Arming Big Brother

The EU's Security Research Programme

Ben Hayes

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T R A N S N A T I O N A L I N S T I T U T E

Statewatch
monitoring the state and civil liberties in the
European Union

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Arming Big Brother

ABOUT THE AUTHOR

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Arming Big Brother:
The EU s Security Research Programme

Ben Hayes, April 2006

Overview

This Statewatch-TNI report examines the development of the security-industrial complex in Europe and in particular the development of the EU Security Research Programme (ESRP). Spawned by the military-industrial complex, the security-industrial complex has developed as the traditional boundaries between external security (military) and internal security (security services) and law enforcement (policing) have eroded. With the global market for technologies of repression more lucrative than ever in the wake of 11 September 2001, it is on a healthy expansion course.

The story of the EU Security Research Programme is one of "Big Brother" meets market fundamentalism. It was personified by the establishment in 2003 of a "Group of Personalities" (GoP) comprised of EU officials and Europe's biggest arms and IT companies. The GoP's concern was a simple one: European multinationals are losing out to their US competitors because the US government is providing them with a billion dollars a year for security research – it recommended the EU match this level of funding to ensure a "level playing field". The European Commission has obliged with a "preparatory" budget for security research 2004-6, with the full ESRP to begin in 2007, and appointed an EU Security Research Advisory Board to oversee the programme. This makes permanent the GoP and gives profit-making corporations an official status in the EU, shaping not just security research but security *policy*.

Myriad local and global surveillance systems; the introduction of biometric identifiers; RFID, electronic tagging and satellite monitoring; "less-lethal weapons"; paramilitary equipment for public order and crisis management; and the militarization of border controls – technological advances in law enforcement are often welcomed uncritically but rarely are these technologies neutral, in either application or effect. Military organisations dominate research and development in these areas under the banner of "dual-use" technology, avoiding both the constraints and controversies of the arms trade. Tomorrow's technologies of control quickly become today's political imperative; contentious policies appear increasingly irresistible. There are strong arguments for regulating, limiting and resisting the development of the security-industrial complex but as yet there has been precious little debate.

1. Introduction: beware the security-industrial complex?

On 17 January 1961, outgoing US President Dwight "Ike" Eisenhower made his famous "military-industrial complex" speech.[1] "America is today the strongest, the most influential and most productive nation in the world", he began, conferring upon the US a global responsibility "to keep the peace… and to enhance liberty, dignity and integrity among people and among nations". But the US then faced "a hostile ideology – global in scope, atheistic in character, ruthless in purpose, and insidious in method". "Our military establishment is a vital element in keeping the peace", said Eisenhower, "Our arms must be mighty, ready for instant action, so that no potential aggressor may be tempted to risk his own destruction".

With the recent declaration of "war on terror" by the US and other governments the rhetoric is all too familiar. However, at this point in his speech Eisenhower changed tack, warning that the US had been "compelled to create a permanent armaments industry of vast proportions" in which "three and a half million men and women are directly engaged in the defence establishment". The annual expenditure on military security, he said, was "more than the net income of all United States corporations"! It was then that he famously warned "against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex" and its potential to "endanger our liberties or democratic processes":

> "Akin to, and largely responsible for the sweeping changes in our industrial-military posture, has been the technological revolution during recent decades. In this revolution, research has become central; it also becomes more formalized, complex, and costly. A steadily increasing share is conducted for, by, or at the direction of, the Federal government…
> In the same fashion, the free university, historically the fountainhead of free ideas and scientific discovery, has experienced a revolution in the conduct of research. Partly because of the huge costs involved, a government contract becomes virtually a substitute for intellectual curiosity… [I]n holding scientific research and discovery in respect, as we should, we must also be alert to the equal and opposite danger that public policy could itself become the captive of a scientific technological elite".

An "engaged citizenry", said Eisenhower, offered the only effective defence against the "misplaced power" of the military-industrial lobby. It must be remembered that Eisenhower was a Republican, a staunch anti-communist and a zealous Cold War warrior, contradicting his concern about liberty and democracy. But 45 years on, his fears are more relevant than ever.

The idea of a "security-industrial complex" has gained currency for a number of reasons. First, state police and security forces in Europe have been equipped with more and more military equipment, providing arms companies with a growing sideline. More broadly, the traditional barriers between *internal* and *external* security, and *policing* and *military* operations, have been eroded. Second, arms companies are joined in the emerging "security-industrial complex" by the burgeoning IT sector and its large multinationals, the IT revolution having thrown-up novel possibilities for the surveillance of public and private places, of communications, and of groups and individuals. Third, security-centric government responses to terrorism and the "war on terrorism" have accelerated all these trends.

2. Background: EU military and security policy

From the outset it is important to understand the broader context of the EU Security Research Programme (ESRP) and its relationship to other EU policy developments. This chapter attempts to provide the necessary background by briefly examining the fortunes of the military-industrial complex since the end of the Cold War and the emergence of the security-industrial complex. Attention then turns to EU military and security policy and the role played by the military-industrial lobby in shaping these policies. The following chapter examines the development and implementation of the ESRP itself.

Chronology

1992 (Feb.)	Maastricht Treaty on European Union signed, second (CFSP) and third (JHA) pillars to deal with justice and home affairs and security policy
1993 (Nov.)	Maastricht Treaty enters into force
1997 (June)	Amsterdam Treaty signed, EU military capability to be introduced in European Security and Defence Policy (ESDP)
1999 (June)	Amsterdam Treaty enters into force
1999 (Dec.)	EU agrees on creation of 50-60,000 Rapid Reaction Force
2001 (Feb.)	Nice Treaty signed, EU "crisis management" capability to be introduced under EDSP
2001 (June)	EU Military Staff declared operational
2001 (July)	European Advisory Group on aerospace created
2002 (July)	EU "Strategic Aerospace Review for the 21st century" (the "STAR 21" report) published
2003 (Jan.)	First EU crisis management mission, to Bosnia-Herzogovina
2003 (Feb.)	Nice Treaty enters into force
2003 (March)	First EU military deployment, to Macedonia
2003 (Oct.)	EU convenes Group of Personalities (GoP)
2003 (Dec.)	EU Security Strategy adopted
2004 (March)	GoP report: "Research for a secure Europe" published
2004 (June)	EU constitution signed, commits member states to progressive improvements in military capability
2004 (July)	EU Defence Agency agreed
2004 (Sept.)	Commission launches €65 million euro Preparatory Action for Security Research, 2004-2006
2004 (Nov.)	Military Capabilities Commitment Conference agrees on creation of EU "battle groups"
2005 (April)	European Security Research Advisory Board established
2005 (Dec.)	First Galileo satellite launched in Kazakhstan
2006 (Jan.)	EU Gendarmerie Force (EGF) launched in Vicenza, Italy

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Just like Ike

The end of the Cold War had suggested, albeit briefly, the decline of the military-industrial complex. Global military expenditure began to fall in the decade from 1987 and then started to rise again in 1998, continuing to rise ever since. In 2004 world military expenditure is estimated to have been $975 billion. This is just 6 per cent lower in real terms than at the peak of Cold War world military spending and accounts for 2.6 % of world gross domestic product (GDP) – or a global cost of $162 per capita.[2]

The decreasing demand for military equipment during the 1990s combined with the increasing costs of military research resulted in an increased concentration of ownership in the arms industry through mergers, acquisitions and privatisation, and the establishment of more and more joint ventures.[3] In 2004, the combined military sales of the world's ten biggest arms companies exceeded €256 billion ($315 billion) – this is more than double the annual EU budget.[4] Excluding China, 42 of the world's 100 largest arms-producing companies were European, together accounting for 30.5 per cent of arms sales by the top 100 (the 37 US and one Canadian-based companies in the top 100 accounted for 63.2 per cent of sales). The four largest European arms companies are BAE Systems (UK), the Thales group (originally French, now multinational), the EADS group (Germany, France, Spain) and the Finmeccanica group (Italy). More information on these companies is provided below.

According to *Eurostat* estimates, total defence expenditure by the 25 EU Member States in 2003 was €169 billion (1.7% GDP). This included €82 billion on defence procurement, of which €30 billion went on defence equipment (0.3% GDP). A small group of countries dominate European spending on military equipment and research. The most important arms-producing countries are the UK, France, Germany, Italy, Sweden and Spain – they account for approximately 90% of defence equipment production and 80% of EU defence procurement expenditure in the EU-25. The four largest producers - UK, France, Germany and Italy – represent approximately 80% of defence equipment expenditure.[5]

The UK Ministry of Defence, the world's second largest spender on military science, spent £2.6 billion (€3.8 bn) on research alone in 2004. This is around 30 per cent of the UK's *total* public research and development budget and far more than is spent on research by the National Health Service, for example.[6] This expenditure is documented in "Soldiers in the Laboratory", a 2005 report by *Scientists for Global Responsibility* that charts the increasing power and influence of the military over the direction of science, engineering and technology.[7] The report examines military research in four case-study areas: bio-sciences, nano-technology, space science and nuclear technology, showing how novel technologies are quickly "militarised" through the sheer weight of funding from arms-producing countries and corporations. Here, the idea of so-called "dual use" technologies (meaning those with both a military and civilian use) legitimises military research through the promise of longer-term benefits to society, masking the development (in these cases) of bio- and nano-weapons, "missile defence" (the Holy Grail in the control of space) and a new generation of nuclear weapons.

The privatisation of QinetiQ

On 12 January 2006, the British government announced the stock market flotation of QinetiQ; its world-leading defence technology and security company. It was created in 2001 out of the greater (and more commercially orientated) part of the Ministry of Defence's Defence Evaluation Research Agency. It was partially privatised the following year when 31% of it was sold to the US Carlyle Group with the government retaining a 56% stake and 13% going to employees.

The decision to fully privatise the company has provoked outrage both because it represents the sale of a valuable national technology resource that has been funded by the taxpayer for decades, and because of the vast profits that stand to be made from the deal. The company is expected to float for €1.9 billion and net the Carlyle group a €490 million return on the €60 million they paid in 2003. Similarly, chairman John Chisholm stands to make €35 million on his €185,750 investment. And *The Guardian* reports that although employees own 13% of the company over three-quarters are unlikely to benefit greatly from the windfall despite providing the intellectual resources the company has depended upon for its success. On 26 January, the National Audit Office (which monitors public spending) announced it would investigate several issues surrounding the flotation including whether parts of the company were sold off too cheaply to the Carlyle group.

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Turning the guns on ourselves – the emerging security-industrial complex

Security technology is now almost ever present in the mainstream media. While writing this briefing (in January 2006), the CIA has used unmanned aerial vehicles (UAVs) to assassinate "terror suspects" and innocent villagers in Afghanistan; the first of the EU "Galileo" satellites – which will eventually track the movement of vehicles and persons from space – was launched in Kazakhstan; "body scanners" were introduced on London's Heathrow airport rail link; the House of Lords voted against much of the controversial ID Cards Bill; and it emerged that 5.24% of the UK population have had their DNA taken from them by the police, making the UK the most DNA-profiled country in the world.

The EU is already actively promoting and funding the technology behind all of these policies and from 2007, when the full European Security Research Programme (ESRP) will be underway, hundreds of millions of euros a year will be up for grabs. However, there has been precious little debate about the establishment of the ESRP or the way in which technology, much of it military, is steadily transforming the way in which democratic states are governed. And where a wealth of information about military expenditure and the arms trade is available on the internet – thanks to diligent monitoring by a host of researchers, activists and campaign groups – the contemporary security-industrial complex remains opaque and relatively uncharted territory for researchers and campaigners alike.

Technologies of control   an armoury

restraint systems	explosives detection and remediation
firearms	chemical and biological defence
less-lethal weapons	transportation infrastructure security
pursuit management	communications interoperability
surveillance	biometric identification
unmanned aerial vehicles	information sharing and analysis
interception of telecommunications	cybercrime investigation
satellite monitoring	forensics
location tracking	DNA profiling
concealed weapon and contraband	nanotechnology
detection	risk assessment

Securing the EU: a "neocon" agenda?

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The EU remained a purely civilian organization until EU governments agreed the Amsterdam Treaty in June 1997. Where the "security of the Union" was concerned, member states would now support policies and practices "unreservedly in a spirit of loyalty and mutual solidarity".[8] The Amsterdam Treaty also allowed for the integration of the Western European Union (WEU) military alliance into the EU and the development of the European Security and Defence Policy (ESDP). This paved the way for an EU military capability.

The Amsterdam Treaty came into effect on 1 May 1999 and by the end of the year the EU had agreed to create a 50,000-60,000 "rapid reaction" military force. In October 1999, the Secretary General of NATO, Mr Javier Solana took up his post as the EU's High Representative for common foreign and security policy (CSFP) *and* head of the Council of the European Union (the institution working for the 15 EU governments) as its Secretary-General; in November he was appointed Secretary General of the WEU military alliance. At the Helsinki Council in December 1999, the EU governments agreed that not only was it to have an independent military capacity but that it should also create, as an adjunct to military policy, a "non-military crisis management" role as well.[9] This was incorporated into the Nice Treaty.

Since then, things have developed very quickly indeed – with very little public debate or interest from national parliaments or civil society groups. The EU's military and crisis management capability was first deployed in Macedonia in March 2003; there have been 14 further missions.[10] Bosnia remains the most significant deployment, the EU having taken over peace-keeping operations from NATO, though most of the seven thousand troops remained in place, simply switching from NATO to EU insignia. In 2004, the idea of EU "battle groups" – units comprised of 1,500 special forces – was floated. It is expected that these will be deployed in 2007.

