Virtual currencies, more specifically decentralized cryptographic currencies such as Bitcoin, are pseudo-anonymous and traded directly between users in a peer-to-peer network that is free of central authority or control. In such cases, traditional means of regulation and law enforcement quickly reach their limits. However, the fact that all Bitcoin transactions are public allows for the development of new approaches—and this is where the BITCRIME project comes in.

**THE JOINT PROJECT**

BITCRIME is a bilateral German-Austrian research project concerning the prevention and prosecution of organized financial crime committed with virtual currencies. The project is funded by the German Federal Ministry of Education and Research (BMBF) and the Austrian Federal Ministry for Transport, Innovation and Technology (BMVIT).

**CHALLENGES**

The use of virtual currencies is steadily growing. These currencies are independent of central banks, commercial banks, or nations and are traded directly between users, thereby evading traditional methods of government intervention. This makes virtual currencies attractive to actors in organized financial crime. However, until now effective prevention and prosecution strategies are lacking.

**GOALS AND PERSPECTIVES**

The joint project will assess the subject and its threat profile in order to develop innovative and workable approaches toward regulating virtual currencies in a way that is compatible with their fundamental nature. The project will strive to develop actionable, internationally applicable and interoperable solutions for Europe and beyond. The bilateral cooperation promotes this holistic and interdisciplinary approach to the growing challenges posed by virtual currencies.
The Austrian subproject focuses on approaches to the effective discovery and analysis of patterns in criminal financial transactions. In addition to criminological studies, research will concentrate on links to adjacent ecosystems, including references to accounts and addresses in social media platforms and the so-called “Darknet”.

The application of an unprecedented combination of information sources (transactional, social media and Darknet analysis) should enhance the efficiency of de-anonymization and identification of criminal actors in virtual currency transactions. For this purpose, analysis software will be developed, installed, tested and evaluated against the requirements of the project stakeholders.

The Austrian subproject has a volume of €635,000 and is funded at a rate of 80% by the Austrian Federal Ministry for Transport, Innovation and Technology (BMVIT). Project funding is managed through the Austrian Research Promotion Agency (FFG).

The German subproject is developing technical and organizational approaches to enable effective criminal investigation. In addition, it explores regulatory approaches that prevent crime while protecting legitimate users. A test environment, simulating a virtual currency, will allow researchers to study the operation of virtual currencies and to identify common characteristics in illegal transactions. The regulatory approaches researched in the project will be demonstrated and tested in a proof-of-concept system.

The German subproject has a volume of €1.8 million and is funded at a rate of 81% by the German Federal Ministry of Education and Research (BMBF). The project funding is managed by the VDI Technology Center.

The German subproject is funded by the BMBF through the call “Civil Security—protection against organized crime” in the context of the program “Research for Civil Security” of the federal government of Germany.