# EU CP Supplement

EU CP Supplement 1

\*\*\*TOP SHELF\*\*\* 4

EU CP---1NC 5

\*\*\*SOLVENCY\*\*\* 7

Generic Solvency 8

Moon/Mars Solvency 10

Colonization Solvency 11

SBSP Solvency 12

NPP Solvency 13

\*\*\*EU SOFT POWER NB\*\*\* 15

1NC Soft Power Net Benefit 16

Soft Power UQ 18

Key to Soft Power Ext. 19

Soft Power Impact Ext. 23

Brain Drain Scenario 25

Multipolarity Inevitable 26

AT: EU Lacks Military 27

AT: EU is dependent on US 28

\*\*\*WARMING DEBATE\*\*\* 29

Warming Impact Ext. 30

AT: Ice Age T/ 31

AT: Not Anthropogenic 32

AT: We’ll Adapt 33

\*\*\*PROLIF DEBATE\*\*\* 34

Miscalc Impact 35

AT: Deterrence Checks 36

\*\*\*EU Economy 38

1NC Economy Net Benefit 39

R&D/Growth Key 41

EU Econ Key to Global 42

\*\*\*EU Aerospace\*\*\* 43

CP Solves EU Aerospace 44

UQ- EU Aerospace declining 46

AT: Perm- Zero Sum 47

Aerospace Key to the Economy 49

Aerospace K2: Technology 52

Aerospace K2: Competition 53

Aerospace K2: Military 54

\*\*\*2NC BLOCKS\*\*\* 56

AT: Perm [Tradeoff] 57

AT: Perm [Follower] 59

AT: Perm [Econ DA] 60

AT: Perm [Econ DA] Ext. 62

AT: EU Bad 63

AT: International Fiat Bad 64

\*\*\*AFF ANSWERS\*\*\* 66

Perm Solvency 67

EU Space N/U 68

Economy N/U 69

EU Bad [Arms Race] 70

No Solvency 71

Warming Impact D 72

Prolif Impact D 74

Middle East Impact D 75

# \*\*\*TOP SHELF\*\*\*

## EU CP---1NC

### CP TEXT: The European Union should collaborate to [Insert Modified Plan text].

### Contention 1: Solvency

### The EU solves the aff – they have the tech and experience

EC-SAG 9 (European Commission Space Advisory Group on Space Exploration, “Towards a European Vision for Space Exploration”, http://ec.europa.eu/enterprise/policies/space/research/towards\_a\_european\_vision\_for\_space\_exploration\_en.htm, October 2009) SV

Europe’s space industry, to a great extent encouraged by the programmes of the European space agencies, has developed its skills across a broad swath of space technologies and systems capabilities. This has not only resulted in a series of successful and increasingly complex scientific and infrastructure missions, but also in making European industry a formidable competitor on the world stage for commercial launch services, telecommunications and Earth mapping missions. The pace of technological and system development in industry currently makes Europe a credible partner for NASA and the rest of the world. In parallel, Europe has created its own infrastructure for access to space and for the support of humans in space. Its Ariane launchers have been workhorses for the last three decades, now embodied in the Ariane-5, which is able to loft powerful telecommunications satellites, ground-breaking science missions and the Automated Transfer Vehicle (ATV). Human spaceflight activities of Europe began in close association with the Space Shuttle programme (Spacelab) and have now reached maturity as demonstrated by the Columbus module now in orbit as part of the ISS, as well as by other essential ISS supplies, e.g., Multi-Purpose Logistic Modules (MPLMs), Nodes and the ATV. These activities have a high potential for preparing future human presence on Mars and the Moon. The technologies developed by space industry for space habitats, such as air and water recycling, waste management, energy supply, telemedicine, and regenerative life support systems, have the potential for cross-fertilisation of innovative ideas between the space and non-space sectors. With the above developments, and Europe's growing expertise in autonomous atmospheric re-entry systems, Europe has all the basic building blocks to commit to even more ambitious endeavours.

# \*\*\*SOLVENCY\*\*\*

## Generic Solvency

### EU is effective and has the tech

Peter 8 (Nicolas, Research Fellow at European Space Policy Institute, “Space Exploration 2025: Global Perspectives and Options for Europe” <http://www.lpi.usra.edu/meetings/leagilewg2008/presentations/oct29pmSalonIII/Peter4088.pdf>, 8/14/2008) SV

Europe (the European Union and its Member States) possesses some degrees of national power (soft, military and economic powers) in space activities. This is due to the fact that, when considered collectively, Europe possesses critical technical assets (independent launch site, versatile launch vehicle fleet, diversified spacecraft, solid industry and dynamic universities etc.),and non- technical assets such as high visibility in international organisations (United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS), International Telecommunication Union (ITU), Conference on Disarmament etc.), which are all necessary elements to exercise space power. A combination of European abilities and capabilities coming from different European actors (members States, European Space Agency and the European Union) thus provides Europe with the status of a major space actor and with the ability to benefit from the various attributes of space power (soft, military and economic powers).

### EU is successful is space exploration-empirically proven

EC-SAG 9 (European Commission Space Advisory Group on Space Exploration, “Towards a European Vision for Space Exploration”, http://ec.europa.eu/enterprise/policies/space/research/towards\_a\_european\_vision\_for\_space\_exploration\_en.htm, October 2009) SV

So far, European scientists have contributed to the exploration of the Moon (ESA Moon-orbiter SMART 1 mission, and European instruments on Chinese Chang'e, Indian Chandrayaan, and NASA LRO lunar missions), and have received international recognition through their contributions to the exploration of Mars (ESA orbiter Mars Express, and European instruments on NASA Mars Exploration Rovers). Starting with Spacelab 1, and continuing with the International Space Station (ISS), European scientists have gained a wealth of information on the responses and adaptations of the human body to extraterrestrial conditions, i.e., lack of gravity, altered circadian rhythms, increased exposure to cosmic radiation. This knowledge is of utmost importance and the first step towards safeguarding human health, efficiency and wellbeing on exploratory missions [3].

