



# Beyond the Trident Alternatives Review

## Britain is urged to commit to nuclear business as usual

Since the start of 2013 a number of high-level current and former policy-makers have been forcefully insisting that the UK maintain its current nuclear weapons policy for the foreseeable future, people like defence secretary Philip Hammond, former Labour defence secretaries George Robertson and John Hutton, and former First Sea Lord Alan West.<sup>1</sup> This means replacing the current Trident system with a like-for-like system and maintaining current nuclear policy of 'continuous-at-sea deterrence' (CASD) whereby one of the UK's four ballistic missile submarines is at sea on operational patrol in the Atlantic at all times ready to fire within days, or even hours of a decision to do so.

## This is a unique opportunity for an informed debate

Why the flurry of activity? Because the government's Trident Alternatives Study is nearing completion and is due to be delivered to the Prime Minister and Deputy Prime Minister any time now and those in favour of the status quo are keen to pre-empt its conclusions and close down the debate. But the debate can, and must, stay open. We must take the possibility of moving our nuclear policy further down the path that reduces the salience of nuclear weapons in international politics seriously.

Hammond *et al* insist we must stick with a like-for-like replacement and CASD. Any alternative will undermine our security and bring no benefit.

Their collective case rests on a fixed idea of nuclear deterrence and a narrow view of wider nuclear responsibilities. The arguments below challenge this view, and are presented as answers to four questions:

- Q1. Is what counts as a 'credible' nuclear deterrent threat fixed?**
- Q2. Do we need to keep our nuclear weapons permanently at sea?**
- Q3. Are there examples of alternative nuclear force postures?**
- Q4. Are there any benefits from changing nuclear policy**

# Trident Alternatives Study

## Trident Alternatives Study was a coalition compromise

The Liberal Democrats have always been unhappy with the programme to replace Trident with a like-for-like system set out by Labour in its 2006 White Paper on *The Future of United Kingdom's Nuclear Deterrent* and initiated by parliamentary vote in March 2007. In order to satisfy Liberal Democrat concerns the government's Coalition Agreement negotiated after the 2010 general election stated that 'we will maintain Britain's nuclear deterrent, and have agreed that the renewal of Trident should be scrutinised to ensure value for money. Liberal Democrats will continue to make the case for alternatives.'<sup>2</sup> In May 2011 agreement was reached that the government will conduct a formal 18-month assessment of 'credible alternatives' to a like-for-like replacement led by the Cabinet Office to report to both David Cameron and Nick Clegg.<sup>3</sup>

## Terms of Reference for the Alternatives Review

"The scope of the work will be limited to the following questions:

- (i) Are there credible alternatives to a submarine-based deterrent?
- (ii) Are there credible submarine-based alternatives to the current proposal, e.g. modified Astute using cruise missiles?
- (iii) Are there alternative nuclear postures, i.e. non-CASD, which could maintain credibility?

"The analysis should make an assessment of how alternatives could be delivered, the feasibility, cost and industrial implications, level of risk and credibility."<sup>4</sup>

## Conservatives are sticking to existing policy

The Conservative leadership has been, and remains, dismissive. The only option for the UK, they argue, is a like-for-like replacement of the current system and continuation of the CASD policy. David Cameron's view in 2010 was that 'the Liberal Democrats are absolutely entitled to use the time between now and 2016 to look at alternatives, from looking at those alternatives I do not think that any of them would give us the assurance of having a full-service nuclear deterrent with the Trident submarine and missile system. I do not think the alternatives come up to scratch in anything like the ways some of their proponents propose, but under our coalition agreement he is free to continue to look at that. The programme for replacing Trident is on track and going ahead.'<sup>5</sup> The outcome of the alternatives review will not change Conservative policy, though several leading Conservatives have expressed their scepticism, including former Conservative defence secretary Michael Portillo who argued in November 2012 that replacing Trident was "nonsense... completely past its sell by date ... its a tremendous waste of money, its done entirely for reasons of national prestige, it is wasteful and, at the margins, it is proliferatory."<sup>6</sup> There remains some level of uncertainty around whether the leadership will be willing to accept inevitable cutbacks in other defence capabilities at the expense of the Trident replacement programme that is set to dominate defence procurement spending for the next decade and a half.

