



PROTON

Modelling the processes leading
to organised crime and terrorist networks

WP1, 2, 3 Ethical and Societal Issues and Safeguards

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0 Summary

This report analyses the ethical and societal impacts of the risk factors identified by WP1 and WP2 and suggests mitigation strategies that should help the design of the Agent Based Models (ABMs) for Organized Crime and Terrorist Networks (OCTNs) by WP4 and WP5. It also analyses ethical and societal impact of Internet research activities carried out by WP3 and provides safeguards with regards to the use of ABM as a simulation tool.



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1 Introduction

The analysis of the ethical and societal impacts of the risk factors identified by WP1, WP2 and WP3 should help the design of the Agent Based Models (ABMs) for Organized Crime and Terrorist Networks (OCTNs) that will be carried out by WP4 and WP5. Our task is to suggest mitigation strategies to minimize negative ethical and societal impacts deriving from the selection of specific risk factors and to identify effective policies to limit and prevent recruitment into OCTNs.



2 Methodology

To categorize the impacts of the different risk factors for the recruitment in OCTNs identified in WP1, WP2 and WP3 we applied the Tool 19 of the *Better regulation Toolbox*¹ (previously Tool 16, as mentioned in deliverable D6.1a). We choose Tool 19 as methodology to classify the impact of the identified risk factors in order to harmonize the methodology used in PROTON (Tool 19 has been used also in T1.2 and T2.2).

Our analysis distinguishes the risk factors and their impact with regards first to Organized Crime (OC) and then to terrorism.

3 Results

3.1 Organized Crime

The first two tables show the risk factors relevant for the recruitment in Organized Crime Networks and Groups (OCN/OCG) identified by the tasks in WP1. The variety of organizations that go under the definition of OC in the PROTON project explains the extent and the nature of the risk factors identified. Moreover, as mentioned in T1.1, *“the heterogeneity of the concept of OCG, as well as research designs and the data sources hinder the generalizability of findings beyond the OCG and the geographic area under analysis in each study”*. Consequently, when selecting the risk factors for the ABM simulation, the researchers should take into account the type of OCG and the ethnical/geographical background of the study conducted to identify them. The mitigation strategies that we suggest for the selection of risk factors for the ABM simulation are inspired by the available scientific literature and the results of the research carried out in PROTON; they protect and promote the fundamental rights of a person and respect the *Council Framework Decision 2008/841/JHA of 24 October 2008 on the fight against organised crime*².

¹ This Toolbox complements Better regulation guidelines presented in SWD(2017)350. ‘Tool 19 -Identification/screening of impacts’ corresponds to the Tool 16 Identification/screening of impacts’ of D6.1a report.

² Council of the European Union. (2008). Council Framework Decision 2008/841/JHA of 24 October 2008 on the fight against organised crime. Retrieved from: http://eur-lex.europa.eu/eli/dec_framw/2008/841/oj.



Table 1 – Organized Crime risk factors: Societal Impacts

Area of impact (social)	Risk factors	Vulnerability and risk	Mitigation strategies
Employment and labour markets	<p>Logistic nodes (T1.3)</p> <p>Unemployment (T1.2)</p> <p>Economic inequalities (T1.6)</p> <p>Presence of illegal and informal markets (T1.1)</p> <p>Social capital and job-specific knowledge (T1.1, 1.3)</p>	<p>Greater risk for specific working positions in logistic nodes or transport industry (tension between speed and safety of the workflow)</p> <p>Some skills could facilitate illicit traffic, and could be the target of intense police control</p> <p>Illegal and informal markets as hubs of recruitment but as well sources of revenues for the poorer</p>	<p>Legal protection of freedom of circulation and the right to conduct business</p> <p>Policies to reduce unemployment</p> <p>Policies to reduce economic inequalities and to foster social mobility</p> <p>Efficient welfare support to manage unemployment</p> <p>Easy access to legal sources of financing (bank loans)</p>
Working conditions	<p>Criminal contacts at workplace (T1.3)</p> <p>Independence at the workplace especially in the transport industry (T1.1)</p>	<p>Contacts with OC criminals could lead to disclosure of personal information to other entities/people without consent and unauthorised access to personal data</p> <p>Limitation and controls in transport industry could interfere with freedom of circulation; independent workers could be targeted as possible criminals by police</p>	<p>Efficient welfare support to manage unemployment</p> <p>Legal protection of personal data and privacy of individuals that have contact with criminals but with no record or evidence of previous criminal activities</p>
Effects on income distribution and social inclusion	<p>Neighbourhood, socio-economically deprived environment (T1.1, T1.2)</p> <p>Migration (T1.2)</p> <p>Bonds – family and job-related ties to members of OC (T1.3)</p> <p>Bad financial condition (T1.3)</p> <p>Financial setbacks (T1.3)</p> <p>Economic inequalities (T1.6)</p> <p>High socio-economic condition (T1.1)</p>	<p>Living in a high-risk/ ethnically homogeneous neighbourhood could bring to discrimination and stigma among the general population</p> <p>The lack of social and economical safeguards for financial setbacks and economical inequalities increase the risk of recruitment in OC</p> <p>Individuals from higher socio-economic conditions can also join OCGs, mainly attracted by easy monetary gain</p>	<p>Testing different kind of neighbourhood in ABM modelling (homogeneous vs. heterogeneous ethnic background)</p> <p>Promotion of activities for cultural interchange and social interaction among people from different socio-cultural-economic-ethnic background</p> <p>Policies for integration of migrants</p> <p>Programs for linguistic integration of migrants</p> <p>Access to financial aids and sources of legal financing (bank loans)</p>
Governance, participation and good administration	<p>Turf control (T1.2)</p> <p>Policies oriented to network disruption more than prevention (T1.2)</p>	<p>Lack of measures to prevent recruitment</p>	<p>Social and legal control on police activities (by NGOs, by the judiciary system)</p> <p>Promotion of multicultural</p>



