



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND TECHNOLOGY

CNECT.F – Digital Single Market
F.3 – Digital Innovation and Blockchain

GENERAL PROJECT REVIEW CONSOLIDATED REPORT

Grant agreement (GA) number:	825215
Project¹ Acronym:	FIN-TECH
Project title:	A FINancial supervision and TECHnology compliance training programme
Type of action:	CSA
Start date of the project:	01/01/2019
Duration of the project:	24
Name of primary coordinator contact and organisation:	paolo GIUDICI (UNIPV)
Period covered by the report:	from 01/01/2019 to 13/05/2020
Periodic report/Reporting period number:	Assessment not linked to the end of a reporting period
Date of first submission of the periodic report (if applicable):	Not applicable
Amendments (latest AMD concerning description of the action)²	13/06/2019 (AMD-825215-13)
Date of meeting with consortium (if applicable):	25/02/2020 - 26/02/2020
Name of project officer:	Rapolas LAKAVICIUS
Name(s) of monitors:	<ul style="list-style-type: none"> – Leonard Moritz STRUBE <ul style="list-style-type: none"> • ISiCO Datenschutz GmbH • Frankfurt School of Finance and Management • Crisp Research AG – Andrius ADAMONIS <ul style="list-style-type: none"> • Lietuvos bankas – John Arthur Alexander VAN DE GRAAF <ul style="list-style-type: none"> • Get A Crowd • Seeds Investment BV • ABN AMRO BANK NV

¹ 'Project' means the same thing as 'action'.

² Only amendments to the description of the action (DoA; AT21) are relevant for general project reviews since they always have to be carried out against the latest version of the DoA

1. Overall assessment

1. Overall assessment
Project has achieved some of its objectives and milestones; however, corrective action will be required.
2. Significant results linked to dissemination, exploitation and impact potential
<p>Project will likely provide results with significant immediate or potential impact in the next reporting period (even if not all objectives mentioned in the Annex 1 to the GA were achieved).</p> <p>Based upon the consortium working on the project, the project has potential to have the impact as described in the proposal. There is a strong believe in the management of the project. The project so far is mainly focused on executing/working on the research, however, research is not a priority to Coordination and Support Action (CSA). So far, the work related to this research has been done only partially - which is in line with the plan. The first part, Big Data Analytics (BDA), was already completed in 2019, so the possible impact can be expected already in the next reporting period. Work on Artificial Intelligence (AI) and Blockchain (BC) just started, so the possible impact can only be expected in the following reporting periods.</p> <p>Stronger communication, strategy and execution are needed. More emphasis on the content of social media as part of a social media strategy (not only pictures of events) would be helpful.</p>
3. General comments
<p>The project is well organized, managed and implemented according to the plan. However, some of the information in the Periodic Report is missing in order to assess the level of achievement of the objectives. Participants of the consortium held workshops according to the plan in specified locations. However, the feedback from the participants of the workshops is inadequate. The number of workshop participants varies widely and it is necessary to attract more participants to the workshops and get better qualified feedback to document the impact of the workshops and the dissemination activities on supervisors and regulators.</p> <p>The first part Big Data Analytics (BDA) was already completed in 2019, Artificial Intelligence (AI) and Blockchain (BC) research is still going on.</p> <p>However, presented research results were not impressive, as described in detail in section Objectives and work plan, 4, and not yet readily accessible.</p> <ul style="list-style-type: none">- BDA related research activities presented do not include the research or application of big data characterized by the 3Vs: volume, velocity and variety. The data used has to be considered as “small” data in regard to these 3Vs- AI related research activities presented do not include the research or application of latest breakthroughs in AI, but traditional and well-known concepts from Econometrics and Network Theory- Presented Blockchain related research activities do not include the research or application of Blockchain technology, but economic analyses of cryptocurrencies. <p>Re-submission of the Periodic Report with additional information is necessary.</p>
4. Recommendations concerning the period covered by the report
<p>Re-submit the deliverable D7.6 “Intermediate Evaluation report” and add more extensive information on the outcome of the workshops/presentations: who are the parties participating, their roles and their responsibilities, how will they stay involved, what is their feedback on the use cases presented, are the selected use cases in the end the ones that meet the expectations and requirements at most.</p> <p>More active communication with stakeholders is important. More dissemination channels should be added (e. g. Television, Blog on Website, ...) to increase the reach in social media. 402 followers on LinkedIn and 141 followers on Twitter are insufficient if you consider that more than 80 people are involved in project.</p>
5. Recommendations concerning future work, if applicable
<p>Take appropriate measures to mitigate force majeure situation caused by COVID-19; it might be necessary to conduct online workshops or to re-schedule future workshops and extend the project. Invest in interaction and improve evaluation of events, increase the number of registrations as well as the number of received evaluations. Registrations and participation has been low, at some events very low. Set targets of which parties or persons are needed to participate in the events. Establishing reports on the realization of this targets is desirable, as well as how the communications takes place when these parties are not present. Assess the impact of the workshops and the dissemination activities on supervisors and regulators. Reach of dissemination activities should be measured.</p>

