

Institution: University of Surrey		
Unit of Assessment: 18 Law		
Title of case study: Changing the Legal and Ethical Practices of Deminers		
Period when the underpinning research was undertaken: 2000 – 2016		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Rosalind Malcolm	Professor	January 1990 - present
Period when the claimed impact occurred: 2016 - 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words)		
<p>Malcolm was co-investigator of “D-BOX”, a project that changed demining practices in culturally sensitive areas, making an impact on industry, health, society, the environment, and the economy. (a) Industry: the project’s <i>Cultural Guidelines</i>, co-authored by Malcolm, have become an industry standard. The Guidelines are used by demining stakeholders to navigate sensitive legal, environmental, and cultural issues. An associated impact, from the ensuing goodwill with local communities, is to prevent projects stalling because of local tensions and concerns. (b) Health / Society / the Environment: increasingly effective and co-operative demining has had a positive impact on local communities who, freed from the risk of injury, are helped to repossess the land, and use it for housing, agriculture, or infrastructure. (c) Economic: improvements in demining efficiency have been cost-effective for funders including governments, NGOs, and philanthropists.</p>		
2. Underpinning research (indicative maximum 500 words)		
Background		
<p>Unexploded ordinances are a global threat, an estimated 110 million scattered in about 70 countries since 1960. A clearance rate of approximately 500,000 per year means it could take over 200 years to clear all ordinances. Generations in affected areas are thus exposed to an on-going risk of death or serious injury, often exacerbated by the fragile and fractured governance structures of some affected jurisdictions.</p> <p>D-BOX was a collaborative, international, multidisciplinary project, tasked to address the threat of unexploded ordinances. Malcolm was responsible for its Ethics and Governance components, and chaired the project’s Ethics Committee, advising on all research protocols. The project was a huge collective effort, involving 20 companies led by Airbus plc, with partners in France, Germany, Poland, Greece, Italy, Netherlands, Belgium, and Finland.</p>		
Research Insights		
<p><i>Research Underpinning Project Participation:</i> Malcolm was selected as a Co-Investigator of D-BOX because of her research on environmental law, especially a body of work on environmental impact [R4], environmental health governance [R3, R6], risk [R5], nuisance [R2 (chap 4)], contaminated land, [R2, (chap 9)], water security [R1, R3] and sustainability [R5]. Malcolm’s leadership role in D-BOX was additionally based on her work in legal ethics [R3].</p>		
<p><i>Key Project Research Findings:</i> Malcom’s expertise left her ideally placed to explore gaps in standard operating procedures relating to: (a) integration of deminers’ work with local communities, and (b) recognition of socio-legal and eco-legal matters. She evaluated these gaps in two ways: First, through hosting a workshop series at the University of Surrey, with participation by industry, military, and NGO stakeholders and, second, by surveying demining stakeholders and workers across the globe. Results showed that the demining industry rarely considered ethical issues or communities’ cultural sensitivities. The research further identified the source of these sensitivities: many unexploded ordnances are in areas with recent conflict, and low levels of trust</p>		

in military operations. This affected attitudes to demining because deminers typically have a military background. Moreover, the study found that arrival of a (usually) foreign team of deminers could be seen as a continuation of hostilities; distrust persisted therefore even though the removal of mines causing injury, and death, and obstructing daily life might be seen as a welcome intervention. The research disclosed some basis for suspicion, finding evidence of potentially unethical practices by some deminers, reflecting a disservice to communities, and to charitable and governmental funders. In proposing how demining might succeed, Malcolm's team found that community goodwill within the region is imperative: deminers need to work alongside local communities with overt deference to legal and ethical standards both to facilitate operations and efficiently to release land into ordinary civilian use.

Key Project Output: Informed by her research expertise and the above findings, *The Guidelines for Humanitarian Demining [R1]* are one of D-BOX's key outputs. Taking an accessible handbook form, the Guidelines assist demining stakeholders to navigate an array of legal and ethical issues that vary across jurisdictions [R7], including: the possibility that demining itself may contaminate land and water [R3, R4 and R5] and breach contaminated land regulation; the Sustainable Development Goals of the UN (which the Guidelines adopt); human rights obligations; the potential for criminal acts to disrupt projects; and risk management. Considerable employment law issues are addressed including potentially discriminatory practices and rates of pay between local and foreign employees; and respect for local laws on minimum working age, contractual rights, and occupational health / safety. Malcolm directed each of these aspects of the Guidelines.