## Labour policy remains in flux

There are some in the Labour Party committed to the case set out in the 2006 White Paper that the UK must remain a nuclear weapon state and that a like-for-like replacement continuously at sea is the appropriate solution, people such as Lords West, Robertson and Hutton. Others harbour serious concerns about nuclear 'business-as-usual' and think the UK should relinquish nuclear weapons altogether or substantially alter its nuclear policy. Former defence secretary Des Browne argued in response to Hammond that the UK could and should end the current practice of CASD and look seriously at alternative nuclear postures that reduce the financial burden of a nuclear capability and reduce the salience of nuclear weapons for our national security.<sup>7</sup>

The official line from the shadow cabinet is that they are awaiting the outcome of the Trident Alternatives Review and the BASIC Trident Commission.<sup>8</sup> Internal party debate will be resolved through the policy review and manifesto drafting process through 2013-14. Ever wary of being positioned as 'weak' on defence, the Labour leadership remains instinctively cautious on all things nuclear. The traumatic history of nuclear weapons decisions within the party during the Polaris and Trident debates of the 1960s and 1980s that threatened to tear it apart still resonate.

### Question 1.

## Is what counts as a 'credible' nuclear deterrent threat fixed?

The Alternatives Study's terms of reference refer to a 'credible' deterrent but the criteria for what counts as credible are not set in stone.

### Official UK definition of minimum credible deterrence seems inflexible

The theory of nuclear deterrence says you can prevent a nuclear or major conventional military attack by another state by threatening a nuclear attack in response. The prospect of nuclear devastation will change an aggressor's calculation of the costs and benefits of its actions, causing it to rethink. Current UK policy says that a credible and therefore effective nuclear deterrent threat requires up to 40 thermonuclear weapons deliverable by ballistic missiles of global reach from a submarine permanently at sea. Anything less than this is deemed not credible and therefore not effective.

### Deterrence remains theoretical with conceptual weaknesses

We should be cautious of such definitive statements for two reasons. First, we have, mercifully, never experienced a nuclear war (the nuclear bombing of Japan in 1945 was a one-sided affair) and as a result many arguments about nuclear strategy simply cannot be verified. Nuclear strategy has remained hypothetical and based on certain sets of logic rather than evidence; subjective political judgment rather than objective fact.<sup>9</sup> Walter Slocombe, former Under Secretary of Defense for Policy for President Clinton, observed in 2006 that "Discussion of nuclear weapons is almost entirely done in theoretical and conceptual terms. This has an important influence on how nuclear weapons decisions are made"<sup>10</sup> Furthermore, the practice of nuclear deterrence is not a rational, objective, exact science and a growing body of evidence indicates that the seemingly straight forward cause-and-effect equation at its heart is unreliable and success is far from assured.

Part of this lies in the fact that nuclear deterrence is a process, or a relationship, not an objective condition, and part of it rests on the extreme difficulty of linking nuclear use to any rational system of political means and ends.<sup>11</sup>

## **There are wide global variations in nuclear deterrent practices**

Second, ideas about what constitutes a 'credible' and therefore 'effective' nuclear deterrent threat have varied considerably across countries and within countries over time. India, for example, practiced a recessed form of nuclear deterrence through the 1980s and 1990s based on non-weaponisation of its nascent nuclear weapons capability. This 'weaponless deterrence' was judged to exert sufficient a deterrent effect with Pakistan based on the mere possibility that major aggression could result in a nuclear encounter.<sup>12</sup> In the United States, by contrast, a form of 'maximum' deterrence was practiced during the Cold War that based effective, credible deterrence on nuclear primacy and a whole range of nuclear forces from nuclear shells for front-line troops to plans for nuclear-tipped ballistic missile interceptors.<sup>13</sup> As a result of the interplay of history, technology and bureaucratic politics US conceptions of effective and credible deterrence still rest on the idea of a 'triad' of strategic nuclear forces: long-range bombers, sea-launched ballistic missiles, land based intercontinental ballistic missiles. Anything less is judged not sufficiently credible. Contrast this with the deterrent effect of North Korea's suspected handful of nuclear weapons with uncertain delivery capability, that some believe may have played a part in preventing the removal of the odious Kim dynasty.