2. Objectives and workplan

1. Is the progress reported in line with objectives and work plan as specified in the DoA? If there are significant deviations, please comment.	Yes
The progress is in line with regard to the plan (all milestones have been achieved) and all deliverables have been delivered mostly in time (some were submitted with delays) and budget. However, there is a strong focus on the process and less on the outcome of the process.	
2. Are the objectives of the project still scientifically and /or technologically relevant?	Yes
The application of innovative technologies (BDA, AI, Blockchain) for regulatory compliance and risk scoring is still of high interest in financial market – especially in regard to the effects of the corona crisis on financial markets. The feedback provided by regulators, supervisors, external evaluators, external international advisors and consortium partners are proof of the scientific and technological relevance of the project.	
3. Are the critical implementation risks and mitigation actions described in the DoA still relevant?	Yes
There is no table 3.2b. On request Table 3.2.6 b in the document Annex 1 (Critical risks for implementation) was provided, which mainly covers internal and implementation risk. Some new potential risks should be considered: The risk of the irrelevance of the research results for supervisors and regulators; and the risk that not all parties involved in the consortium are sufficiently capable of reaching the objectives. There are signs of a risk that the mitigation plan has not been implemented properly (risk no. 5 delayed or missed deliverable). However, the risk plan described in DoA is still relevant for the project.	
4. Have the pilots/case studies started to showcase innovative results as described in the DoA?	Partially
<p>Not all use cases have the same level of innovation, also only the first part (BDA) was completed by the end of 2019. Therefore this assessment applies mainly to Big Data Analytics (BDA), less to Artificial Intelligence (AI) and Blockchain (BC). The relevance of the „innovative results“ is questionable:</p> <ul style="list-style-type: none"> • Use case BDA I (Network based scoring models to improve credit risk management in peer to peer lending platforms): results show no significant impact according to the Area Under Curve measure (AUROC) • Use case BDA III (Network based scoring models to improve credit risk management in peer to peer lending platforms - Spatial regression models to improve P2P credit risk management): results show no significant impact according to the Area Under Curve measure (AUROC) • AI Use case I (Convergence and Divergence in European Bond Correlations): no real AI use case • AI Use case II (On the effectiveness of Portfolio Composition techniques to build stable and sound Robo Advisory Portfolios): inconclusive results for different values of gamma and in comparison to reference values • AI Use case IV (eXplainable AI in credit scoring and portfolio construction): The Google Trending is in fact negligible (after reproducing it), relevance of result for target group unclear • Blockchain Use case (Stable coin): pretty obvious result (multi-currency better than single currency) • Blockchain Use case (Blockchain as asset class): not surprising, reference to Phenotypic convergence is questionable and distracts from the lack of relevant results; also some methodological questions couldn't be answered (about the existence of moments for fat tailed distributions) <p>A structured approach to measure the relevance for the target group is missing. Scientific achievements in the selected use cases are not significant.</p>	
5. Have the ethics deliverables due for the current period been adequately addressed and approved?	Not applicable
<p>From Annex 1 - Description of Action (part B).pdf, p. 162: "We have not entered any ethics issues in the ethical issue table in the administrative proposal form, so this section does not apply."</p>	
6. Have the comments and recommendations from previous project reviews been taken into account?	Not applicable
This is first review (technical) of the project.	