EU security policy

EU security policy is split between its Common Foreign and Security Policy (CFSP) and Justice and Home Affairs policy (JHA), both of which have significant internal and external security dimensions. JHA is now one of the largest and most important areas of EU policy-making, encompassing immigration and asylum policy, judicial co-operation and criminal law and police co-operation. The development of a "Fortress Europe" (and the failure to protect the rights of migrants and refugees), the development of a "coercive" EU criminal law (and the failure to protect the rights of suspects and defendants), and the introduction of mandatory surveillance regimes (and the failure to respect EU data protection law) are of particular concern. A host of EU law enforcement agencies and databases are being developed in the JHA framework, including "Europol" (the European Police Office), "Eurojust" (the EU prosecutions unit), the EU Border Police and the Schengen Information System (SIS II).[11]

The Common Foreign and Security Policy deals mainly with external security and military policy but has an important internal security remit as well. This includes co-operation between the external security/intelligence agencies of the member states and decisions on EU sanctions regimes such as the "terrorist lists".[12] The development of an EU intelligence agency, the EU Joint Situation Centre ("Sitcen"), is another significant development, as is the recent launch of the EU Gendarmerie Force (EGF), involving paramilitary police forces from Italy, Spain, France, Holland and Portugal, in Vicenza, Italy in January 2006 (Vicenza also happens to be the seat of Camp Ederle, the third largest US base in Italy). The EGF HQ will have a staff of 30 with around 800 "troops" available for public surveillance, border control, general intelligence, criminal investigation, and the "maintenance of public order in the event of disturbances".

A fifth column: the military-industrial lobby

Over 15,000 professional lobbyists now operate in Brussels – the large majority representing business interests – all seeking to influence EU decision-making. Sadly, the European Commission has proved more than willing to award privileged access to corporate interests while resisting the imposition of ethics and transparency rules around EU lobbying.[13]

The influence of the military-industrial lobby and the emerging EU military-industrial complex is documented in Frank Slijper's briefing for TNI of 2005.[14] The biggest arms industry lobby group is the recently formed ASD – the Aerospace and Defence industries Association of Europe – the product of a 2004 merger between three older bodies: the European Defence Industries Group, the European Association of Aerospace Industries and Eurospace, the Association of European Space Industry. ASD's first three chairmen were Mike Turner, a CEO at BAE Systems, Pier Francesco Guarguaglini, Chairman and CEO of Finmeccanica and the current ASD chair, Thomas Enders, CEO of EADS.

Bringing in the private sector – the EU Advisory Group on Aerospace

The European Advisory Group on Aerospace was created by the European Commission in July 2001 to conduct a review of EU policy and make recommendations for the future. The group was comprised of five European Commissioners,[15] two members of the European Parliament,[16] Javier

Solana and seven aerospace industry chairmen, including those from Europe's four biggest arms companies.

Corporate representation on the European Advisory Group on Aerospace:
Jean-Paul Béchat, Chairman & CEO SNECMA
Manfred Bischoff, Co-chairman EADS
Sir Richard Evans, Chairman BAE Systems
Jean-Luc Lagardère, Co-chairman EADS
Alberto Lina, President & CEO Finmeccanica
Denis Ranque, Chairman & CEO THALES
Sir Ralph Robins, Chairman Rolls-Royce

The EU's "Strategic Aerospace Review for the 21st century", a.k.a. the "STAR 21" report, was published a year later in July 2002.[17] It recommended the creation of a "level playing field so Europe's industry can compete fairly in world markets"; major increases in investment in aerospace research and development backed by tax incentives for industry; EU regulation of all areas of civil aviation; and the development of a consolidated European space policy (again with adequate funding). Space policy includes the future Galileo satellite network and the development of "a fully Europe-based capability for surveillance, reconnaissance and command/control". The "ultimate goal" was the establishment of a:

> "European armaments policy to provide structure for European defence and security equipment markets, and to allow a sustainable and competitive technological and industrial base".

Militarisation: the draft constitution and the EU Defence Agency

In March 2003, the European Commission issued a Communication entitled "Towards an EU Defence Equipment Policy".[18] This took the same approach as the STAR 21 report (above), warning that the EU risked harming the competitiveness of European arms companies without better spending in defence procurement. The Commission even suggested that the prohibition of the sale of "dual use goods and technologies" to regimes with poor human rights records might be weakened:

> "Great care must be taken to prevent civil industrial sectors such as nuclear, chemical, biological, pharmaceutical, space and aeronautics, information technologies, which are potentially affected by the controls, from being constrained unnecessarily or unequally".[19]

The Commission also proposed the creation of an "EU Defence Equipment Framework overseen by an Agency" to "pull together national initiatives - especially in collaborative programmes in Research and development, and in off-the-shelf procurement". This would "encourage more Member States to join such programmes and it will enable the EU to draw, where appropriate, on Community mechanisms and instruments" (i.e. the EU budget). Before concerned observers had even had a chance to digest the Commission's proposals the following commitment appeared in the first draft of the EU Constitution:

> "*Member States shall undertake progressively to improve their military capabilities*. A European

Armaments, Research and Military Capabilities Agency shall be established to identify operational requirements, to promote measures to satisfy those requirements, to contribute to identifying and, where appropriate, implementing any measure needed to strengthen the industrial and technological base of the defence sector, to participate in defining a European capabilities and armaments policy, and to assist the Council of Ministers in evaluating the improvement of military capabilities" (emphasis added).[20]

This provision shocked anti-militarist campaigners and was widely cited in the (progressive) campaigns against the constitution in the Netherlands and France. But where did such an overtly militarist position come from?

List of experts heard by Working Group VIII on Defence:
Javier Solana (High Representative for the CFSP),
Gen. Rainer Schuwirth (Head of EU Military Staff),
Corrado Antonini (President of the *European Defence Industries Group*),
Jean-Louis Gergorin (*EADS*),
Laurent Giovacchini (DGA, French Ministry of Defence),
Peter Lundberg (Assistant DG, Defence Equipment Agency, Sweden),
Mr Anthony Parry (*BAE Systems*),
Gen. Carlo Cabigiosu (former KFOR Commander General),
Alain le Roy (Special Envoy of the European Union in the FYROM),
Gen. Gustav Hagglund (Chairman of the EU Military Committee),
Lord Robertson (Secretary-General of NATO),
Alain Richard (former French Minister of Defence),
Christopher Patten (Commissioner for External Affairs; emphasis added)[21]

By the time the member states signed the Constitution in June 2004 – all 852 pages of it (!)[22] – the EU Defence Agency (EDA) was all but up and running.[23] On 24 July 2004, Javier Solana was appointed head of the EDA. The EDA budget for 2005 was about €20 million. This was not enough for BAE, Thales and EADS who said the EDA risked becoming "a fig leaf to cover the nakedness of any real efforts to improve European defence".[24] In February 2006, Javier Solana told participants in an EDA R&D conference that there were strong "arguments for a substantial R&T budget for the agency".[25] Francois Lureau, head of France's defence procurement agency, said he "would like to see the EDA get 200 million euros [annually] by at least 2010",[26] a sentiment echoed by lobbyists, but a budget of €50 million appears more likely, with the possible establishment of an additional joint research fund overseen by the EDA under the control of contributing states.[27]

Solana's vision: "A secure Europe in a better world"?

In June 2003 (this time in his capacity as EU foreign and security policy chief) Javier Solana set out his vision of "A secure Europe in a better world" to the European Council in Thessaloniki, Greece. Six months later, Solana's vision was adopted by the EU as the "European Security Strategy".[28] In more respects than one might expect, the EU strategy closely resembles the infamous neo-conservative "Project for a New American Century" published in 2000 and widely seen as a blueprint for US foreign policy post-11 September 2001.[29]

There is none of the naked aggression of the US "neo-cons" in the EU strategy but the underlying thesis is exactly the same: global policing of global threats, pre-emptive "threat prevention" and military intervention in failed states. In fact, the propensity to "pre-emptive strikes" suggests something of a division of labour between the US and EU – with the Pentagon having just announced that it fully expects to be fighting a "long war" against terrorism and other threats to security "in dozens of other countries simultaneously and for many years to come",[30] the developing EU crisis management and peacekeeping capabilities may be stretched to the limit in going where the US has gone before.

Project For A New American Century	A Secure Europe In A Better World
"As the 20th century draws to a close, the United States stands as the world's most pre-eminent power. Having led the West to victory in the Cold War, America faces an opportunity and a challenge: Does the United States have the vision to build upon the achievement of past decades?	"As a union of 25 states with over 450 million people producing a quarter of the world's Gross National Product (GNP), the European Union is inevitably a global player … it should be ready to share in the responsibility for global security and in building a better world"
"[What we require is] a military that is strong and ready to meet both present and future challenges; a foreign policy that boldly and purposefully promotes American principles abroad; and national leadership that accepts the United States' global responsibilities.	"We need to develop a strategic culture that fosters early, rapid and when necessary, robust intervention… To transform our militaries into more flexible, mobile forces, and to enable them to address the new threats, more resources for defence and more effective use of resources are necessary…
"Of course, the United States must be prudent in how it exercises its power. But we cannot safely avoid the responsibilities of global leadership of the costs that are associated with its exercise. America has a vital role in maintaining peace and security in Europe, Asia, and the Middle East. If we shirk our responsibilities, we invite challenges to our fundamental interests. The history of the 20th century should have taught us that it is important to shape circumstances before crises emerge, and to meet threats before they become dire…	"Our traditional concept of self- defence – up to and including the Cold War – was based on the threat of invasion. With the new threats, the first line of defence will often be abroad. The new threats are dynamic. The risks of proliferation grow over time; left alone, terrorist networks will become ever more dangerous. State failure and organised crime spread if they are neglected – as we have seen in West Africa… we should be ready to act before a crisis occurs. Conflict prevention and threat prevention cannot start too early.
– *Statement of Principles, Project for a New American Century, 2000*	– *European Security Strategy, Javier Solana, 2003*

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3. The EU Security Research Programme

The decision to create the EU Security Research Programme (ESRP) was taken informally by the European Commission in 2003. There was no formal legislative proposal as is usual for the establishment of EU budget lines, so there was no consultation of the European and national parliaments. Instead, drawing on the experience of the "STAR 21" report (above) and the more recent "Leadership 2015 High Level Advisory Group" on the future of the European shipping industry,[31] the European Commission decided to form a "Group of Personalities" (GoP) to oversee the development of the ESRP – or a "Group of Dr. Strangeloves" as *Statewatch* described them.[32]

The "Group of Personalities"

The GoP included the Commissioners for Research and Information Society, plus, as "observers", the Commissioners for External Relations and Trade, Mr. Solana from the Council, together with representatives of NATO, the Western European Armaments Association and the EU Military Committee. Also represented were eight multinational corporations – again including Europe's four largest arms companies, joined now by some of Europe's largest IT companies – and seven "research" institutions, including the Rand Corporation (see further below). Four MEPs were there as well to try to add a democratic sheen to the process. The proceedings were familiar to at least to one of them – Karl von Wogau MEP (see further below) had also been a member of the European Advisory Group on Aerospace (above).

Each member of the GoP assigned a "sherpa". The GoP *rapporteur* was Burkhard Schmitt, assistant director of the EU Institute of Security Studies (see further below) and someone described by the US Army War College's Strategic Studies Institute as a "proponent of free trade in the defence industry".[33] Schmitt was also involved with the STAR 21 report (above) and would later co-author "More Euros for European Security Policy" in von Karl von Wogau's (Ed.) book: "The Path to European Defence" (see further below).

Given the relevance of security research and technology to EU Justice and Home Affairs policy, JHA Commissioner Vitorino was the most notable absentee, his exclusion reflecting the overall military (rather than civilian) orientation of the GoP (note also the inclusion of defence ministries and the exclusion of interior ministries). Another notable absentee, given the implications of the research, was the European Commission's "Group on Ethics in Science and New Technologies" which was set-up to advise the EU on precisely this kind of issue.[34]

Personalities and their Sherpas[35]

The Group of Personalities only met twice and there exists very little public information about its proceedings. After its first meeting, in Brussels on 6 October 2003, the Commission produced a "fact sheet" explaining that the GoP was advising the EU with "guidance" for the "European Security Research Agenda".[36] According to a subsequent note from the Commission, dated 10 October 2003, the GoP's recommendations would "be included in a Communication to be presented by the Commission by the end of 2003".[37] This Communication was produced in February 2004; the GoP report was produced a month later.