The idea of nuclear deterrence is therefore a moveable feast, and one whose oft-asserted certainties are plagued by considerable conceptual weaknesses. It is not an objective condition and it rests, ultimately, on how a nuclear weapon state chooses to define it in order to legitimise its nuclear arsenal, policy and practice.<sup>14</sup>

## **There are actually a spectrum of deterrence options for the UK**

Advocates of a CASD nuclear policy insist we face an either/or dichotomy: either we have a like-for-like Trident replacement and CASD and have a 'credible' deterrent threat or we don't; there is no 'half-way house', no 'part-time deterrent'; it is one or the other. They go as far as to say that any attempt at achieving a middle ground will automatically lead to instability in a future crisis, because an adversary may be more tempted to call bluff on a system that does not feature highly in British military doctrine and because they might be tempted to use a pre-emptive strike before such a system could come online. The reality is more complex and forces us to think not in terms of either/or decisions but in terms of a spectrum of nuclear deterrence from the extremes of Cold War maximum deterrence right through the UK's current practices down to what has been called 'virtual' nuclear deterrence whereby a state's nuclear weapons are stored in a dismantled state with programmes in place to reconstitute and redeploy within a specific time frame. This is one key dimension of what is at stake in the Trident alternative debate: the idea of a spectrum of nuclear deterrence practices along which the UK might move vs. an either/or false dichotomy of either CASD or nothing.

## Question 2.

# Do we *need* to keep our nuclear weapons permanently at sea?

### CASD is a tactic against a bolt from the blue

Defence secretary Philip Hammond et al insist we can only exert a credible and therefore effective nuclear deterrent threat with nuclear forces permanently at sea. Why? Because the *credibility* of a nuclear deterrent threat requires nuclear forces to be 100% invulnerable to a pre-emptive 'bolt from the blue' attack that could wipe out our entire nuclear weapons enterprise in a single blow.

### But Russia is not now an existential threat

But scratch beneath the surface of this argument and the only country that can deliver such an attack against the UK now and for the foreseeable future is Russia and it is widely and officially acknowledged that the Cold War is truly over and that the possibility of a surprise Russian nuclear first-strike is so low as to be near zero, now and for the foreseeable future.<sup>15</sup> In fact the government acknowledges that the UK faces no major direct nuclear threat and hasn't for nearly two decades since we de-targeted our nuclear forces in the early 1990s.<sup>16</sup> That is fully one third of the time we have been a nuclear power (we conducted our first nuclear test in 1952) in which we have faced no threat that might conceivably invoke serious consideration of use. That must give pause for thought. One cannot rule out the possibility that this could change, but if an existential military, primarily nuclear, threat to the very survival of the country were to emerge we could over time reconstitute a continuous patrol if that were deemed necessary.

### Look at the uncertainties from the perspective of the aggressor

Nevertheless, some insist that any sign of invulnerability, any chink in the nuclear armour, will be seized upon by an adversary and invite a devastating pre-emptive attack in a crisis.<sup>17</sup> It is only CASD that keeps us safe, but this assertion (and that is what it is) rests on several problematic assumptions: First, any state contemplating a pre-emptive strategic attack would have to be absolutely confident that we did not, in fact, have a nuclear-armed submarine at sea at the time of its attack. Second, it would have to be absolutely certain that our entire nuclear retaliatory capability could be eliminated, that all our nuclear warheads had been destroyed or rendered undeliverable by other means, at that point and for at least the foreseeable future. Third, an adversary would also have to be absolutely confident that it would not suffer a devastating response from the United States and other NATO allies. Fourth, that even with all these assumptions met, that there would be sufficient reason for a potential adversary to launch a nuclear attack, with all the devastating impact upon its self in terms of economic, political and diplomatic blow-back.

### Uncertainty is sufficient deterrent enough

Would an adversary's calculus change dramatically in favour of pre-emptive strike if there were, for example, an 80 per cent chance of nuclear retaliation, or 60 per cent or 40 per cent, rather than 100 per cent? Undoubtedly it would not. If one believes in the logic of nuclear deterrence at all, as Messrs Hammond, Robertson, and Hutton surely do, then the very presence of nuclear weapons and the uncertainty of total success in pre-emptive measures induces appropriate caution.