3. References to the research (indicative maximum of six references)

[R1] Cultural Guidelines for Humanitarian Demining, 2016 Usher, D., I. Stănciugelu, S. Grainger, and **R. N. Malcolm** (peer reviewed, competitive project). ISBN 978-0-9954627-0-0

[R2] **Rosalind Malcolm**, 'Regulation and environmental health governance' in S. Battersby (ed), *Clay's Handbook of Environmental Health 21 Edition*. (Routledge 2016) (especially 128-136). ISBN 9780415716710

[R3] Mulugeta Ayalew, Jonathan Chenoweth, **Rosalind Malcolm**, Lorna Grace Okotto, Stephen Pedley, 'Small Independent Water Providers: their position in the regulatory framework for the supply of water in Kenya and Ethiopia' (2014) 26 (1) *Journal of Environmental Law* 105-128. (Peer reviewed, joint winner of annual Richard Macrory prize and key reference point). DOI : <https://doi.org/10.1093/jel/eqt028>

[R4] Mulugeta Ayalew, Jonathan Chenoweth, Thoko Kaime, **Rosalind Malcolm**, Lorna Grace Okotto, Stephen Pedley, 'Water Law, Human Health and the Human Right to Water and Sanitation' in Lankford, Bakker, Zeitoun, and Conway (eds), *Water Security: Principles, Perspectives and Practices* (Routledge 2013). (Book Chapter) (peer reviewed) ISBN 9780415534710

[R5] **Rosalind Malcolm** and John Pointing, *Statutory Nuisance: Law and Practice* (2nd ed. Oxford University Press, 2011); (1st ed., 2002) (especially chapters 9 (accumulations and deposits) and 4 (the concept of statutory nuisance) (peer reviewed) ISBN-13: 978-0199564026

[R6] **Rosalind Malcolm** and John Pointing, 'Statutory Nuisance: The Sanitary Paradigm and Judicial Conservatism' (2006) Vol 18 No 1 *Journal of Environmental Law* 37-54 (peer reviewed) DOI: [10.1093/jel/eqi048](https://doi.org/10.1093/jel/eqi048)

[R7] **Rosalind Malcolm**, 'Risk Assessment and Environmental Litigation' (2000) Vol II No 2 *Interdisciplinary Environmental Review* (ed. Kevin L. Hickey and Demetri Kantarelis) 123-140. (peer reviewed) DOI: [10.1504/IER.2000.053996](https://doi.org/10.1504/IER.2000.053996)

Key Grant(s):

R. Malcolm (Co-I/lead WP3, Surrey), Overall Project lead: Airbus Defence and Space SAS (France)
 Title: Demining tool-BOX for humanitarian clearing of large-scale area from anti-personal landmines and cluster munitions.
 FP7 Funding Programme, European Commission. Call SEC-2011.1.3-3
 1 January 2013 - 30 April 2016
 €6,898,085.95

4. Details of the impact (indicative maximum 750 words)

Incorporation of the Guidelines in an Industry-Standard CWA [S1]

Officially recognised by the EU and EFTA, the European Committee for Standardisation (CEN) brings together the National Standardisation Bodies of 34 European Countries. A CEN Working Agreement (CWA), once finalised, represents industry standards. *The Cultural Guidelines for Humanitarian Demining*, co-authored by Malcolm, now form part of one such CWA (granted for 3 years and renewed in 2020 for a further 3). Demining projects are guided by the CWA in crafting their plans, processes, and methods of working to improve their ability successfully to release lands to communities. The Guidelines identify vital issues that must be considered by deminers (and have not always been) such as religion, gender, culture, and the environment. Further, they enable the industry to recognise potential legal and ethical 'flashpoints' indicating where work needs to be done in advance of, and during demining to ensure goodwill. The Guidelines also assist to resolve governance gaps: unexploded ordnances are often a feature of unstable political settings where systems of governance and the rule of law fail to flourish. Demining operators are able to draw on the Handbook for Deminers despite gaps in national governance and use it as a practical aid to good practice.

A considerable challenge in drafting the Guidelines was to ensure beneficial impact on varied demining actors: Demining Projects can be sponsored by diverse agencies such as the host government, the EU, the North Atlantic Treaty Organization (NATO) or the UN. Implementing bodies are similarly diverse, including National Mine Action Authorities, the national military or police, NGOs, or commercial companies. Against this intricate background, legal precision is essential. The Guidelines translate sophisticated legal issues, extending to contaminated land, criminal interference with demining, human rights, conflict of laws, and employment law, into a format that is accessible across the demining sector as the industry standard, and transferable throughout demining operations. (See [S3], section on WP3 delivery)

Impact of the Guidelines on Demining Practices

The project output does not just create an available industry-standard CWA. More so, the impact of the Guidelines on demining practices has been significant. In 2017, Malcolm, along with CBRNE Ltd. (a leading global consultancy group on chemical, biological, radiological, nuclear, and explosive materials), surveyed a group of organisations involved in demining projects [S4]. The purpose of this survey was twofold: first to analyse the impacts of the Cultural Guidelines, and second, to raise further awareness of the Guidelines with organisations who had little familiarity with them. Survey respondents included the military, research institutions, commercial companies, contractors, and NGOs. The assessment of impact showed the following: (a) respondents' familiarity with the Guidelines was a direct result of the D-BOX project; (b) half of respondents indicated the Guidelines had moderate, significant, or major consequences in informing demining practices; (c) almost half of the Guidelines' standards had been implemented in respondents' demining projects; (d) where certain guidelines had not yet been implemented, the Guidelines were expected to have significant impact on future demining practices [S4].