	Low culture of legality (T1.1)	Excess of turf control by police; discrimination based on the neighbourhood	neighbourhoods Policies oriented to prevention of OC rather than repression Enhancement of the culture of legality (teaching citizenship and values from school to adulthood)
Public health and safety	Risk seeking personality (T1.3) Childhood conduct disorder, substance use disorder and/or abnormal psychopathological traits (T1.1)	Stigma against individuals suffering from mental illness	Improving mental health care system Public information campaigns on mental health to improve diagnosis and reduce stigma
Crime terrorism and security	Prisons organization (T1.2) Restrictive measures in prison not oriented to re-socialization and integration to society (T1.2)	Inhumane detention treatment Reduced opportunities to join educational programs in prisons for members of OCGs	Improving educational programs and professional trainings in prisons Improving programs against recidivism
Access to and effects on social protection, health and educational systems	Financial setbacks (T1.3) Low educational level (T1.1, T1.2) Poor educational offer (T1.2) Low intergenerational social mobility (T1.6)	Lack of social and economic protective networks Lack of personal opportunities for social mobility Need of policies to increase school attendance and educational opportunities	Access to financial aids and sources of legal financing (bank loans) Policies to fight school drop out and improve performance at school



<p>Cultural</p>	<p>Being part of a subculture (T1.3)</p> <p>Attractiveness of OCGs lifestyle for adolescents (T1.1)</p> <p>Male gender culture and women inferiority (T1.1, T1.2)</p> <p>Familiar and affective ties with OC (women) (T1.1)</p> <p>Ethnic marginality (T1.1)</p> <p>Ethnic homogeneity in OCGs (T1.1)</p> <p>Adherence to a code of silence (T1.1)</p>	<p>Cultural discrimination</p> <p>Disruption of personal identity</p> <p>Gender bias at workplaces</p> <p>Male dominance on women in OCGs and lack of personal freedom for women</p>	<p>Programs for linguistic integration of migrants</p> <p>Enhancement of the culture of legality (teaching citizenship values from school to adulthood)</p> <p>Positive and alternative behavioural models for adolescents</p> <p>Social programs to overcome gender biases in school, workplaces and society</p> <p>Programs for women empowerment and capacity building for girls</p> <p>Campaigns against harassment, sexual and psychological abuse of women</p> <p>Stigmatization of the code of silence</p> <p>Programs to protect individuals and their families when they leave OCN</p>
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Table 2 – Organized Crime risk factors: Human Rights Impacts

Area of impact (human rights)	Risk factors	Vulnerability and risk	Mitigation strategies
<p>Dignity</p>	<p>Unemployment (T1.2)</p> <p>Economic inequalities (T1.6)</p> <p>Bad financial condition (T1.3)</p> <p>Financial setbacks (T1.3)</p> <p>Male gender culture and women inferiority (T1.1, T1.2)</p> <p>Adherence to a code of silence (T1.1)</p>	<p>Effects on individual self-esteem, social dignity</p> <p>Limitation of personal freedom due to the code of silence and code of honour among OCGs</p>	<p>Policies to reduce unemployment and economic inequalities and to foster social mobility</p> <p>Programs for women empowerment and capacity building for girls</p> <p>Promotion of policies for integration of migrants</p> <p>Programs for linguistic integration of migrants</p>



<p>Individuals, private and family life, freedom of conscience and expression</p>	<p>Social capital and job-specific knowledge (T1.3) Having criminal contacts at workplace, among family members and friends (T1.1, T1.3) Bonds – family and job-related ties to members of OC (T.1.3) Being part of a subculture (T1.3)</p>	<p>Violation of privacy Stigma and discrimination Interference with freedom of movement Loss of personal freedom due to the respect of code of silence and code of honour among OCGs</p>	<p>Programs to exploit specific knowledge and skills among OC members for legal purposes and jobs Promotion of multicultural neighbourhoods Valorisation of cultural heritage at individual and societal level Programs to protect individuals and their families when they leave OCN</p>
<p>Personal data</p>	<p>Having criminal contacts at workplace (T1.3) Bonds – family and job-related ties to members of OC (T1.3)</p>	<p>Violation of privacy</p>	<p>Legal protection of personal data and privacy of individuals that have contact with criminals but no record or evidence of previous criminal activities</p>
<p>Asylum and protection of removal, expulsion or extradition</p>	<p>Migration (T 1.2) Transnational network to support OC (T1.1)</p>	<p>Discrimination of asylum seekers Limitations in freedom of movement</p>	<p>Policies for the integration of migrants Legal protection of asylum seekers Legal protection of freedom of movement</p>
<p>Property rights and the right to conduct a business</p>	<p>Logistic nodes (T1.3) Economic inequalities (T1.6) Having criminal contacts at workplace (T1.3) Neighbourhood (T1.2) Bad financial condition (T1.3) Financial setbacks (T1.3)</p>	<p>Interference with the right to conduct a (licit) business Stigma and discrimination</p>	<p>Legal protection of the right to conduct business Access to financial aids and sources of legal financing (bank loans)</p>
<p>Gender equality, equality treatment and opportunities, non-discrimination, and rights of persons with disabilities</p>	<p>Unemployment (T1.2) Economic inequalities (T1.6) Being part of a subculture (T1.3) Ethnic homogeneity in certain OCGs (T1.1)</p>	<p>Lack of opportunities in business Low social mobility Stigma and discrimination on ethnic base</p>	<p>Efficient welfare support to manage unemployment Access to financial aids and sources of legal financing (bank loans) Campaigns against harassment, sexual and psychological abuse against women Programs for women empowerment and capacity building for girls Promotion of multicultural neighbourhoods</p>



