of our society to adverse events, such as floods, wildfires or storms. In some cases, claims are automatically adjusted from data collected by satellites and connected objects. We underwrite insurance policies on behalf of a selected number of first-tier insurers, reinsurers and Insurance-Linked Securities funds.

Sector

Insurance

Data-Analysis

Orientations

Agro-Ecology
Renewable Energy

Solutions

Measurement of physical climate risk

Cover meteorological Risks

+ Ecology

Our products enable energy and environmental transition players to:

- cover risks which were not previously insurable (e.g. lack of sun)
- ▶ improve existing coverage features, including paying claims instantaneously
- enable the financing of renewable energies by reducing the volatility linked to climatic hazards
- make informed decisions based on the cost of hedging a risk

\$ 5Bn premiums

The parametric insurance market

+ Innovation

Descartes takes advantage from new data sources that are growing exponentially and challenging the approach of traditional insurers. They come from the Internet of Things (IoT), from our clients, from remote sensing technologies (e.g. Sentinel data) or from third parties. The team deploys cutting edge solutions including artificial intelligence and image recognition to process them. "Big data" combined with efficient algorithms are a game changer in the insurance industry and can push the boundaries of insurability.

The word of the Selection Committee

The Descartes.Underwriting team brings unique expertise in the analysis of advanced meteorological data. By improving insurance services, this solution will be able to protect populations that are increasingly vulnerable to natural disasters and will participate in the evolution of obsolete business models in the face of new climate risks. The Committee selected Descartes.Underwriting to support an innovative project that connects the insurance market with Big Data analysis to invent the insurance of tomorrow, essential in a world in upheaval."

The word of the start-up

Descartes Underwriting's team is very grateful to Finance for Tomorrow, to the ADEME, and to all the jury members of the Fintech for Tomorrow Challenge for their support in our entrepreneurial journey. Being the winner of the Challenge will enable us to accelerate our development and to quickly offer concrete solutions to mitigate the effects of climate change."



Tanguy Touffut

Sébastien Piguet

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Selected Projects



Active Asset Allocation (AAA) is a FinTech created in 2010 from the meeting between a "Fin" and a "Tech", namely Adina Grigoriu and Olivier Hiezely. The starting point for their reflection is simple: the best way to make money is to never lose money. With their complementarities, the two founders have developed powerful algorithms whose objective is the preservation of capital gains from financial portfolios, with daily accessibility of results via a proprietary and educational platform.

This project "Strategic Climate-related Asset Allocation / SCAA" was born from the desire to offer market players a new tool to help strategic investment allocation integrating climate constraints into the heart of the model. Powered by Active Asset Allocation, this is the result of an alliance with an expert in ESG analysis and the ambition of sponsors and institutional investors

Sector

Asset Management
Counsel/ Robo-advisor

Solutions

Shift financial flows ESG screening

Advice on €2bn

+ Ecology

Take one step and realize the desire to allow institutional investors to integrate ESG constraints and in particular the climate, systematically, in all dimensions of investment.

For too long a "cherry on the cake" of the investment process, Strategic Climate-related Asset Allocation / SCAA claims the ambition to bring climate into the heart of the strategy.

+ Innovation

ACTIVE ASSET ALLOCATION, stochastic modeling of asset allocation:

 development of a dedicated model with optimization using augmented intelligence (AI) techniques.

BEYOND RATINGS, carbon modeling:

- use of stochastic modeling to determine optimal carbon budgets over time by country,
- ▶ use of a sectoral parametric model, to then determine country by country the optimal distribution trajectory of the carbon budget, taking into account MACC (Marginal Abatement Cost Curves), asset allocation and CAPEX by sectors.



ClimateSeed is a digital platform that helps businesses offset their carbon emissions and contribute to United Nations Sustainable Development Goals. Incorporated as a Social Business, accredited as such by Nobel Peace Prize laureate Prof. Yunus, ClimateSeed reinvests all benefits to maximize its positive impact on society and environment. ClimateSeed aims at enabling the transparency, the security and fair prices for businesses while improving project developers' visibility to their final contributor.