### Europe can do the plan

**Fletcher 6/16** (Emmet Fletcher, Manager of the Space Surveillance Program at the ESA, “Analysis: Europe outlines the future in space”, http://www.emmetfletcher.com/blog/2011/06/16/analysis-europe-outlines-the-future-in-space/, 6/16/2011) SV

First priorities are realisation of the flagship Galileo navigation and global monitoring for environmental and security (GMES) satellite constellations. Galileo, a European counterpart to the US GPS system, is behind time and budget – 18 spacecraft are expected to be in orbit by 2014, six years after the system was to be fully operational, and Galileo will need 24 spacecraft to provide global coverage – but the Commission has underscored the need to get the constellation deployed “within a reasonable amount of time”. One clear benefit of satellite navigation came on stream earlier this year, when Europe’s EGNOS safety-of-life service went live. A network of 40 EU-owned EGNOS ground stations take signals from GPS – and, eventually, Galileo – and enhance their accuracy to less than 1m (3ft). As with the wide area augmentation system available in the USA, aircraft with EGNOS receivers can now make super-precision approaches in Europe. And, says Tajani, the free-to-use signals are a public service, so private companies are encouraged to develop receivers capable of exploiting them. **Enhance understanding:** The civilian-use GMES system is intended to enhance understanding of the sea, air, land and atmospheric environment, as a basis for policy making, and the data generated would also be available for private use. The EC wants to see GMES fully operational by 2014. A third priority is the establishment of an independent, European space situational awareness (SSA) system. This would be a single radar installation somewhere in Europe supplemented by 20 optical telescopes at four sites equally spaced near the equator, to track the orbiting debris that poses a risk to satellites and other spacecraft. The system, complementing similar observation carried out by the USA and possibly at some point including some space-based telescopes, would also in principle provide some guide to so-called near-Earth objects: meteors and asteroids that could, if they struck the Earth, cause immeasurable damage. The system would be expensive – ESA’s SSA programme office foresees an initial five-year development phase starting in 2012 or 2013 with a €600-700 million budget – but looks like a good investment. Orbiting debris and solar radiation are two space-based hazards that the Commission estimates causes around €332 million ($480 million) of damage to European assets annually. The EC has also identified continued European participation in space exploration as a policy priority. As the Commission paper points out – and as programmes ranging from ISS participation to detailed pictures of Mars currently being beamed home by ESA’s Mars Express planetary orbiter amply support – “**Europe is a partner that is known for its competence and reliability in this sector, but it is not making the most of its potential because its actions are too piecemeal**”.

### Mandates will result in progress-EU has the tech

Peter 8 (Nicolas, Research Fellow at European Space Policy Institute, “Space Exploration 2025: Global Perspectives and Options for Europe” http://www.lpi.usra.edu/meetings/leagilewg2008/presentations/oct29pmSalonIII/Peter4088.pdf, 8/14/2008) SV

In order to prioritize European initiatives to ensure that Europe remains a leading space power in the field of space exploration and adapts to an evolving space context key options for the next 20 years are explored. Those policy options based on internal ESPI reflection that take into account an evolution of the European space context with the increasing interest of the EU in space exploration activities. These options provide directions in which Europe could move forward in the next two decades. The specific technology capabilities needed are not listed as it is perceived that political decision has to be secured first. However, the options put forward would allow drawing on initial roadmap for future space exploration activities. • The first option would consider a Europe focusing on robotic exploration to the moon, Mars and other planetary bodies, including NEOs and the sustained utilization of the ISS (“status quo” option). • The second option would consider a Europe focusing on robotic exploration to various destinations in the solar system, the utilization of the ISS with the development of the capability to return the European cargo back to Earth, and an involvement in human lunar exploration activities (“conservative” option). • The third option would consider a Europe with a robust robotic programme to various destinations, the continued utilization of the ISS, autonomous human access to space and an involvement in human lunar exploration activities (“pragmatic” option). • The fourth option would consider a Europe with a robust robotic programme to various destinations in the solar system, the sustained utilization of the ISS, human autonomous access to space, human lunar exploration activities and leadership role in preparing activities linked with human exploration of Mars (“ambitious” option).

## Moon/Mars Solvency

### EU has the tech for lunar and Martian exploration

Peter 8 (Nicolas, Research Fellow at European Space Policy Institute, “Space Exploration 2025: Global Perspectives and Options for Europe” http://www.lpi.usra.edu/meetings/leagilewg2008/presentations/oct29pmSalonIII/Peter4088.pdf, 8/14/2008) SV

After the Apollo programme, human spaceflight has concentrated for more than 35 years exclusively on missions to Earth orbits with the development of transportation systems and orbital infrastructure. However, as new plans for human exploration of the moon are spreading, Europe should consider joining this endeavour. The moon could be used by Europe as a test bed for human exploration by capitalizing on its assets such as Ariane 5, the ATV and Columbus as capability building blocks. By focusing on a few sustainable technology niches that can be transferable, Europe could develop key strategic technology and capabilities for human lunar exploration of relevance for future Mars missions. It could envisage providing on-the ground technologies, such as lunar habitat or surface transport elements and service contributions. The option of an ATV capable of bringing back elements would allow Europe to provide a vital contribution to the transport infrastructure as a soft and precise landing in any lunar location would be extremely useful for future robotic and human missions. It will also provide barter capabilities for other endeavours and may provide the possibility to have European astronauts on the moon.

## Colonization Solvency

### European Colonization possible-MELIiSSA

**ESA 6** (European Space Agency, “MELIiSSA”, http://ecls.esa.int/ecls/?p=melissa) SV

MELIiSSA (Micro-Ecological Life Support System Alternative) has been conceived as a micro-organisms and higher plants based ecosystem intended as a tool to gain understanding of the behaviour of artificial ecosystems, and for the development of the technology for a future regenerative life support system for long term manned space missions, e.g. a lunar base or a mission to Mars. The collaboration was established through a Memorandum of Understanding and is managed by ESA. It involves several independent organisations: University of Ghent (B), EPAS (B), University of Clermont Ferrand (F), SCK (B), VITO (B), University "Autonoma" of Barcelona (E) and University of Guelph (CDN). It is co-funded by ESA, the MELISSA partners, the Belgium (SSTC), Spanish (CIRIT and MCYT) and Canadian (CRESTech) authorities. Contributions for specific studies have been received as well from Ireland and The Netherlands authorities. The driving element of MELISSA is the recovering of food, water and oxygen from waste (faeces, urea), carbon dioxide and minerals (MERGEAY 1988). Based on the principle of an "aquatic" ecosystem, MELISSA is comprised of 5 compartments colonised respectively by thermophilic anoxygenic bacteria, photohererotrophic bacteria, nitrifying bacteria, photosynthetic bacteria, higher plants, and the crew. Unwanted waste products and air polutants are processed using the natural function of plants which in turn provide food as well as contributing to water purification and oxygen for air revitalization. Many other important benefits are being examined for related industrial projects.

### European Colonization Possible- Space Gardens

**ESA 2** (European Space Agency, “Gardens in Space”, http://www.esa.int/export/esaCP/ESA93GG18ZC\_index\_0.html) SV

A model of a system for growing plants to plan biological experiments in space has just left the company of Rovsing, in Ballerup near Copenhagen, on its way to ESA’s European Space Research and Technology Centre (ESTEC) in the Netherlands. The full name of this experiment reference model is European Modular Cultivation System Experiment Reference Model (EMCS ERM). This will be used at ESTEC to plan and carry out experiments for growing plants in space. Then in 2003 the EMCS Flight Model will be flown to the International Space Station (ISS) where the experiments will be repeated in space. A biological laboratory, Biolab SRM (Science Reference Module), is also being developed at Rovsing and after testing at ESTEC the Biolab Flight Model will be sent to the ISS. The core of both models is a climate chamber where the humidity and composition of the air, temperature, light, water supply and a number of other parameters will be closely surveyed and regulated. In addition, the Biolab SRM will have a robotic system to allow samples to be taken automatically. For the Danish company the main challenge in both projects has been developing the electronics and software needed to regulate the environment in the climate chamber and to collect data for the biological experiments. Why does ESA want to grow plants in space? The first reason is purely scientific as new knowledge can be gained about the growth process in plants by growing them under microgravity. The second reason, however, is much more practical; if astronauts are to be sent on long missions, such as an expedition to Mars, they will need to grow their own food in space to ensure their survival.