## Abandoning CASD would not force us to escalate in a crisis

Okay, but surely, as Hammond and others have argued, if we did not have a nuclear-armed submarine at sea and we found ourselves in a serious crisis, a decision to sail a submarine would risk unintentional escalation leading to heightened chances of conflict. Far better, it is argued, to maintain CASD and avoid this hypothetical scenario altogether.<sup>18</sup> True, this risk cannot be eliminated. But, once again, rather than accepting this argument as the ‘truth’, we must look at our nuclear weapons policy in the context of our abiding commitment that we, as a country, would only ever use nuclear weapons in accordance with international humanitarian law applicable in armed conflict. We have explicitly accepted the judgment of the 1996 International Court of Justice ICJ Advisory Opinion on the ‘Legality of the Threat or Use of Nuclear Weapons’ that ‘the threat or use of nuclear weapons would generally be contrary to the rules of international law, and in particular the principles and rules of humanitarian law’ and that the only circumstances in which nuclear use *might* be lawful is in ‘*an extreme circumstance of self-defence, in which the very survival of a State would be at stake*’ (emphasis added).<sup>19</sup>

## Worrying about crisis signaling is a distraction

If a crisis unfolded in which the possible use of our nuclear weapons was a real possibility because the very survival of the state was at stake, any decision to sail a nuclear-armed submarine would likely be part of a much wider and observable mobilisation of the UK’s armed forces rather than this singular event. In such grave circumstances it is doubtful the government would be overly concerned or preoccupied with political signaling through the mobilization of this or that military capability. In any case, maintaining CASD does not eliminate the potential for crisis instability any more than ending CASD might exacerbate it. In a crisis where the use of nuclear weapons is considered a genuine possibility because the survival of the state is at stake it is quite possible (perhaps probable) that the government would prepare a second Trident submarine for operational deployment to complement the single submarine routinely on operational patrol in a CASD posture given the seriousness of the crisis.<sup>20</sup>

## There are in any case ways to mitigate unintended crisis signals

In any event, the unintended impacts of a decision to deploy a Trident submarine could be reduced in a number of ways. We could, for example, hold a nuclear-armed submarine in port for a period of months on enhanced alert ready to sail at short notice if intelligence suggests a heightened probability of attack. We regularly maintained a second Resolution-class submarine armed with Polaris ballistic missiles at 24 hours notice to fire its missile in port and 47 hours notice to sail to join the SSBN on patrol during the Cold War.<sup>21</sup>

### Question 3.

## Are there examples of alternative nuclear force postures?

There are a number of examples of nuclear forces being taken off continuous alert but with plans in place to return them to full readiness if required. Here are just two:

### 1) US nuclear cruise on low alert

In 1992 the US Navy withdrew its nuclear-armed Tomahawk cruise missiles (Tomahawk Land Attack Missile – Nuclear, or TLAM-N) from operational duty as part of the Bush-Gorbachev (later Yeltsin) Presidential Nuclear Initiatives to reduce, retire and consolidate a range of nuclear forces after the Cold War in 1991 and 1992. The missiles and warheads were “secured in central areas where they would be available if necessary in a future crisis”.<sup>22</sup> Procedures were put in place to enable the redeployment of TLAM-N cruise missiles on US attack submarines in a crisis. This included periodic certification of a number of attack submarines in the US Pacific and Atlantic fleets and Quality Assurance and Surveillance Tests (QAST) that involved a live test-firing of an unarmed TLAM-N to ensure the submarines could deploy and fire the missiles within 30 days of a decision to redeploy.<sup>23</sup> The submarines were upgraded with the necessary combat control systems, the missiles and warheads were maintained ashore, and crews were routinely trained and certified for nuclear operations. The missile was formally retired in the 2010 Nuclear Posture Review, but this working practice remained official policy for 18 years.

### 2) NATO nuclear arrangements are on long alert status

Nuclear deterrence remains a key part of NATO’s military posture and the US maintains between 150 and 240 forward-deployed B61 nuclear bombs at six airbases in Turkey, Germany, Italy, Holland and Belgium under ‘dual key’ arrangements.

