



IcARUS

INNOVATIVE APPROACHES TO URBAN SECURITY

The Changing Face of Urban Security Research:

A Review of Accumulated Learning

Executive Summary

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IcARUS

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security. We are immensely grateful for the time, consideration and thoughtful reflection that they gave us. Through their own career experiences, they helped sketch a comprehensive and vivid picture of the evolving urban security landscape over the past three decades. Secondly, we would like to acknowledge the valuable insights and feedback received throughout the development of the Review from all our IcARUS Consortium partners. Finally, we would like to thank all the reviewers who provided wonderful and detailed comments and feedback on earlier versions of this report, notably the IcARUS Expert Advisory Panel members and our workpackage core group members. All errors and omissions remain those of the authors.



Preface and Project Description

This Review of urban security research was produced as part of the European Union Horizon2020 *Project IcARUS - Innovative AppRoaches to Urban Security*. The IcARUS project seeks to overcome some of the central obstacles to realising research-informed urban security policy-making highlighted in this Review - namely that urban security interventions, generally, are poorly informed by the research evidence base, infrequently clarify the theories of change that are intended to inform their desired beneficial outcomes, inadequately or inappropriately implemented and seldom involve rigorous evaluation, such that wider lessons might be learned. The Review is intended to provide an overview and analysis of the accumulated knowledge developed through research over the last thirty years of urban security. Particular emphasis is accorded to the four IcARUS focus areas: (1) preventing juvenile delinquency; (2) preventing radicalisation leading to violent extremism; (3) preventing and reducing trafficking and organised crime; and (4) designing and managing safe public spaces. These parameters inform the organisation, structure and content of the full Review. In addition, specific attention and consideration is given to four cross-cutting themes that animate the IcARUS project: (1) governance and diversification of actors; (2) technological change; (3) gender; and (4) transnational and cross-border issues.

The IcARUS programme of work aims to provide a transformation in the application and utilisation of the knowledge base by framing and informing a human-centre design thinking methodology in the co-creation and implementation of urban security strategies and practices. By rethinking tools for urban security policy in combination with the insights from research, policy and practice, IcARUS offers a unique opportunity to draw together the best evidence from urban security research and practice over the last 30 years to implement an integrated, evidence-based and multi-stakeholder approach to prominent urban security problems. In addition to providing the foundation upon which the subsequent work is built – to inform the design and implementation of innovative approaches to urban security in the six IcARUS partner cities - we hope this Review will be of interest and value to practitioners and researchers alike.

Further details on methodology and interviews are outlined in the full Review, available to download from the [IcARUS website](#).

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1. Executive Summary of Key Findings

Across Europe, crime prevention and urban security strategies have developed significantly over the last 30 years. There is now a rich basis of experimentation and learning upon which we can draw. The accumulated evidence base provides a wealth of insights into effective strategies and interventions. Additionally, the institutional infrastructure for delivering integrated urban security has advanced notably across the years and relations between partners have been enhanced through mutual understanding. Networks for supporting insights from research and shared learning – like the European Forum for Urban Security (Efus) – provide valuable conduits to inform evidence-based practices. Nonetheless, considerable barriers to advancing a preventive approach to urban security and engaging the full range of relevant actors in multi-stakeholder partnerships persist.

In what follows, we focus on providing a headline synthesis of the key **Trends, Tensions, Lessons** and **Knowledge Gaps** derived from the full State-of-the-Art Review of the research literature, international expert interviews and the accumulated knowledge base. Full details of the data collection processes and methods are outlined in the Methodology and Data Collection Section of the full Review.



1.1 Key Trends in Urban Security

Trends, here, refer to major shifts and changes over time across the period of the last 30 years. In the Tables (below), we provide an indication of the extent to which each of the Key Findings is relevant to each of the four focus areas that are the priority of the Review: **preventing juvenile delinquency; preventing radicalisation leading to violent extremism; preventing and reducing trafficking and organised crime; and designing and managing safe public spaces**. The threefold scale provide an approximate representation of the prevalence and/or relevance of a particular statement within the research literature reviewed relating to each focus area: × = not evident; ✓ = partly evident; and ✓✓ = significantly evident.

A preventive design mentality

The growing awareness of 'up-stream' design thinking and early interventions that seek to anticipate harm and pre-empt criminal opportunities by effecting social and technological change rather than retrofitting solutions after the event.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

The paradox of success

Prevention has played a significant role in the decrease in aggregate crime rates in relation to traditional property and public crimes. Despite this 'success', crime prevention remains under-resourced and poorly implemented.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	x
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Crime prevention through environmental design

The growing recognition that design modifications to the built environment can foster reductions in the incidence and fear of crime - notably the influence of the principles of Crime Prevention Through Environmental Design (CPTED) of: natural surveillance; natural access control; territorial reinforcement; maintenance and management.



Preventing Juvenile Delinquency	✓
Preventing Radicalisation	x
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Naturalisation of design features

Appreciation that overly crude environmental design and 'defensible space' with overt surveillance as deterrence, pay insufficient regard to aesthetics and the impact on public perceptions, hastening a trend towards a 'process of naturalisation', whereby regulation becomes embedded into the physical infrastructure and social routines in ways that are less noticeable or threatening.