## SBSP Solvency

### ESA can do Space Based Solar Power Satellites

Coppinger 8 (Rob Coppinger, Freelance Writer, Works at ESA, “ESA funds technology for Earth and Moon base SBSP”, http://www.flightglobal.com/blogs/hyperbola/2008/08/esa-funds-technology-for-earth.html, 8/15/2008) SV

The European Space Agency's general studies programme is to assess a laser-based SBPS concept for Earth and for the lunar surface. Small scale science missions' laser power transmissions will also be considered The ESA work will include an assessment of the integration of space-based solar power plants into terrestrial ones, "including innovative approaches to orbit selection [and] methods for the adaptation of terrestrial solar power plants to serve in addition as receiving stations for space solar power plants" According to the European agency direct solar pumped laser technologies offer the option of increasing total laser conversion efficiencies "by an order of magnitude" and innovative beam control and steering technologies, laser to electricity conversion systems and a combination of parallel data, power transmission techniques are of interest An earlier ESA study found that some SBSP related technologies were now showing "near- to mid-term potential".

## NPP Solvency

ESA can do Nuclear Pulse Propulsion

Space Daily 11 (Staff Writers at Space Daily, “ESA May Use Russian Technology In Nuke-Spaceship Project”, <http://www.spacedaily.com/reports/ESA_May_Use_Russian_Technology_In_Nuke_Spaceship_Project_999.html>, 4/13/2011) SV

The European Space Agency (ESA) has no immediate plans for cooperation with Russia in creating nuclear-powered spacecraft for future missions to Mars, but is considering using Russian experience and technology in its developments, the agency's head, Jean-Jacques Dorden, said on Monday. ESA in cooperation with NASA is currently developing a major Mars exploration project, entitled ExoMars (Exobiology on Mars), which is due to launch in 2016. Nuclear-powered spaceships are believed to be the most efficient to carry out missions to Mars. A spokesman for the Russian Federal Space Agency Roscosmos said "there have been no agreements" between ESA and Roscosmos on cooperating in the creation of a nuclear-powered spacecraft. Russia, as well as the United States, has been developing technology to produce nuclear-powered spacecraft for decades. Roscosmos director Anatoly Perminov has said the development of Megawatt-class nuclear space power systems (MCNSPS) for manned spacecraft was crucial if Russia wanted to maintain a competitive edge in the space race, including the exploration of the moon and Mars. Russia is planning to complete its nuclear engine design by 2012. The project's implementation will require 17 billion rubles ($600 million).

# \*\*\*EU SOFT POWER NB\*\*\*

## 1NC Soft Power Net Benefit

### Contention 2: Net Benefit

### Uniqueness & Link-Space policy is key to sustain EU Space dominance and heg

**EC 11** (European Commission, “Bringing Space Down to Earth”, <http://ec.europa.eu/enterprise/policies/space/index_en.htm>, 1/20/2011) SV

Europe needs an effective space policy that will allow the EU to take the global lead in selected strategic policy areas. Space can provide the tools to address many of the global challenges that face society in the twenty-first century: challenges that Europe must take a leading role in addressing. Space systems and space-based technologies are a critical part of the daily life of all European citizens and businesses. From telecommunications to television, weather forecasting to global financial systems, most of the key services that we all take for granted in the modern world depend on space in order to function properly. Research and development activities are coordinated within the framework of the overall European Space Policy, complementing the efforts of member countries and of other key players, including the European Space Agency. In the future space will become even more important and offer new opportunities for business as well as services for citizens. Improved positioning and timing systems along with global environmental monitoring will provide areas for innovative companies to flourish by providing new services. Space is also critical in terms of environmental, security and climate change considerations. Europe is home to a large, hi-tech aerospace industry that supplies a significant part of the world's commercial requirements for satellite manufacture, launch and services. The European industry has proved highly competitive in a difficult marketplace. Space systems are clearly strategic assets that demonstrate independence and the ability to assume global responsibilities. To maximise the benefits and opportunities that they can provide to Europe now and in the future, it is important to have an active, co-ordinated strategy and a comprehensive European Space Policy.

### EU leadership key to solving (warming), (prolif), (middle east peace)

Ischinger 7 German ambassador to Britain, Wolfgang. “Can the EU Fill Leadership Void Left by US?” China Daily, March 22, http://www.china.org.cn/english/international/203945.htm]

In 1990, Charles Krauthammer published his famous essay on the "unipolar moment", about the United States' future power to shape the world at will. He wrote: "The true geopolitical structure of the post-Cold-War world ... is a single pole of world power that consists of the United States at the apex of the industrial west." In 2007, most will agree that the unipolar moment, if it ever existed, has passed. That is only underlined by the failure of the unipolar experiment also know as the invasion and occupation of Iraq and the damage it inflicted on Washington's international legitimacy and credibility. For traditional European Atlanticists, it does not make for pleasant viewing to see US leadership damaged and questioned. But expectations are low today regarding US ability to lead the international community. In the face of a US credibility crisis, some look to Europe to take the initiative and fill the vacuum. Can 2007 be a European moment? Critics will contend that the EU is in no shape to lead, as it continues to grapple with its constitutional crisis, its inability to provide clear foreign policy guidance and its lack of military power. But on three critical global issues nuclear non-proliferation, Middle East peace, and climate change it is better placed than anyone else. Opening nuclear negotiations with Teheran was a European idea in 2004, initially given a lukewarm reception by Washington. More recently, as the EU3-Britain, France and Germany-approach began to be seen as the only game in town, Washington has offered more active support, but so far continuing to stop short of speaking to Teheran directly on the nuclear issue. Bringing Russia and China on board was, again, a European initiative. If a solution emerges, it is likely to be European-brokered. There is much greater cohesion among Europeans on Iran than there was on Iraq five years ago: On Iran, the EU will not be split. When it comes to the Israeli-Palestinian conflict, barely any progress has been made over the past six years. The adoption of the road map and the creation of the quartet EU, Russia, the UN, the United States were born of European ideas. They were formally endorsed by Washington, but never seriously pursued and later quasi-abandoned. This year, a major effort by the current EU presidency has led to the quartet's revival and more diplomatic activity. Many in the region doubt, however, whether Washington will have the determination necessary for a breakthrough in the peace process without even more active input from Europe. The European willingness to take more responsibility in the region and to play a role in ending the Lebanon War in 2006, including the deployment of military forces to the country, was an eye-opener for many in the region and beyond. On climate change, the critical question is who can and will lead the international debate about a post-Kyoto regime. If a deal can be hammered out in 2007, and if it has any chance of endorsement in the United States, China and India, it will most likely be the result of the EU's ongoing efforts to move ahead with ambitious goals on carbon dioxide emissions and energy saving. But would a European moment in 2007 not be interpreted as a challenge to the global leadership role of the US? Let's not get carried away. Without active US support, both political and military, none of these major challenges can be resolved. Europeans should beware the hubris of challenging the United States. But the European moment could actually enhance the transatlantic relationship by offering, at a crucial juncture, elements that the United States currently lacks: legitimacy and credibility. That is why our American friends should encourage European initiatives, embrace a European willingness to lead, and welcome the European moment.