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Organisations	Members	Their Sherpas
European Commission		
DG Research	**Philippe Busquin** (BE) Commissioner	**Jack Matthey** (FR) Director Space/Transport
DG Information Society	**Erkki Liikanen** (FI) Commissioner	**Frans de Bruine** (NL) Director Communication Networks
Companies		
EADS	**Rainer Hertrich** (GE) CEO	**Daniel Deviller** (FR) Chief Technology Officer
BAE Systems	**Mike Turner** (UK) CEO	**Bill Giles** (UK) Government Affairs
THALES	**Denis Ranque** (FR) CEO	**Dominique Nodet** (FR) Strategic Planning Director
FINMECCANICA	**Pier F. Guaguaglini** (IT) CEO/Chairman	**Giovanni Barontini** (IT)
ERICSSON	**Eric Lowenadler** (SW) President	**Svante Bergh** (SW) Strategic Marketing Director
INDRA	**Javier Monzon** (SP) CEO/Chairman	**Emma F. Alonso** (SP) International Affairs Director
SIEMENS	**Claus Weyrich** (GE) Head Corporate Technology	**Peter Dreyer** (GE) VP EU Affairs
DIEHL	**Thomas Diehl** (FR) CEO/Chairman	**Michael Langer** (FR)
Research/Institutions		
TNO(1) (NL)	**Jan Dekker** (NL) CEO	**Cees Ebberwijn** (NL) Director Public Safety
FRS(2) (FR)	**François Heisbourg** (FR) Director	**Hélène Masson** (FR) Research Chief
RAND Corporation (SW)	**Carl Bildt** (SW) Member of Board of Trustees	**Frederik Johanson**
Greek Defence Ministry	**Ilias Pentazos** (GR) Defence Industry Director	**Panagiotis Gavathas** (GR)
ISCTE(3) (POR)	**Maria J. Rodrigues** (POR) Economy Professor	**Alvaro de Vasconcelos** (POR) President of IEEI(4)
Pasteur Institute (FR)	**Philippe Kourilsky** (FR) Director	**Michèle Boccoz** (FR) International Affairs Director
Belgian Defence Ministry	**Marc Vankersbilck** (BE) Military Rep. On EUMC	**Christian Micha** (BE) Planning Officer
MEPs		
Christian Democrats	**Karl Von Wogau** (Ger)	**Christopher Raab** (Ger)

EuropeanSocialist Group	**Eryl Mc Nally** (UK)	**David O'Leary** (UK)
Christian Democrats	**Christian Rovsing** (DK)	**Steffen Brun Hansen** (DK)
European Liberal Group	**Elly Plooij–van Gorsel** (NL)	**Tineke Zuurbier** (NL)

O b s e r v e r s

EU COUNSIL	**Javier Solana** (SP) HR for CESP(5)	**Hans-Bernhard Weisserth** Head ESDP Task Force
EU COMMISSION	**Chris Patten** UK) Commissioner External Relations	**Kyriakos Revelas** (GR)
EU COMMISSION	**Pascal Lamy** (FR) Commissioner for Trade	**Paul Vandoren** (BE) Public procurements
WEAO(6)	**Ernst van Hoek** (NL) Chairman WEAO	**Hilary Davies** (UK) Manager, WEAO
OCCAR(7)	**Klaus von Sperber** (GE) Director of OCCAR	**Lucio Bianchi** (IT) Italian Defence Ministry
ESA	**Jean-Jacques Dordain** (FR) Director of ESA	**Michel Praet** (BE) Represents ESA in Brussels
NATO	**George Robertson** (UK)	**Bob Reedijk** (NL) Former NATO serc. General

R a p p o r t e u r

EU ISS(8)	**Burkard Schmitt** (GE)	Assistant Director EU ISS

(1) Netherlands Organisation for Applied Scientific Research – (2) Foundation pour la Recherche Strategiques – (3) Instituto Superior de Ciencias do Trabalho e da Empresa – (4) Instituto de Estudos Estrategicos e Internacionais – (5) Common European Security Policy – (6) Western European Armaments Organisation – (7) Organisation conjointe de cooperation en matiere d'armament – (8) EU Institute for Security Studies

This highly unusual exercise in EU policy-making was only really challenged at the time by Tony Bunyan, *Statewatch* Director, who commented:[38]

"The role of the "Group of Personalities" in the Commission's Communication is unclear. Did the Commission simply reproduce the "recommendations" of the GOP's first report? If they did it would be most improper and unconstitutional.

"It is the job of the Commission to produce Communications, the subject of which may be the recommendations of an external group but the Communication itself must represent the views of the Commission, not those of an unaccountable group."

The key players

Selected corporations and institutions represented on the GoP. Note that the "big four" – BAE, EADS, Thales and Finmeccanica – have advised the EU on aerospace, defence and now security research policy (through the STAR 21 aerospace review, the EU working group on defence and now the GoP).

BAE Systems

BAE Systems is Europe's largest defence company employing over 90,000 people worldwide and with sales of over £13 billion (2004). Military sales currently account for 77% of total revenues and products include fighter and trainer aircraft, warships, submarines, torpedoes, missiles, artillery and ammunition. Originally formed in 1977 as the state-owned company British Aerospace, the company was partially privatised in 1981 and fully privatised in 1985. After privatisation British Aerospace steadily expanded its holdings with acquisitions ranging from the Rover Group in 1988 to the German arms company, Heckler & Koch, in 1991. Multiple restructurings took place throughout the 1990s, the largest of which came in 1999 when the company was renamed BAE Systems following the acquisition of Marconi Electronic Systems (the defence arm of the UK electrical giant GEC).

The booming US market was been BAE's main target and the Department of Defence is now the company's biggest account (with the Middle East as well as the UK accounting for a large proportion of its annual revenue). In taking over Marconi, BAE also acquired US arms-producer company Tracor. The following year, 2000, BAE then bought two large US military electronics units, Lockheed Martin Control Systems and AES. In 2005, it secured a $4.2 billion takeover of the US armoured-vehicle maker United Defence, making BAE the largest foreign recipient of high-profile Pentagon business. *The Economist*, in its guide to aviation in 2006, has predicted the company will dispense with its 20% share in Airbus S.A.S, the worlds largest commercial airline manufacturer, to fund further acquisitions in the US.

EADS

The European Aeronautic Defence and Space Company was founded in July 2000 with the merger of Aérospatiale-Matra of France, Dornier GmbH and DaimlerChrysler Aerospace AG (DASA) of Germany, and Construcciones Aeronáuticas SA (CASA) of Spain. EADS is currently the world's second largest aerospace company (behind Boeing) and Europe's second largest arms company (behind BAE Systems). It employs over 110,000 people at 70 production sites worldwide and is split into five divisions: Airbus; Military transport aircraft; Eurocopter; Space and Defence & Security Systems.

The EADS Group includes the aircraft manufacturer Airbus, the world's largest helicopter supplier Eurocopter and the joint venture MBDA - the international leader in missile systems. EADS is also the major partner in the Eurofighter consortium, is the prime contractor for the Ariane launcher, develops the A400M military transport aircraft and is the largest industrial partner for the European satellite navigation system Galileo (see further below).

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Thales Group

Thales is an electronics company that serves defence, aerospace and information technology markets. It was established in France more than a century ago and was formerly known, following a merger in 1968, as Thomson-CSF. It was nationalised in 1982 before being partially re-privatised in October 1997 during a period of restructuring among France's arms-producing organisations. The French government formed a strategic partnership bringing together Thomson-CSF, Alcatel and its space and defence electronics businesses, Dassault Electronique and the satellite businesses of Aerospatiale. Between 1999 and 2000 the newly privatised group expanded into foreign defence markets acquiring a number of companies and equity interests outside of France. This strategy peaked in June 2000 with the acquisition of the British group Racal Electronics, a move that vastly increased its influence in the UK and commercial marketability. Soon after the company renamed itself Thales to reflect the spate of changes.

Currently, the group operates in over 30 countries and employs more than 65,000 people worldwide and operates in the three markets of aerospace, IT solutions and defence. In the latter, Thales claims to be "present on all types of air, sea and ground military platforms" and "one of the few companies to have recorded several successive years of revenue growth in the challenging new defence context". Their main military products are missiles, avionics, naval systems, radar and optronics.

Finmeccanica

The Italian industrial group Finmeccanica is Europe's fourth largest defence manufacturer and Italy's largest spender on research and development. It is split into eight divisions but acts primarily in the fields of aerospace and defence, which together account for around 75% of the group's net consolidated sales. Their capacity as a defence company alone generates revenue of around $6 billion a year. The takeover of Marconi Mobile (now Marconi Selenia Communications) in 2002 enabled Finmeccanica to expand into the field of defence electronics and systems. Here the company designs, develops and produces missile systems, radars for air, land, and sea, command and control systems, air traffic control systems, secure communication networks, unmanned vehicles for military and civil use, avionic systems and equipment and underwater weapons systems.

Similarly, the acquisition of Telespazio enabled Finmeccanica to take a prominent position in the European space industry, especially in satellite-based services. The group designs, develops and manufactures satellites for civil and military use and components for space transport systems. Finmeccanica has also assumed majority control of Aer Macchi, a market leader in the field of training aircraft systems. In partnership with the US-based Carlyle group, Finmeccanica also purchased Fiat Avio (now "Avio") which produces engines and components for military and civilian aircraft, helicopters, rockets and spacecraft.

Siemens

German giant Siemens is one of the world's largest electrical engineering and electronics companies, employing a massive 461,000 people worldwide and with a net income of €2.248 billion in

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2005. While defence and security are not the company's core business areas, Siemens IT solutions clients include the Norwegian armed forces and the UK Ministry of Defence. Siemens also has an active research and development section, which includes Roke Manor Research, a contract research and development company that has developed, supplied and supported solutions to military and commercial defence customers since 1956. High profile projects they have worked on include Halo (a gun fire locating system used by the British army), Sampson (multi-function radar used by the British Royal Navy) and Skyshadow (an airborne jammer unit used by the British RAF).

Diehl VA Systeme

Diehl Stiftung & Co. KG is an internationally-orientated German corporation with over 10,000 employees. It is comprised of around forty independent companies and organised into three divisions, one of which covers avionics and military technology and is known as VA Systeme. Founded in 2000 with the merging of Diehl's aviation and ammunition arms, its core capabilities in the field cover the "development and production of missile systems, intelligent ammunition, reconnaissance and self-protection systems as well as repair and overhaul of military vehicles combined with system tracks and suspension components" (website). Its sales in 2005 amounted to 675 million euros, over a third of the corporation's total revenue.

Ericsson Microwave Systems AB

Ericsson Microwave Systems AB is an Ericsson company specialising in sensors and information networks for the defence market. It employs around 2,000 people at its headquarters in Gothenburg, Sweden. Besides developing information networks, the company's main products are advanced airborne, ground-based and marine radar systems. It is one of only five in the world capable of developing radar systems for advanced fourth generation fighter aircraft and its ERIEYE system is the most advanced airborne surveillance system produced outside of the US. Their products are currently operational in over 30 countries worldwide.

TNO

The "Netherlands Organisation for Applied Scientific Research" (TNO) is an independent Dutch research institute with over 5,000 employees. Established in 1930 by the TNO Act, which regulates applied scientific research in the Netherlands, it provides contract research and specialist consultancy for a range of companies, government bodies and public organisations. TNO is active in five "core areas", one being "defence, security and safety" in which their research covers a broad range which includes military operations, military equipment and the combating of crime and terrorism. It is both a strategic partner of the Dutch Ministry of Defence and an active participant in international equipment development programmes (for products such as radar, infrared and missiles).

RAND Corporation

The RAND Corporation is an American think tank originally formed in 1946 to provide the US military with analysis and research. Today it operates globally as a non-profit institution and employs over 1,600 people worldwide. It sees its role as one of problem-solving: improving policy- and deci-

sion-making through analysis and research. Most of this they are commissioned to do, but there is also "RAND-initiated research" on issues that might not otherwise receive funding.

Its independent chartered subsidiary RAND Europe operates from locations in England (Cambridge), Germany (Berlin) and The Netherlands (Leiden). Most of its work is currently within The Netherlands and for the European Commission, though it is attempting to expand throughout the EU and into Central and Eastern Europe. One if its main fields of research is "Defence and Security" in which it focuses on "revising and refining military strategy, providing robust procurement and industrial base analysis, improving personnel quality, restructuring support and improving resource management, exploiting information technology, and applying world-leading defence analytical methods".

Javier Solana

Javier Solana held two ministerial posts in the Spanish government between 1982 and 1995 before becoming Secretary-General of NATO in 1995. On 3 June 1999, he was given the jobs of CFSP High Representative and Secretary-General of the EU Council, positions he took up in October. He is also Secretary-General of the WEU military alliance, though its role has steadily been taken over by the EU. In July 2004, he was appointed head of the European Defence Agency (above) and would have become Europe's first foreign minister in June 2006 had the EU Constitution not been rejected.

EU Institute of Security Studies

The GoP *rapporteur* was Burkhard Schmitt, Assistant Director of the EU Institute of Security Studies. The Institute of Security Studies (ISS) was created by the Western European Union military alliance in 1989. Following the incorporation of the WEU into the EU structure under the 1997 Amsterdam Treaty, the ISS became the EU ISS under a 2002 CFSP "Joint Action".[39] The ISS has an autonomous status and "does not represent or defend any particular national interest". It does, however, represent a particular brand of "security" and its mandate is to provide "research and debate on the major security and defence issues" and "forward-looking analysis for the Union's Council and High Representative [Javier Solana]".[40] In 2004, ISS had an annual budget of €3.4 million.

Karl von Wogau MEP

Karl von Wogau is a conservative German MEP (Christian Democrats) and was a member of both the European Advisory Group on Aerospace (which produced the "STAR 21" report, above) and the GoP. He is also the author of *The Defence of Europe: A Political Imperative*, editor of a recent book entitled *The Path to European Defence*,[41] and an advisory board member of "New Defence Agenda", a "think-tank" nominated in Corporate Europe Observatory's inaugural "Worst EU Lobbying Award" (2005) for "being the arms industry's weapon of mass disinformation".[42] On 1 February 2006, the New Defence Agenda changed its name to the Security and Defence Agenda.

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Commission Communication on preparatory action for security research

The European Commission's Communication of February 2004 – "Enhancement of the European industrial potential in the field of security research 2004-2006" – was extraordinary.[43] Rather than setting out policy options – the usual purpose of Communications – the European Commission did indeed reproduce the GoP's recommendations, also announcing that it had *already established* a 65 million euro budget line for "Preparatory Action for Security Research" (2004-06), paving the way for a full European Security Research programme from 2007.[44]

There was no apparent consultation of the EU member states (the Council) or the European or national parliaments, as is normal in the establishment of EU budget lines. The Commission instead claimed a mandate for the security research programme from the meeting of EU heads of state at the Thessaloniki European Council in June 2003. This is ambiguous to say the least: the Thessaloniki Council had merely asked the Commission to "promote in liaison with the Community's research activities where appropriate, research aimed at leadership in strategic technologies for future defence and security capabilities"; it had not instructed the Commission to enact specific legislation or to commit EC funds.

More controversial was the choice of legal basis. The Commission cited Article 157 of the EC Treaty on the "competitiveness of the Community's industry" as the basis for the "Preparatory Action" budget line when it should have used Article 163(3) which deals explicitly with "research and technological development". As the European Scrutiny Committee in the UK House of Commons observed:

> Article 163(3) provides that "All Community activities under this Treaty in the area of research and technological development, including demonstration projects, shall be decided on and implemented in accordance with the provisions of this Title" (that is, Title XVIII). On the face of it, therefore, the proposal for "security research" should be dealt with under Title XVIII and not under any other.[45]

In the absence of an explanation as to why an incorrect legal basis was used for the programme, said the Committee, "the Government should seek to prevent approval being given for the funding of the second and third year of the Preparatory Action if the Commission fails to provide satisfactory answers". No explanation has been given by the Commission, nor has the sound advice of the Commons been followed.