<p>Rights of the child</p>	<p>Poor educational offer (T1.2) Low intergenerational social mobility (T1.6) Low efficiency of child protection structures and policies (T1.2)</p>	<p>Lack of social mobility Access to education and need of policies to avoid school drop-out</p>	<p>Enhancement of the educational offer and policies to avoid early drop out Enhancement of the culture of legality (teaching citizenship values from school to adulthood) Enhancement of social services and child protection agencies</p>
<p>Good administration/ Effective remedy/ Justice</p>	<p>Turf control (T1.2) Policies oriented to network disruption more than prevention (T1.2) Prisons organization (T1.2) Restrictive measures in prison not oriented to re-socialization and integration to society (T1.2)</p>	<p>Poor administration of justice Lack of re-socialization opportunities</p>	<p>Social and legal control on police activities (by NGOs, by the judiciary system) Educational programs and professional trainings in prisons Programs to reduce recidivism</p>

Privacy and family networks

Risk factors such as having family members involved in OC (T1.1, T1.2) or having criminal contacts at workplace (T1.3) that could favour the recruitment into OC, have to be considered in the light of **privacy respect**. Peers and family members of OC members can be under scrutiny by public authorities and police even though they didn't commit crimes and have no criminal records. Consequently, any measures that affect the above-mentioned risk factors need to respect individual privacy rights. Legislative protection of personal data and privacy (also with regards to media) of individuals that have contact with criminals but with no records or evidence of previous criminal activities should be implemented both in real life and, if possible, in the simulated environment (i.e. anonymized reports, pixelated surveillance video recording, etc.). An effective mitigation strategy could be to include the legal limits and framework for data protection and privacy in the ABM simulation.

Stigmatization of the family members has negative effects on the socio-economic situation of the family, perpetrating the lack of resources and facilitating the recruitment into OC (T1.3): relatives of OC members can suffer from isolation, financial hardship and emotional and psychological difficulties even when they are not interested or involved in criminal behaviours. Mitigation strategies should include programs to protect individuals and their families when they leave OCN or when they want to keep a distance from their native environment.

In order to protect children from recruitment, good social services and child protection activities should be developed in high-risk environments.



Freedom of movement

Logistic nodes and transport industry have been identified as possible hubs of recruitment in OC (T1.3). Police controls on logistic nodes and transport industry should be balanced with legal protection of the **freedom of circulation and the right to conduct business**. Consequently, restriction of freedom of movement (also in the ABM simulation) should always respect EU legislation³, also with regard to asylum seekers⁴ and legal migrants.

Ethnicity and social inclusion

Most risk factors related to ethnicity, ethnic background and cultural determinants of behaviours, like living in a specific neighbourhood and being part of an ethnic group, are likely to foster stigma and discrimination towards ethnic minorities, thus threatening the respect of the principles of **equality treatment and non-discrimination**. Implicit and explicit racist behaviours perpetrated by institutional figures (police officers, penitentiary police officers, professionals of social affairs departments, health-care professionals) also have discriminatory effects (T1.2). In order to avoid the enhancement of ethnicity-based discrimination, preventive security measures and repressive police interventions should always target specific individuals and not communities as a whole (i.e. Roma, migrants, Latinos). Moreover, mitigation strategies should also include programs to raise awareness of implicit and explicit racist behaviours among institutional structures and policy makers, such as the promotion of social and legal control on police activities (by NGOs, by the judiciary system).

In modelling the environment in ABM, different kind of neighbourhood should be tested (homogeneous vs. heterogeneous ethnic background) to avoid the “ghetto effect” and to test the hypothesis that heterogeneous environments, coupled with good integration strategies to strengthen mutual interaction and social bonds between residents from different backgrounds, are effective to prevent the recruitment into OCGs. Moreover, structural activities to facilitate cultural interchange and social interaction among people from different socio-cultural-economic-ethnic background should be implemented in high-risk environments.

Policies that facilitate the integration of migrants in the general population can have a positive impact on OC, reducing the risk of recruitment in gangs and drug trafficking organizations; T1.2 found linguistic integration to be one of the most effective. Mitigation strategies could include the offer of local language

³ Directive 2004/38/EC of the European Parliament and of the Council of 29 April 2004 on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States.

https://www.google.it/search?q=Directive+2004%2F38%2FEC+%&ie=utf-8&oe=utf-8&client=firefox-b&gfe_rd=cr&dcr=0&ei=qb47WvDVH6uaX9jRsoAO#

⁴ Common European Asylum System. https://ec.europa.eu/home-affairs/what-we-do/policies/asylum_en



training, as linguistic proficiency in the local language has been considered a protective factor against the recruitment in gangs⁵. Finally, policies that valorize the cultural heritage of high risk groups can counterbalance the power of ethically driven subcultures as a risk factor (T1.3) and can also have a positive effect in reducing racism and discrimination among the general population.