### Warming causes Extinction

Tickell 08 (Oliver Tickell, British journalist, author and campaigner on health and environment issues, and author of the Kyoto2 climate initiative “On a planet 4C hotter, all we can prepare for is extinction,” The Guardian, 8-11-08 http://www.guardian.co.uk/commentisfree/2008/aug/11/climatechange)

We need to get prepared for four degrees of global warming, Bob Watson told the Guardian last week. At first sight this looks like wise counsel from the climate science adviser to Defra. But the idea that we could adapt to a 4C rise is absurd and dangerous. Global warming on this scale would be a catastrophe that would mean, in the immortal words that Chief Seattle probably never spoke, "the end of living and the beginning of survival" for humankind. Or perhaps the beginning of our extinction. The collapse of the polar ice caps would become inevitable, bringing long-term sea level rises of 70-80 metres. All the world's coastal plains would be lost, complete with ports, cities, transport and industrial infrastructure, and much of the world's most productive farmland. The world's geography would be transformed much as it was at the end of the last ice age, when sea levels rose by about 120 metres to create the Channel, the North Sea and Cardigan Bay out of dry land. Weather would become extreme and unpredictable, with more frequent and severe droughts, floods and hurricanes. The Earth's carrying capacity would be hugely reduced. Billions would undoubtedly die. Watson's call was supported by the government's former chief scientific adviser, Sir David King, who warned that "if we get to a four-degree rise it is quite possible that we would begin to see a runaway increase". This is a remarkable understatement. The climate system is already experiencing significant feedbacks, notably the summer melting of the Arctic sea ice. The more the ice melts, the more sunshine is absorbed by the sea, and the more the Arctic warms. And as the Arctic warms, the release of billions of tonnes of methane – a greenhouse gas 70 times stronger than carbon dioxide over 20 years – captured under melting permafrost is already under way. To see how far this process could go, look 55.5m years to the Palaeocene-Eocene Thermal Maximum, when a global temperature increase of 6C coincided with the release of about 5,000 gigatonnes of carbon into the atmosphere, both as CO2 and as methane from bogs and seabed sediments. Lush subtropical forests grew in polar regions, and sea levels rose to 100m higher than today. It appears that an initial warming pulse triggered other warming processes. Many scientists warn that this historical event may be analogous to the present: the warming caused by human emissions could propel us towards a similar hothouse Earth.

**Prolif causes Extinction**

Utgoff, 2 (Victor – deputy director for strategy, forces and resources division at the Institute for Defense Analysis, Survival)

Widespread proliferation is likely to lead to an occasional shoot-out with nuclear weapons and that such shoot-outs will have a substantial probability of escalating to the maximum destruction possible with the weapons at hand. Unless nuclear proliferation is stopped, we are headed toward a world that will mirror the American Wild West of the late 1800s. With most, if not all, nations wearing nuclear "six-shooters" on their hips, the world may even be a more polite place than it is today, but every once in a while we will all gather on a hill to bury the bodies of dead cities or even whole nations

### Middle East conflict causes global nuclear war

Steinbach 2002 – Analyst, Center for Research on Globalisation , http://www.globalresearch.ca/articles/STE203A.html

Meanwhile, the existence of an arsenal of mass destruction in such an unstable region in turn has serious implications for future arms control and disarmament negotiations, and even the threat of nuclear war. Seymour Hersh warns, "Should war break out in the Middle East again,... or should any Arab nation fire missiles against Israel, as the Iraqis did, a nuclear escalation, once unthinkable except as a last resort, would now be a strong probability."(41) and Ezar Weissman, Israel's current President said "The nuclear issue is gaining momentum (and the) next war will not be conventional."(42) Russia and before it the Soviet Union has long been a major (if not the major) target of Israeli nukes. It is widely reported that the principal purpose of Jonathan Pollard's spying for Israel was to furnish satellite images of Soviet targets and other super sensitive data relating to U.S. nuclear targeting strategy. (43) (Since launching its own satellite in 1988, Israel no longer needs U.S. spy secrets.) Israeli nukes aimed at the Russian heartland seriously complicate disarmament and arms control negotiations and, at the very least, the unilateral possession of nuclear weapons by Israel is enormously destabilizing, and dramatically lowers the threshold for their actual use, if not for all out nuclear war. In the words of Mark Gaffney, "... if the familar pattern(Israel refining its weapons of mass destruction with U.S. complicity) is not reversed soon - for whatever reason - the deepening Middle East conflict could trigger a world conflagration."(44)

## Soft Power UQ

**No EU soft power – lack of capability and debt crisis**

Thornton 11 (Bruce Thornton, Fellow at the Hoover Institute, “America the Delusional Overcoming our European Temptation”, <http://www.heritage.org/research/reports/2011/03/america-the-delusional-overcoming-our-european-temptation>, 3/7/2011) SV

Greece's near-default on its sovereign debt, the humiliating multibillion-dollar International Monetary Fund contribution to the EU's near-trillion-dollar bailout fund, and the looming similar economic crises threatening other EU states like Ireland, Spain, and Portugal have laid bare the contradictions long underlying the EU economic project of greater integration through a common currency and centralized policies, putting at risk its very existence. This economic failure complements the EU's unmet geopolitical ambitions. Given its limited military capabilities, the EU has been unable to project global power and fulfill its promise to be an important "pole" in the "multipolar" world that was presumably created by the collapse of the Soviet Union.

## Key to Soft Power Ext.

### Space Policy is key to European heg

Peter 8 (Nicolas, Research Fellow at European Space Policy Institute, “Space Exploration 2025: Global Perspectives and Options for Europe” <http://www.lpi.usra.edu/meetings/leagilewg2008/presentations/oct29pmSalonIII/Peter4088.pdf>, 8/14/2008) SV

Europe currently enjoys a strong position in the global “space hierarchy”, but this might not be everlasting. To maintain a leading space role what is needed besides “political will” is a series of ambitious programmatic elements. Europe must demonstrate clear leadership across a wide range of space sectors including space exploration by having ambitious space plans and objectives of high appeal for its stakeholders as well as potential international partners. However, if Europe wants to play a significant role in the worldwide exploration context, a commonly agreed European exploration strategic plan, and above all, a comprehensive programme with well defined development projects, is indispensable and needs to be established and agreed in the near future.