Preventing Juvenile Delinquency	✓
Preventing Radicalisation	✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Situational prevention

Recognition that the incidence of crime can be effected by situational measures through modifications to the immediate physical environment in which crimes occur.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

Early childhood development

Increased acknowledgement of the importance of early childhood development, adverse childhood experiences and trauma in influencing subsequent individual behaviour and future trajectories of vulnerability, victimisation and offending, as well as lifelong health and wellbeing.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓
Preventing Organised Crime	✓
Safe Public Spaces	x

The criminalising effects of formal responses to crime

A greater awareness of the harmful effects of criminal justice responses and interactions with police and penal institutions, particularly for young people, which has encouraged forms of diversion.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

The principle of 'do no harm'

A recognition that unintended consequences can arise from well-intentioned interventions. Hence, the need to ensure the parsimony of interventions and the guiding principle of 'do no harm'.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

Children and young people's rights

The growing emphasis on the rights of children and young people and ensuring international standards and safeguards to ensure the application of those rights.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

The flattening of the youth crime curve

Significant declines in the numbers of young people drawn into the criminal justice systems and in youth offending, as well as young people engaging in other behaviours – i.e. drinking, drug-use and smoking.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓
Preventing Organised Crime	x
Safe Public Spaces	✓

The (en)gendering of urban security

The growing importance of gender in framing urban security in terms of both the lived experiences of security and the production of safety, notably in relation to the use and quality of public spaces and domestic abuse as a community issue. In many ways, the prevention of juvenile delinquency has been dominated by the treatment and study of masculine behaviours.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Understanding theories of change

The growing importance of identifying the theories of change that inform how specific mechanisms trigger the anticipated outcomes; to provide a better understanding of how an intervention works or is intended to work.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

Multiple causes and their interactions

A shift from a focus on identifying single causal factors, and the mechanisms designed to address these, to the more complex interactions and interdependencies between multiple factors and mechanisms.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Multi-systemic approaches

An analogous shift towards combining proximate or 'near' (situational) causes with more distant or 'deep' (environmental, social and structural) causes as well as multi-systemic interventions that combine individual, family, peer and community levels.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Obtaining information on how things worked and in what context, have driven the form of evaluation

A trend beyond 'what works' evaluation design that sought to register successful outcome effects – through the conjunction of mechanisms with outcomes – towards an investigation of why particular interventions work, for whom and under what circumstances, with greater regard accorded to effects of implementation and account taken of contextual factors.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

Internationally declining crime rates

The significant decline in aggregate crime rates – notably in traditional offences – and the fact that this is mirrored across jurisdictions and therefore not country-specific in terms of causes.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✗
Preventing Organised Crime	✗
Safe Public Spaces	✓

The harm concentration effect

Despite an overall decline in levels of crime, there is growing evidence of a concentration of victimisation and offending amongst certain groups in the population and within certain (geographical) areas and neighbourhoods in ways that compound disadvantages. The unequal distribution and impacts of crime, risk and vulnerability have thus become more marked and entrenched.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

Problem-based process models

A gradual recognition of the importance of applying 'process models' of problem-solving methods that tailor responses to the context of local problems and populations rather than 'off the shelf' universal solutions.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

A partnership approach

The recognition that in its design and implementation urban security demands collaboration through multi-stakeholder responses and that the police alone cannot prevent crime.



Preventing Juvenile Delinquency	✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

The salience of locality and place

Despite globalisation, locality, 'place' and context have become more, not less, important. Global forces and the salience of locality have become increasingly mutually interdependent.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

The blurring of administrative/civil and criminal orders and regulations

A growing resort to administrative regulation and civil laws (or quasi-civil laws such as anti-social behaviour regulation in the UK), as means of effecting and implementing crime prevention and urban security – in part recognition of the relative impotency and inadequacies of punitive criminal responses.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

The broader conceptualisation of urban security, incorporating public perceptions

A shift from a narrow focus on crime reduction to community safety, 'urban security' and harm minimisation that incorporate public perceptions of insecurities, well-being and lived experiences, as well as public trust in authorities – in part stimulated by victimisation survey data.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Citizens as the co-producers of urban security

Increased recognition of the need to engage populations that are the targets of interventions as active co-producers and agents of change rather than as passive recipients of services.



Preventing Juvenile Delinquency	✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

The strength of the informal

Recognition of the effectiveness of informal responses that enlist community engagement and citizens' capacity for self-regulation through persuasion and voluntary compliance – and the corresponding limits of *'command-and-control'* based sanctions.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Evaluation for accountability, development and learning

The increasing appreciation of the need for rigorous evaluation of interventions, as a mechanism of accountability, to help strengthen institutional development and to inform accumulated knowledge and evidence.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

Recourse to non-police information about crime, victimisation and insecurity

The greater importance of victimisation surveys as an alternative (and often more robust) source of information about the nature and extent of crime and harm, which disrupts the erstwhile monopoly of the police as gatekeepers of crime data.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	x
Preventing Organised Crime	x
Safe Public Spaces	✓✓

Focus on the concentration of victimisation and harm

The growing focus on victims rather than offences and offenders has highlighted the concentration of harm (through multiple and repeat victimisation as opposed to the prevalence or incidence of crime) and provides an effective and socially justifiable way of directing crime prevention efforts by integrating it with victim support.



Preventing Juvenile Delinquency	✓
Preventing Radicalisation	✓
Preventing Organised Crime	x
Safe Public Spaces	✓✓

The challenges of policing cyberspace

The shift and migration of crime from physical space to cyberspace presents new challenges given that potential victims are more abundant (easier to find given the reach of the internet) and policing/law enforcement remains territorial.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✗

'I think symbolically when you do a victimisation survey, you break the monopoly of the police on the topic. In the old days, they were the ones who collected the statistics and manipulated them. So, it was totally within their universe. When you have victimisation survey data, you changed the rules of the game... So, I see the victimisation survey, more than I did in the past, as an extremely important tool in the democratisation process.'