Labour market and employment

Some of the identified risk factors affect the **labour market and employment** area, which also involves the right to **dignity**. Poor educational offer (T1.1, T1.2), unemployment (T1.1, T1.2) and low intergenerational social mobility (T1.6) are risk factors that might facilitate the recruitment of people in OCTs, particularly when other factors are present (i.e. marginalisation and socio-economic deprivation). In order to reduce the impact of these elements, programs and activities promoting social inclusion, educating young people and facilitating the access to the labour markets need to be supported and spread. Mitigation strategies suggested by T1.2 include equipping vulnerable people with a set of educational and employment skills, a network of 'protective' community agents and creating links of solidarity. In addition, policies to reduce unemployment and economic inequalities and to fostering social mobility (i.e. facilitating access to legal financing sources such as bank loans, free education services) should be implemented. Access to financial aids and sources of legal financing opportunities are extremely important also to overcome financial setbacks and should be included as protective factors that foster the right to have a basic income.

Governance and policies

Communities at high-risk of involvement in OC are not always taken into account by policy makers when designing and implementing the policies to fight OC. This might affect the **governance, participation and good administration** level. The opposite direction is the one to follow: initiatives involving the communities need to be promoted and the dialogue between them and the rest of society needs to be supported. Grass-roots initiatives should be encouraged, in particular the activity of local NGOs involved in counterbalancing the risk factors for OC recruitment.

Administration of justice

In the area of **good administration of justice**, the most relevant risk factor are harsh imprisonment conditions that are not oriented to re-socialization and re-integration of prisoners to society (T1.2). As highlighted in T1.2, many National Constitutions of EU Members States affirm that imprisonment and

⁵ May, C. (2009). *The relationship between risk factors, social support and gangs* (PhD dissertation, Alliant International University). Ann Arbor: ProQuest/UMI (Publication No. 3421105).



other punishment measures should aim at reintegration. Nevertheless, hard regime of isolation and solitary confinement, long-lasting restrictions on communications and family interactions are applied to OC members. From an ethical standpoint, these imprisonment conditions constitute a violation of human dignity (although according to the European Court of Human Rights it is compatible with a democratic system) and their efficacy as deterrent against criminal behaviours is not evidence-based. Considering the controversial ethical impact of it, harsh imprisonment conditions could be tested in a simulation environment to assess their role as risk factor for recidivism and recruitment in OC (T1.1, 1.2) rather than as deterrence measures.

Cultural determinants

The lack of a culture of legality and the existence of a code of silence often characterize high-risk environments and represent cultural risk factors for the recruitment in OCGs. Educational programs should therefore include teaching the values of citizenship and enhancing institutional trust, in order to raise young people in the respect of law and culture of legality. The submission to the rule of silence could be tackled by implementing programs that raise awareness on the wrongfulness of illicit activities and offer protection to people submitted to OCN protection.

Moreover, vulnerable young people join OCGs during adolescence and early adulthood because OCGs lifestyle, dominated by the cult of violence and material goods, seems attractive (T1.1). This phenomenon is particularly common among youngsters from low socio-economic status, living in conditions characterized by lack of money, goods, or means of support, who often drop out of school to improve their living conditions, fascinated by the advantages offered by OCGs. Media and social media, NGOs and local authorities should play an active role in revealing the reality behind this attractiveness (false heroes) by launching alternative messages, promoting positive behavioural models for adolescents and fostering critical thinking among them. Another mitigation strategy is the enhancement of programs that tackle school drop out.

Gender, family and affective bonds

Although male gender is considered a risk factor for recruitment in OCGs, women are also often involved in illicit activities due to family or affective bonds with OC members. Women are both perpetrators and victims in OC, since they often suffer from psychological and sexual inferiority with respect to men. Following the suggestion from T1.2, programs and actions promoting healthy relationships between men and women, especially concerning family environment, should be provided as a way to improve women condition and to prevent women recruitment. Women empowerment and capacity building for girls, as campaigns against harassment, sexual and psychological abuse can help women to leave from OCGs and break the code of silence. Moreover,



social programs to overcome gender biases in school, workplaces and society could counterbalance the predominant male culture. As a mitigation strategy, good social services and child protection agencies should be supported and empowered in high-risk environment.

3.2 Terrorism

The tables show that the risk factors identified by WP2 have multiple impacts on societal areas and human rights. Our task is to suggest mitigation strategies that can minimize the risk factors and the correlated vulnerability and risks with particular regard to stigma and discrimination.

Table 3 – Terrorism risk factors: Social Impacts

Area of impact (social)	Risk factors	Vulnerability and risks	Mitigation strategies
Employment and labour markets	Poor integration (T2.1) Collective relative deprivation (T2.1, T2.7) Being embedded in social networks of radical peers or family members (T2.1, T2.5) Recent job loss (T2.7) Previous incarcerations (T2.1, T2.3, T2.7)	Recent job loss and collective relative deprivation as a trigger to radicalization of action Unemployment effects on the personal identity, the role of the person in the family and in society	Implementation of programs to support who is (temporarily) out of the labour market Programs to promote integration of immigrants (1 st , 2 nd and 3 rd generation) and of incarcerated individuals
Working conditions	Being embedded in social networks of radical peers or family members (T2.5) Collective relative deprivation (T2.1, T2.7) Poor integration (T2.1)	Discrimination of family members of suspected/convicted terrorists Marginalization of poor integrated individuals	Programs and activities that increase the interaction among different groups within society at different levels (school, work, social and leisure activities, politics)
Effects on income distribution and social inclusion	Poor integration (T2.1) Low institutional trust (T2.1) Being embedded in social networks of radical peers or family members (T2.5) Relative deprivation (T2.7) Lack of involvement of Muslim communities in the development of counter-terrorism policies (T2.2,T2.4)	Disconnectedness and hatred for society and its institutions Discrimination of Muslims and consequent exclusion from society and from working and educational opportunities Marginalization of poor integrated individuals	Programs and activities that increase the interaction among different groups within society at different levels (school, work, social and leisure activities, politics) Programs to promote integration of immigrants (1 st , 2 nd and 3 rd generation) Initiatives to spread a