---- climateseed.com

Sector

Carbon Compensation

Solutions

Shift financial flows

Measurement of financing impact

+ Ecology

ClimateSeed accelerate the achievement of Paris Agreement Objectives and of United Nation Sustainable Development Goals. We believe it is too late for economic or institutional actors to only set ambitious reduction targets without starting immediately to offset their unavoided emissions.

The First Social Business



BNP PARIBAS

The bank for a changing world

+ Innovation

Security, transparency, efficiency. ClimateSeed uses modern technology and strict due diligence processes to achieve these objectives. Transaction, settlement, business connection and projects description (impacts, location, team, etc.) are the features available on the platform. The price of carbon credits is directly set by project developers to avoid any opaque margin along the value chain.

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Crowdvalue is an open-source 3.0 tool providing ESG analysis, rating and reporting. It relies on a social blockchain to create a trusted third party to stimulate a collaborative and dynamic definition of the extra-financial valuation of an asset, its risk profile and its social and environmental impact.

Measuring value by the crowd is a universal concept that technological innovation allows to integrate at the heart of the development of the collaborative economy, as a new trusted third party, to strengthen ESG integration in the financial sector and stimulate more sustainable investment flows.

Sector

Data-Analysis Blockchain

Solutions

Shift financial flows ESG screening

+ Ecology

- ► KPIs and impact measurement for the SDGs
- ▶ Dynamic climate profile of carbon emitters
- ► Control of the energy and carbon footprint of the Blockchain protocol

3.0 ESG Tool

+ Innovation

Crowdvalue's model is based on the exploitation of Big Data through machine learning tools. It stands out by offering a crowdsourcing layer, powered by Blockchain technology to ensure its status of trusted third party.

ETIK

ETIK's ambition is to develop the first neo-bank in France as a cooperative, with greater transparency thanks to the blockchain and a unique solution for home ownership. ETIK responds to 3 major challenges:

- \rightarrow implying individuals in the energy and ecological transition through their savings,
- \rightarrow solving a problem of homeownership and housing in France, without resorting to credit,
- → facilitating donation to associations.

All this by allowing its members, individually and collectively, to decide the direction of their savings towards useful, ecological and responsible projects.

Sector

Financing
Investing
Blockchain

Orientations

Energy Efficiency Sustainable Mobility Circular Economy

Solutions

Transparency of financial flows Shift financial flows Mobilise saving, promote banking inclusion

Intrapreneurship program



+ Ecology

We work to ensure that our financial flows come and go only to the real economy, by changing the banking paradigm:

- ▶ 20% of our financing will be directed to the real economy and to projects providing a priority solution to the energy an ecological transition.
- ▶ 50% of the financing will be directed towards our members to meet the essential need of the acquisition of his principal residence and the improvement of their habitat. The remaining 30% will be placed in reserve to provide liquidity to our members.

+ Innovation

In addition, our main innovations lie in:

- ▶ In removing the opacity of investments made with the savings of our members, by not intervening in the financial markets, we control the impact of the money our members place with us.
- In the financing of projects helping the energy and ecological transition from a banking and digital platform.
- In the dematerialization of our offer, 100% digital.
- And finally, to ensure a transparent democratic vote and full traceability of funding, we will use the latest technological innovations and in particular the Blockchain.

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With MoneyVoice, consumers vote with their money and express their business change requests at every transaction. MoneyVoice helps businesses understand their customers by solving two problems: - Customers rarely express what they want. - When they do, companies struggle to interpret these requests. By allowing consumers to vote for their feedback, but also for those of other consumers, MoneyVoice offers a simple and direct platform for communication with businesses.

moneyvoice.com

Sector

Data-Analysis

Orientations

Biodiversity

Agro-Ecology

Energy Efficiency Social Economy

Solutions

Measurement of financing impact

+ Ecology

An important part of the requests focuses on global problems such as the fight against climate change, gender balance or packaging management. Example of popular requests on the platform:

- Ecotax carbon for each race of VTC.
- ➤ Create an infinitely reusable, closedloop packaging system for internet distributors,
- Provide mainly green energy,
- ► Replace conventional lighting with LED lights.