Jan van Dijk, University of Tilburg, Interview

1.2 Key Tensions in Urban Security

Tensions, here, refer to enduring fault-lines, recurring issues and conflicting pressures that persist across time with regard to urban security and crime prevention.

The narrow focus of research evidence to the exclusion of contextual factors

A central challenge in synthesising the knowledge base is that most of the research is written by researchers for other researchers and tends to focus on exploring narrow questions of internal validity, often to the exclusion of wider contextual factors (external validity) that are of interest and value to policy-makers and practitioners.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

The under-investment in the evaluation of outcomes

Evaluation of the effects and impacts of preventive interventions remain patchy, limited in rigour and frequently under-resourced. This contrasts with the relatively greater evaluation of offender-oriented, tertiary, treatment programmes.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

The measurement paradox

There are evident difficulties associated with evaluating prevention as a 'non-event'. It is both difficult to evaluate a non-event (except in so far as comparisons can be drawn with a control sample that has not benefited from the intervention) and difficult to communicate the success of prevention (i.e. something that did not happen).



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

The crime and security 'arms race'

Crime and security problems are not static or constant, but rather innovate and evolve in response to social and technological change.



Preventing Juvenile Delinquency	✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓

The evolving dynamic of crime and security

'Too few people in policy or practice acknowledge the fact that crime and security are co-evolving in an arms race: they maintain a static perspective and devote insufficient attention to the strategic imperative of out-innovating adaptive offenders against a background of changes in technology, cultural or business practices, etc., which often favour crime and render what works now, ineffective in future.'

Paul Ekblom, University of the Arts London, Interview

The punitive paradox

Despite a greater recognition that the levers of crime and prevention lie outside of the criminal justice system and punitive approaches, criminal justice responses continue to dominate policy and investments in resources.



- Preventing Juvenile Delinquency ✓
- Preventing Radicalisation ✓
- Preventing Organised Crime ✓✓
- Safe Public Spaces ✓

The collaboration paradox

Urban security demands the engagement of multiple stakeholders where advantage derives not simply in the combination of perspectives, resources and skills, but also in framing and shaping problems and methods differently, nonetheless where these same differing cultures, values, interests and working practices can foster conflicts.



- Preventing Juvenile Delinquency ✓✓
- Preventing Radicalisation ✓✓
- Preventing Organised Crime ✓
- Safe Public Spaces ✓

The collaboration paradox

‘The possibility for collaborative advantage rests in most cases on drawing synergy from the differences between organisations, different resources and different expertises. Yet those same differences stem from different organisational purposes and these inevitably mean that they will seek different benefits from each other out of the collaboration.’

Huxham and Vangen (2005: 82)

Wide-angled but tunnelled vision

Enduring challenges pertain to the pursuit of multi-stakeholder urban security networks through horizontal exchanges of shared information, knowledge, resources or other transactions that cut across vertical *intra*-organisational priorities, which pay scant regard to the task of managing *inter*-organisational relations.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

Fragmentation and central-local tensions

An integrated approach to urban security is weakened by tensions between national and municipal authorities with regard to jurisdiction, competencies and responsibilities, as well as by conflicts – ‘turf wars’ - between central government departments operating as silos.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

Obstacles to data sharing

Data sharing and data linkage remain some of the most intractable and contentious aspects of urban security practice. A pervasive and deeply ingrained reluctance to share information between agencies persists, informed by technological, legal, organisational and cultural barriers to data exchange.



Preventing Juvenile Delinquency	✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓

The volatility of political commitment to urban security

An uneven trajectory in the political fortunes of crime prevention influenced by exceptional events and the vagaries of political priorities, which has seen the ebb and flow of investments in prevention with political changes and a shifting focus as priorities change.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

Myopia and the fickle cycles of political attention

Narrow political horizons and short-termism serve to undermine the necessary investment in long-term preventive solutions and a fundamental shift away from traditional punitive responses to crime and harm.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

The quest for 'silver bullets'

There remain enduring and entrenched (political) demands for uniform and eye-catching solutions – 'silver bullets' encouraged by the rhetoric of 'what works' – that can be applied, almost regardless of context or the nature of the specific problem.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

The paradox of non-implementation of a problem-oriented approach

Despite all the organisational and technological developments, which should have enabled greater progress, a problem-oriented approach (first elaborated in relation to policing by Herman Goldstein in the late 1970s) remains stubbornly unfulfilled.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓

The (non-)implementation of a problem-oriented approach

'I still think that our efforts to understand local problems and draw on evidence in order to try and figure out strategic ways of responding is still not really functioning as I'd hoped it would [over 25 years ago]. I'm pleased that it's still happening after a fashion, but disappointed it's been so slow, and disappointed that the development has been so uneven. I would have hoped for steady progress. If you think of the literature on diffusion of innovation, you would expect there to be a slow take up, for things to take place slowly, then to be a rapid increase and then to plateau as adoption becomes almost universal. That has not happened in problem-oriented policing.'

