

Milano Hub

Selected projects*

Call for Proposals 2021



* alphabetical order by area of operation - descriptions provided by participants





BANCA D'ITALIA
EUROSISTEMA

Area of operations:

Fintech Hub





ESG - Alternative data in credit management

The project will be implemented by Altilia in collaboration with the ItaliaFintech Association and Chiomenti (as legal partner of the Association). It constitutes an application of artificial intelligence (AI) to ESG investments. It aims at facilitating, for banks and investors, the assessment of risks related with corporate sustainability and the sustainability objectives associated with the granting of credit and investments.

As specified by the EBA in the Guidelines on loan origination and monitoring of 2020, all banks: "should take into account the risks associated with ESG factors on the financial conditions of borrowers, and in particular the potential impact of environmental factors and climate change", and in particular banks that intend to offer green loans: "should develop, as part of their credit risk policies and procedures, specific details of their environmentally sustainable lending policies and procedures, covering the granting and monitoring of such credit facilities". These processes, as pointed out by the same Authority, must provide information collection methods covering ESG objectives and ESG risks factors of businesses. At the same time, they must identify and provide ways of monitoring the achievement of objectives and the evolution of risks over time. The technological solution developed during the project intends to provide banks with a tool that allows them to collect the relevant information for the assessment of corporate ESG risks and objectives in a faster, more pervasive and effective way, through the extraction and accurate processing, even from a large number of text documents, of complex information (using Document Understanding and Natural Language Processing techniques) and the reorganization of acquired data in a structured and granular way in order to provide the banks and investors with further assessment capabilities.

ALTILIA
intelligent automation_

Video Presentation: https://youtu.be/j_p4E3Lq7SA

<https://altilia.ai/>



Aptus.AI

Regulatory drafting and publication system supported by Artificial Intelligence to enable a Regtech-as-a-Service model

In regulated sectors such as banking, finance and insurance, the accessibility of regulatory data is crucial to allow efficiency and sustainability. Aptus.AI's project is aimed at the regulatory drafting and publication in a machine readable format, to enable an automatic analysis of regulatory contents exploiting Artificial Intelligence. Aptus.AI's proprietary technologies are capable of transforming legal documents into a machine readable format and analyzing them through AI with a holistic (supporting all regulatory areas) and multilanguage (up to 26 languages) approach. Thanks to the Fintech Milano Hub, it will be possible to collaborate with BankIT to understand both the expectations of those who draft regulatory texts and the needs of the final users of the regulations, as well as testing the effectiveness of AI engines.

The goal is to create a RegTech-as-a-Service (RaaS) model, which will make the regulatory consultation and analysis processes more rapid, precise and exhaustive. In a cross-regulatory and cross-country context, this possibility will primarily reduce time and costs needed for the implementation of financial regulatory updates, but it will also enable innovative services for citizens in general, thus facilitating their understanding of regulations. Finally, a RaaS model like this will also ensure benefits in the ESG macro-areas, by (i) favoring resources saving thanks to digitization (Environmental), (ii) facilitating the achievement of the public goals pursued by the regulations themselves (Social) and (iii) allowing for faster and more accurate strategies being in line with the provisions in force (Governance).



Keywords: *RegTech, RegTech as a Service, Norme Machine Readable, Finanza Sostenibile, Normative Bancarie, FinTech, Intelligenza Artificiale, Obiettivi ESG, Compliance Finanziaria*

<https://www.aplus.ai/>



Datasinc

Development of engines to address environmental and climate change themes connected to secured loans to support the banking system

The project's goal is to develop engines that will allow the banking system to address environmental and climate change themes when originating secured loans as per the European Union and banking regulatory authority request.

First, we will develop indexes to summarize various risk from climate change (flooding, drought), from the landscape specificity (seismic, hydrogeologic activity) or specific risks (fallen trees). Eventually we will develop monitoring tools to track real time catastrophic events and the impact they have on collaterals. Second, we will build a model to define the energetic consumption of the underlying asset and, based on the debtor's contractual obligations to improve consumption, monitor the actual specific progress.

The ultimate goal is to allow banking staff to receive real time information on the assets during origination and during the risk management process in order to take actions coherent with the aim of creating a better environment while minimizing its own (and the banking system as a whole) credit risk.

We will reach this goal thanks to the support of Bank of Italy in all regulatory issues, Datasinc proprietary technology and through the development of new technologies in the fields of artificial intelligence and data analytics in partnership with Universities specialized in High Performance Computing and Image Recognition fields.



