

Report on the Outcomes of a Short-Term Scientific Mission¹

Action number: CA19130

Grantee name: **Prof Rezarta Shkurti (Perri)**

Details of the STSM

Title: **Fintech and Regulatory Issues of Fintech Companies with a special focus on ITC countries**

Start and end date: **09/10/2023 to 13/10/2023**

Description of the work carried out during the STSM

Description of the activities carried out during the STSM. Any deviations from the initial working plan shall also be described in this section.

(max. 500 words)

The central purpose of this Short-Term Scientific Mission was to share common research with colleagues at the University of Naples Federico II and to prepare teaching materials for a Fintech University module at the bachelor level. Both purposes were carefully planned and carried out involving several colleagues from the Cost Action and starting well before the STSM Period.

Regarding the common research, Professor Maria Iannario from the host institution planned a series of lectures, seminars and talks to be held during the week of the STSM. The culminating events were a Seminar delivered by Professor Rezarta (the grantee) on the 12th of October and a hackathon with master students organized on the 13th of October. The seminar centered around the use of Machine Learning and other AI tools to advance the topic of Financial Fraud Detection and Fintech in entities through financial statements. The seminar was organized in a hybrid mode, and publicized in the Cost network and also around the host University website. The participants in this seminar discussed on possible uses of modern new techniques to old problems such as Fraud Detection.

On the 13th of October, there were presentations from young researchers at the University of Naples about different research topics, currently ongoing at the host university.

¹This report is submitted by the grantee to the Action MC for approval and for claiming payment of the awarded grant. The Grant Awarding Coordinator coordinates the evaluation of this report on behalf of the Action MC and instructs the GH for payment of the Grant.

Then in the afternoon, as a culminating event, a hackathon was organized around two new pieces of research worked by Professor Rezarta Perri. The participants in the hackathon after being organized into groups, were introduced to two data sets and were allowed 1 hour to come up with possible ways to manipulate the data and come up with conclusions. These conclusions were later discussed with other Cost Members, Professor Alessia Paccagnini from the University of Dublin, Ireland, Professor Belma Ozturkkal from Kadir Has University in Turkey, and Professor Albulena Shala, from the University of Pristina, Kosovo. They all reviewed the data set and the proposed method and shared their opinion with Professor Iannario from the host institution and Professor Rezarta. Other meetings with young researchers from the host university were organized throughout the STSM week.

Another major purpose achieved during this STSM was the development of a set of teaching materials on the Fintech Bachelor Degree Course for the University of Tirana in Albania. This is the first time that such materials are prepared for this university and this is a unique contribution from the Cost Action for an ITC country. Given the importance of Fintech at the European level, and also the interest shown by the students of the University of Tirana to get acquainted with such knowledge, including at least a course on Fintech, is a short-term objective of the University of Tirana. Meanwhile, at other universities from non-ITC countries, the landscape is much different because Fintech is already extensively delivered in several university courses both at a Bachelor's and a Master's level. Conducting this STSM at the University of Naples, Federico II helped Professor Shkurti get in contact with the best practices and develop the necessary materials.

These materials were prepared in collaboration with Professor Albulena Shala from the University of Pristina who led this component of the STSM. Topics included in the set of teaching materials are: 1) What is FinTech? A brief history of fintech and overview of recent developments; 2) FinTech and Banks. Fintech applications in banking and insurance; Challenges and opportunities; 3) Digital Platforms P2P and Marketplace Lending; Crowdfunding; 4) Payments and open banking Introduction to digital payments; The EU's PSD II: background and implications; Opportunities from open banking for fintech.

Description of the STSM main achievements and planned follow-up activities

Description and assessment of whether the STSM achieved its planned goals and expected outcomes, including specific contributions to Action objectives and deliverables, or publications resulting from the STSM. Agreed plans for future follow-up collaborations shall also be described in this section.

(max. 500 words)

We evaluate that overall, the STSM achieved its planned goals as it resulted in the following:

- **A set of teaching materials related to the Fintech Regulations prepared and ready to be used at the University of Tirana.** These materials were reviewed by other colleagues of the Action, including partners from at least four different countries making this a collaboration among six countries of this Cost Action, where three of them are ITC countries, including the beneficiary of the STSM.
- **Capacity building** was achieved because thanks to this STSM, the professor from the University of Tirana is prepared to deliver a University level course on Fintech and therefore strengthen the capacity of the sending institution in this regard.
- **Increasing visibility** of the Cost Action, as during the STSM several events were organized and published through the host university website. The visiting professor contacted many young researchers at the host university and shared with them the novelties of the action.

More specifically this STSM contributed to the following objectives of Cost Action 19130:

1. The network and collaboration resulting from this STSM has a big potential being only a starting point for further possible collaboration among members of the Action and also with the host Institution. This is according to Action Objective 7 *“Create an excellent network of researchers in Europe with lasting collaboration beyond the lifetime of the Action”*.

2. Close contact with staff and students from the host institution helped the beneficiary of this STSM, Professor Rezarta Shkurti receive expertise and scientific tools and equip and prepare her to 1) deliver a Fintech course at the sending Institution, University of Tirana, and 2) advance with her research by applying advanced ML and AI Tools. This is according to Action Objective 10 *“Transfer knowledge in terms of expertise, scientific tools, and human resources across the different disciplines and between academia and industry”*.
3. Carrying out the STSM helped the grantee to acquire knowledge on a specific application of ML and AI in the financial analysis for Fraud Detection and Financial Reporting Quality Index. This is according to Action Objective 11 *“Establish an inclusive community of researchers on methodological and technological themes in Machine Learning and Artificial Intelligence, to promote Early Career Investigators and increase their visibility”*.
4. Several colleagues from five different countries, and not only the sending and the host Institutions were involved in this STSM. The geographical and demographical diversity of this mission is a promising one. This is according to Action Objective 12 *“Overcome the siloing of research topics by country and achieve geographical and demographical diversity, with special attention to COST Inclusiveness Target countries”*.

Given its success, the collaboration among the researchers is planned to continue even after the STSM period.

- During the visit, contacts were made with young researchers at the host Institution, who expressed their interest in manipulating and working with the datasets introduced by the grantee. The preliminary study results were shared between the grantee and the host young researchers and the communication will continue via email until they may be ready to share the work in an upcoming Diversity Meeting or Working Group meeting of the Action.
- Collaboration among the professors will continue in developing future common research on the Cost Topics of Interest. In a more specific way, there were initial plans to perform a collaborative study on the impact of AI and ML developments on the future of finance profession advances and perspectives. For this reason, Professor Maria Iannario may return to the study visit at the University of Tirana in a future Grant Period of the Action to reinforce the results of this collaboration.