Nick Tilley, University College London, Interview

Trust as a vital ingredient in implementation

Inter-organisational and inter-personal trust relations as well as public trust in authorities are vital to ensure the effective implementation of urban security interventions. Trust in authorities, organisations, people and systems - including security technologies - is fragile, easily broken and hard to renew or generate afresh.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓✓
Safe Public Spaces	✓✓

1.2.1 The Concept of Urban Security

Urban security is about more than crime reduction

Urban security concerns factors that extend beyond crime reduction to incorporate public perceptions of insecurities, well-being and lived experiences. Reductions in crime may not foster or lead to reductions in insecurity and may relate to public (dis)trust in formal institutions' capacity to ensure safety.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

Wider insecurities, social cohesion and trust in formal institutions

Urban security may be intimately related to wider forces of economic insecurity, uncertainty, social polarisation and distrust in political institutions.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Securitisation versus other public goods and values

Security is but one imperative that sometimes collides with other public goods or private pursuits. There has been a tendency to over prioritise security against other benefits, uses and values of public spaces – social, cultural, environmental, educational and health-related – resulting in the over-securitisation of public spaces.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

The aesthetics of security

Aesthetics and public sensibilities matter, given that security interventions can foster insecurity rather than public reassurance. One of the ironies of such quests for security is that in their implementation they may foster perceptions of insecurities by alerting citizens to risks, heightening sensibilities.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

The potential criminalisation of social policy

A tension exists between identifying the role of social, educational and wider economic forces in fostering crime and insecurity and in justifying social policies in terms of their crime preventive potential or implications. The danger is that crime and insecurity become organising frames in the exercise of authority and in legitimising interventions that have other motivations.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

1.2.2 The Ethics of Early Intervention and Measurement

Disentangling multiple mechanisms and effects

The reported outcome from interventions operating multiple mechanisms is inevitably a **net effect**, which comprises a complex mix of the balance between non-effect, positive effect and possible negative effects.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓✓

Targeted versus universal provisions

There remain stubborn debates about the preference for universal provision or targeted interventions – i.e. ‘primary’ versus ‘secondary’ prevention. Targeted interventions focused on risk factors are justified in terms of effectiveness, as they target those people/factors most likely to effect change, reducing the chances of ‘false positives’, and cost efficiencies as they target need in more limited ways, reducing costs.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

The stigmatising potential of targeted interventions

Targeted prevention initiatives raise concerns about the stigmatising potential and labelling implications of associating specific people or places with crime. In some countries, there are strong cultural and political presumptions in favour of universal preventive services for young people justified on the basis of children’s existing educational or social needs and problems, rather than future risks of criminality.



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

The inaccuracy of risk-based predictions

Targeted interventions based on risk assessments can be more effective from a cost basis but also suffer from inaccurate predictions of subsequent crime/criminality, such that they can herald intervention where negative outcomes would not actually have occurred (‘false positives’) and/or where negative outcomes occur despite the intervention (‘false negatives’).



Preventing Juvenile Delinquency	✓✓
Preventing Radicalisation	✓✓
Preventing Organised Crime	✓
Safe Public Spaces	✓

'[A]ny notion that better screening can enable policy makers to identify young children destined to join the 5 per cent of offenders responsible for 50–60 per cent of crime is fanciful. Even if there were no ethical objections to putting "potential delinquent" labels round the necks of young children, there would continue to be statistical barriers... [Research] shows substantial flows out of as well as in to the pool of children who develop chronic conduct problems. As such [there are] dangers of assuming that anti-social five-year olds are the criminals or drug abusers of tomorrow, as well as the undoubted opportunities that exist for prevention.'

Utting (2004: 99)

This is particularly salient with regard to preventing juvenile delinquency where Gatti noted some time ago that the right of children and young people not to be classified as future delinquents, whether they go on to become delinquents or not, is 'one of the greatest ethical problems raised by early prevention programmes' (1998: 120). Similar considerations and concerns apply to targeting entire communities or groups of people - such as 'Muslim youths' - as has been a widespread perception with regard to some anti-radicalisation programmes. This is especially evident when measures appear targeted at people based on religion or group membership, rather than because of an actual threat or distinct risk. Inadvertently, such generalisations can foster the very outcomes that they intend to prevent.

2. Key Lessons in Urban Security

Lessons, here, refer to the research-informed insights and learning derived from the knowledge base through the application and evaluation of urban security practices and interventions.

- Urban security interventions, generally, are poorly informed by the research evidence base, infrequently clarify the theories of change that are intended to inform their desired beneficial outcomes, inadequately or inappropriately implemented and seldom involve rigorous evaluation, such that wider lessons might be learned.



2.1 Problem-Solving – Problem-Based Approaches

- In tailoring interventions to particular issues and contexts, problem-solving approaches - such as SARA (Scanning, Analysis, Response, Assessment) or the 5Is (Intelligence, Intervention, Implementation, Involvement, Impact) – provide a robust process-based framework through which to specify and better understand the nature of given security problem and guide practitioners towards better-quality interventions and their implementation.
- Working outwards from defining the specific crime or security problem and engaging with the end-users and beneficiaries of an intervention is a more effective approach than existing solutions or bureaucracies/organisations available to respond to the problem.
- Given the siloed nature of service provision/ responses and the segmented nature of knowledge and skills/resources, this demands harnessing multi-sectoral and diverse actors through pooled resources, skills, knowledge and capabilities in interdisciplinary and cross-professional partnerships.
- One of the limitations that constrained the implementation of problem-oriented policing is that it focused on the police organisation as the locus of the response to social problems when the levers to the problems often lay far from the reach of the police.

‘The world is full of libraries full of good practices about crime prevention, urban safety and urban security but mostly nobody actually gets to test them properly because they require integrated solutions and they require collaboration.’

Dr Barbara Holtmann, Fixed Africa

- Nothing works everywhere and a lot of things work somewhere! Context matters – configured in time and space – in the causation of crime and insecurity. Crime prevention and urban security problems are complex and informed by a tangle of interacting causes and interdependencies, which differ across problems and contexts.
- There has been a tendency to search for universal solutions under the banner of ‘what works’ which has drawn attention away from the situated and contextualised features of local places. And simultaneously with little regard to which groups of people benefit from particular interventions or design features in a particular place/situation at a specific time.