3. Impact

1. Does the work carried out contribute to the expected impacts detailed in the DoA?	Yes
Most of the organized events, and submitted deliverables correspond to expected impact detailed in DoA. However, there needs to be more emphasis on measuring the quality of the workshops, the desired audience (quantitative and qualitative) and the impact of these sessions through various media, networks, hubs.	
2. Does the work carried out follow the plan detailed in the DoA to enhance innovation capacity, create new markets opportunities, strengthen competitiveness and growth of companies, address issues related to climate change or the environment, address industrial and/or societal needs at regional level or bring other important benefits for society? Give information on the relevant innovation activities carried out (prototypes, testing activities, standards, clinical trials) and/or new product, service, reference materials, process or method (to be) launched to the market, if any.	Partially
Some of the use cases will create new or additional opportunities. However, a structured approach to measure the relevance for the target groups is missing.	
3. Does the work carried out contribute towards European policy objectives and strategies and have an impact on policy making?	Yes
Teaching regulators to work with innovative technologies and fintech risk management may have an impact on compliance processes and on policy making - if the objectives are achieved, proven by suitable and measurable feedback from the participants.	
4. Does (or will) the work carried out have an impact on SMEs?	Yes
There is a potential impact on SME's when the use cases can actually play a part e.g. in making the processes within financial institutes more transparent. If the objectives are achieved - proven by suitable and measurable feedback from the participants - then the work has a possible impact on the SMEs.	
5. Have the beneficiaries reached gender balance at all levels of personnel assigned to the action? If not, have the reasons been explained in the periodic report?	No
Total: Female 28, Male 61	