### Independent EU action is crucial to develop EU credibility [and any possibility of future US-EU cooperation]

The Washington Quarterly, 2001 Summer, THROUGH THE LOOKING GLASS; Vol. 24, No. 3; Pg. 163

If the United States needs to work with the EU, it needs an effective EU with which to work. Jean-Marie Soutou, former secretary general of the Quai d'Orsay, rightly observed that "Europe tends to get the U.S. partner that it deserves." If the EU wants the United States to take it seriously, it must itself be serious. The record of achievement during the last 50 years is remarkable. Europe has been transformed. An enormous amount is yet to be done. If the EU looks to the United States to embrace multilateralism and global governance, it must itself assume a more significant global role, the details for which lie beyond the scope of this article. Although its role as the regional hegemonist obviously constitutes a large element of its claim to be treated as an important partner, the EU's credibility and therefore its powers of persuasion will suffer unless and until it makes a constructive and, where necessary, independent contribution to the development of the global system, in crisis management as much as trade and in creative diplomacy as well as aid. The lonely superpower needs global partners for it to heed the limits of superpowerdom and to appreciate the advantages of global governance. By raising its ambitions and reaching out on its own terms to other regional actors, the EU is arguably better placed than any other international player to facilitate the emergence of the United States that it and the world needs: a strong U.S. partner in a multilateral world order.

**EU Space Policy key to Overall EU leadership-Heg, Innovation, S&T education**

Eurospace 9 (ASD Eurospace, European Space Industry, “Space Exploration Position Paper”, <http://eurospace.pagesperso-orange.fr/Eurospace%20Position%20Paper%20on%20Space%20Exploration%20Oct_09.pdf>, 10/12/2009) SV

In the field of sciences, space exploration will improve our knowledge on the solar system, and as a consequence, increase the understanding of our home planet as a global system e.g. with reference to the climate change. Science in space contributes to the knowledge about the origin of life. In the field of economy, space exploration pushes a wide range of technologies such as robotics, interaction between humans and robots, power generation and management, environmental control (air, water, wastes recycling, and scarce resources utilisation). Space exploration brings innovation in a variety of areas: Study, explore and live on a different planet requires scientific, technical resources, biology, medicine, robotic, telecom, environment control, storable energies…. These areas are not unique to the space domain. It involves a diversity of disciplines and can have some great impact on the economy. As for politics, taking into account that exploration programmes will have an important share of international cooperation, space exploration will be a peace promotion programme. Also cooperative programs are building links between worldwide industries and laboratories which will be used in non space related programs with impact on economy. Furthermore, **space exploration is a field where Europe can profile itself globally to the rest of the world and where European Union institutions can bolster their image towards citizens: space exploration is a political driver for the EU on the international scene**. Under a more social/philosophical approach, we can also state that all ambitious growing civilizations have endeavoured exploration programmes: Humans have a compulsory need to explore. They need to answer fundamental questions on Earth, its environment, the solar system and the Universe. Space exploration is the expression of our curiosity, which allows us to gain new knowledge that enables humankind to understand and solve problems in a new and unpredictable manner Not only does space exploration appeal to the citizen interest for adventure and the general feeling that there is still a bright future, more concretely it contributes to the motivation of the youngest to enter scientific and technology studies. This is essential to face the coming crisis of talents in these fields and to consolidate our technological societies’ future.

### Lunar exploration increases the EU’s dominance

Peter 8 (Nicolas, Research Fellow at European Space Policy Institute, “Space Exploration 2025: Global Perspectives and Options for Europe” <http://www.lpi.usra.edu/meetings/leagilewg2008/presentations/oct29pmSalonIII/Peter4088.pdf>, 8/14/2008) SV

Having astronauts on the moon would be a clear message of assertiveness for a country. European astronauts on the moon would therefore be a very visible expression of European ambitions in space and in the world. An intensive contribution to the U.S.led lunar outpost with the development of independent and complementary capabilities to other partners would allow Europe to acquire the technologies it feels are of interest, such as deep space communication and navigation. It would also allow it learning how to transport and to utilize local resources and how to sustain human adaptation to reduced gravity conditions and prevailing radiation environment. This would also prepare Europe to become a major player in future human Mars missions. Europe should also establish itself as a co-leader in future Mars space exploration sample return activities. In this “Pragmatic” option, Europe would develop a comprehensive long-term exploration strategy, comprising autonomous human access to space and independent activities in cis-lunar space, as well as a robust robotic space exploration programme to various destinations in the Solar system and ambitious human lunar activities. This option would allow facing the emerging competition resulting from the evolving space context and will increase Europe’s status and standing in world affairs.

### **Space policy is key to EU leadership**

Electronics Times 00(November 20- Watch this space: http://www.lexisnexis.com.turing.library.northwestern.edu/hottopics/ lnacademic/?