‘Preventive interventions have to be intelligently customised to problem and context; success stories cannot simply be copied cookbook-fashion. Intelligent replication will always involve some degree of innovation, trial, feedback and adjustment, whether minor or major. This in turn places requirements on the kind and format of knowledge that security practitioners possess, and the institutional context of implementation.’

Professor Paul Ekblom, University of the Arts London

2.2 Early Intervention and Preventing Juvenile Delinquency

- Early intervention in the life-course and the developmental trajectory of people and problems can prevent harmful activities before they occur or behaviour escalates. Similarly, building resilience and preventing the onset of problems before they intensify pays dividends for public safety.
- Over the past 30 years, there has been a distinct move away from solely tertiary prevention programmes, with a greater focus placed on secondary and specifically primary types of prevention.
- There has also been a growing focus on early childhood experiences, extending to pre- and post-natal developments, assessment and provision. This has also fostered a focus on breaking inter-generational cycles of behavioural problems, violence and abuse and targeting whole families for intervention and support.
- In particular, developmental focused interventions have demonstrated promising results, but remain an area which could benefit from further research, with specific measures regarding prevention specific programmes and later outcomes on delinquency (and potential criminal lifestyles).
- Multi-risk component interventions targeted at multiple risk factors, generally appear to be more successful than single-factor interventions, but much of the data indicated that this may be a result of inadequate testing/measures for the intended behaviours.

- Much early intervention work and research remains premised on establishing correlations not exploring causation.
- There is a marked difference between North American research and the focus within Europe which emphasises limited recourse to formal criminal justice processes and institutions in addressing child and youth behaviour problems. This, in part, explains the relative lack of crime prevention specific research evidence across Europe as contrasted with the North American literature.
- Additionally, the literature examined here demonstrates a varying spectrum of scientific rigour concerning research design, and generally a lack of research that considers measures relating to the progression of juvenile delinquent acts or behaviours, and implications for future engagement with the criminal justice system (i.e., long-term assessments, context-specific measures, longitudinal studies).
- Designing broad interventions aimed at strengthening social cohesion and integration to large cohorts can have positive effects for society at large, exceeding the initial underlying intention to strengthen resilience in at-risk individuals while simultaneously minimising the risk of stigmatisation.

2.3 Preventing Radicalisation Leading to Violent Extremism

- Some studies have identified individual risk factors associated with radicalisation, however most have only medium to small effect sizes, many overlap with risk factors well known from juvenile delinquency, such as low self-esteem and quests for significance, and are not suitable to be used as actuarial tools of prediction.
- Targeted, secondary prevention interventions should consider enlisting a wide support network - peers, family, teachers, coaches, religious leaders, etc. - allowing for responses tailored to individual and local contexts.
- Protective factors against radicalisation include non-violent peers, bonding to school, attachment to society, highlighting the promise of broader interventions aimed at building resilience and empowerment.
- Using resilience as the foundation for an integrated framework of prevention appears to show promise due to its holistic approach and wide applicability. However, currently there is little rigorous empirical evidence to support interventions focusing on resilience and, consequently, more empirical evidence is needed.
- Developing inclusive and community-focused programmes ensures broad applicability, mindful of and suited to the local context.
- Experiences of participation in everyday democratic processes of dialogue and decision-making can provide an anchor to commonly held value systems, countering extremist values via a greater sense of inclusion and empowerment.

- For primary prevention programmes in educational settings and open youth work to be successful and not counterproductive, evidence in the literature examined highlights the need to:
 - Ensure integration of all minorities;;
 - Equip young people with tools to learn critical thinking, rather than focusing on a particular ideology or cause;
 - Empower youths with ways in which they can actively participate in the democratic process;
 - Clearly define core values (e.g. democracy, human rights);
 - Provide a safe space for exploration and discussion without the fear of referral to authorities.
- While interventions in educational settings are popular, their role in preventing onset is not yet well explored and there remains a weak evidence base.
- While significant resources have been invested in counter-radicalisation interventions, there is frequent evidence of a lack of clarity around aims and outcome measurement, which render establishing effectiveness difficult.

2.4 Preventing and Reducing Trafficking and Organised Crime

- The dominant approaches to organised crime and trafficking remain ones focused on law enforcement through policing, prosecution and punishment, however given their limited effectiveness as prevention strategies, some municipalities have increasingly deployed a variety of administrative measures and ordinances with some success.
- Law enforcement strategies should focus on reducing violence related to organised crime, as well as protecting state institutions from infiltration from organised crime groups.
- Disrupting the business model and underlying structures of organised crime provides opportunities for crime prevention – including, for example, the closure of premises, the seizure of assets and revoking permits under municipal by-laws.
- Organised crime groups are constantly adapting in response to changes in technology, legislation and demand for services, hence there is a need to monitor situations and adapt policies accordingly.
- Research suggests a need to examine and understand the underlying drivers facilitating the trafficking of human beings - i.e., contributing industry sectors, to target responses – and to foster policies promoting inclusion and integration of marginalised communities, reducing their dependence on crime and the illicit economy.
- Cross-border problems require cross-border solutions. Cross-jurisdictional collaboration between origin and destination countries helps us to further understand the underlying context driving the supply and demand of phenomena such as human trafficking, potentially enabling more effective measures to be implemented in response.
- Studies highlight the importance of multi-agency partnerships and inter-agency cooperation. Holistic responses are required to address the inherent complexity of the phenomenon of organised crime and trafficking. These are enhanced where a clearly defined framework of responsibilities and accountability between partners is adopted. Ineffective partnerships and a lack of information sharing are the most common reasons for implementation failure.