4. Implementation

1. Has the project been efficiently and effectively managed?	Yes
The project is managed efficiently and effectively. However, not all work hours are shown in the number provided in the report and additional dissemination work has to be done. The funds transferred are in line with the expected transfer after 1 year.	
2. Is the management of the project in line with the obligations of beneficiaries (including ethics and security requirements, risk and innovation management if applicable)?	Yes
Management board, project coordinator and project financial management ensure that the obligations of the beneficiaries will be fulfilled and are in line with risk and innovation management (ethics is not applicable in this project).	
3. Is the contribution of each beneficiary in line with the work committed in the DoA? (applicable only to multibeneficiary projects)	Partially
<ul style="list-style-type: none"> • INESC TEC - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA (INESC TEC) did publish and presented research results for WP2 (according to Periodic Report). The budget for WP2 is depleted by 75%, which is in line with the dissemination activities. The small budget for WP4 is depleted by more than 50% without any dissemination of research results. INESC TEC is local coordinator of the project in the Portugal and carried out all BDA and AI SupTech workshops, but only depleted the budget for WP5 by 42%. • UNIVERSITE PARIS I PANTHEON-SORBONNE (UP1) published papers and presented research results and already depleted the budget for WP1, WP2 and WP3 (although the headers in Periodic Report seem to be wrong). UP1 published blockchain papers and presented results, while nearly 2/3 of the budget for WP4 is still available. WP 4 leadership changed from UP1 to ZHAW, with a corresponding budget reduction for UP1 from 150k € to 100k€. UP1 is local coordinator of the project across France. The budget for the RegTech workshops (WP5) is depleted by nearly 60%, but only 40% of the workshop hours are performed yet. UP1 is working on WP6 and organizes the RegTech workshop on Blockchain in Paris on June 11th, 2020. • POLITECNICO DI MILANO (POLIMI) published no papers and did not present any research results according to Periodic Report, but already depleted the budget for WP2 and WP3 completely. POLIMI is local coordinator of the project across Italy. The budget for the RegTech workshops (WP5) is depleted by two third, which is in line with the fact that two of the three SupTech workshops have been carried out. • UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN (NUID UCD) presented papers for WP2 and WP3, and depleted the budgets for WP2 and WP3 by 50%. NUID UCD is local coordinator of the project across Ireland. The budget for the RegTech workshops (WP5) is depleted by 50%, which is in line with the fact that the BDA SupTech workshops and half of the AI SupTech workshops are carried out. • UNIVERSIDAD COMPLUTENSE DE MADRID (UCM) published and presented research results for WP2, WP3 and WP4 with appropriate depletion of the budgets. UCM is local coordinator of the project across Spain. The budget for the RegTech workshops (WP5) is depleted by 50%, which is in line with the fact that the BDA SupTech workshops and half of the AI SupTech workshops are carried out. UCM coordinates the training of the Financial Services Authority Staff in the 5th RegTech Workshop Blockchain Spain to be held in Madrid on 19.06.2020 with an additional budget of 50k €. • EKONOMICKA UNIVERZITA V BRATISLAVE (EUBA) did not publish research results for WP2 and WP3 (according to Periodic Report), but met participated in stakeholder meetings associated with WP2. Budget for WP2 is depleted, while budgets for WP3 and WP4 are still untapped. EUBA is local coordinator of the project in the Slovak Republic. The budget for the RegTech workshops (WP5) is depleted by only 25%, while all BDA and AI SupTech workshops are already carried out. • Assessment of research dissemination for KAUNAS TECHNOLOGIJOS UNIVERSITETAS (KTU) is not possible due to a copy paste error in the document Periodic Report - which contains the same content as of EUBA. KTU is local coordinator of the project across all three Baltic states with 3 x 3 RegTech workshops and corresponding budget of 150k €. The budget for the RegTech workshops (WP5) is depleted already by 80%, while only 42% of the workshop hours have been performed so far according to the document Review.pdf. • MASARYKOVA UNIVERZITA (MU) did publish research results (a paper under review) for WP2 and prepared a use case for WP3 (according to Periodic Report). Budgets for WP2 and WP3 are depleted by 50%, while budget for WP4 is still untapped. MU is local coordinator of the project in the Czech Republic and carried out all BDA and AI SupTech workshops, but already exceeded the budget for WP5 by 17% although the Blockchain SupTech workshops still has to be carried out. • UNIVERSITA DEGLI STUDI DI PAVIA (UNIPV) published and presented research results for WP2, WP3. UNIPV has the role of project coordinator (PC) and is the leader of the following work packages: Management (WP1) and SupTech workshops (WP5). UNIPV is contributing to the WP5 through the creation of two use cases. The use cases in progress are on the cyber risk topic and fraud detection in the blockchain field. Depleted 50% of budget. 	