They are assigned for delivery by F-15, F-16 and Tornado fighter aircraft referred to as Dual-Capable Aircraft (DCA).<sup>24</sup> The size and readiness of this nuclear arsenal has been reduced significantly since the end of the Cold War.<sup>25</sup> In 1995 the DCA fleet was reduced to a readiness posture measured in weeks rather than hours and minutes and in 2002 this was extended to months.<sup>26</sup> Hans Kristensen argues that ‘a readiness level of ‘months’ suggests that some of the mechanical and electronic equipment on the fighter aircraft needed to arm and deliver the nuclear bombs may have been removed and placed in storage’<sup>27</sup> The nuclear mission is maintained through pilot training, regular Nuclear Surety Inspections, NATO Tactical Evaluations and Steadfast Noon nuclear strike exercises.<sup>28</sup>

### There are credible reduced-readiness options for the UK

These examples demonstrate the possibility of operating UK nuclear weapons under a different conception of deterrence that maintains nuclear forces at much lower levels of readiness for a significant period. This could be based on nuclear-armed cruise missile capability deployed aboard the UK’s new Astute-class attack submarines – an option favoured by the Liberal Democrats. It could be based on ballistic missile submarines and Trident missiles in which the submarines are dedicated to the nuclear mission or configured as dual use submarines for nuclear and conventional missions. In fact, with serious and enduring pressure on the defence budget the armed services are increasingly opting for flexible, multi-use capabilities for other military equipment.

## Question 4.

# Are there any benefits from changing nuclear policy?

### Changing posture will save lots of money

If we accept that our understandings of deterrence are more fluid than Hammond et al would have us think and if we accept that we can think about stepping back from a CASD nuclear policy and configure our nuclear forces differently, then we come to the question of why? Economics play a substantial part in this with sustained resistance to spending at least £25 billion on replacing the current Trident system over the next two decades during a period of economic decline, growing hardship as public spending is slashed, and a defence budget under severe long-term pressure. Even a decision to reduce the number of nuclear patrols today would lead to substantial savings from running costs, from an increase in the life-expectancy of the current submarines (enabling a delay to the investment required), a reduction in the number of future ballistic missile submarines, and their longer life expectancy in turn.

### UK needs to continue its leadership on nuclear disarmament

A second part of the answer refers to the UK's responsibility as one of the five countries formally recognized as a 'Nuclear Weapon State' under the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT – the others being the US, Russia, France and China) to take a leadership role with others to make serious and sustained progress towards a world free of nuclear weapons. Just a month after the Labour government announced its intention to begin the process of replacing the current Trident system in December 2006, a new global opportunity to rethink nuclear weapons policies began to take shape.

### Recent US initiatives are reigniting the today's global push for global nuclear disarmament

In a seminal article in the *Wall Street Journal* in January 2007 former US Secretaries of State Henry Kissinger and George Shultz, former Secretary of Defense William Perry, and Senator Sam Nunn called for 'A World Free of Nuclear Weapons'.<sup>29</sup> The article argued that 'The end of the Cold War made the doctrine of mutual Soviet-American deterrence obsolete. Deterrence continues to be a relevant consideration for many states with regard to threats from other states. But reliance on nuclear weapons for this purpose is becoming increasingly hazardous and decreasingly effective.' The four asked: 'What will it take to rekindle the vision shared by Reagan and Mr. Gorbachev? Can a world-wide consensus be forged that defines a series of practical steps leading to major reductions in the nuclear danger?' They set out a number of steps requiring US leadership and said we need to reassert 'the vision of a world free of nuclear weapons and practical measures toward achieving that goal... Without the bold vision, the actions will not be perceived as fair or urgent. Without the actions, the vision will not be perceived as realistic or possible.' They repeated their call for progress with a second article in January 2008, this time with the support of Gorbachev in Russia and a host of senior former foreign and defence officials in the US, including former Secretary of State General Colin Powell, followed by three more in January 2010, March 2011 and March 2013.<sup>30</sup>

## And governments have adopted the call

Their powerful call for the international community to work towards a world free of nuclear weapons injected the possibility and urgency of nuclear disarmament with new credibility. It became a central plank of the Obama administration's foreign policy articulated in full in a major speech on nuclear disarmament in Prague in April 2009.<sup>31</sup> The call was soon joined by citizens, officials, parliamentarians, business and faith leaders, and former senior policy-makers beyond America's shores, including many from the UK, leading to a major international 'Global Zero' initiative launched in Paris in December 2008.<sup>32</sup> An International Commission on Nuclear Non-Proliferation and Disarmament sponsored by Japan and Australia was set up and released its final report on *Eliminating Nuclear Threats - A Practical Agenda for Global Policymakers* in December 2009, and a powerful statement by 100 international leaders from across the world and the political spectrum in October 2011 calling on heads of state to launch multilateral negotiations on nuclear elimination with a Nuclear Weapons Summit.<sup>33</sup>