2.5 Design, Innovation and Technology

- Early intervention also demands considering the crime and security consequences of change and innovations - in technology, products and services - at the design stage, rather than retrofitting partial solutions after innovations have occurred.
- Interventions at the design stage enable up-stream, early opportunities to effect security and harm reduction outcomes, rather than retro-fitting changes after the event. Secured by Design, Crime Prevention Through Environmental Design (CPTED) and 'defensible space' theories have all offered important insights that have informed practical and often successful measures. The design of motor vehicle security and the subsequent decrease in vehicle related crime is a notable example.
- Designs, however, must avoid being narrowly conceived around security at the cost of other social goods and security requirements need to be creatively balanced with a range of others including, aesthetics, convenience/accessibility, social inclusion and environmental sustainability.
- Designing in crime and security features into new interventions necessitates active engagement and responsibility on behalf of the producers of new technologies, services and products, as well as designers and architects. As the example of the Car Crime Index (in the 1980s) demonstrated, this can require significant political and organisational buy-in as designing in crime prevention and security features from the outset may be costly and disruptive to wider commercial imperatives.
- Vulnerability-led design responses or too much emphasis on security can promote fear of crime and insecurity and foster social polarisation, with adverse implications for wellbeing.
- Human-centred design solutions afford sensitivity to local context, a focus on the nature of the problem(s) to be addressed, an understanding the causes of social problems, the nature of social interactions and the ways in which people use and adapt to solutions/interventions.
- Involving communities (or representatives) in the design of interventions creates a sense of (local) ownership and participation, as well as ensuring local context is accounted for and incorporated.
- Cost-benefit analyses suggest that resources spent on security, policing and crime prevention might sometimes be better spent on other public services and essential infrastructure - i.e., health, education, transport and culture.
- There has been a tendency to prefer technological solutions – i.e., hardware – to human solutions in regard to addressing security concerns, with less regard for the intersection and interaction between social and technological processes; between technology (as hardware) and people.
- Social media and the online space is often portrayed as the cause of problems and harms, but its potential as a platform for positive intervention, learning and change should not be overlooked or underestimated.

2.6 Designing and Managing Safe Public Spaces

- Research highlights the value of compliance strategies that decentre the police and engage informal actors, civil society mediators and forms of persuasion, self-regulation and capacity building, rather than resort to coercive law enforcement, police, prosecution and punishment.
- By putting the community back into public space, a sense of ownership and guardianship over the space can emerge. Popular activities placed at the heart of empty public spaces can reclaim the space for legitimate users. This increases natural surveillance and the risk of detection of criminal and undesirable activities.
- Poorly maintained and managed spaces can feel unwelcoming and intimidating to legitimate users and may encourage disorder and disorderly behaviour. Interventions targeted at places and problems before they reach 'tipping points' in the escalation of risks and harms can impact positively on public perceptions and, hence, levels of use. Use of public space fosters perceptions of safety. Underused and desolate public spaces are often fear-inducing.
- There are significant gender differences with regard to perceptions of safety in public spaces across Europe. Across time, there have been some improvements, as measured by the European Social Survey since 2002/3 (when the survey first ran). Throughout Europe, overall feelings of safety have generally improved for both genders but women remain between 2.5 and 5.7 times more likely to feel unsafe than men in almost all countries. Overall gender differences remain stubbornly persistent.
- Much of the current public space literature either presents a very narrow focus for targeting specific behaviours and the immediate circumstances in which they occur, or entails a broad urban strategy that includes safety of public spaces as elements nested within a much wider overall framework. Strategies and programmes with other motivations, priorities, rationales and justifications may, nonetheless, impact positively on perceptions of safety and experiences of security. As such, consideration should be made as to how strategies pertaining to safety within public spaces are determined, as well as how they best fit the local contexts and address local issues.
- Crime prevention as a field has historically been the responsibility of policing, but in recent decades it has shifted to include a more comprehensive approach. In developing and implementing crime prevention mechanisms and strategies within public spaces, the need for a detailed and focused planning process – based on good quality scanning and analysis – is vital to gain valuable insight from numerous departments, stakeholders and local communities.
- Effective feedback and assessment from the community is a necessary element of any crime prevention strategy or initiative to improve the design and management of safe public spaces. Our findings indicate that many cities are employing community-wide safety assessments by which local citizens provide direct feedback concerning the safety and security of their neighbourhoods. Such assessments, sometimes complemented by open-source data, offer valuable insights into communities' perceptions and priorities. It also requires authorities to consider the diverse composition of designated communities, specify the desired goals and outcome criteria and clarify the manner in which to use and share such assessments.

- From our findings, it is clear that crime prevention strategies for public spaces are more effective than simply implementing formal prevention elements. Consideration should be given to community-based strategies that decentre the police and law enforcement and engage informal actors, civil society mediators and forms of persuasion, self-regulation and capacity building aligned to local contexts and needs.
- One of the main prevention elements specifically identified in this focus area was the use of CCTV, but findings from this Review indicate mixed outcomes. Research suggests that CCTV has been implemented too indiscriminately with insufficient regard to the benefits, costs, outcomes and their sustainability within specified contexts. When used as an independent prevention element, CCTV seems to lack any particularly effective results, but can be effective when included in a comprehensive prevention strategy.