- HUMBOLDT-UNIVERSITÄT ZU BERLIN (UBER) published and presented research results for WP2, WP3, WP4. UBER is the leader of the following work packages: Big data analytics (BDA) research (WP2). UBER is contributing to the WP5 through organization of SupTech events. The use cases in progress are on the cyber risk topic and fraud detection in the blockchain field. Depleted 50% of budget.
- ZÜRCHER HOCHSCHULE FÜR ANGEWANDTE WISSENSCHAFTEN (ZHAW) presented Project objectives and outputs in external workshops, conferences and seminars. ZAHW is the leader of the following work packages: Blockchain research (WP4). ZAHW is contributing to the WP5 and WP6 through organization of SupTech /RegTech events in Hungary and Switzerland and use case II. Depleted 50% of budget. WP 4 leadership changed from UP1 to ZHAW, with a corresponding budget reduction for UP1 from 150k € to 100k€.
- UNIVERSITY COLLEGE LONDON (UCL) published and presented research results for WP3, UCL has developed several research papers also in the WP2 and WP4 areas. UCL is the leader of the following work packages: Artificial intelligence research (WP3). UCL is contributing to the WP5 and WP6 through organization of SupTech /RegTech events and use case I. Depleted 50% of budget.
- B HIVE EU (B-Hive) took care of the SupTech activities in collaboration with University of Luxembourg team. Depleted 100% of budget.
- IKONOMICESKI UNIVERSITET - VARNA (UE-Varna) organizing SupTech workshops in Bulgaria. Additional use case under WP2 was developed (Predicting success and failure of crowd funding projects using machine learning algorithms). Depleted 38% of budget.
- TAMPEREEN YLIOPISTO (UTA) organizing SupTech workshops in Finland and Sweden. Depleted 40% of budget. Contribution only to WP5.
- WIRTSCHAFTSUNIVERSITÄT WIEN (WU) published and presented research results for WP2, WP3. Organized RegTech workshop in Austria. Depleted 39% of budget.
- ACADEMIA DE STUDII ECONOMICE DIN BUCUREȘTI (ASE București) published and presented research results for WP2. Contribution to WP4 – organizing Midterm research workshop. Depleted 39% of budget.
- MODEFINANCE SRL (MODEFINANCE SRL) collaborates with UNIPV for the Uses Case mainly in Credit Scoring Evaluation. Organized RegTech workshop in Milan. Depleted 73% of budget.
- FIRAMIS GMBH (FIRAMIS GmbH) is the leader of the following work packages: Dissemination (WP7). Helped to organize and supported the workshops of other FIN-TECH project partners (Budapest, Frankfurt). FIRAMIS uploaded use cases (WP3) to the website. Organized SupTech event in Denmark. Depleted 75% of budget.
- PANTEIO PANEPISTIMIO KOINONIKON KAIPOLITIKON EPISTIMON (PANTEION) published and presented research results for WP2. Depleted 68% of budget. Arranged many meetings with various relevant parties but no one workshop was organized. Responsible for information dissemination in Greece.
- UNIVERSITÉ DU LUXEMBOURG (UL) published and presented research results for WP2, WP4. SupTech workshops in Belgium and Luxembourg were organized. Depleted 38% of budget.
- INSTITUT JOZEF STEFAN (JSI) contributed to the Intermediate technical report. Meetings with regulators in Slovenia were organized. Published and presented research results for WP4 and SupTech workshops were organized. Depleted 31% of budget.
- UNIWERSYTET WARSZAWSKI (UNIWARSAW) contributes to WP2 by preparing the materials for workshop (literature review). Published and presented research results for WP3. SupTech workshop were organized. Depleted 36% of budget.
- SVEUCILISTE U RIJEI EKONOMSKI FAKULTET (UNI RIJEKA EFRI) not enough data is provided to evaluate contribution. Meetings with Croatian regulator were organized. One publication/presentation in conference. Depleted 59% of budget.

Not sufficient data were provided in the Periodic Report to evaluate the work of all project partners.

4. Have the beneficiaries disseminated project results (foreground) in scientific publications as planned in the DoA (including the deposition of publications in open access repositories)? Do they include a reference to EU funding?	Yes
List of scientific publications is provided in Participant portal - continuous reporting, section "Publications" and with detailed information about the activities of each beneficiary in the document Periodic Report.	
5. Have the beneficiaries disseminated and communicated project activities and results by other means than scientific publications (social media, press-release, the project web site, video/film, etc) as planned in the DoA? Do they include a reference to EU funding?	Partially
The minimum is achieved, real interaction and impact is insufficient. Reach of dissemination activities should be measured. The efficiency of person months used for dissemination and communication has to be better explained at the periodic report.	
6. Has the plan for the exploitation and dissemination of the results (if required) been	Yes

updated and implemented as described in the DoA, in particular as regards intellectual property rights? Is it appropriate?	
The plan was implemented as described in DoA, but there is no information about updates on the plan of exploitation and dissemination of the results.	
7. Has the data management plan (DMP) (if required) been updated and implemented? Is it appropriate?	Not applicable
Data management plan (DMP) is not required. No reference to a DMP in the document "FinTech DoA Grant Agreement", "Annex 1 - Description Of Action (part A)" or "Annex 1 - Description Of Action (part B)"	
8. Have the proposed institutional changes been appropriately promoted?	Not applicable
No institutional changes have been promoted in the document "FinTech DoA Grant Agreement", "Annex 1 - Description Of Action (part A)" or "Annex 1 - Description Of Action (part B)".	