			positive image of Muslims
Governance, participation and good administration	<p>Low institutional trust (T2.1)</p> <p>Lack of involvement of Muslim communities in the development of counter-terrorism policies (T2.2,T2.4)</p> <p>Relative deprivation (T2.7)</p> <p>Poor integration of 2nd and 3rd generation immigrants (T2.1)</p>	<p>Distrust of the institutions and disconnectedness from society</p> <p>Policies fostering stigma and discrimination</p> <p>Low institutional trust has an effect on radicalization of action</p>	<p>Involvement of the Muslim communities in the development and application of counter-terrorism policies at national and local levels</p> <p>Programs to promote integration of immigrants (1st, 2nd and 3rd generation)</p>
Public health and safety	Mental illness - Depression, personality disorders, anxiety (T2.5, T2.7)	Abandonment and discrimination of mentally-ill individuals	Mental health care centres/diagnosis and assistance on the field
Crime terrorism and security	<p>Lack of involvement of Muslim communities in the development of counter-terrorism policies (T2.2,T2.4)</p> <p>Relative deprivation (T2.7)</p> <p>Previous incarcerations (T2.1, T2.3, T2.7)</p>	<p>Discrimination against members of Muslim communities</p> <p>Risk of being targeted by police controls and measures</p> <p>Discrimination and harassment to family members of suspected/convicted terrorists</p>	<p>Involvement of the Muslim communities in the development and application of counter-terrorism policies at national and local levels</p> <p>Programs to fight recidivism</p> <p>Preventive police intervention rather than repressive methods</p> <p>Interfaith and intercultural dialogue in prison</p> <p>Protection of suspected/convicted terrorists family members</p>
Access to and effects on social protection, health and educational systems	<p>Mental illness (T2.5, T2.7)</p> <p>Lack of involvement of Muslim communities in the development of counter-terrorism policies (T2.2,T2.4)</p> <p>Being embedded in social networks of radical peers or family members (T2.5)</p> <p>Recent job loss (T2.7)</p>	Stigmatization against Muslims and the consequent exclusion from society and from working and educational opportunities	<p>Promotion of a good image of Muslim at school and by media</p> <p>Programs involving youth from different religious and ethnic background</p>
Cultural	<p>Religious fundamentalism, religiosity, places of worship attendance frequency, prayer frequency (T2.1)</p> <p>Individuals embedded in</p>	Stigmatization against members of minorities and exclusion from society and from working and educational opportunities	<p>Programs promoting interreligious and intercultural dialogue</p> <p>Initiatives and activities to educate</p>



	social networks of radical peers or family members (T2.5)	Discrimination against family members/peers of suspected/convicted terrorists	“mainstream” society to religious diversity and pluralism
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Table 4 – Terrorism risk factors: Human Rights Impacts

Area of impact (human rights)	Risk factors	Vulnerability and risks	Mitigation strategies
Dignity	Poor integration (T2.1) Experienced violence (T2.1) Relative deprivation (T2.7) Previous incarcerations (T2.1, T2.3, T2.7)	Marginalization and negative effects on personal identity, and the role of the individual in the family and in society	Programs to promote social cohesion and inclusion to reduce relative deprivation Programs to promote integration of immigrants (1 st , 2 nd and 3 rd generation) Protection of suspected/convicted terrorists family members
Individuals, private and family life, freedom of conscience and expression	Religiosity, places of worship attendance, prayer frequency (T2.1); Religious fundamentalism (T2.1) Being embedded in social networks of radical peers or family members (T2.5)	Restrictions of the right to assembly and association and discrimination on religious basis Members of the Muslim community are vulnerable even if they have no relation with terrorism. Family members/peers of terrorist can suffer the social stigma but also restriction of personal freedom	Interfaith and intercultural dialogue Collaboration of religious leaders of different beliefs
Personal data	Social media usage (T2.1) Implementation of counter terrorism policies (T2.2)	Discrimination against family members/peers of suspected/convicted terrorists Unauthorised access to/misuse of personal data	Police should monitor social media usage in compliance with EU and national regulation of personal data Privacy protection of suspected/convicted terrorists family members
Asylum and protection of removal, expulsion or extradition	Lack of involvement of Muslim communities in the development of counter-terrorism policies (T2.2, T2.4) Previous incarcerations (T2.3, T2.1, T2.7)	Threat to equality before the law Discrimination of asylum seekers Discrimination of family members of convicted/suspected terrorists in bureaucratic	Protection of asylum seekers Protection of suspected/convicted terrorists family members



		procedures (passport/immigration status)	
Gender equality, equality treatment and opportunities, non-discrimination, and rights of persons with disabilities	Poor integration (T2.1) Lack of involvement of Muslim communities in the development of counter- terrorism policies (T2.2 and T2.4) Relative deprivation (T2.7)	Threat to equality before the law Equality of opportunities in the labour market and education Discrimination of family members of convicted/suspected terrorists Stigma and discrimination on ethnic and religious basis in schools and workplaces	Programs to promote social cohesion and inclusion to reduce relative deprivation Programs to promote integration of immigrants (1 st , 2 nd and 3 rd generation)
Rights of the child	Being embedded in social networks of radical peers or family members (T2.5)	Stigma and discrimination on ethnic and religious basis in schools and workplaces	Protection of suspected/convicted terrorists family members