The Group of Personalities' report

"Technology itself cannot guarantee security, but security without the support of technology is impossible. It provides us with information about threats, helps us to build effective protection against them and, if necessary, enables us to neutralize them. In other words: technology is a key 'force enabler' for a more secure Europe.

"At the same time, the security dimension of technology itself is chang-

ing, because technology is very often multi-purpose. Civil and defence applications increasingly draw from the same technological base and there is a growing cross-fertilisation between the two areas…

"As a result, the technology base for defence, security and civil applications increasingly forms a continuum. Across this continuum, applications in one area can often be transformed into applications in another area. This is particularly the case for defence and security: while the armed forces and the various security services will always have their specific needs, there is an increasing overlap of functions and capabilities required for military and non-military security purposes."

The report of the Group of Personalities, "Research for a Secure Europe", was published in March 2004.[46] It had clearly provided the basis for the Commission Communication on security research (above) issued a month earlier. The GoP report began by reiterating the threats to the EU outlined in Solana's Security Strategy: "terrorism, proliferation of weapons of mass destruction, failed states, regional conflicts and organised crime". It was "increasingly clear", said the GoP, that these are "the main sources of anxiety for both citizens and policy-makers alike". A "Eurobarometer" survey from 2002 was reproduced to support this claim. While some 50% of respondents apparently fear conventional war in Europe, there was no mention of the public despair about climate change, financial insecurity and market fundamentalism, for example.

The report then goes on to discuss the "synergies" between the defence and security and commercial sectors (see quote above), setting out areas where future research was needed and the multiple "threats" this would address, concluding with a call for the European Security Research Programme to "bridge the gap between civil and traditional defence research" and "foster the transformation of technologies across the civil, security and defence fields". Under the heading "the Transatlantic Dimension", the GoP report gets down to the serious business of money by noting that the US Department of Homeland Security budget "includes a significant percentage devoted to equipment, and around $1 billion dedicated to research". This is in addition to those activities funded by other agencies related to Homeland Security and the Department of Defense. The scale and scope of the US investment in Homeland Security research, said the GoP, meant that the US was "taking a lead" in the development of "technologies and equipment which… could meet a number of Europe's needs". This is problematic because the US technology would "progressively impose normative and operational standards worldwide" and "US industry will enjoy a very strong competitive position". "There is no reason", continued the GoP, "why European security research should not be funded at a level similar to the US". A US annual per capita expenditure of "more than four dollars on security-related R&D for each citizen" would "mean that an overall EU security R&T budget of 1.8 billion for 450 million Europeans would be desirable". The GoP ultimately recommended that:

> A Community-funded ESRP ensuring the involvement of all Member States should be launched as early as 2007. Its minimum funding should be €1 billion per year, additional to existing funding. This spending level should be reached rapidly, with the possibility to progressively increase it further, if appropriate, to bring the combined EU (Community, national and intergovernmental) security research investment level close to that of the US.

Implementation

In September 2004 the European Commission produced a Communication entitled "Security Research: The Next Steps".[47] GoP policy was now EU policy. The Communication incorporated the "main thrust of the [GoP] recommendations and orientations" and promised to:

- establish a "'European Security Research Advisory Board' to advise on the content of the ESRP and its implementation, paying due attention to the proposals of the Group of Personalities" and including "experts from various stakeholder groups: users, industry, and research organizations";

- establish the "European Security Research Programme (ESRP) to commence in 2007... building on the work of the Preparatory Action on security research, which will continue until the end of 2006";

- "ensure that the requirements of the European Security Strategy, the Common Foreign and Security Policy (CFSP), the European Security and Defence Policy (ESDP) and other relevant Commission policies associated with internal security are fully taken into account in the development of security research".

Preparatory Action for Security Research 2004-2006

By now the Commission was evaluating the first round of proposals under the 2004 Preparatory Action for Security Research (PASR). The PASR has five priority areas identified "in consultation with national authorities, industry and [the] Group of Personalities":

- "Improving situation awareness" (shorthand for surveillance and intelligence gathering);
- "Optimising security and protection of networked systems";
- "Protecting against terrorism";
- "Enhancing crisis management"; and
- "achieving interoperability and integrated systems for information and communication" (shorthand for linking national and international law enforcement databases and information systems).

Two of the three rounds of the PASR have now been completed (2004 and 2005) and a total of 24 projects have been funded to the tune of 30 million euros (see following section). Over the two rounds, the Commission received 329 eligible proposals – with the PASR already 13 times oversubscribed there will clearly be no shortage of takers when the full blown security research programme gets underway in 2007.[48] The projects funded so far are discussed in more detail in the following section.

The Commission staff overseeing the implementation of the PASR was transferred from its offices in DG Research to DG Enterprise Industry. This reflected the (questionable) legal basis for the PASR budget; there was also more than a little disquiet among the Commission's research staff about the objectives of the programme and the way in which it was set-up.

Security research and the EU research budget

The funding for the full security research programme will come from the EU's "seventh framework programme of the European Community for research, technological development and demonstration activities" (2007 to 2013), a.k.a. "FP7". Earlier framework programmes have also been used to fund military research into "dual use" technologies. Under "FP5" which ran from 1998 to 2002, eight per cent of the total number of participants in the BRITE-EURAM (industrial and materials technologies), ESPRIT (international RTD co-operation in IT), ACTS (advanced communication technologies) and TRANSPORT programmes were military organisations.[49] QinetiQ, the UK Ministry of Defence's former research institute (above), participated in 34 aeronautics projects, 13 of which also involved Rolls Royce.[50]

Member states reached agreement on the EU budget for 2007 to 2013 in December 2005. It was a particularly acrimonious process in which familiar arguments about the UK rebate and the Common Agricultural Policy were more heated than ever. A budget of €849 billion for the next seven years was eventually agreed by the Council and must now be approved by the European Parliament.[51] €72 billion of this is earmarked for FP7, of which €44 billion is for research co-operation across nine themes.[52]

FP7 co-operation framework, budget (€million)

Health	8317
Food, Agriculture and Biotechnology	2455
Information and Communication Technologies	12670
Nanotech & new Production Technologies	4832
Energy	2931
Environment (including Climate Change)	2535
Transport (including Aeronautics)	5940
Socio-economic Sciences and the Humanities	792
Security and Space	3960
Total	44432

FP7: *Mots d'ordre*

"How to read the seventh framework programme? The first point to note is that this programme does not really invite political debate. Indeed we are not dealing with choices that could be discussed but with what presents itself as the simple enactment of the "Lisbon agenda", fully endorsing its slogans, such as "knowledge society", "economy of knowledge", "knowledge and its exploitation" as "the key for economic growth" and "the competitiveness of enterprises." All this, leading, as we should trust, to employment, while maintaining and strengthening the so-called "European Model", and also providing an improvement of welfare and well-being, quality of life, health and the environment; for such improvements rely, as history has shown, on the progress of knowledge and its many applications.

"In other words, what we are dealing with is an assemblage of what, in French, we call "mots d'ordre". Mots d'ordre are not made to induce thinking and debating but to produce agreement on consensual perception, putting on the defensive those who feel constrained to a "yes, but…" Yes to employment, yes to the European model, yes to all those improvements, and certainly yes to the progress of knowledge. But… The "but" is coming too late, after so many agreements, and it will be easy to fall into the trap, instead of addressing the means while ratifying the perceived consensual goals. It is the very functioning and aim of mots d'ordre to capture and inhibit the capacity to think".

- Professor Isabelle Stengers, May 2005 [53]

"Security and Space" has a proposed annual budget of about € 570 million. While the EU Security Research Programme is not mentioned explicitly, the priority areas are identical to those set out in the "Star 21" report, the European Security Strategy, the GoP report and the Commission Communications on security research (above).[54] So where will the rest of the one billion demanded by the GoP come from?

At this point, this is far from clear because the ESRP is being developed in effective secrecy outside of the normal EC decision-making process and it is difficult to find out what is planned or intended. In announcing the completion of the second round of the PASR (above), the Commission announced its intention to "substantially increase the yearly budget from €15 million to roughly €250 million a year from 2007" – presumably a reference to the money earmarked for "Security and Space" under the FP7 programme.

It is also likely that additional FP7 money will be channelled into the ESRP. On top of the €44 billion for "co-operation" (above), there is another €26 billion for three further research programmes: "ideas", "people" and "capacities", all of which are only vaguely defined. Finally, FP7 will also provide €1.8 billion for research by the European Commission's Joint Research Centre (JRC, see further below) across four priority areas, one of which is activities "related to fighting terrorism, organised crime and fraud, border security and prevention of major risks, in relation with law enforcement agencies and relevant EU services".

Things will be clearer by the end of the year because the Commission has stated that an EU decision – of the Council and the European Parliament – will be tabled to give effect to the Security Research Programme proper upon expiration of the "preparatory action" budget line.

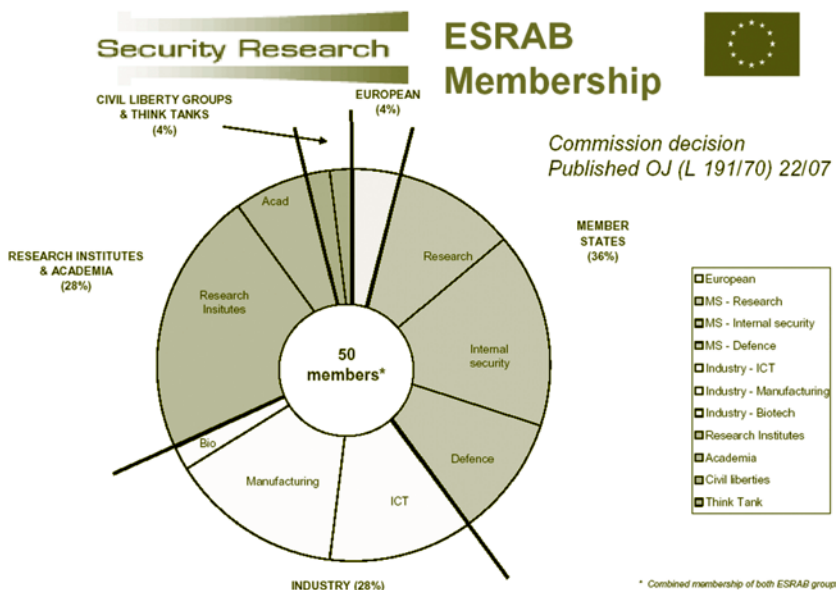### A permanent GoP: the European Security Research Advisory Board (ESRAP)

On the GoP's recommendation, the ESRP is being overseen by the European Security Research Advisory Board (ESRAP), established by Commission Decision of 22 April 2005.[55] There was no consultation of the European or national parliaments. According to the Commission, nominations for the 50 positions on the board came from the 25 EU ambassadors, the European Defence Agency (above) and stakeholder groups (industry and academia).

ESRAB's membership was quietly announced in the EU's Official Journal but, unfortunately, the Commission only saw fit to publish the names – there was no press release and no background information or related documentation explaining who the members represent or why they were selected.[56] Nor is there any detailed information about ESRAB on the Commission's security research website.[57]

The Commission may consult ESRAB on any questions relating to the content and implementation of the European Security Research Programme (ESRP) and ESRAB may make recommendations to the Commission on:

- strategic missions and priority areas for security research, including FP7;
- implementation issues such as the exchange of classified information and intellectual property rights;
- on the use of publicly owned research/evaluation infrastructures;
- and on a communications strategy to promote awareness of the ESRP.

ESRAP is comprised of two working groups of 25 representatives on each. Group 1 deals, the "Technology group", deals with "security research demand requirements". Group 2, the "Enablers

Security Research — ESRAB Membership

Commission decision Published OJ (L 191/70) 22/07

- CIVIL LIBERTY GROUPS & THINK TANKS (4%)
- EUROPEAN (4%)
- RESEARCH INSTITUTES & ACADEMIA (28%)
- MEMBER STATES (36%)
- INDUSTRY (28%)

50 members*

Legend:
- European
- MS - Research
- MS - Internal security
- MS - Defence
- Industry - ICT
- Industry - Manufacturing
- Industry - Biotech
- Research Institutes
- Academia
- Civil liberties
- Think Tank

Segments: Acad, Research, Research Institutes, Internal security, Bio, Defence, Manufacturing, ICT

* Combined membership of both ESRAB group

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Group", addressees the "technology supply chain requirements". ESRAB will decide on its own rules of procedure and essentially represents the formalisation of the GoP into a permanent EU body that will direct security research in the EU.

Although the Commission has not provided any biographical information about ESRAB's membership, it has produced the graphic on the previous page, suggesting that the interests of the member states, industry, academia and even civil society are adequately represented:[58]

A cursory if laborious check of the 50 names on *Google* sheds light on 47 of the ESRAB members.[59] Industry is very well represented again, occupying 14 of the 50 seats, with seven of the eight corporations on the GoP now represented on ESRAB (*BAE Systems* is the surprising exclusion).