5. Resources

1. Were the resources used as described in the DoA and were they necessary to achieve its objectives? If there are deviations from planned budget, have they been satisfactorily explained? Have they been used in a manner consistent with the principle of sound financial management (in particular economy, efficiency and effectiveness)?	Partially
<p>All milestones have been achieved and most of deliverables (D5.1 and D1.1 were submitted late) been delivered in time and budget. However the Periodic Report needs to be updated with detailed information about each participant of the consortium person months dedicated to the project.</p> <p>Some beneficiaries withdrew their participation in the consortium, however, resources have been reallocated to achieve the objectives.</p> <p>The necessary resources required to achieve the objectives can only be fully evaluated after missing information about each participant of the consortium has been received.</p>	

Expert opinion on deliverables

Deliverable number	Deliverable name	Status	Comments
D1.1	Network Establishment	Accepted	Network established that includes participants from international institutions. More involvement of the network is needed.
D5.1	Repository of use cases and slides in big data analytics	Accepted	
D6.1	Research and development environment	Accepted	
D7.1	Establishment of website and social media channels.	Accepted	Website and social media channels are established, however communication strategy should be improved.
D7.6	Intermediate Evaluation report	Rejected	Deliverable needs to be re-submitted with additional information about outcomes of the workshops

Expert opinion on milestones

Milestone number	Milestone name	Achieved	Comments
MS2	Completion of the technical plan	Yes	Technical plan was presented during onsite meeting.
MS3	Completion of the financial plan	Yes	Financial plan was presented during onsite meeting in Vienna
MS4	Completion of initial workshop	Yes	Kick-off Workshop of the FINTECH-HO2020 Project, Pavia, 2019-02-01 see also D7.6 Intermediate Evaluation
MS26	Conclusion of RegTech workshop BDA 1	Yes	1st RegTech Workshop BDA Italy, Milan, 2019-03-29 see also D7.6 Intermediate Evaluation
MS27	Completion of SupTech activities for BDA	Yes	see WP5, D5.1 in document Annex 1 - Description of the action (part A) see document D5.1_D13_UNIPV
MS28	Conclusion of RegTech workshop BDA 2	Yes	2nd RegTech Workshop BDA Germany, Frankfurt, 2019-06-28 see also D7.6 Intermediate Evaluation
MS32	Conclusion of RegTech workshop AI 1	Yes	3rd RegTech Workshop AI in Finance Switzerland, Winterthur, 2019-09-04 see also D7.6 Intermediate Evaluation
MS33	Intermediate technical output	Yes	Was presented during onsite meeting
MS34	Intermediate financial output	Yes	Was presented during onsite meeting
MS49	Completion of mid-term workshop	Yes	Mid-term Workshop of the FINTECH-HO2020 Project, Bucharest, 2019-11-15 see also D7.6 Intermediate Evaluation
MS50	Completion of SupTech activities for AI	No	Missing information to evaluate completion of SupTech activities for AI. First reporting period were for year 2019 and Periodic Report didn't provide an information about completion of this milestone.
MS51	Conclusion of RegTech workshop AI part 2	No	Missing information to evaluate Conclusion of RegTech activities for AI. First reporting period were for year 2019 and Periodic Report didn't provide an information about completion of this milestone.
MS77	Completion of Research workshop on BDA model validation	Yes	Research&Validation BDA I Switzerland, Winterthur, 2019-09-03 see also D7.6 Intermediate Evaluation