Social inclusion, non-discrimination

Most variables are social factors: poor integration, collective relative deprivation, low institutional trust (T2.1, T2.7) were found to be important factors for radicalization, in particular for radicalization of belief. In addition, T2.1 pointed out that many radicals, especially in Europe, are 2nd and 3rd generation immigrants, leading to suggest that being an immigrant is not a significant risk factor on its own, rather than being a poor-integrated immigrant might be relevant for predicting radical beliefs. These factors, whose effect can be exacerbated by discrimination and marginalization, negatively affect **social inclusion** that conversely needs to be strengthened. As a mitigation strategy, governments (at national and local levels) should therefore implement programs to increase the interaction among different groups within society in various contexts (school, work, social and leisure activities, politics), with particular regards to supporting the integration of immigrants (1st, 2nd and 3rd generation). A solution adoptable also in the ABM simulation could be to discourage the growth of ghetto-neighbourhoods that contribute to the marginalization of minorities groups.

Labour market and employment

Social factors also affect the **labour market and employment** area, which involves the right to **dignity and individual and family life**. Relative deprivation seems to play an important role in leading subjects to radicalization (T2.1, T2.7) when combined with trigger events such as recent job loss, sudden changes or meeting a radical person. Therefore, a mitigation strategy could be the enhancement of programs to support those who are



(temporarily) out of the labour market, in order to prevent their social and economic marginalization.

On the other side, being embedded in social networks of radical peers or family members (T2.5) might have negative effects on the employment and working conditions of non-radicalized family members. In fact, non-radicalized individuals might be discriminated due to their relationship with a suspected/convicted radical or terrorist. Therefore, they need to be protected to avoid second order harassment and stigmatization: a mitigation strategy could be to protect their privacy data and privacy life, in particular from the intrusion by media.

Crime, terrorism, security

Stigmatization of the family members might also derive from the implementation of **counter terrorism policies** (T2.2, T2.4). These policies place greater emphasis on the disruption of terrorist networks rather than on prevention; consequently, potential suspects are often targeted with repressive methods, with negative effects also on their family members (second order harassment), who experience police brutality, undignified treatment, financial hardship, and emotional and psychological difficulties, regardless of their personal involvement in radicalization. This represents a severe violation of their human rights (T2.2). Moreover, the side effects of counter terrorism policies involve the whole community, especially the Muslim community, which is criminalized and isolated from the rest of society⁶. In other words, stigmatization resulting from the implementation of counter terrorism policies affects those who are radicalized and those who are not. Due to these actions, all Muslims are portrayed as a homogeneous social group. This may create resentment and push people into radicalization and terrorism (T2.2 and T2.4). In order to avoid this form of discrimination, an effective mitigation strategy could be to design and implement counter terrorism measures with the cooperation of the Muslim communities members. This would have the positive effect of making the members of the community feel protected from terrorists and not identified with them and to gain their cooperation in the fight against radicalization. Moreover, initiatives to protect suspected/convicted terrorists' family members should be planned to hinder their isolation and the violation of their human rights.

With regards to crime and security area, the researches carried out demonstrate that previous incarcerations are one of the best predictors of future offending (T2.1, T2.3, T2.5, T2.7). Consequently, it is fundamental to enhance programs to fight recidivism, which support ex-prisoners in the path to their re-socialization and reintegration to society.

⁶ Alam Y., Husband C., *Islamophobia, Community Cohesion and Counter-Terrorism Policies in Britain*, in *Pattern of Prejudice*, 47 (3), 2013, pp. 235 – 252.



Governance, participation, and good administration level

Improving counter terrorism policies would have positive effects also on the **Governance, participation, and good administration level**. Initiatives involving poor integrated communities need to be promoted and the dialogue between them and the rest of society needs to be supported, in order to foster the cooperation against radicalization and terrorism.

On the other hand, those suffering from poor integration may attach themselves more to their religious identities, which could lead them through a course of learning that ultimately brings them to fundamentalism and subsequently to radicalization (T2.1).

Freedom of conscience and expression

Religious-related risk factors (T2.1: religiosity, places of worship attendance, prayer frequency, religious fundamentalism) are a dangerous source of discrimination. Consequently, it is crucial to correctly evaluate their role in radicalization, and possibly to select religious-related risk factors for the ABM simulation on quantitative rather than qualitative data, considering that they need to be considered in the light of **freedom of conscience and expression** that is a fundamental right protected within the EU.

First of all, as results from the studies analysed in T2.1, the overwhelming majority of religious individuals do not radicalize and would never engage in violent radical action. Bearing this in mind is crucial to avoid stigma and discrimination towards specific religious communities.