Industry representation on ESRAB

Group 1 (security research demand requirements)

Klaus Thoma, Fraunhofer-Gesellschaft, Germany
Alessandro Zanasi, General Manager, Temis Italy

Group 2 (technology supply chain requirements)

Helmut Bachmayer, Biosafety, Novartis International AG, Austria
Manuel Carpio Cámara, Telefónica, Spain
Giancarlo Grasso, CEO of SELEX (a **Finmeccanica** company), Italy
Rene Hannon, Alcatel ETCA (a **Finmeccanica** company), Belgium
Markus Hellenthal, **EADS** Deutschland GmbH, Germany
Heinz Hoch, **Diehl** VA Systeme, Germany
Ülo Jaaksoo, Chief Executive Officer, Cybernetica AS, Estonia
Stephan Lechner, **Siemens** AG, Germany
Erik Löwenadler, **Ericsson Microwave Systems** (President), Sweden
Livio Marchesini, Executive Vice President for Strategies, Fincantieri, Italy
Jacques Paccard, Chief executive of Sagem Defense Security, France
Tim Robinson, Senior Vice-President of the Security Division, **Thales**, UK

The first ESRAB Chairman was Markus Hellenthal of EADS, followed by Tim Robinson of Thales. The only significant change in the overall composition of this extended GoP is that some interior ministries and security agencies are now represented alongside their military counterparts, together accounting for 18 of 50 seats. This includes branches of the UK Home Office, German Bundeskriminalamt and Dutch interior ministry and at least eight ministries of defence (France, Hungary, Italy, The Netherlands, Portugal, Spain, Sweden and the UK).[60] Research and academic institutes have another 14 seats but of the "research institutes" on the initial GoP, only the European Institute of Security Studies (ISS, above) has been given a seat on ESRAB.[61]

The Commission claims that "civil liberty groups and think tanks" have two seats on ESRAB but it is far from easy to identify them. The Commission may consider the *Crisis Management Initiative*

(Finland), set-up by the ex-Finnish prime minister, to be a civil liberties organisation but (with great respect) this is not part of its mission. There are two contenders for "think tanks" – the ISS (above) and *Istituto Affari Internazionali* (Institute of International Affairs, Italy) – both of which have very conservative agendas.

The EU, which surprisingly also has only two seats, is represented by the European Defence Agency (EDA) and Europol.[62] There are no seats for either the European Commission or the European Parliament – ESRAP is only thinly accountable to the EU and not at all accountable to the people of Europe.[63]

4. Coming soon: from the battlefield to the border

The first 24 projects funded under the "Preparatory Action" (PASR) for the EU Security Research Programme offer an insight into the technologies of control currently under development. Related aspects of the EU agenda offer further food for thought. It should be borne in mind that the 24 PASR projects funded to date have received a total of 30 million euros. Compared to the one billion euros per year proposed from 2007, this is relative "peanuts". The PASR is already 13 times oversubscribed as mentioned above and over 1,000 delegates from the EU Member States, Norway, Bulgaria, Romania, Croatia, Turkey, Switzerland, Israel, Russia, the United States and Australia attended the first EU security research conference in Vienna in 2006. "It's just embarrassing," said a British defence industry official, "All these people here for this pocket change that's offered" (defencenews.com, 26 February 2006).

It can be observed that military organisations or companies that primarily service the defence sector are leading 17 out of the 24 projects. Moreover, many of these projects appear to have received "seed money", meaning that further, more substantial funding is likely once the 12-24 month preparatory actions have been completed. The "big four" European arms companies represented on the GoP have done particularly well – *Thales* is participating in at least five projects, with *Thales UK* leading three of them; the EADS group is also leading three projects; at least seven *Finmeccanica* companies are participating in three projects, leading two of them; while *BAE* is participating in at least three projects. TNO, the Dutch military R&D institute, has also done very well, participating in four projects and leading one of them. It is almost certain that these organisations are participating in more of the PASR projects funded so far but at the time of writing only half of the contracts have been published.[64]

As noted above, the PASR objectives are:

(i) "Improving situation awareness";
(ii) "Optimising security and protection of networked systems";
(iii) "Protecting against terrorism";
(iv) "Enhancing crisis management";
(v) "achieving interoperability and integrated [IT] systems".

All of these objectives are addressed in the projects funded so far. However, five of the first 24

funded projects are geared to the long-term development of EU policy and security research, only one of which appears to meet these specific objectives. This includes two high-level studies at a cost of €1.4 million.

The "SeNTRE" (Security Network for Technological Research in Europe) project is led by Europe's largest defence industry lobby group ASD (the *European Association of Aerospace and Defence Industries*, above). Their project will "prepare a strategic research plan for European security" in "support of and to link with future EC Advisory Board on Security" (ESRAB, above).[65] The second high-level study is "ESSTRT", led by *Thales UK*, is entitled "European Security: Threats Responses and Relevant Technologies". This will advise the Commission on "new security approaches", "current and potential technologies, and shortfalls", "priority" future efforts and proposals for "extra-EU co-operation".[66]

"USE IT", led by the *Centre national d'études spatiales* (National centre of space studies, France) aims to "structure the European research and development community in the information technology security (ITS) domain by setting up an organized network with an adequate legal frame and dedicated communication means".[67] This will allow "the exchange of sensitive information between European organizations (private/public companies, universities/research labs, certification bodies)". Another network will be established under the PETRANET project, led by Sussex Police Authority, this time for the "take-up of security research" by public authorities.[68]

The future ESRP will also be shaped by the "IMPACT" project, led by *TNO*, which will "lay the foundations for an integrated European CBRN [Chemical, Biological, Radiological or Nuclear] counter terrorism research and acquisition programme".[69]

"Improving situation awareness" – surveillance and control

"Situation awareness", it was suggested above, is shorthand for surveillance and intelligence gathering and 10 of the first 24 projects funded under the PASR concern surveillance of one kind or another, most of them general surveillance technologies that are in no way limited to counter-terrorism. Three of the projects concern EU border controls.

"SOBCAH" (Surveillance of Borders, Coastlines, and Harbours; renamed "Safer European borders" by the Commission), led by the Italian company *Galileo Avionica* (*Finmeccanica*), will "tackle the European border surveillance problem" – the "6,000 km of land borders and 85,000 km of coastlines, with possibilities for access for illegal migrants, drug smugglers and terrorists". SOCBAH will deliver a "roadmap toward technical and operational solutions"; *Thales UK* is leading a work package in this project to "design the overall architecture framework".[70]

The "TERASEC" project will improve "homeland security" by delivering a new technology "to detect threats, explosives, pathogens and chemicals hidden by a person or inside an object such as letters or luggage".[71] The new technology is based on active and passive imaging concepts implementing terahertz (THz) radiation; the project is being led by the *Deutsches Zentrum für Luft- und Raumfahrt e.V.* (German Institute of Planetary Research).

Another project, "PROBANT", led by French aerospace and defence contractor *Satimo*, concerns the "visualization and tracking of people inside buildings" and the development of a "powerful tool to guide security forces in surveillance and crisis management". The project will integrate "technological novelties like arrays of sensors, modulated scattering, pulsed signal techniques, advanced data processing, biometric measurements" and examine the "performance of the assessed techniques and future opportunities for further research and industrialisation".[72]

Surveillance from space

"ASTRO" (Advanced Space Technologies to Support Security Operations) led by the *EADS* and will propose an "R&T innovation roadmap for space" and show how space capabilities – "Earth Observation and Reconnaissance, Navigation, Telecommunication and their integration and implementation into services and infrastructures" – can contribute to security facilities such as "the improvement of foreign operations".[73]

"GEOCREW", "Geodata and Crisis Early Warning", concerns the "utilization of geospatial data" and its incorporation into the intelligence cycle. The project is led by the German company *ESG Elektroniksystem- und Logistik*, which has provided electronic and IT systems for the military for forty years.[74] GEOCREW will work with potential EU bodies and a selection of European national bodies for a common intelligence infrastructure for crisis early warning.

Galileo: the EU's eye in the sky

On 28 December 2005 "Giove-A", the test satellite for the EU's Galileo system, was launched from Baikonur in Kazakhstan. Galileo is celebrated for paving the way for Europe's independence from the US controlled GPS (global positioning system) system. Moreover, unlike the US and Russian GPS systems, which are controlled by the military, Galileo is staffed and run by civilians in the European Commission and European Space Agency (ESA).

However, Galileo is also the EU's first major PPP initiative ("public-private partnership": the so-called "third way" championed by New Labour in Britain), with two thirds of the €2.1 billion cost of the deployment phase (2006-8) coming from the private sector. Two consortia were bidding for the Galileo "Concession": *iNavSat*, comprised of the *EADS* aerospace group, *Inmarsat* (UK) and *Thales France*, and *Eurely*, made up of *Alcatel* (France), *Finmeccanica* and *Hispasat* (Spain). In June 2005, the Galileo Joint Undertaking (the body set up by the European Commission and the European Space Agency to manage the development phase) gave *iNavsat* and *Eurely* the go-ahead to pursue a joint bid.

The European Commission envisages a host of uses for Galileo's constellation of 30 satellites and ground stations, for example "transport (vehicle location, route searching, speed control, guidance systems, etc.), social services (e.g. aid for the disabled or elderly), the justice system and customs services (location of suspects, border controls), public works (geographical information systems), search and rescue systems, or leisure (direction-finding at sea or in the mountains, etc.)".[75] The UK, which already leads the EU as far as surveillance policy and practice is concerned, looks set to pioneer the "road-pricing system" in which *every* single car journey will be monitored by Galileo

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and recorded so as to bill the driver for using the road network. It is hard to think of a more intrusive way of making people pay for the privilege of using the roads in their country.

"More and more often", asserts the Commission, "it will become necessary to ascertain one's precise position in space and time in a reliable manner". But necessary for whom? There is a limited use for satellite navigation systems and most people are perfectly well aware of exactly where they are, in both time and space. Could it be that it is governments and corporations that want to know exactly where their citizens and customers are?

Biometrics and RFID identification systems

"Biometrics", literally meaning "life measures" can be anything from voice recognition to iris scans. The EU has already agreed on the introduction of biometrics, in this case fingerprints and digitised photos, into all passports, visas and residence permits issued by the member states. From 2007, all EU citizens will have to be fingerprinted to get a passport; all entrants to the EU and legally resident third-country nationals will also be fingerprinted; applicants for asylum in the EU have been fingerprinted since 2000. With some member states pushing for the introduction of biometric ID cards as well we are now fast approaching a time in which everyone in the EU will be registered and fingerprinted by the state (a fundamental shift given that most European states only fingerprinted criminals during the 20th century). Privacy and civil liberties groups oppose the proposals as disproportionate and are particularly concerned about the national and EU population registers that are being created to house the personal data and the biometrics.

Biometrics will also be increasingly deployed in other aspects of social and material life. According to a report from the EU's Joint Research Centre (JRC, see further below):[76]

> It is expected that once the public becomes accustomed to using biometrics at the borders, their use in commercial applications will follow.

> The large-scale introduction of biometric passports in Europe provides a unique opportunity... Firstly, the creation of a demand market based on user acceptance... Second, the fostering of a competitive supply market.

A related concern is RFID (radio frequency identification) chips, which are being introduced in conjunction with biometric ID systems. When an RFID reader emits a signal, nearby RFID chips transmit their stored data to the reader. "Passive" chips do not contain batteries and can be read from a distance varying from 2.5 cm to six to nine metres. "Active" or self-powered chips can be read from a much greater distance. The plan is to store the biometrics on an RFID chip in the travel document, allowing the documents to be read at a distance (which critics suggest could be a boon for identity fraudsters). The EU Working Party on Data Protection (the "Article 29" group, comprised of national data protection commissioners) has serious concerns:

> The ability to surreptitiously collect a variety of data all related to the same person; track individuals as they walk in public places (airports, train stations, stores); enhance profiles through the monitoring of consumer behaviour in stores; read the details of clothes and accessories

worn and medicines carried by customers are all examples of uses of RFID technology that give rise to privacy concerns. The problem is aggravated by the fact that, due to its relative low cost, this technology will not only be available to major actors but also to smaller players and individual citizens.[77]

Privacy groups are not alone in their concerns. A senior research director for the US company *Sun Microsystems* recently went as far as to suggest:

> What is happening in Europe is crazy. The technology is developing at a heck of a pace. Your politicians and legislators must be crazy. We have evidence that organised crime is keeping up with technology and getting ready to exploit it. Insufficient controls and privacy are going to become a major issue in Europe.[78]

Sagem, the self-proclaimed "world leader in biometrics based on fingerprint identification", is leading the "ISCAPS" project: Integrated Surveillance of Crowded Areas and Public Spaces). Participants include BAE systems. ISCAPS will produce surveillance technology for "restricted areas in which strict controls and full biometric identification can be performed at entry points". The project brief gives the "example" of "an amusement park".[79]

Thales UK is coordinating the "SECCONDD" project (SECure CONtainer Data Device) on the international standardisation of the technical interface between a secure container or vehicle, and a data reader at a port or border crossing. The interface will use RFID (radio frequency identification) technology "to enable law enforcement officials to determine where a container or vehicle has been" and to develop a "cargo tracking system".[80]

Military aircraft for civilian control

"BSUAV" – "Border Surveillance by Unmanned Aerial Vehicles (UAVs)" – which the Commission calls "UAVs for peacetime security", seeks to "understand the problems posed by various types of borders and to define realistic UAV based systems that would answer to those problems".[81] But are UAVs the answer? According to a report to the US Congress in 2005, the UAV accident rate is 100 times higher than that of manned aircraft.[82]

Dassault Avaiation's maritime surveillance drone[83]

The BSUAV project is led by the military aircraft manufacturer *Dassault Aviation*, Europe's leading exporter of combat aircraft. *Dassault* launched the first "stealth" UAV in Europe in 2000 and has already developed (with *Thales* and *Elbit Systems*) a full-scale demonstrator of a "maritime sur-veillance UAV". "This demonstrator should be deployed aboard flat deck ships and should be capa-ble of performing sea and shore surveillance missions for naval forces".

The "MARIUS" project concerns the development of a helicopter-based "pre-operational autonomous command post, equipped with its own sensors, information and communication sys-tems, which can be deployed quickly to monitor crisis management operation". The project is led by *EADS* – whose subsidiaries include Eurocoptor (manufacturer of the Tiger attack helicopter and a range of "dual-use" helicopters including the Cougar) – and will develop a "demonstrator which could easily be deployed for inter-agency co-operation, situation assessment and decision making".