## The UK also supports the goal

The Labour and Coalition governments both declared their full commitment to this goal and a desire to take an active leadership role in examining the practical steps and challenges involved. In that context in June 2007 Foreign Secretary Margaret Beckett declared that 'When it comes to building this new impetus for global nuclear disarmament, I want the UK to be at the forefront of both the thinking and the practical work. To be, as it were, a "disarmament laboratory".'<sup>34</sup>

## The UK has acted to reduce its dependence on nuclear weapons

The UK likes to frame itself as the most 'progressive' of the Nuclear Weapon States. It has taken a number of important steps to reduce the size, increase the transparency, and limit the operational posture and declaratory policy of its nuclear forces since the end of the Cold War. It has ended nuclear testing, ratified the Comprehensive Test Ban Treaty, ended production of fissile materials for use in nuclear weapons, declared its full commitment to nuclear weapons-free world and supported a number of initiatives towards that end. It agreed at the NPT Review Conference in May 2010 along with the other Nuclear Weapons States to 'further diminish the role and significance of nuclear weapons in all military and security concepts, doctrines and policies' and to 'commit to undertake further efforts to reduce and ultimately eliminate all types of nuclear weapons, deployed and non-deployed, including through unilateral, bilateral, regional and multilateral measures.'<sup>35</sup>

## But there are bigger benefits to moving further down the disarmament ladder

An opportunity now exists to continue on this trajectory and demonstrate international leadership in new ways by taking concrete steps to further diminish the salience of UK nuclear weapons in national security policy by reducing the operational readiness and size of its nuclear arsenal. The key to taking such steps is rethinking the commitment to continuous-at-sea deterrence and the argument that a credible and therefore effective nuclear deterrent threat requires 100% assurance of immediate and certain nuclear retaliation in all conceivable circumstances. This is eminently plausible in an era of negligible military threats to the survival of the UK.

We are not talking here, in the context of the Trident Alternatives Study at least, of relinquishing nuclear weapons but of rethinking how we understand nuclear deterrence with a view to reducing their salience, whilst retaining the capability to deploy nuclear weapons within a specific period of time in the event of a major military threat to the survival of the state.

## **We now face a major opportunity for UK to contribute to global security**

A further consolidation of UK nuclear weapons policy could set important precedents for progress towards global zero by establishing new norms of deterrence doctrine and practice for one of the original nuclear powers and one of the three depository states of the NPT.

Such a move would clearly indicate that the UK no longer sees a compelling reason to deploy nuclear weapons for immediate use but were being temporarily retained pending global elimination. A non-CASD posture would all but eliminate any intention to use nuclear weapons first in a crisis at short notice thereby reinforcing political and legal commitments to non-nuclear weapon states and providing a degree of strategic reassurance to other possessors of nuclear weapons. It would signify an important 'decoupling'<sup>36</sup> of nuclear weapons from the broad, day-to-day calculus of national security by demonstrating that the UK is prepared to learn to live without nuclear weapons operationally deployed at sea on a permanent basis as a precursor to learning to live without nuclear weapons operationally deployed at all.<sup>37</sup>

### **About BASIC (British American Security Information Council)**

BASIC is a small, transatlantic non-profit organization, working to build confidence in a shared, sustainable security agenda. We seek to test traditional concepts of nuclear deterrence as a security safeguard, and to bring policy-shapers together to focus on the collective security interests of non-proliferation and disarmament.

BASIC works in both nuclear weapon and non-nuclear weapon states, with a specific expert focus on the United Kingdom, United States, Europe and the Middle East. By bridging political and geographical divides, creating links between different perspectives in the nuclear weapons policy debate, and improving processes of negotiation and decision-making over nuclear weapons, we aim to address some of the strategic challenges posed by the changing global nuclear landscape.

BASIC is not a conventional advocacy organization. Nor is it a traditional think tank. What distinguishes BASIC from other organizations is our uniquely non-partisan, dialogue-based approach. We provide a discreet forum for constructive engagement between individuals from different geographical, political or cultural backgrounds on traditionally sensitive or complex issues.

Our aim is to break through existing barriers, rather than reinforce entrenched thinking; to build understanding of different perspectives and identify

commonalities; to use this to encourage fresh or alternative approaches; and to feed these findings back in to existing policy debate.

Our work aims to complement that of policy-makers, think-tanks, research organizations and advocacy groups.

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