Among the religious-related variables, religious fundamentalism is the most relevant, also because in many respects religious fundamentalism and radical beliefs may be indistinguishable. Although religious fundamentalism doesn't necessarily support or evolve to violence, certain interpretations of religious doctrine can lead to radicalization of belief and action, and this might also occur in places of worship, as demonstrated by the recent rise and attacks of religious inspired terrorism. Some counter terrorism policies foresee police intervention, forceful intrusion and even introduction of secret agents in places of worship (especially mosques) that negatively contributes to the sense of a limitation of the right of conscience. Conversely, in order to reduce the relevance of religious-related risk factors, without compromising **freedom of conscience and expression** as well as **individual private life** and **freedom of movement**, mitigation strategies encompassing initiatives of interfaith dialogue and collaboration of religious leaders from different religions, in particular with moderate wings of religious movements, should be undertaken. These initiatives promote a positive understanding of religions, showing that they do not contrast each other, and favor the coexistence of different faiths in multicultural societies. These mitigation strategies should also be applied in prison, as it is demonstrated that radicalization often occurs in prisons in western countries (T2.1).



Culture, private life and personal data

Radical beliefs may be learnt in schools, among small peer networks or on the Internet.

In particular, peers, family members and community members are generally strong factors in determining one's beliefs and behaviours, especially with respect to issues of conformity and deviance. This is true also in the radicalization context: T2.5 and T2.1 demonstrate that being embedded in networks of radical peers or family members has significant correlation to radical action and to radical beliefs. Consequently, the interaction among different groups within society at different levels (school, work, social and leisure activities, politics), especially among young people, needs to be supported, thus encouraging building out-group friendships and relationships that are strong protective factors.

With regards to internet, many researchers point out that social media usage has a weak effect on radicalization of belief compared to other factors; in fact, even in cases where the internet is known to play a role in radicalization and terrorism (it is more significant for Islamic terrorists than right-wing or other terrorists), offline associated are more important. Lone actors are more likely to engage in virtual interactions and receive encouragement from a wider network compared to those working in groups. In order to reduce the role played by social media, counter terrorism policies already encompass the monitoring activity of social media usage. However, in order to protect **private life and personal data**, in particular of those individuals non-radicalized who have contacts with radicalized people, this should always be done in compliance with EU and national regulation of personal data.

Similarly to social media usage, mental illness, especially depression (T2.1, T2.5, T2.7), represents a higher risk for lone wolves than for group or organizational-based terrorists. Nevertheless, mental health care centres should be enhanced, especially in particular neighbourhoods, to help diagnosis and assistance on the field.

3.3 WP3 and Internet Research

The main objective of WP3 is the analysis of the use of the Internet and social media networks by OCTNs to commit crimes and recruit new members.

Internet research itself constitutes a matter of ethical debate as it rises ethical issues. The spread and use of technologically based research methodologies⁷ brought to the development of Internet Research Ethics (IRE), which is “the

⁷ Haigh C., Jones N., *Techno-Research and Cyber-Ethics: Challenges for Ethics Committees*, in *Research Ethics Review*, Vol. 3, No. 3, 2007, pp. 80-83.



analysis of ethical issues and application of research ethical principles as they pertain to research conducted on and in the Internet"⁸.

Confidentiality is generally a strict requirement regarding those people working with others' personal data. Online research must contend with the strength of "cyber-identity". Some users choose to use their real names, while others choose pseudonyms, avatars etc. Although real life identity is in most cases hidden to researchers, one cannot take for granted that the pseudonyms used by individuals anonymize their conversations. Indeed, the protection of participants' online identities may require greater caution than in the case of offline research.

Another central issue in IRE is the distinction between public and private spaces online, with related implications for whether or not personal explicit informed consent is required. In traditional research ethics, individual informed consent is not necessary for the use of material that is in the public domain, while research that is carried out outside the public domain requires authorisation. However, it can be difficult to clearly differentiate between private or public spaces online.

The *American Psychological Association* (APA) suggest, as a mitigation action, to take into account the assumptions of those being studied. APA states that an expectation of privacy depends on implementation details – along with legal regulation and social norms – such as the number of people who subscribe to particular online settings, whether membership is restricted or open, whether the forum has posted explicit recording policies and so on.

Informed consent is one of the basic principles of research ethics and implies that research participants must be fully informed about purposes, methods, intended possible uses and possible risks of the research. Some authors argue that online information may be used by the researcher without explicit consent if it is officially publicly archived, no password is required for archive access, no site policy prohibits it and the topic is not highly sensitive. Of course, the main issue is that there is a large part of subjective evaluation in the definition of what is highly sensitive, including some information used in the PROTON project by some tasks in WP3. The PROTON project overcame the discussion by providing an agreement of the data protection authority in each participant's country and an approval by the ethics committees of each institution for research involving data from social media collected on personal profiles.

Risk factors and mitigation strategies

WP3 includes a systematic review of existing knowledge on cybercrime and the use of cyberspace by OCTNs (T3.1) an empirical analysis on Dark Web signposts (T3.2), a study on the online visibility and social media impact of

⁸ Stanford Encyclopaedia of Philosophy, "*Internet Research Ethics*", 2012.

<http://plato.stanford.edu/entries/ethics-internet-research/> (last access 22th December 2017).



gangs (T3.3), a research on radicalization in cyberspace (T3.4) and an analysis on terrorist-related contents in cyberspace (T3.5).

The systematic review of the use of Internet in Terrorist Networks (TNs) analyzed their online propaganda. The most significant outcome, in terms of social impact, is that the degree of the online intergroup communication is strongly correlated with offline factors. These include the sharing of common ideology and the openness of the cultural environment to extremist discourses. Each type of interaction (on and offline) reinforces the probability of the other. We can assume that strategies and safeguards that are effective in reducing the efficacy of terrorist networks and propaganda in real life could also have an effect on online interaction, but this hypothesis has to be tested.