London's Metropolitan police have just purchased three EC 145 Eurocoptors to take rapid reaction teams to "terrorist emergencies".[84] Nevertheless, aviation is one of the more questionable "dual use" sectors and one in which the boundaries between military and security research are negligi-ble. In the recent wars against Afghanistan and Iraq, UAVs have been used for both surveillance and *attack* (the "Predator UAV" can be armed with anti-tank weapons). The US has also been using UAVs – in clear breach of international law – to carry out assassinations of "terror" suspects in the Yemen, Pakistan and Afghanistan.[85] Similarly, the use of "helicopter gunships" by occupying forces in Iraq and Palestine has become commonplace.

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"Optimising security and protection of networked systems"

This priority area concerns the protection of information systems. The "VITA" (Vital Infrastructures Threats and Assurance) project deals with "critical infrastructure protection" and is led by *Industrieanlagen-Betriebsgesellschaft*, a German analysis and testing organisation for the aeronau-tics industry and the Ministry of Defence founded in 1961.[86] The "ROBIN" project, led by *Technische Universität Dresden*, will develop a "robust platform" for securely linking computers to networks.[87]

This area of security research will also see military IT systems adapted for use by law enforcement and security agencies. "SUPHICE" (Secure Unplanned Provisioning of High Integrity Communications Across Europe), coordinated by *Thales e-Security*, concerns the exchange and encryption of confidential information between the member states and the "implementation of an algorithm suitable for EU use in a SECRET environment".[88]

"Protecting against terrorism"

Protection of the transport network against terrorism is the focus of three projects funded so far under PASR. The "TRIPS" project (Transport Infrastructures Protection System) will "design and demonstrate an anti-terrorist security system architecture that will allow the detection of terrorist threats (explosives, chemical, biological, radiological and nuclear substances) on mainline or metro railway systems". The project, led by *Ansaldo Trasporti-Sistemi Ferroviari* (Finmeccanica) will com-bine information from "sensors, remote control or autonomous cameras, ground penetrating radars and line scanners".[89]

"PATIN", led by the German arms giant *Diehl*, concerns the development of an "integrated system" to protect "the complete air transportation system, including aircraft, ground infrastructure and information networks against terrorist – including CBRN (Chemical, Biological, Radiological or Nuclear) – attacks". "PALMA", led by *EADS*, concerns the "Protection of airliners against MANPADS attacks (man portable air defence systems)" – i.e. the use of portable rocket launchers to attack aircraft. Apparently, "aircraft protection against missiles is already mastered in the military field but a mere adaptation of existing products will not match the much more demanding requirements of the civilian environment".[90]

"Enhancing crisis management"

"Crisis management" is the fourth PASR priority research area. The "CRIMSON" project aims to "research, develop and validate an innovative system using the Virtual Reality technologies for the inter-organisational preparation, rehearsal and management of security missions in response to urban crisis". The proposed system will allow the 3D simulation and evaluation of complex crisis scenarios and enable the involvement of operational agencies such as fire brigades, policemen, medical teams, military troops, and even the general public. The project is led by the French company *CS Systèmes d'Information*, "designer, integrator, operator of mission critical systems".[91]

The **"**TIARA" project, "Treatment Initiatives After Radiological Accidents", led by the *Commissariat à l'énergie atomique* (French Atomic Energy Commission), will create a European network on enhancing the management of the "malevolent dispersal of radionuclides in a public place". The project suggests that Europe is ill-prepared to deal with such events because of "a decrease in the number of physicians with experience of treatment", a lack of anticipation of "operational issues" and a failure to rationalise treatment and research into new treatments.[92]

In 2006, the EU is also to establish a network of national "Critical infrastructure Protection" (CIP) experts focusing on Europe's transportation, communications and energy networks (it is not yet clear if this network will receive PASR funding).[93] Discussing the initiative, Gijs de Vries, the EU's counter-terrorism co-ordinator, recently stressed the importance of "public-private co-operation and partnerships", reminding us that "the private sector owns a substantial part of Europe's critical infrastructures in these areas". "We need to do a great deal more in terms of supporting [security-oriented] R&D", he said, "it is essential that the EU invest in this area... I would not exclude a trans-Atlantic dimension to this, either".[94]

"*Achieving interoperability and integrated systems for information and communication"*

"Interoperability" is the last of the five security research priorities identified by the GoP. It is a concept that requires further explanation and one that must be seen in the context of the EU justice and home affairs policy agenda. "Interoperability" is defined by the European Commission as the

exchange of "data, information and knowledge". What it means in JHA is linking the data held in a host of national and EU law enforcement databases and IT systems. Behind the idea of "interoperability" lurks another new EU concept – the "principle of availability" – under which all data held by a law enforcement agency in one state should be automatically accessible/available to all the others.[95] Both of these concepts are entirely incompatible with EU data protection law, the key principles of which are that data should only be used for the specific purpose for which it was collected and that access to the data should be restricted as far as possible.

"Interoperability" in EU JHA policy: centralising law enforcement data

In its recent communication on "interoperability" the European Commission proposed widening access to the Eurodac database of asylum applicants' fingerprints (created by the EU in 2000) from immigration authorities to security agencies and exploring the "synergies" with the second-generation "Schengen Information System" (SIS II) and Visa Information System – both of which will also contain "biometrics".[96] The Commission is also currently working on a proposal to interlink national DNA databases and in the longer term proposes a "European criminal Automated Fingerprints Identification System… combining all fingerprint data currently only available in national criminal AFIS systems". "European register(s) for travel documents and identity cards" – *de facto* EU population registers – are also planned along with the "creation of an entry-exit system… to ensure that people arriving and departing are examined and to gather information on their immigration and residence status".

The latest justification for all these proposals is that they could "contribute to the identification of disaster victims and unidentified bodies". They will also provide law enforcement agencies with unprecedented access to personal information about the EU population.

"HiTS/ISAC", the "Highway to security: Secure interoperability of intelligence services" project, "addresses the interoperability of intelligence services to exchange information on suspicious activities in order to enable information analysis and fusion from different sources". The project leader is the Swedish defence giant *Saab AB*.[97]

Another project funded under the PASR will examine "Innovative security technologies and policies in line with privacy protection and human rights in general". "PRISE", led by the Austrian Academy of Sciences, will "promote a secure future for European citizens" by "developing and testing a set of criteria and guidelines for privacy enhancing security research and technology development".[98] Given recent EU legislation, this is a project that certainly has its work cut out.

The Joint Research Centre

As noted above, the EU's Joint Research Centre (JRC) looks set to play a significant role in implementing the ESRP. It is also participating in at least two of the above projects. In September 2005, the JRC "Emerging technologies in the context of security" – a "strategy paper" to "prepare for FP VII (and VIII)".[99] The report reiterates the by now familiar security "needs" and then goes on to

list, with very little in the way of explanation, the names of emerging technologies.[100] A good deal of it sounds like the stuff of science fiction movies.

- "Non cooperative access control: Check points (person and object signature - image, X-rays, 3D, neutron…- , Data Bases);

- "Less Than Lethal Weapons-inside aircraft adapted" [sic] such as "painful lasers", "High power directed acoustics" (vLTL grenade launcher) and "dazzling laser torche";

- "Crowd control (preparation, initial phase –stopping vehicles, transition phase – identi?cation of group leaders, negotiation - marking of leaders, crisis – extraction of leaders, use of corrective means, speci?c C3)"

-"Evaluation and risk assessment models and databases: Advanced heterogeneous data mining / browsing on sensitive information; Multivariable analysis; Actionable intelligence for preventing acts of terrorism; Behaviour analysis for safety and security; Uncertainty handling, optimisation methods; Belief systems; Risk assessment for potential terrorism targets; Cultural databases; Universal translators"

It can be recalled that FP7 (above) will provide the JRC with a €1.8 billion budget to "provide customer driven scientific and technical support to the EU policy making process", including in EU justice and home affairs and security policies. The "emerging technologies" report concludes:

"All other key technology reports are of high relevance to the security related report: bio-technology, nano-technology, research in the services sector, complexity and systemics, social sciences and humanities, cognitive science, agri-food and environmental technologies, energy technologies, ICT technologies, manufacturing technologies and transport-related research activities."

Nanotechnology

The EU's FP7 programme (above) will provide €4.8 billion for nanotech research between 2007 and 2013 with the broad objective of "improv[ing] the competitiveness of European industry". In their 2005 report, *Scientists for Global Responsibility* set out a number of concerns about the development of "nanotech".[101]

"A number of authors have pointed out the potential for the nanotechnologies to be used to augment and deliver a range of chemical, biological or nuclear weapons. Some of the problems that this situation will create are likely to impact on the various biological, chemical and nuclear weapons treaties...

"Nanotechnology comprises a range of techniques which can measure, manipulate and structure material on the nanoscale (one nanometre is one thousandth of one millionth of a metre). Matter at the single atom level can now be fabricated and manipulated and the range of potential research programmes encompasses most areas in science, engineering and technology. Nanotechnology represents not simply the ability to miniaturise but is a radically new approach to research questions in science, engineering and technology...

"The forerunner of nanotechnology, microelectromechanical systems (MEMS), was born several decades ago in nuclear weapons laboratories. Sandia National Laboratories in the USA are world leaders in bringing MEMS engineering into practice (Amato 1998). They also have an abiding interest in nanotechnology. Sandia National Laboratories have since 1993 been 'managed' by Lockheed Martin, the world's largest military contractor...

"The difficulties implicit in dual use mean that within many areas of science and technology there are no longer clear distinctions between their possible or actual military or civilian uses. Potential problems with nanotechnology may arise from either current military or civilian applications – including impact on human health and the environment and the possibilities for weapon development. This is especially so in areas such as nanotechnology-genetics based agents, autonomous fighting systems and microrobots....

"What is needed now is transparency and wide-ranging public debate on nanotechnology, neither of which is easy when funding involves military or commercial players... In addition the research and development funding across the world for nanotechnology is already well advanced and this will tend toward technological 'lock-in' where considerable momentum within one area of technology may deny other, possibly more desirable, approaches proper consideration".

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5. Criticisms and concerns

In January 1997, Steve Wright completed his seminal "Appraisal of the Technology of Political Control" for the European Parliament's Scientific and Technological Options Assessment (STOA panel), documenting a profusion of technological innovations for police, paramilitary, intelligence and internal security forces.[102] Surveillance technologies, paramilitary police equipment, "less-lethal" weapons (including "electroshock" and stun technology), prison control systems and even torture hardware and execution technologies provided a frightening picture of a high-tech future in law enforcement. "With proper regulation and control", suggested Wright, "*some* of these technologies have a legitimate law enforcement function; without such democratic controls they provide powerful tools of oppression" (emphasis added).

This encapsulates two schools of thought on the emerging security-industrial complex. The first school associates developments in policing and security technology with efficiency, cost-effectiveness and modernization, wanting the police and security agencies to have the most up-to-date forms of equipment to fight crime and terrorism. Massive expenditure on security research is justified because of the potential of technology to increase public safety. *Forbes* magazine has summed-up this approach: "A pleasant side effect of all the spending on anti-terror technology will be a reduction in crime".[103]

The opposing school of thought views the emerging security-industrial complex quite differently, believing that many innovations in law enforcement technology threaten civil liberties and simply offer technical fixes for pressing and intractable social and political problems – while ignoring the "root causes". In 2006, it is clear which school of thought is in the ascendancy: the emerging EU security-industrial complex is in rude health and there are no reticent presidents.[104]

Unacceptable influence, unacceptable subsidies

In establishing the European Security Research Programme and the "preparatory action", the European Commission has taken extraordinary steps in setting up the GoP and the preparatory budget line outside the normal framework for EC research and arguably in breach of the EU treaties. That the establishment of the GoP and the incorporation of its recommendations into EU policy went almost unchallenged is very disturbing. The European Commission is supposed to be the "neutral arbiter" of European integration but in this case could scarcely have done more to accommodate the private sector and the military-industrial lobby in particular.

There was no meaningful discussion in the Council (representing the interests of the member states) and no consultation of the European Parliament (representing the interests of the citizen) – policy-making was instead all but *delegated* to the unaccountable Group of Personalities. The expansion and formalisation of the GoP into the EU Security Research Advisory Board makes permanent this unprecedented polity, but still the idea that private companies, run for profit, should be accorded an official status in the EU goes unchallenged. The result is that the arms industry is shaping not just EU security research, but EU security *policy*. The high-level study and strategic plan being produced by *Thales UK* and the *ASD* group are the clearest examples of this growing influence.

A proposed budget of one billion euros per year for security research is almost treble that being made available by the EU for research into the environment, including climate change, and the equivalent of 10 per cent of the entire EU research budget (see FP7, above). But it is not just a question of priorities. European arms companies already enjoy healthy subsidies and competitive advantages at the national level. In September 2004, the *Oxford Research Group* estimated that UK government subsidies to arms exports (which take the form of Export Credit Guarantees, investment in military R&D and distorted procurement procedures) were worth at least £450 million and possibly up to £930 million a year.[105]

These companies also have a captive domestic market *and* a lucrative global market – the big four European arms companies alone have a combined annual revenue of around $84 billion, which is not far off the total EU budget. In this context it is surely them alone who should be funding their research – whatever the sector – especially because these are technologies that will ultimately be *sold* back to European governments. Moreover, why should the majority of member states, who do not prioritise military R&D in the same way as the big arms producing countries, be footing the bill for security research by those that do?

Market fundamentalism, technological determinism

In incorporating the views of the GoP into EU policy, the European Commission has put forward three main justifications for the EU security research programme. First, the security "threats" facing the EU require technological solutions. Second, the EU must match US funding of research in this area to ensure the competitiveness of its own industries. Third, the defence industry should take the lead in developing security technologies because of military and civilian applications increasingly draw on the same technological base.