Keywords: *Green loans, Climate change, Sustainability ESG, Secured lending, Credit risk monitoring, Regulation, Artificial intelligence – AI, Data analytics, Satellite imagery, Cadaster*

<https://www.datasinc.it/>



Experian Italia Fairtile

Digital Credit Scoring - Alternative Scoring powered by "Digital Data Insights"

Digital Credit Scoring is a project of advanced analytics aimed to exploit the predictive power of alternative data such as digital footprints (digital traces that each of us leaves by accessing and using digital services) and device data (data and meta-data that are stored inside everyday electronic devices) to promote the financial inclusion of a part of the population still excluded from access to traditional financial services, like the new digital-native generations.

These new data sources provide a considerable number of signals about individuals, which appropriately contextualized and processed using machine learning techniques, contribute substantially to the assessment of the eligibility and creditworthiness of consumers, increasing access to financial services for non-banked populations.

Digital Credit Scoring is an innovative tool, that can easily complement and integrate with traditional methods, and support the customer screening phase, analyze potential fraud, and provide assessment of the creditworthiness of customers.

This initiative has a strategic importance for Banks, Financial Institutions and any organization that are digitalizing credit processes. Greater financial inclusion and access to credit by previously excluded bracket of the population is an advantage for the entire economic system. The capability to create profiling and credit risk assessment models, able to respond to the changes taking place as a result of the digitization of our society, allows all organizations to support the growth of their businesses, serve new segments of consumers and at the same time keep the risk of over-indebtedness under control while minimizing losses.



Keywords: *Advanced Analytics , Digital Footprints, Device Data, Scoring, Rischio di Credito, Banking, Inclusione Finanziaria, Digital Native, Mobile First, Frode, Credit Invisible*

<https://www.experian.it/>



Fairtile

Labate Law Firm

University of Trento – DISI

Betacom

DEBBIE – The virtual agent for accounts receivables automation

We transform payments touchpoints into strategic engagement opportunities and help our customers to elevate their accounts receivables processes while improving customer experience.

Debbie is a Virtual Agent powered by world-class Artificial Intelligence technologies that enables a omnichannel interaction and a seamless payment experience. Debbie simplifies the processing of f customer invoices and reduce the time accountants spend collecting payments which has a positive impact on the cash flow of the company and its profitability. Many of the solutions on the market are complex packaged overlapping functionalities already available in the legacy system of the company. Our solution is designed to pair our customer's systems without overlapping them and without adding any complexity to the existing processes. We offer a seamless integration managed with few easy calls to a standard REST API layer, minimizing IT implementation.

We enable our customers to interact with their clients on more than 15 channels and offer them over 10 Payments instruments. Our offer is the only one combining a strategy manager with a virtual agent and a payment gateway in a unique integrated solution. This allows us to provide an exceptional service and to achieve strategic business outcomes:

- Increase NPS (Net Prompter Score), introducing hyper-personalized interactions.
- Decrease DSO (Days Sales Outstanding), enabling real time seamless payments.
- Increase RPC (Right Party Contacts), allowing automated omnichannel interactions.
- Decrease CPC (Cost of Payments Collection), using a fully automated service.
- Increase CSL (Customer Service Level) unleashing unlimited 24/7 interactions.
- Increase PPA (Profit Per Account), reducing accounts in arrears.

FAIRTILE



UNIVERSITY
OF TRENTO



Keywords: *Virtual Agent, Accounts Receivables Automation, Artificial Intelligence, Hyper Personalization, Omnichannel Interactions, Seamless Payments*

www.fairtile.com



BANCA D'ITALIA
EUROSISTEMA

Area of operations:

Innovation Hub





Credito Emiliano

Development of an alerting system for the detection of risks related to customer operations in cryptocurrencies

The objective of Credem's project is to develop a system to detect risky transactions made by customers (including bank transfers, credit card transactions, etc.) to and from platforms that allow to operate with virtual currencies (cryptocurrencies) with the chance to share the collected informations with other financial institutions in order to protect customers from possible frauds.

The project is engaged in a context of strong growth of operations from and to Italian and foreign cryptocurrency platforms, especially made by non-specialized clients with a growth of the connected risks to the explosion of the phenomenon. The proliferation of new exchange platforms, together with a regulatory framework in progress, increase the complexity of the development of effective solutions on continuous monitoring.

The proposed idea is part of a strategic path of constant investment in innovation and technology carried out by Credem Group over the years also in support of the control functions. The development of the proposed solution - also with the help of Milano HUB - will allow to increase the security of the operations carried out by customers with a view to a constant improvement of the service not only provided by Credem but also by the entire banking system.