Space policy in **Europe** is gearing up for a new phase, reports Darren Rea A **Europe** which fails to invest in a well thought out space policy and a clear commitment to space as an integral part of its other policies will be a **Europe** that limits its own possibilities of success. These were the words of warning delivered to the European Space Agency (ESA) by the Three Wise Men group. This committee was set up in April to examine the organisation of the public space sector in **Europe** and the role of ESA in that sector, the institutional relationship between ESA and the EU and the associated potential for synergies between civil and defence aspects. The committee is made up of Carl Bildt, former Swedish prime minister and UN envoy to the Balkans; Jean Peyrelevade, president of Credit Lyonnais; and Lothar Spath, CEO of Jenoptik and former prime minister of the State Baden-Wurttemberg. The three gave their recommendations for the future of European space exploration at the beginning of this month, in line with the calendar for the European space strategy being prepared jointly by ESA and the EU. One of the conclusions of the report was that space policy in **Europe** must enter a new phase - one where it is no longer seen as an exclusive and separate activity of the countries and institutions of the EU but as an integrated aspect of their overall efforts. It should be an integral part of the efforts of European integration to allow **Europe** to play a more important role in the world. "The recommendations in this report are focused on the new steps to meet the strategic goals of **Europe,**" explained Peyrelevade. "Science and manned space flights are, and will remain, important parts of space activities, contributing to the public awareness of space programme as a whole. "We must integrate space fully in our overall policy efforts. This is the difference between a **Europe** willing to lead and a **Europe** only capable of following." Spath added: "There is a need for changes, especially in the relationship between ESA and the EU. With space no longer being a separate and exclusive issue, it makes sense to aim for a closer institutional integration, thus ensuring the place of space issues in the overall evolution of European policies." Space belongs on the agenda of the European Council, at least as much as many of the other issues where policy is now set for **Europe** on this level. At the same time, ESA has proved to be an efficient instrument for the efforts of its member states. This effectiveness must not be impaired, and should even be extended to programmes related to the development of a European defence policy considering the dual aspects of technology, systems and industry. The open nature of ESA programmes outside the science sector must also be maintained. "In our opinion, the challenges are urgent," said Bildt. "We see the need for the institutions starting to work together now, but we also see the need for a process of institutional convergence that does not exclude bringing the present ESA within the treaty framework of the EU. But, with the challenges being urgent, we do not want to delay changes and urge the institutions to initiate institutional convergence." In addition, the three Wise Men analysed the enlargement of the ESA to include central and eastern European countries and market opportunities available to ESA member states in the space domain. Lord Sainsbury, parliamentary undersecretary for science in the UK, said: "This challenging report will provide member states with an opportunity to discuss some of the longer term issues facing ESA and European space. This will be done against the backdrop of the European strategy for space which ministers will address in their councils in Brussels." The report outlined the importance of the development of new technologies. The findings suggest, among others, the development of: \* telecoms (near realtime access to distributed data from any point of the globe); \* information technology (fast archiving, fast retrieval of larger and larger volumes of data); \* expert systems/artificial intelligence (learning systems, knowledge discovery and management); \* Earth observation satellites at different resolutions in a wide range of frequencies, from different orbits; and \* navigational satellites providing high accuracy time reference and localisation of mobiles. Antonio Rodote, director general of ESA, said: "**Europe** must integrate its space activities into the wider political and economic strategy. First steps towards such integration are being achieved thanks to the complementary decisions of the ESA council and the EU council to develop a joint European strategy for space by the end of 2000." By developing its own infrastructure, **Europe** will prevent the world from relying on single-point failure systems and preventing other competitors from developing their own infrastructure. By doing this, **Europe** will become the "alternative to the US for the rest of the world", will consolidate its number two position in space and become a partner on global issues and international developments. "Other international players are also emerging on the space scene, such as Japan, China, India and Brazil, which are developing core space technologies," said Bildt. "The fall of the USSR has precipitated the decline of the Russian space programme, although it still keeps a strong scientific technological and operational base. This heritage is being used in joint commercial ventures where US industry has preceded European industry." The report also states that space and ground-based systems will merge into one telecoms infrastructure with importance given to space and ground components varying over time and with the different tasks. The competitiveness of space solutions relies on continuous progress of space technologies and on the assessment of the capabilities of ground solutions. Most current technological breakthroughs in space are from public investments -mainly from the US. European public investments in space technologies must be reinforced to strengthen European standards globally. Private investments will then be stimulated in using these standards. The Three Wise Men are convinced of the need for **Europe** in general - and the EU in particular - to fully integrate space into its efforts to "strengthen peace and prosperity in **Europe**". The group claimed: "We want to reinforce the political role of the EU when it comes to space policy and its integration into other policies, while developing the professional competence, operational flexibility and open nature of the present ESA. In our view, a European space policy should be decided at the highest political levels in the EU to facilitate integration with other core political and economic strategies of **Europe.**" This will hopefully result in **Europe** emerging as more capable of collaboration and competition on the global scene. The Three Wise Men are convinced that that this will strengthen the possibilities of **Europe** also achieving other aims. It could be the difference between a **Europe** not solely restricted to following but giving leadership on key issues for the development of its societies. Electronics Times 00(November 20- Watch this space: http://www.lexisnexis.com.turing.library.northwestern.edu/hottopics/lnacademic/? 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### European independence is key to space leadership

EC-SAG 9 (European Commission Space Advisory Group on Space Exploration, “Towards a European Vision for Space Exploration”, http://ec.europa.eu/enterprise/policies/space/research/towards\_a\_european\_vision\_for\_space\_exploration\_en.htm, October 2009) SV

If Europe concentrates on these fields of key competency, it will maintain its independence within the global coordination of space exploration and strengthen European identity in space. It will be a major player in the global exploration initiative, and should lead some exploration missions (e.g., Mars in-situ research missions and Mars sample return missions). Europe will thus embrace the spirit of the European Space Policy : "Contribute to the knowledge-based society by investing significantly in spacebased science and playing a strong role in international space exploration."

### The EU is at the center of international affairs

Peter 8 (Nicolas, Research Fellow at European Space Policy Institute, “Space Exploration 2025: Global Perspectives and Options for Europe” http://www.lpi.usra.edu/meetings/leagilewg2008/presentations/oct29pmSalonIII/Peter4088.pdf, 8/14/2008) SV

Contrary to the plans of the major spacefaring countries and particularly the United States, Europe does not enjoy strong political backing or support for space exploration. This is due partially to the multi-level structure of European space activities between member States, ESA and since recently, the EU. However, the evolution of the European space landscape projected with the 2007 European Space Policy and the Lisbon Treaty and a greater involvement of the EU could be of benefit for European space exploration plans, and not only budgetary, but also politically, due to the fact that the EU is a centre of gravity in international affairs and in S&T. The scope of the policies, responsibilities and expertise of the EU have broadened enormously since it came into existence in the 1950s, and it has now become involved in just about every sphere including S&T (and space affairs). The EU has also developed a proactive international policy in S&T to promote its goals, based on large and visible projects that aim to attract attention.51 They have been an element of its relations with the rest of the world as S&T agreements have become a sort of umbrella policy over the years, where different distinct dimensions come together, including diplomacy. 52

## Soft Power Impact Ext.

### EU leadership creates a global model --- key to global peace and multipolarity

Jessica L. Hawkinson 8 Thesis in Int'l Studies @ Macalester "ESTABLISHING MULTICULTURAL INTERDEPENDENCE IN EUROPE" http://digitalcommons.macalester.edu/cgi/viewcontent.cgi?article=1006&context=intlstudies\_honors

Placing European developments within a context of globalization allows for the EU’s broader significance to emerge. Three examples of the EU’s global instructiveness are particularly strong. First, the European Union should be closely scrutinized for its reinterpretation of democratic life. The process of balancing both institutional and cultural idiosyncrasies while remaining open to the possibility of democratic participation is a daunting task that will be globally instructive even if it does not succeed in this century. Second, the EU represents a unique regional mechanism that has the potential to enforce collective political, economic, and environmental accountability. Environmental degradation, world poverty, human rights, economic development, and long-term political stability among other issues must be addressed by a larger community of nations. The European Union is, so far, the most successful example of this community of nations, though admittedly on a small scale. If ethical leaders and scholars press for the continuation of the integration project, however, the EU may emerge as an exceptional model for global cooperation. Finally, in returning to the concept of perpetual peace, the European Union represents the single largest peaceful polity in the world. Beyond a simple absence of war, the Union is in collaboration and cooperation toward larger ideals. If a similar respect for difference, disagreement and compromise can be reproduced around the globe, investment in the ambition of globally interdependent nations will not be impossible. The discourse on the European Union is far from finished. At various levels, the European Union is combating the same challenges that other nations around the globe are facing in differing ways. The EU becomes particularly significant, however, when it is placed in a global context. In the coming decades, the literature and scholarly work on the EU will benefit greatly from an increased focus on the EU’s potential as a global model for cooperative politics and diplomacy. Democracy, citizenship, identity, and the links between the political and the individual are all central to the discussion of the European Union, as well as to the discussion of life in an era of globalization. The European Union as a model for the ways in which democracy and citizenship are changing is an important field of study as a result of its dynamism and its potential for redefining democracy. With careful attention and progress, Europe’s example could very well lead the globe in a new age of political morality, global cooperation, and perpetual peace.