Engagement: 64% of users write at least 1 piece of feedback

+ Innovation

The impact of MoneyVoice is easily quantified: users push a change request; the company sees the purchasing power associated with this request and chooses to act on this subject; it communicates the change made on the application.

Origins.earth



origins.earth measures cities CO₂ emissions and helps urban projects access carbon and climate finance:

- → Measure: a monthly index of CO₂ emissions of the city, measured by sensor, to communicate to the inhabitants
- → Identify: targeting the most efficient low carbon projects through precise carbon maps of the city, in order to reduce the activation cost of these projects.
- → Financing: a platform to help city officials register applications for climate finance (EWC, carbon credits, etc.) for individuals and local actors. origins earth launches in 2019 in Paris a first application on access to carbon credits and EWCs for the energy renovation of housing.

Sector

Financing

Data-Analysis

Carbon markets. Green Finance

Orientations

Energy Efficiency

Solutions

Measurement of financing impact

Shift financial flows

Active programs at urban level

Intrapreneurship program



+ Ecology

- Lowering costs of projects targeting & preparation: origins.earth identifies the most efficient low carbon projects by analyzing city map statistical data (carbon maps).
- ▶ Massification and grouping of small low-carbon projects to reach a critical size: origins.earth gives the city the tools to give access to complex green financing (carbon credits, ...) to individuals and local actors. The city is a trusted third party for these actors.

+ Innovation

- Measuring: New sensor-based CO₂ measurement technology, developed by the LSCE (CEA / CNRS) and scientifically validated in Paris. Origins.earth is the first pilot of the UNEP / WMO 'IGAIS' initiative to put science at the heart of the Paris Agreement.
- Identify: Automation of the production of carbon cards by the analysis of urban statistical data, expertise developed during 20 years in the form of advice by Explicit (co founded by F.Benkhelifa).
- Financing: Digitization of the successful experimentation of a French city on access to Energy Savings Certificates for individuals

Origins. Earth provides an effective solution for creating the missing links between sustainable finance tools and urban projects that have a huge potential impact for the ecological the Selection transition, notably by promoting the reduction of energy Committee consumption of buildings."

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PayGreen is a French online payment platform that has developed Tree, the first carbon offset algorithm dedicated to online commerce. In the face of the explosive growth of e-commerce and its increasing impact on the environment, PayGreen has developed an algorithm capable of calculating the carbon footprint of each order and which makes it possible to offset this carbon footprint by paying a sum equivalent to the volume of emitted GHGs to a carbon offset project labeled VCS by EcoAct. Tree makes consumers aware of the environmental impact of their online purchases and gives them the means to adopt an eco-friendly mode of consumption. For the brands, Tree represents a simple and educational tool that allows to involve customers in their CSR approach.

--- www.paygreen.io

Sector

Payment System

Orientations

Biodiversity

Agro-Ecology

Solutions

Measurement of financing impact

Measurement of physical climate risk

Shift financial flows

€ 1m Fundraising

+ Ecology

The carbon footprint of each order can be offset by paying a sum equivalent to the volume of CO₂ emitted by the order.

The contributions go to the Madre de Dios project, a carbon offset project VCS labeled by EcoAct.

+ Innovation

The innovative nature of the project is the combination of the computation and compensation function of the algorithm. Many eco-calculators exist but none proposes to compensate the calculated carbon footprint. In addition, Tree is the only algorithm of its kind integrated into the e-commerce purchase path and allows the consumer to act on their online consumption.