Keywords: *Continuous monitoring, fraud, customers' protection, cryptocurrencies & cryptoassets, advanced analytics*

<https://www.credem.it/>



Generali Investments

Artificial Intelligence for a highly customized asset management

Some key trends are expected to further shape the Asset Management industry in the coming years:

- Disruption from extensive technology adoption and open data;
- Growth and margins driven by the non-institutional customer base not yet adequately served;
- Transformation of the client service model from product focus to customer centricity, implying: increasingly personalized investment solutions, ongoing customer engagement, and value generation moving from performance-only to “impact & thematic investing”.

Our project aims at applying Artificial Intelligence to the relationship with customers in Asset Management, enhancing customer profiling to offer highly personalized investment solutions and recommendations

- We want to democratize access to Asset Management, providing investors with financial education and medium to long-term investment plans evolving according to their needs over time thanks to cutting edge technologies



Keywords: *Asset Management, technology, open data, personalized investment solutions, customer engagement, impact & thematic investing, Artificial Intelligence, democratize, financial education*

<https://www.generali-investments.com/it/it/institutional/>



Nexi

A.I. REAL TIME FRAUD DETECTION SYSTEM FOR TRANSACTIONS

Nexi aims to implement an Artificial Intelligence system to strengthen citizens' trust in digital payment tools; fight against the dark web, narrowing fraudsters' action; and guarantee a better customer experience and speed up the payment environment.

The proposed Artificial Intelligence system should be runned by an analytical engine based on self-learning techniques (Artificial Intelligence / Machine Learning). This algorithm will have to follow the evolutions in the fraudulent patterns over time, providing a transaction hazard score.

The model will focus on E-commerce transactions made in compliance with the PSD2 regulation, therefore done with strong authentication. Fraud originating from this kind of transactions is generally the result of social engineering attacks (phishing, vishing, smishing), and deterministic rules often fail to intercept them.

The algorithm peculiarity is the use of all the touchpoints relating to the owner's customer journey (i.e. authorizations, web / app access, ivr, inbound calls, devices enrollment, call centers interaction, etc.), in order to take into account any anomalies and include them in the score calculation.

nexi

Keywords: *machine learning, artificial intelligence, fraud, e-commerce, psd2, phishing, real time scoring*

<https://www.nexi.it/>



BANCA D'ITALIA
EUROSISTEMA

Area of operations:

**Research &
Development Hub**





Università di Pavia - Dipartimento di Scienze Economiche ed Aziendali

SAFE-AI: Sustainable, Accurate, Fair and Explainable Artificial Intelligence in Finance

Financial technologies that derive from the application of Artificial Intelligence to financial services are complementing bank lending with platform-based lending.

While financial technologies may improve financial inclusion and sustainability for both borrowers and lenders, they may also increase risks.

In particular, the application of machine learning rating models for companies may improve credit allocation towards the more sustainable companies, from an environmental, social and governance point of view.

On the other hand, platform-based credit ratings may increase the model risks which may arise from a lack of predictive accuracy, explainability, robustness and fairness of the machine learning models on which lending platforms are based.

The project aims to propose and experiment machine learning models for company credit rating that can improve the advantages of AI applications, making them sustainable; while reducing their risks, making them trustworthy.



UNIVERSITÀ
DI PAVIA

Dipartimento di Scienze
Economiche e Aziendali

Keywords: *machine learning, trustworthy artificial intelligence; rating models; sustainable finance; model risk*

<http://economieaweb.unipv.it>



WoX Edge: a customer-centric and inclusive smart speaker for the bank branch of the future

WoX™ Edge is a smart speaker allowing the execution of banking operations while promoting financial inclusivity with a novel customer experience model. It is able to recognize the customer identity and retrieve their past financial habits and choices, hence making the banking transactions more secure by seeking the operations that seem anomalous or not adequate to the customer's profile. Moreover it ensures that those operations conform to the various consumer protection regulations, for example to prevent frauds.

All of this is possible thanks to the diverse enabling technologies implemented in the WoX™ Edge device. Our smart speaker integrates Internet of Things, Artificial Intelligence and Natural Language Processing. These technologies are used in conjunction with the new opportunities delivered by the PSD2 normative and the related “open banking” which exploits the information made available to the banking operators. WoX™ Edge is a product of Vidyasoft, and it is the result of the research in the software engineering field by 4 Ph.D. 's and their scientific advisor of University of Salento. The third prototype is ready and available. The project exploits a multidisciplinary team composed by professors and researchers from the Department of Economic Sciences of University of Salento, and the co-founders and engineers of Vidyasoft srl, Spin-off of University of Salento. Thanks to the services of “Milano Hub”, the project wants to finalize the phase of implementation, and to start up the development of use cases for the device, as well as creating some pilot installations, which will represent a forerunner for a higher diffusion of the smart speaker.



Keywords: *internet of things, artificial intelligence, natural language processing, smart speaker, conversational interfaces, self-service*

<https://www.vidyasoft.it/wox-edge/>