### Only a strong EU can solve extinction from global economic decline, environmental collapse, and disease

John Bruton T.D, The Irish Times, Thursday, January 31, 2002, A Report For The Joint Oireachtas Committee On European Affairs

As the Laeken Declaration put it, "Europe needs to shoulder its responsibilities in the governance of globalisation" adding that Europe must exercise its power in order "to set globalisation within a moral framework, in other words to anchor it in solidarity and sustainable development". Only a strong European Union is big enough to create a space, and a stable set of rules, within which all Europeans can live securely, move freely, and provide for themselves, for their families and for their old age. Individual states are too small to do that on their own. Only a strong European Union is big enough to deal with the globalised human diseases, such as AIDS and tuberculosis. Only a strong European Union is big enough to deal with globalised criminal conspiracies, like the Mafia, that threaten the security of all Europeans. Only a strong European Union is big enough to deal with **globalised environmental threats**, such as global warming, which threaten our continent and generations of its future inhabitants. Only a strong European Union is big enough to deal with globalised economic forces, which could spread recession from one country to another and destroy millions of jobs. Only a strong European Union is big enough to regulate, in the interests of society as a whole, the activities of profit seeking private corporations, some of which now have more spending power than many individual states. These tasks are too large for individual states. Only by coming together in the European Union can we ensure that humanity, and the values which make us, as individuals, truly human, prevail over blind global forces that will otherwise overwhelm us.

### EU soft power key to solving warming

Alem 6 Ambassador of the Mission of Morocco to the EU Menouar, DEFINING EUROPE’S SOFT POWER, 25/04/2006 http://www.friendsofeurope.org/Portals/6/Documents/Reports/SOD%20CC%20on%20Soft%20Power%2025-04-06.pdf

However, Europe, as a soft power, is making a difference beyond the political and economic arena, the debate heard. Amanda Burton, policy advisor for the Brussels-based European Wind Energy Association (EWEA), told guests that Europe has also been setting the agenda when it comes to climate change. "Soft power and all that that entails is not just about military conflict resolution. It also relates to climate change which, let us remember, has been recognised as being the greatest challenge facing the world today," she said. "We should not underestimate the role that Europe and the EU can play - and their responsibilities - in making progress on climate change. This so-called soft power can be used as a force for good in years to come in tackling climate change."

### Solves terrorism

Joseph S. Nye 4 Jr. is professor of international relations at the Kennedy School of Government at Harvard and author of "The Power Game: A Washington Novel." , 11/15/04, “Tapping Soft Power: America Needs a Strong Europe”, International Herald Tribune. http://www.iht.com/articles/2004/11/15/ednye\_ed3\_.php

European soft power has an important role to play in the struggle against terrorism. Opening Europe's doors to Turkey helps to strengthen one of the most moderate Muslim countries, and European aid for democracy reinforces America's objectives. In some cases, there can be a beneficial division of labor in which Europe's soft power and America's hard power combine in a good cop-bad cop routine. Elements of this can be seen in the current approach to Iran's nuclear program. But such a dynamic is effective only if both cops know they are playing the same game and coordinate their strategy.

### European Soft Power key to international peace

Kagan 3 (Robert Kagan, American historian and foreign policy commentator, “Of Paradise and Power: America and Europe in the New World Order”, 2003)

Comparisons on EU “soft” power vs. US “hard” power: Europe is turning away from power, or to put it a little differently, it is moving beyond power into a self-contained world of laws and rules and transnational negotiation and cooperation. It is entering a post-historical paradise of peace and relative prosperity, the realization of Kant’s “Perpetual Peace.” The United States, meanwhile, remains mired in history, exercising power in the anarchic Hobbesian world where international laws and rules are unreliable and where true security and the defense and promotion of a liberal order still depend on the possession and use of military might. That is why on major strategic and international questions today, Americans are from Mars and Europeans are from Venus.

## Brain Drain Scenario

### Space Exploration key to competitiveness and to prevent Brain Drain

Eurospace 9 (ASD Eurospace, European Space Industry, “Space Exploration Position Paper”, <http://eurospace.pagesperso-orange.fr/Eurospace%20Position%20Paper%20on%20Space%20Exploration%20Oct_09.pdf>, 10/12/2009) SV

If Europe remains outside a worldwide trend towards large space exploration programmes, it will naturally not reap any benefits but will even be adversely affected. Probably the European laboratories could still be involved in scientific experimentations – to a lesser extend and with less influence on the orientations – but European industries and scientific organisations would definitely be set aside the large world-coordinated network which will emerge from the international exploration ventures. Such networking being the basis for endeavours in new fields (energy, environment), our industries and scientific bodies could be out of the game for such new activities. It must also be stressed that the international cooperation which is taking shape in the framework of space exploration will have structuring effects on space industries all around the world. As a matter of fact, it will provide unique long term perspectives and will stimulate the development of innovative solutions and technologies to overcome this unprecedented challenge. The European space industry not being able to take part to this ambitious endeavour would result in a severe competitive disadvantage. Thus, the participation of Europe to the space exploration initiative is necessary to ensure its industry a level the playing field with its competitors. Also, **being excluded from an international space exploration programme will have consequences on European brain drain to other countries**. Key to this is the fact that other nations are going forward with their exploration activities; developing technologies and capabilities essential to non space sectors as well, which European industry and citizens will be forced to acquire or outsource.