2.7 Data, Methods and Measurement

- Urban security demands different data than crime data alone and necessitates thinking differently about – and differently measuring – indicators of ‘success’ and outcomes in the evaluation of interventions. Factors such as levels of perceived unsafety, civic tolerance, social cohesion, trust in authority, community well-being and victim support are salient outcomes in urban security.
- Good quality data collection and sharing across relevant organisations, as well as ethically sensitive data management and use: allow for joined-up provision; afford opportunities for joint analysis and coordinated working between relevant agencies; provide the capacity to track and support individuals and families through service provision/ diverse interventions, and assess their trajectories; provide an evidence-base from which to assess effectiveness; ensure the best use of resources and facilitate best practice; and afford opportunities to monitor performance and render services accountable and reviewable.
- Good quality, shared data are vital in clarifying and defining the nature and extent of the problem(s) being tackled through focused analysis to ensure a properly problem-based intervention.

‘Lived experience is very often ignored. When it comes to crime statistics, the reality in most communities is that you can tell people they are safe until you are blue in the face, but if they don’t experience it or perceive it to be true, it doesn’t matter. So, there needs to be a much bigger conversation about how we value different kinds of data, because that will influence the way we capture data and what we do with the data.’

Dr Barbara Holtmann, Fixed Africa

‘If you take the view that you’re trying to prevent crime on a problem-solving basis, then you need to be very clear on what the problem is, and that means you need data.’

Professor Gloria Laycock, University College London

- There is often a confusion between risk factors as 'flags' for (or indicators of) causes and causal mechanisms themselves, particularly evident in preventing juvenile delinquency. To distinguish between 'causes' and 'flags', we need to identify a plausible explanatory process (theory of change) that connects the supposed cause and effect and that actually produces the effect.
- Interventions and their evaluation need to be clearer about the causal factors (and the theories of change) that it is assumed will cause a mechanism to produce certain desired outcomes. Hence, we need strong and credible reasons for how and why the assumed cause will produce the effect in question.
- Evaluation is important for **development** (to help strengthen institutions), for **knowledge** (to provide a deeper understanding of specific questions or fields) and for **accountability** (to measure the outcomes and their effectiveness/efficiency).
- Methodologically, the 'what works' movement - through its emphasis on quasi-experimental methods and random control trials - has (deliberately) focused attention on single interventions and sought to remove contextual factors and the analysis of the implementation processes, in order to highlight constant conjunctions.
- Programme evaluations need to play greater attention to both the context and the processes of implementation in informing **what works, where and for whom**.
- For evaluations to be meaningful, the aim of the intervention needs to be clearly defined, as do subsequent outcome measures by which the success of the intervention can be assessed.
- Rather than seek to evaluate the presence or absence of a successful crime preventive effect, there is a need to explore the causal mechanisms (or 'theories of change') that are believed to underlie and produce those effects/outcomes (or their absence). Understanding how something works or is intended to work, enables more focused design of interventions that also take account of contextual factors.
- Knowledge about failure and of undesired side effects is as important as learning about success. Urban security evaluations tend to focus on success stories and in policing interventions too often appear 'doomed to succeed' (Crawford 2017: 204).

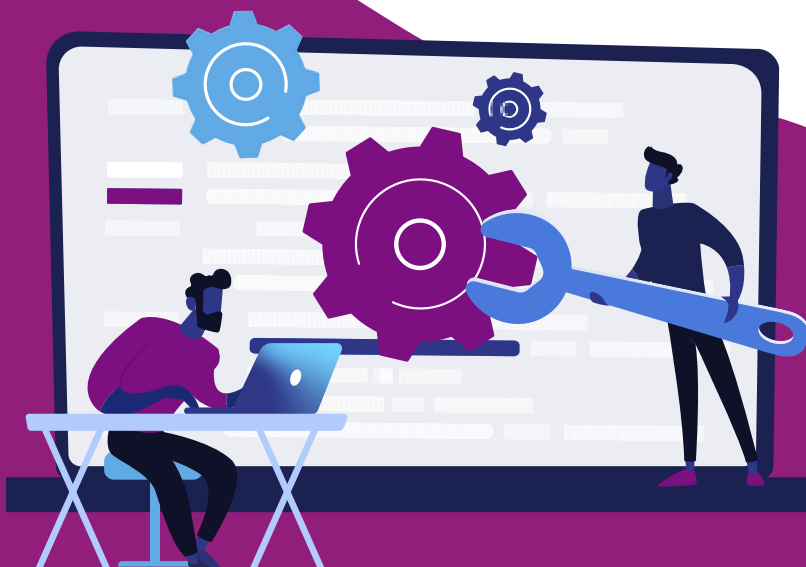
'The evidence base is incredibly immature, if you're looking for specific initiatives. But I think we've got a huge amount of knowledge about how to solve problems... And I think the police need to behave like engineers. They need to experiment. They need to try things. They need to see if they work or not. The trouble with police culture is they're not allowed to fail. And if you're experimenting, you are taking risks and you're risking failure. And there's a huge cultural reluctance to take risks for all sorts of understandable reasons.'