These arguments are unacceptable. The US also leads the world in developing genetically modified (GM) foods, giving US multinationals a competitive advantage. By this rationale should the EU then establish a GM research programme? Of course not, (it must be hoped that) there would be outcry if it did because as with the development of GM foods, the EU's role should be one of ensuring that the security-industrial complex is subject to "checks and balances", not lavishing it with taxpayers' money in an unaccountable fashion.

Almost everyone agrees with the idea of restricting the availability of military equipment and technology to repressive and despotic regimes, and with (the fading hope of) limiting the global proliferation of weapons and instruments of destruction and repression. Security research raises exactly the same concerns but instead we are asked to accept the premise that some kind of "civil-military" continuum means the arms industry is best placed to deliver security technology to the world. This is a very dubious claim. First, it is difficult to avoid the nagging doubt that security research is simply military research by another, more socially acceptable name – as Javier Solana admitted recently, the

> "Technologies that the Commission will be promoting under its new programme for European Security research may be indistinguishable from those we need for more conventional "defence" purposes".[106]

Second, "technology transfer from military-supported R&D to civilian use is a complex and expensive route which has in the last twenty years been disappointing in view of the massive investments involved" (*Scientists for Global Responsibility*).[107] Third, military involvement in research inevitably undermines openness and transparency, restricting substantially the scope for necessary debate.

National security, human insecurity

The obvious danger in placing blind faith in technological fixes to complex phenomena like crime, terrorism and "illegal" immigration is the continued militarisation of law-and-order. Consider the woefully inadequate response to the damage wrought by Hurricane Katrina on New Orleans, where concern for "human security" paled in the face of the efforts to achieve a martial law scenario. There is already significant concern over recent "civil contingencies" legislation around the world (much of it revisited for the first time since the Second World War) geared toward executive control backed by military force to retain order during "emergencies".[108]

Technology undoubtedly can assist in police investigations. But there is no evidence to suggest that it *prevents* terrorism or crime because technology can do nothing to address the multifaceted "root causes" of these social problems. The effect of law enforcement technology on civil liberties and democracy, meanwhile, is already all too clear. While certainly having a legitimate role to play if adequately regulated, technologies like CCTV and DNA profiling have generally been made available to the police with inadequate controls or regard for individual human rights. The rushed EU legislation on the introduction of "biometrics" into passports and travel documents has also come at the expense of democratic debate. Serious privacy concerns have been ignored and serious questions remain about the usefulness, reliability and accuracy of the underlying technology.

Some of the projects funded under the ESRP so far have a legitimate, civil objective – dealing with radio-nuclear fallout and protecting critical infrastructure, for example. The majority, however, deal with surveillance and the development of military technologies of political control that offer little guarantee as far as "security" is concerned. As Charles Clarke, UK Home Secretary, commented after the bombing of the London transport network: "all the surveillance in the world could not have prevented [the bombings]".

The cost of this illusory "security" is the incremental sacrifice of privacy and democratic culture in Europe. The law enforcement IT revolution has only just begun but already it is quite possible – thanks to the EU – to envisage a Europe in which everybody is registered, fingerprinted and profiled; in which all communication and movement is monitored and recorded for law enforcement purposes; and in which we are increasingly policed by military force rather than civilian consent.

6. Conclusions and recommendations

The planned Security Research Programme raises important issues about EU policy-making and the future of Europe. At a time when Europe needs to harness the resources at its disposal to take meaningful action against not just terrorism but disease, climate change, poverty, inequality, environmental degradation, resource depletion and other sources of insecurity, Europe lacks credible political leadership.[109]

As part of a broad strategy, technology clearly has an important role to play in meeting the security challenges facing Europe. The ESRP is not part of such a strategy, it is part of an emerging security-industrial complex dominated by profit-driven conglomerates with a particularly narrow view of how best to achieve security based primarily on the use of military force. The ESRP is part of a broader EU counter-terrorism strategy almost singularly orientated around the demands of law enforcement. Freedom and democracy are being undermined by the very policies adopted in their name.

The militarisation of the EU is a controversial development that should be fiercely contested but it has not been subject to any meaningful debate. EU funding of military research is also very controversial, from both a constitutional and political perspective. It is regrettable, therefore, that multinational arms companies have been given a seat at the EU table, a proposed budget of one billion euros for "security" research and all but full control over the development and implementation of the programme. In effect, the EU is funding the diversification of these companies into the more legitimate and highly lucrative "dual use" sector, allowing them to design future EU security policies and allowing corporate interests to determine the public interest.

Where the European Commission has failed, it must be hoped the European and national parliaments take seriously their obligation to challenge both the costs and the alleged benefits of security research and to review all military expenditure by the EU. The full security research programme is not yet underway and parliaments could still take meaningful action to restrict or at least bring the ESRP under some form of regulation or democratic control.

Civil society too has a critically important role to play in resisting the development of the security-industrial complex and the wider militarisation of the EU. Civil liberties groups and anti-militarist campaigners should challenge current developments and explain to the people of Europe what is being done in their name. It is hoped that this report contributes to a broader campaign against EU militarism and that it will be followed-up by systematic monitoring of the development and implementation of the ESRP by independent groups.

7. Critical perspectives

Campaign Against the Arms Trade: http://www.caat.org.uk/

European Civil Liberties Network: http://www.ecln.org/

European Network for Peace and Human Rights:
http://www.russfound.org/

Transnational Institute, militarism and globalisation project
http://www.tni.org/militarism/index.htm

Statewatch: http://www.statewatch.org/

Stockholm International Peace Research Institute:

http://www.sipri.org/

Notes

[1] Full-text available at:
http://www.americanrhetoric.com/speeches/dwightdeisenhowerfarewell.html.
[2] See "Recent trends in military expenditure", *Stockholm International Peace Research Institute*
(SIPRI): http://www.sipri.org/contents/milap/milex/aprod/mex_trends.html.
[3] See "Mergers, Acquisitions and Joint Ventures", SIPRI:
http://www.sipri.org/contents/milap/milex/aprod/m_and_a_jv.html
[4] See "World Top 10 Arms Companies, 2004", *Campaign Against the Arms Trade*:
http://www.caat.org.uk/issues/facts-figures/top-world-cos.php
[5] See "Frequently asked questions - New Commission initiatives on more open and efficient
defence procurement", European Commission memo, 6 December 2005:
http://europa.eu.int/rapid/pressReleasesAction.do?reference=MEMO/05/467&format=HTML&aged=0&language=EN&guiLanguage=en.
[6] To put this figure in context, the US government spends more than half of its total R&D budget
on the military and the French government 23 %. In Austria it is less than 0.5 per cent and in
Finland and Portugal just over 1 per cent. See "Military dominates UK science, says report",
Guardian, 20 January 2005:
http://education.guardian.co.uk/higher/research/story/0,9865,1394402,00.html.
[7] Chris Langley (2005) "Soldiers in the laboratory: Military involvement in science and technology
- and some alternatives", *Scientists for Global Responsibility*, available at:
http://www.sgr.org.uk/ArmsControl/MilitaryInfluence.html.
[8] Article 1, Title V, TEU.
[9] See "Global policing role for EU", *Statewatch* (2000):
http://www.statewatch.org/news/dec00/nonmil.htm.
[10] See "EU Missions", European Security and Defence Policy (ESDP):

http://ue.eu.int/cms3_fo/showPage.asp?id=268&lang=en.

[11] On all these issues see *Statewatch*: http://www.statewatch.org/.

[12] See *Statewatch* observatory on the "terrorist lists":
http://www.statewatch.org/terrorlists/terrorlists.html.

[13] See *Corporate Europe Observatory*: http://www.corporateeurope.org/.

[14] "The Emerging EU Military-Industrial Complex: Arms industry lobbying in Brussels", TNI briefing series 2005/1, http://www.tni.org/reports/militarism/eumilitary.pdf. See also "A new European century?", *Eurotopia*, http://www.eurotopiamag.org/rubrique.php3?id_rubrique=8.

[15] Philippe Busquin (European Commissioner for Research), Pascal Lamy (European Commissioner for Trade), Erkki Liikanen (European Commissioner for Enterprise and the Information Society), Loyola de Palacio (Vice-President of the European Commission, responsible for Relations with the European Parliament, Transport & Energy) and Chris Patten, Member of the European Commission, responsible
for External Relations.

[16] Carlos Westendorp y Cabeza MEP (Chairman Industry, Foreign Trade, Research and Energy Committee) and Karl von Wogau MEP.

[17] "STAR 21: Strategic Aerospace Review for the 21st century", European Commission (2002):
http://europa.eu.int/comm/enterprise/aerospace/report_star21_screen.pdf.

[18] European Commission Communication COM (2003) 113, 11 March 2003:
http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0113en01.pdf.

[19] "Dual use goods" are clearly covered by the EU's Code of Conduct on arms exports.

[20] Article 40(3), draft EU Constitution, 18 July 2003. In the adopted version of the Constitution this provision was revised only slightly: "Member States shall undertake progressively to improve their military capabilities. An Agency in the field of defence capabilities development, research, acquisition and armaments (European Defence Agency) shall be established to identify operational requirements, to promote measures to satisfy those requirements, to contribute to identifying and, where appropriate, implementing any measure needed to strengthen the industrial and technological base of the defence sector, to participate in defining a European capabilities and armaments policy, and to assist the Council in evaluating the improvement of military capabilities", Article I-41.

[21] Source: EU Council doc. CONV 461/02, 16 December 2002:
http://register.consilium.eu.int/pdf/en/02/cv00/00461en2.pdf.

[22] For texts see *Statewatch* observatory on the EU Constitution:
http://www.statewatch.org/euconstitution.htm.

[23] See European Defence Agency: http://www.eda.eu.int/.

[24] See "EU defence agency approved", New Defence Agenda, 15 June 2004 http://www.newdefenceagenda.org/news_detail.asp?ID=201&frame=yes~main&frame=yes~main.

[25] "Research and technology: an imperative for European defence", speech by Javier Solana, Brussels, 9 February 2006 (Council document S043/06).

[26] Source: "Common Fund Urged To Support EU R&T", defensenews.com, 13 February 2006.

[27] This has also been mooted by Javier Solana and would be similar to the "EUCLID" programme launched in 1996 under the auspices of the Western European Armaments Group (WEAG). The WEAG dates back to 1976 and was established to strengthen the European defence technological and industrial base; EUCLID provided approximately €100 million per year to develop common European base for long-term defence research. With the creation of the EDA, the WEAG was disbanded in 2004. See: http://www.weu.int/weag/.

[28] Full-text available at: http://ue.eu.int/uedocs/cmsUpload/78367.pdf.

[29] See "Rebuilding America's Defenses: Strategy, Forces and Resources For a New Century", Report of The Project for the New American Century, September 2000:
http://www.newamericancentury.org/RebuildingAmericasDefenses.pdf.

[30] See "Quadrennial Defense Review Report", US Department of Defense, 6 February 2004, full-text available at: http://www.statewatch.org/news/2006/feb/us-quad-def-review.pdf.

[31] LeaderSHIP 2015 was launched in January 2003. Its report "Defining the future of the European shipbuilding and ship repair industry" was published in November 2003:
http://europa.eu.int/comm/enterprise/maritime/shipbuilding_market/doc/leadership2015_en.pdf

[32] See: "EU: Security research programme to look at creating "smart" biometric documents which will "locate, identify and follow the movement of persons" through "automatic chips with position-ing"", *Statewatch news online*, February 2004:
http://www.statewatch.org/news/2004/feb/23Aeu-plan-security.htm.

[33] Source: http://www.strategicstudiesinstitute.army.mil.

[34] See EGE: http://europa.eu.int/comm/european_group_ethics/activities05_en.htm

[35] Source: "The Experts Looking Out for Europe's Security", *Intelligence Online* no. 468, 16 January 2004: http://www.intelligenceonline.com/NETWORKS/FILES/468/468.asp?rub=networks

[36] See "Frequently asked questions on European Security Research", European Commission memo, 7 October 2003:
http://europa.eu.int/rapid/pressReleasesAction.do?reference=MEMO/03/192&format=HTML&aged=1&language=EN&guiLanguage=fr.

[37] See: "List of "personalities" but how much power should they have?", *Statewatch news online*, February 2004:   http://www.statewatch.org/news/2004/feb/35gop-names-and-role.htm

[38] See reference in note above.

[39] See http://www.iss-eu.org/.

[40] It also has a mandate to develop "transatlantic dialogue on all security issues with the countries of Europe, Canada and the United States".

[41] Six members of the GoP state the case for the further militarisation and securitisation of the EU in Von Wogau's book, see: http://eubookshop.com/3/38.

[42] See NDA website: http://www.newdefenceagenda.org/ and CEO lobbying awards: http://www.corporateeurope.org/worstlobby/nominees/nda.html.

[43] "Communication on the implementation of the Preparatory Action on the enhancement of the European industrial potential in the field of Security research, Towards a programme to advance European security through Research and Technology", European Commission doc. COM (2004) 72, 3 February 2004: http://www.statewatch.org/news/2004/feb/security-research-com72.pdf.

[44] Commission Decision (2004/213/EC) of 3 February 2004 on the implementation of the Preparatory Action on the Enhancement of the European industrial potential in the field of securi-ty research, EC Official Journal (2004) L 67/18:
http://europa.eu.int/eur-lex/pri/en/oj/dat/2004/l_067/l_06720040305en00180022.pdf.

[45] Twelfth Report of Session 2003-04, House of Commons European Scrutiny Committee, 10 March 2004 (p. 18):
http://www.publications.parliament.uk/pa/cm200304/cmselect/cmeuleg/42-xii/42-xii.pdf.

[46] "Research for a Secure Europe", Report of the Group of Personalities in the field of Security Research, European Commission, March 2004:
http://europa.eu.int/comm/enterprise/security/doc/gop_en.pdf

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[47] European Commission Communication: COM (2004) 590, 7 September 2004: http://europa.eu.int/eur-lex/en/com/cnc/2004/com2004_0590en01.pdf.