One of the goals of online propaganda is to mobilize supporters and recruit new ones through radicalization. As stated by D1.1, with special regard to religious radicalization, Islamic radicalization and recruitment are two distinct phenomena even if they are interrelated. Online recruitment is nonetheless a debated concept, as many authors affirm that the number of terrorist recruited online is very low (see Deliverable 2.1). The main goal of terrorist websites and social media activity seems to be the development of a narrative around the topic of oppression and injustice and to spread the idea that violence is a legitimate answer to violence. A second goal is to offer opportunities for people to support and join the cause.

Studies on far-right groups show that Internet is mainly used to share information on events and meetings, rather than as a tool for recruitment. Self-radicalized terrorists, both in Islamic and far-right groups, are the only exception as they try to recruit other people, mostly without success.

Organized crime uses Internet in a different way than TNs, mainly to commit crimes (money laundering and drug trafficking). Gangs use the web, and especially the social media, for symbolic rather than instrumental objectives (with pages that highlights symbols and values of their subcultures).

All the authors agree on the fact that the dissemination of a criminal culture and indirect propaganda only play a facilitating role in the recruitment of new members and affiliates among OCGs.

The review conducted by the PROTON project does not identify specific risk factors for the recruitment in OCTNs through the cyberspace but offers a taxonomy of uses and users that can be helpful both for the ABM simulation and for future research.

As Internet and social media appear to be mainly a cultural tool, we should refer, in order to develop mitigation strategies to limit the social impact of Internet as a risk factor *per se*, to recent studies on the selection of information within groups with a common system of beliefs (the so-called echo chambers⁹). Findings show that online communities' emotional behaviour is affected by the users' involvement inside the echo chamber. Indeed, to a higher involvement corresponds a shift toward the polarization of opinions and

⁹ Del Vicario M, Vivaldo G, Bessi A, Zollo F, Scala A, Caldarelli G, Quattrociocchi W. Echo Chambers: Emotional Contagion and Group Polarization on Facebook. *Nature Scientific Reports* 6, Article number: 37825 (2016) doi:10.1038/srep37825



a selection of individuals more prone to adhere to extreme views on the discussed topic. An effective strategy to counterbalance the polarization effect on social relations online and offline could be to recruit or introduce in the debate on social media very active users with a critical thinking (critical thinking is different from counter-information because it doesn't induce the polarization of opinions but offers a multifaceted point of view on a problem).

Task 3.2 tried to identify Dark Web signpost in the surface web, concluding that Dark Net signposts exist aplenty in the clear web for all illegal commodities and is mainly used by OCGs. For terrorist organizations, the Dark Net is a tool to distribute digital content, such as instructions for bombmaking, but by their nature, they try to hide this content and not advertise it.

One hypothesis for WP3 in the PROTON project is that it is possible to lexically analyse the texts produced by cyber users and from this derive some aspects of their personality and that even single users can be signposts for the dark web and hub for recruiting processes. The personality analysis software that has been used in PROTON is the IBM Watson™ Personality Insights service.

The service uses linguistic analytics to infer individuals' intrinsic personality characteristics, including Big Five, Needs, and Values, from digital communications such as email, text messages, tweets and forum posts.

The hypothesis is that personality traits, values and emotions could be predictive of criminal behaviours. Those traits are used to develop agent persona for Dark Net users. Agent personas are "fictional" representation of an actual user of the web that can be included in ABM simulations.

From an ethical and societal point of view, the use of Agent persona can increase the bias toward specific personality traits or behaviours, reinforcing stereotypes. If Agent personas will be included in the ABM simulation, it is important to highlight that human behaviour cannot be reduced to few personality traits and that choices performed by human beings cannot be totally predictable. The results of the simulation can be considered an evidence for or against the researcher's hypothesis but cannot be generalized or applied in a different environment.

4 Safeguards on the use of ABM

To avoid misuses or misinterpretations of the results of the ABM simulations, especially when presented to policy makers or other types of end-users, it is important to be aware of the characteristics of ABM and the problems it poses with regard to the interpretation and generalization of its results.

First of all, a model is by definition a simplification of reality, not its complete representation. The researchers have to identify the relevant aspects of the scenario they want to model and specify the relationships between them. Since a model is based on choices and hypothesis made by the designer, its characteristics are not necessarily characteristics of reality and this implies that



conclusions drawn from the model can only confirm or contradict the researcher's hypothesis¹⁰. This is of crucial importance when the model is used to study scenarios that are different or more general than the ones from which data were sourced¹¹.

In addition, using ABM to study a system that involves human behavior has an explanatory function rather than a predictive one. It can only be used to better understand the mechanisms underlying a phenomenon or under what circumstances certain outcomes might arise¹², but not to predict one's behavior in the real world.

Finally, another caveat needs to be highlighted: in ABM simulations, the interaction among agents and with the environment can generate unforeseen outcomes; thus, the focus is not on the individual choices made by the agent but on the macro-level phenomena observed at the level of the overall system¹³.

5 Conclusion

The analysis carried out highlighted the societal and ethical impacts of the risk factors leading to recruitment to OCTNs and suggested mitigation strategies that should help WP4 and WP5 in selecting the risk factors and designing the ABMs. The safeguards provided with regards to the ABM aim at avoiding misuses or misinterpretations of the results of the ABM simulations, especially when presented to policy makers or other types of end-users.

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