2.8 Implementation Matters

- The overwhelming lesson from the last 30 years is that the institutional context and resistant organisational cultures have often undermined the implementation of research-informed urban security and crime prevention. It is not that the science is poor with regard to crime prevention and urban security – although it is inevitably incomplete, in some places inadequate and shifting in the light of technological and social change - but rather that it is not being implemented or implemented in inappropriate ways, circumstances and situations that constitute the most basic contemporary challenge.
 - The importance of political leadership, public trust and institutional commitment, support, appropriate levels of resources and buy in from relevant stakeholders are all pivotal to the success of interventions.
 - Communicating the successes of crime prevention and the effectiveness of up-stream early interventions in ways that elicit long-term political commitment and organisational change remain a considerable challenge.
 - There is a long history of successful experimentation in urban security with robust evaluation to support their effectiveness and impact, but the lessons from which are not mainstreamed and realised in routine organisational practices or not appropriately transferred to other places and populations.
- 'We are left wondering why we cannot implement measures that we know will work, reduce crime, and cost less for law and order.'*

Professor Irvin Waller, University of Ottawa

- Demonstration projects may provide interesting insights and learning but will result in little change if they are not embedded within infrastructures that align with cultural values, underpinned by sustainable funding and supported by long-term organisational commitments.
- Effective multi-stakeholder partnerships require: shared ownership; clearly defined outcomes and expectations of each contributing partner; acknowledgement of asymmetries of power differentials; constructive negotiation of conflict; mutual understanding and regard for difference; trust and information-sharing; and meaningful engagement with end-users and beneficiaries.
- Developing shared values in collaboration demands that partners understand each other's priorities, values, positions and limitations well enough to have meaningful dialogue about the different interpretations of the problem, and to exercise collective intelligence about how best to seek to resolve it.
- Insufficient regard has been accorded to understand the diffusion of innovations and the structural features of organisations, including their propensity to take up new knowledge (**absorptive capacity**) and the presence or not of a **receptive context for change**, including things like organisational culture and environment (Greenhalgh et al. 2004).
- Responding to public perceptions of insecurity by providing additional security interventions, technologies or hardware may fail to engage with the issues underlying these demands. It may also miss the opportunity to subject these demands to rational debate and local dialogue. Hence, the need to engage local publics, stakeholders and user communities in genuine problem-solving processes that investigate beyond the immediate appearance or superficial expression of security problems.
- Seeking solutions to problems of local order through security alone may serve to exacerbate population's fears and entrench perceived lines of difference within and among local communities.



3.

Key Knowledge Gaps

Compared to the field of healthcare and medicine, the urban security evidence base remains embryonic. While much has been learnt about the effectiveness and efficacy of urban security interventions over the past 30 years, there remain persistent knowledge gaps and uncertainties in the face of technological and social change. In the field of urban security where risks and harms are continuously changing, moving and evolving in dynamic fashion, there are both 'known unknowns' and 'unknown unknowns'. Here, we focus on the former.

- Predicting future crime and security trends and developments, given their dynamic nature is intrinsically difficult.
- All evaluations produce knowledge of what worked (in the past) for a particular population, under specific circumstances, at a particular time and may not hold for a future population at a different place or time. The inferences that can be drawn are contingent.
- The knowledge base with regard to causation and the causal interactions between multiple factors remains limited.
- The role that social, educational and welfare provisions play in shaping the propensity for crime and criminal behaviours remains poorly understood.
- Too little is known about and insufficiently robust data are collected concerning the processes of implementation that influence the effectiveness of urban security interventions.
- There is insufficient understanding of the ways in which context shapes successful outcomes and the nature and extent to which particular preventive mechanisms are context-determined or context-dependent.
- More can be learnt comparatively about the ways in which urban security interventions and their effectiveness are shaped by differing culture, social practices and legal, political and administrative frameworks.
- There is a need to better understand the extent to which crime prevention lessons from the physical world translate into cyberspace and their possible application (or not) to online environments.
- The implications for urban security of artificial intelligence (AI), machine learning and algorithms build into products, services and utilities are largely uncharted, as expert knowledge and processes of interpretation are replaced by machine learning and automated decision-making. What we do know is that these algorithms are not impartial but embed with different assumptions about behaviour and risk that are opaque and obscure. As such, they raise fundamental ethical and normative questions about the values that inform the future of urban security.
- Climate change, an ageing population and growing social polarisation, diversity and inequality are all likely to interact with wider social and technological change in ways that are more complex, interconnected and interdependent, raising new challenges for the tense relationship between liberty, security and other social values.

There is a greater need for urban security researchers, policy-makers and practitioners to better understand the limitations and constraints of the other parties' motivations, values and priorities in co-producing effective interventions. Certainly, the last 30 years have witnessed a greater mutual recognition across these different professional groups often forged through greater partnership working. There remains, however, considerable scope for further collaborations that engage researchers, practitioners and policy-makers/administrators in the process of mutual learning, knowledge generation, programme co-design and implementation of the kind that the IcARUS project is advancing.

This requires a degree of 'boundary crossing' that recognises the differences which structure social worlds and organisational groups, but also the need to work across these in dynamic ways that prompt continual reassessment of assumptions, critical self-reflection and questioning of terminology. Realising organisational change in this context demands building inter-professional relationships of mutual respect, fluid and permeable disciplinary boundaries and the absence of a rigid hierarchy of knowledge forms, as well as a normative concern with action and practical outcomes.

Ultimately, research evidence is only one element in the development and design of contextually appropriate and legitimate urban security intervention that address particular problems, in given situations, at a specific time. Given the breadth of their competencies and role as local anchor institutions, city/municipal authorities – working in partnerships with various public, private and third sectors service providers – have a vital role to play in ensuring inclusive urban security policies that serve the needs of diverse communities and that harness expertise, resources, data and commitment of multiple actors in the interests of public safety, while simultaneously balancing these with wider social value judgements that inform the ethical principles, preferences, culture and aspirations of a society.

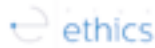
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