[48] See "Preparatory Action for Security Research - 2004 funded activities", January 2005: http://europa.eu.int/comm/enterprise/security/doc/pasr_call1_en.pdf and "Outcome of the Evaluation of the Second Call (PASR-2005) of the Preparatory Action for Security Research", November 2005: http://europa.eu.int/comm/enterprise/security/doc/lessons_pasr.pdf.

[49] See "Soldiers in the laboratory" report, note 9, above.

[50] *Research Fortnight*, 26 February 2003, cited in "Soldiers in the laboratory" report, note 9, above.

[51] By way of comparison, the UK budget for 2005 is approx. 760 billion euros (i.e. its annual budget is approx. seven times larger than that of the EU).

[52] See original European Commission FP7 proposal, COM (2005) 119, 6 April 2005: http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2005/com2005_0119en01.pdf and subsequent documentation on DG Research website: http://europa.eu.int/comm/research/future/documents_en.cfm.

[53] Speech to the "What Science, What Europe?" conference in the European Parliament, 2 -3 May 2005: http://www.peoplesearthdecade.org/articles/article.php?id=381.

[54] Under the heading "Security" the priorities are: Protection against terrorism and crime; Security of infrastructures and utilities; Border security; Restoring security in case of crisis; Security Systems Integration and interoperability; Security and society; Security Research Co-ordination and structuring (including research into the "synergies between civil, security and defence research). Under the heading "Space", there are two priorities. First, "Space-based applications at the service of the European Society": "GMES [Global Monitoring for Environment and Security]: development of satellite-based monitoring systems and techniques relating to the management of the environment and security and their integration with ground-based, ship-borne and airborne components; support to the use and delivery of GMES data and services"; "Innovative satellite communication services"; and the "Development of technologies for reducing the vulnerability of space-based services and for contributing to the surveillance of space". The second priority is the "Exploration of space" and "Contribution to international space exploration initiatives".

[55] Commission Decision 2005/1243/EC of 22nd April 2005, OJ (2005) L 191/70: http://europa.eu.int/eurlex/lex/LexUriServ/site/en/oj/2005/l_191/l_19120050722en00700072.pdf.

[56] "List of members of the European Security Research Advisory Board (ESRAB), set up by Commission Decision 2005/516/EC", OJ (2005) C 180/02: http://europa.eu.int/eurlex/lex/LexUriServ/LexUriServ.do?uri=CELEX:52005XC0722(01):EN:HTML. *Statewatch* is currently awaiting the response of the European Commission for relevant documentation under EU rules on public access to documents.

[57] See for example "Stakeholder consultation" documents "PASR programme of work 2006": http://europa.eu.int/comm/enterprise/security/doc/planning_pasr.pdf and "Brief Outlook to Security Research in the 7th Framework Programme, European Conference on Security Research, Vienna, February 2006": http://europa.eu.int/comm/enterprise/security/doc/outlook_pasr.pdf. See also EU security research website: http://europa.eu.int/comm/enterprise/security/index_en.htm.

[58] Source: "Brief Outlook to Security Research...", see note above.

[59] The task of working out "who's who" on ESRAB is not helped by several apparent spelling mistakes in the Official Journal. The backgrounds of Maria Dali-Ziampaka, Henryk Jan Knapczyk and Gendrutis Ma☐ylis could not be ascertained.

[60] The ministry representatives appear to be (Group 1): Marek Adamczyk, Director, Polish Border,

Guard Unit Poland; Brian Cranmer, Maritime Authority, Malta; Jean-Louis Gerstenmayer, Director of Technology, Research Ministry, France; Janez Mozina, Secretary of State, Higher Education, Science and Technology, Slovenia; Jurgen Stock, Bundeskriminalamt, Germany; Mark Stroud, Police Scientific Development Branch, Home Office, UK; Admiral Nuno Gonçalo Vieira Matias, Portuguese Naval Forces' Commander; Frits Gronsveld, Project Director, Interior Ministry, Netherlands; Christian Bréant, Director of R&D, Ministry of Defence, France; Antonio Cameli, Consiglio di Amministrazione (personale della Polizia di Stato), Italy; Jacek Gierlinski, Director, Ministry of Science and IT, Poland; Tamas Rath, Director, Military Technology Institute, Ministry of Defence, Hungary; Carmen Rodriguez-Augustin, Nat. Ins.Aerospace Technology Ministry of Defence, Spain; and (Group 2): Cees Van Duyvendijk, Commander in Chief Royal Netherlands Navy; Páraig Hennessy, Department of Enterprise, Trade and Employment, Ireland; Graham Jordan Science and Technology Director, Ministry of Defence, UK; John-Erik Stig Hansen, Biological Defence, Ministry of the Interior and Health, Denmark; Madelene Sandström, FOI Director General, Ministry of Defence, Sweden; Nicole Gnesotto, Director, EU Institute for Security Studies.

[61] The representatives of research and academic institutions appear to be (Group 1): Fernando Carvalho Rodrigues, Professor da Universidade Independente, Lisboa, Portugal; Thomas Engel, Science, Technology and Communications, University of Luxembourg; Helmut Krünes, MD Seibersdorf research GmbH (ARCS), Austria; Štefan Luby, President of the Slovak Academy of Science, Slovakia; Frank Vanaverbeke, University of Ghent, Belgium; Jérôme Joly, Nucléaire de l'Institut de radioprotection et de sûreté nucléaire ISRN, France; Rebecca Bowden, Office of Science and Technology, Royal Society, UK; Stefano Silvestri, President, Istituto Affari Internazionali, Italy (Group 2) Manel Medina, Director, esCERT-UPC, Spain.

[62] The EDA is represented by Bertrand de Cordoue, Director of Research and Technology Department. Europol is represented by Mario Simancas, acting Director.

[63] The EDA and Europol are ostensibly accountable to the EU through their respective steering and management boards but both enjoy a significant degree of autonomy in their day-to-day activities.

[64] For the results of first round of PASR funding see EU security research website: http://europa.eu.int/comm/enterprise/security/articles/article_2164_en.htm. For the results of the second round of PASR funding see Commission memo 2 August 2005: http://europa.eu.int/rapid/pressReleasesAction.do?reference=MEMO/05/277&format=HTML&aged=0&language=EN&guiLanguage=fr.

[65] See "SENTRE" contract details:
http://europa.eu.int/comm/enterprise/security/doc/sentre_en.pdf.

[66] See "ESSTRT" contract details:
http://europa.eu.int/comm/enterprise/security/doc/esstrt_en.pdf.

[67] See Commission memo, note 66, above.

[68] "PETRANET" (Network for the promotion, enhancement and take-up of security research) will link "the security research community with public authority users such as the police, fire brigade, ambulance service and civil defence". PETRANET will develop "secured systems for information exchange between researchers and end users", "promote the transfer of research results into the operational environment using trusted and secure dissemination mechanisms" and "support the cross-fertilisation of emerging research results between PASR activities and the public authority user community". See Commission memo, note 66, above.

[69] See "IMPACT" contract details:
http://europa.eu.int/comm/enterprise/security/doc/impact_en.pdf.

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[70] See *Thales UK* press release, 13 September 2005: http://www.thalesgroup.co.uk/thales_corporate/press-room/pressreleases/thales-uk-wins-funding-for-european-security-research-programmes.cfm.

[71] See "TERASEC" contract details:
http://europa.eu.int/comm/enterprise/security/doc/terasec_en.pdf.

[72] See Commission memo, note 66, above.

[73] See "ASTRO" contract details: http://europa.eu.int/comm/enterprise/security/doc/astro_en.pdf

[74] See "GEOCROW" contract details:
http://europa.eu.int/comm/enterprise/security/doc/geocrew_en.pdf

[75] See European Commission website: "Galileo: European Satellite Navigation System": *http://europa.eu.int/comm/dgs/energy_transport/galileo/index_en.htm*. See also Global Monitoring for Environment and Security (GMES) website: *http://www.gmes.info/* and European Space Agency website: *http://www.esa.int/*.

[76] See "EU: Report on biometrics dodges the real issues", *Statewatch news online*, March 2005: http://www.statewatch.org/news/2005/mar/17eu-biometric-report.htm.

[77] "Working document on data protection issues related to RFID technology", ARTICLE 29 Data Protection Working Party, 19 January 2005:
http://europa.eu.int/comm/justice_home/fsj/privacy/docs/wpdocs/2005/wp105_en.pdf.

[78] "Business joins campaigns for civil rights and privacy", *EU Reporter*, 30 January 2006. See http://www.eureporter.co.uk.

[79] See "about ISCAPS": http://www.iscaps.reading.ac.uk/about.htm.

[80] See *Thales UK* press release, note 72, above.

[81] See Commission memo, note 66, above.

[82] "Homeland Security: Unmanned Aerial Vehicles and Border Surveillance, CRS Report for Congress, 7 February 2005: http://www.fas.org/sgp/crs/homesec/RS21698.pdf.

[83] See *Dassault Aviation* website: http://www.dassault-aviation.com/defense/gb/uav/MSuav.cfm.

[84] See "Yard buys "SAS" anti-terror helicopters, *Times*, 12 February 2006.

[85] There are two different types of UAV: drones and remotely piloted vehicles (RPVs). Both drones and RPVs are pilotless, but drones are programmed for autonomous flight while RPVs are actively flown – remotely – by a ground control operator.

[86] See "VITA" contract details: http://europa.eu.int/comm/enterprise/security/doc/vita_en.pdf.

[87] See Commission memo, note 66, above.

[88] See "SUPHICE" contract details: http://www.suphice.com/default/default.stm

[89] See Commission memo, note 66, above.

[90] See Commission memo, note 66, above.

[91] See "CRIMSON" website: http://www.crs4.it/vic/cgi-bin/project-page.cgi?acronym='CRIMSON'.

[92] See "TIARA" contract details: http://europa.eu.int/comm/enterprise/security/doc/tiara_en.pdf.

[93] See Commission communication on CIP, COM (2004) 702, 20 October 2004: http://europa.eu.int/comm/justice_home/doc_centre/criminal/terrorism/doc/com_2004_702_en.pdf.

[94] Defence News, 23 January 2006:
http://www.defensenews.com/story.php?F=1477779&C=thisweek.

[95] The EU member states have endorsed the "principle of availability" in the "Hague programme" on justice and home affairs co-operation 2004-2009. See "Annotated text of the "Hague Programme" on "freedom, security and justice" adopted at EU Summit in Brussels on 4-5 November 2004", briefing by Professor Steve Peers (University of Essex) for *Statewatch*, November

2004: http://www.statewatch.org/temp/2004/nov/hague-annotated-final.pdf.

[96] European Commission Communication, COM (2005) 597, 24 November 2005: http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2005/com2005_0597en01.pdf. See also "SIS II fait accompli? Construction of EU's Big Brother database underway", *Statewatch*, May 2005: http://www.statewatch.org/news/2005/may/sisII-analysis-may05.pdf.

[97] See Commission memo, note 66, above.

[98] See Commission memo, note 66, above.

[99] http://serac.jrc.it/dmdocuments/emtec.pdf?PHPSESSID=d4ac609dd5d47ab0d35dbd44378aadbc

[100] See also "A Resource Guide to Law Enforcement, Corrections, and Forensic Technologies", Office of Justice Programs, Office of Community Oriented Policing Services and US Department Of Justice, May 2001: http://www.ncjrs.org/pdffiles1/nij/186822.pdf.

[101] See "Soldiers in the laboratory" report, note 9, above.

[102] "An appraisal of technologies for political control", European Parliament DG Research, Working document (Consultation version), 6 January 1998: http://cryptome.org/stoa-atpc.htm.

[103] "Military-Industrial Complex, 2003", 5 December 2003: http://www.forbes.com/global/2003/0512/019.html.

[104] See introduction, above.

[105] "Escaping the Subsidy Trap: Why Arms Exports are bad for Britain", September 2004: http://www.oxfordresearchgroup.org.uk/publications/books/subsidytrap.htm.

[106] Speech by Javier Solana, 9 February 2006, see note 27, above.

[107] See "Soldiers in the laboratory" report, note 9, above.

[108] See " Civil Contingencies Bill: Britain's Patriot Act - revised, and just as dangerous as before", *Statewatch news online*, January 2004: . There are close similarities between the recent emergency legislation of the USA, UK, Canada and Australia.

[109] The industry- and technology-driven FP7 does not adequately meet these needs.

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The militarisation of the EU is a controversial development that should be fiercely contested. EU funding of military research is also very controversial, from both a constitutional and political perspective.

This Statewatch-TNI report examines the development of the EU Security Research Programme (ESRP) and the growing security-industrial complex in Europe it is being set up to support. With the global market for technologies of repression more lucrative than ever in the wake of 11 September 2001, it is on a healthy expansion course. There are strong arguments for regulating, limiting and resisting the development of the security-industrial complex but as yet there has been precious little debate.

The story of the ESRP is one of "Big Brother" meets market fundamentalism. It was personified by the establishment in 2003 of a "Group of Personalities" (GoP) comprised of EU officials and Europe's biggest arms and IT companies who argued that European multinationals are losing out to their US competitors because the US government is providing them with a billion dollars a year for security research. The European Commission responded by giving these companies a seat at the EU table, a proposed budget of one billion euros for "security" research and all but full control over the development and implementation of the programme. In effect, the EU is funding the diversification of these companies into the more legitimate and highly lucrative "dual use" sector, allowing them to design future EU security policies and allowing corporate interests to determine the public interest.

The planned Security Research Programme raises important issues about EU policy-making and the future of Europe. Europe faces serious security challenges: not just terrorism, but disease, climate change, poverty, inequality, environmental degradation, resource depletion and other sources of insecurity. Rather than being part of a broader strategy to combat these challenges, the ESRP is part of a broader EU counter-terrorism strategy almost singularly orientated to achieving security based primarily on the use of military force and the demands of law enforcement. Freedom and democracy are being undermined by the very policies adopted in their name.

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