Industry Perception

In her capacity as project lead for Ethics and Governance, Malcolm directed a team of military personnel, deminers, lawyers, psychologists, and ethicists. These actors benefited from project participation and results. The Guidelines were perceived by those outside academia, as a "force for good", (Dominic Kelly, managing director, CBRNE Ltd) [S5]. Stewart Grainger, a retired colonel and part of the D-BOX project, noted that the production of the Guidelines was informed by

sensitivity for the peculiarities of demining efforts. “*The basic value of the input from the University [of Surrey] was informing us of the existing national and international law*”, says Grainger. “*It was comforting, after much doubt and concern, that the University accepted that humanitarian deminers work in unique settings that prompt the modification of some practices prevalent in normal industrial and academic circumstances*” [S6].

Broader Use

The Guidelines have had a broad reach. Originating in D-BOX, they are now also the foundation of a Handbook for Deminers, promoted by CBRNE, and popular with demining firms [S1]. Key advice and working processes from the Cultural Guidelines have been synthesised into an Aide Memoire to demining groups, publicly available from the CBRNE website. The CWA is positively referenced by the Spanish Association for Standardisation and Certification (AENOR) [S7]. The D-BOX project itself was widely discussed in submissions to the *12th International Symposium “MINE ACTION 2015”* [S8, S9]. The Cultural Guidelines have been further translated and published by centres for standardisation of many countries, including, for example, Estonia, Hungary, UK and New Zealand [S2].

Direct Beneficiaries

The Guidelines have had an impact on the ethos and activity of demining. However, the ultimate beneficiaries of successful, co-operative demining are local communities. Among the significant benefits to communities have been: the easing of tensions in what might otherwise be troubled relationships; improved success rates of demining operations (releasing more of the natural environment to communities); mitigating the potential harm to health from unexploded ordinances; and enhancing the possibility for communities to safely socialise, work and play. Funders have also benefited: by improving how deminers plan and carry out their projects, the Guidelines have led to more efficient demining activities, able to meet budgetary constraints. These results help save funders’ resources, thereby encouraging sponsorship of additional demining efforts.

5. Sources to corroborate the impact (indicative maximum of 10 references)

[S1] Usher, D., I. Stănciugelu, S. Grainger, and R. N. Malcolm. European Committee for Standardisation (CEN) ‘CEN Workshop Agreement no. CWA 17008: Cultural Guidelines for Humanitarian Demining’ (2016):
https://standards.cen.eu/dyn/www/f?p=204:110:0:::FSP_PROJECT,FSP_ORG_ID:62372,2031878&cs=1539AD268243B9B183536F21F6F2048F2 (Full incorporated text at [R1] above)

[S2] [S1] above also published by standardisation institutes in:

Estonia: <https://www.evs.ee/en/cwa-17008-2016>

Hungary (included in PDF)

New Zealand: <https://shop.standards.govt.nz/catalog/17008%3A2016%28CWA%29/view>

UK: <https://shop.bsigroup.com/ProductDetail?pid=000000000030347994>

[S3] Project Final Report: <https://cordis.europa.eu/project/rcn/106629/reporting/en>

[S4] Rosalind Malcolm, Katrien Steenmans, Dominic Kelly. “Report on the Impact of Cultural Guidelines for Humanitarian Demining”. 2017.

[S5] Dominic Kelly, Managing Director, CBRNE Ltd: dominic.kelly@cbrneltd.com (testimonial)

[S6] Stewart Grainger, Colonel (Retired), BA, FCMI, AMRAeS, FInstRE:
ssgrainger@btinternet.com (testimonial)

[S7] AENOR (Spanish national standards body)14 – 19 at page 18: ‘AENOR Impulsa 40 proyectos’.

https://www.une.org/normalizacion_documentos/AENOR%20impulsa%2040%20proyectos.pdf
 (Citing D-BOX project and the CWAs)

Impact case study (REF3)

[S8] Dave Usher and Stewart Grainger, 'Human Error in Demining', The 12th International Symposium "MINE ACTION 2015", 129-132, 2015: Available at:
<http://www.ctro.hr/en/component/phocadownload/category/34-simpozij-protuminskodjelovanje-book-of-papers>

[S9] Franco Curatella, et al. 'Towards a Multifaceted Platform for Humanitarian Demining', in The 12th International Symposium "MINE ACTION 2015" 133-144, 2015. (Link at **[S8]** above)