



PROTON

Modelling the processes leading
to organised crime and terrorist networks

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Project PROTON

Overview

- ◉ Funded by the **Horizon 2020 Research Programme** of the European Commission
- ◉ Started on 01/10/2016, **3 years** duration
- ◉ **Project Leader:** Università Cattolica del Sacro Cuore (UCSC)
- ◉ **Co-coordinator:** Hebrew University Jerusalem (HUJI)
- ◉ **Partners:**
Fraunhofer, IBM, ITTI SP ZOO, National Research Council, Stichting VU, Universitat de Barcelona, Friedrich Alexander Universitaet Erlangen Nuerneberg, The University System of Maryland Foundation, University of Cambridge, Università degli Studi di Palermo, Università degli Studi di Pavia, Youris.com, Comune di Palermo, Brottsforebyggande Radet, European Crime Prevention Network, EUROPOL, Italian Ministry of Interior, Ministerie Van Veiligheid en Justitie, UNODC



Objectives 1/2

1. Identify **social/psychological/economic** aspects of processes leading to organized crime - and cyber related offenses - and terrorist networks (**OCTN**)
2. Develop **PROTON-S**
 - an agent-based modelling (ABM) simulations
 - made by virtual societies in a computer laboratory
 - to study the effects of societal/environmental changes on individuals' recruitment to OCTN



Objectives 2/2

1. Develop **PROTON Wizard**

- user-friendly software tool embedding results of ABM simulations
- first support tool for policy makers at the international, national and local level

PROTON's impact will improve the quality of **prevention policies** on **OCTN**.



Structure

9 Work Packages (WPs)

- 1. & 2.** Identify the social, psychological and economic factors leading to OCTN
- 3.** OC & Terrorism in Cyberspace
- 4.** Input Selection & Integration with Experiments
- 5.** Final outputs → PROTON-S and PROTON Wizard
- 6.** Legal, Ethical & Societal Implications of PROTO
- 7.** Dissemination & Communication
- 8. & 9.** Management and Ethics requirements



WP1 and 2: Social, psychological and economic factors leading to OCTN

OC Leader UCSC; Terrorist networks Leader HUJI

- **Systematic Review** of social/psychological/economic factors leading to OCTN
- Ethical and societal impacts of OC and terrorism policies

Innovative studies, factors:

- **Social** → Careers of OC/terrorist offenders in context; recruitment into mafias; impact of counter-terrorism on radicalisation and recruitment
- **Psychological** → emotional and cognitive determinants of OC and terrorism involvement
- **Economic** → socio-economic inequalities and OC and terrorism involvement



WP3: OC & Terrorism in Cyberspace

Leader Fraunhofer

- ⦿ Systematic review of **cyber-related OC** and **terrorist** activities, and technological means for their study

Innovative studies

- Finding the **Dark Web** signposts
- Online **visibility** and **social media** impact of gangs
- **Radicalisation** in **cyberspace** and radical social media networks
- **Terrorist-related** contents in **cyberspace**



WP4: Input Selection & Integration with Experiments

Leader UCSC

- ① **Discussion** of the results from WP1-3
Internal workshop for discussion of results and organisation of work leading to PROTON-S and PROTON Wizard
- ② **Operationalisation** of the results into input for ABM simulations and identification of information gaps
- ③ Filling the gaps through selected **experiments**
Experiments whose results will fill the possible gaps that cannot be examined using ABM



WP5: Final outputs - PROTON Simulations & Wizard

Leader CNR

- ⦿ Development of **ABM simulations** of OCTNs
Detect the processes of recruitment into different crime careers and the probabilities of crime events in defined conditions
- ⦿ Development of **PROTON Wizard**
User-friendly visualisation tool to present the results of PROTON simulation models → the tool will enable users to configure, visualise and compare the results
- ⦿ **Recommendations** for the prevention of the recruitment to OCTNs
Based on the results of the innovative studies conducted in WP1-3 and of the analyses enabled by PROTON-S



WP6: Legal, Ethical & Societal Implications of PROTON

Leader University of Pavia (UNIPV)

- ⦿ **Ethical and societal issues** and safeguards
Societal and ethical issues → selection of the factors leading to recruitment to OCTNs and rules/inputs leading to PROTON-S and PROTON Wizard
- ⦿ Analysis of **legal implications** of PROTON simulations and PROTON Wizard
Evaluate legal issues related to use of PROTON outcomes (WP5) by policy makers
- ⦿ **Ethical & Legal Advisory Group**
Ethical and Legal Advisory Group (ELAG) → key experts outside Consortium → review activities and final outputs of the project



WP7: Dissemination & Communication

Leader YOURIS

- ① Dissemination & Communication Plan
- ① Project website and online community
- ① Dissemination & communication materials
- ① Dialogue with the stakeholders and the public



WP8 and 9: Management and Ethic Requirements

Leader UCSC

- ◎ **WP8:** to guarantee the smooth and correct implementation of the project's activities and the achievement of its objectives
- ◎ **WP9:** sets out the 'ethics requirements' that the project must comply and ensure compliance with them