### Brain drain destroys EU soft power and growth

Tritad 8 (Ahmed Tritad, Research Analyst at Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), “The Brain Drain Between Knowledge-Based Economies,” <http://www.cepii.fr/anglaisgraph/workpap/pdf/2008/wp2008-08.pdf>, June 2008) SV

Nowadays, it is widely claimed that Europe, and more generally the wealthier league of nations, will achieve their best in the world competition only through investments in human capital and knowledge creation. This claim is largely echoed by the academic research. Current theories of economic growth stress the importance of investments in knowledge for the more advanced economies (Aghion and Howitt, 1998), as a consequence, many seek to increase their stock of "brainpower" via investments in higher education and, increasingly, by attracting brains worldwide. Indeed, a large part of knowledge investments is embodied in people and it moves with people which both produce and convey knowledge. In this context, what is commonly termed the "Brain Drain" figures at the top of the policy agenda on development. To the layman, this suggests a flow of skilled workers from poor and human capital-scarce countries to the richest and human capital-abundant ones (Docquier et al., 2007).2 However, due to the rising demand for high-skilled workers and their perceived shortage, worries about the drain of skilled workers have also emerged in the developed world.3 The Third European Report on Science and Technology Indicators 2003 puts this issue at the forefront: "[...] a likely shortage of highly qualified scientific and technical (S&T) personnel in the research and development (R&D) activities anticipated for the next ten to fifteen years represents undoubtedly, one of the biggest threats to Europe’s long term innovative strength, and productivity growth. Europe produces a large number of university graduates, doctorate recipients and postdoctoral students. But a significant share of them find work in an occupation outside of European R&D. **It may be one of Europe’s biggest obstacles in its attempt to become the world’s most competitive knowledge-based economy** [...]” to which the European Council sets the goals for the European Union in its Lisbon strategy. This report warns that loosing embodied scientific capital may be very costly in terms of productivity, growth, and employment. This is further supported by the good growth and employment performance within Europe of countries recording high trends in indicators on high technology and knowledge intensive activities (e.g. Ireland, Sweden, Finland).

## Multipolarity Inevitable

**Multipolarity is inevitable and European soft power is the ONLY way to ensure peaceful multilateralism**

[Kagan only happens in a world where the EU doesn’t act]

Grant et al 7 (Advisory Board led by Director Charles Grant, Director of the European think tank Center for European Reform, “Preparing for the Multipolar World: European Foreign and Security Policy in 2020”, <http://www.cer.org.uk/pdf/e783_18dec07.pdf>, December 2007)

For the past 500 years, the Europeans, and then the Europeans and the Americans, have dominated much of world history. The 21st century will be different. The relative economic and diplomatic decline of the West becomes more apparent every year. Take the world’s ﬁnancial and trading systems. Developing countries now hold three quarters of global foreign exchange reserves (China alone, with about $1.4 trillion, has more than a quarter of the total). ‘Sovereign wealth funds’ – investment vehicles mostly managed by authoritarian states such as China, Russia and Saudi Arabia – control around $2.5 trillion and are starting to invest in well-known western companies. In the Doha round of world trade liberalisation – in contrast to earlier rounds – an EU-US accord is not enough to ensure a deal: Brazil and India have caused much of the deadlock. The same trend is visible in the diplomatic world. At the last United Nations conference to review the nuclear non-proliferation treaty (NPT) in May 2005, western governments sought to strengthen the NPT regime; but Iran and its allies blocked them, winning the public relations battle by claiming that the hypocritical West was hanging on to its own nuclear technology while trying to withhold it from poor countries. At the United Nations itself, initiatives from the western powers seldom succeed without a big effort to win over the leading countries from the South. On problems such as Burma, Kosovo and Sudan, the West quite often fails to get what it wants. It cannot prevent countries with poor records on human rights sitting on the new UN Human Rights Council. And so on. The rise of new powers is making the world increasingly multipolar. On current trends, in 2020, the US, China and the EU will each have a little under 20 per cent of global GDP, while India will have almost 10 per cent and Japan about 5 per cent. 1 Militarily, the US will remain the preponderant super-power, but its relative political influence will be weaker than today. China plans to use its growing economic strength and diplomatic clout to check American power. Russia has already returned as a signiﬁcant geopolitical actor and is likely to remain one. Countries such as Brazil and South Africa wield increasing diplomatic inﬂuence. Should Europeans worry about the relative decline of the West ? Not necessarily. Defined as the countries that embrace liberal democracy, the West has extended far beyond the North Atlantic over the past half-century (Timothy Garton Ash describes this broader entity as the ‘post-West’). 2 Some of the emerging poles, such as Brazil, India and Japan, are broadly democratic. Furthermore, the soft power of Europeans and Americans should not be written off. CNN and the BBC may face competition from news channels based in Moscow, Beijing and Doha, but western universities, welfare states and parliamentary systems still offer an attractive model to many. Another reason why Europeans may not have to fear multipolarity is that the multipolar world could evolve in two ways – only one of which is undesirable from a European point of view. In the undesirable model, the various poles will coalesce into two hostile alliances, rather like in the Cold War. In one version of this model, suggested by Robert Kagan, the western powers, proponents of democracy, would line up against an axis of autocracies (such as Russia and China) that oppose political liberalism . 3 In another version (popular with some Russian analysts), a western attack on Iran would spark off a longrunning war between the West and Islam, with the other poles doing their best to keep out of it. This kind of multipolarity, based on great power rivalry, would be uncomfortable for most Europeans. It would remind them of the balance-of-power diplomacy of 19th century Europe. In any global system riven with ideological fault-lines, Europeans would ﬁnd it much harder to tackle the problems they consider most urgent – climate change, the economic development of the poorest countries, the proliferation of dangerous weapons, and so on. The desirable model of multipolarity, by contrast, would be multilateral. The more democratic powers would have a natural afﬁnity to work together, but there would be shifting coalitions among the poles, depending on the issue. All the poles would be committed to the rule of law and play an active role in international institutions and treaties. As the 2003 European security strategy (ESS) put it: “In a world of global threats, global markets and global media, our security and prosperity increasingly depend on an effective multilateral system. The development of a stronger international society, well-functioning international institutions and a rule-based international order is our objective.” It is not at all clear which of these models will emerge. The US, China and Russia are all currently capable of both multilateral and unilateral behaviour. A rational analysis of their own long-term interests would, in my view, incline them towards multilateralism: few modern security challenges can be tackled easily by one country alone – even if it is as strong as the US or China – or by an alliance of a few powers. But countries do not always behave rationally, especially when politicians seek to strengthen their position by whipping up nationalist sentiment. The more nationalist a country becomes, the less it is likely to work through multilateral processes. Of the major powers and potential powers, only the EU starts from the assumption that multilateralism is desirable. Faith in the rule of international law, and in the potential of international institutions, runs deep in the DNA of Europe’s political elite. The EU must not be a passive observer of the new international order that is emerging. The EU’s own attitudes, policies and actions will have a big impact on how the multipolar world develops. An EU that is stronger will be better able to persuade the US, China, Russia and other powers to think multilaterally. An EU that is economically stagnant, divided over key policy questions and inward-looking will have little hope of shaping the international system. This essay starts by suggesting what Europe needs to do to reinforce its strength. It then proposes an agenda for European defence. Finally, the essay examines policy towards three places that will be crucial for shaping EU foreign policy in the years to 2020 – the Middle East, Russia and China.

## AT: EU Lacks Military

### EU is strengthening its Role in Security and Defense

Franz **Kernic,** Lecturer University of Innsbruck, **2006**, European Security in Transition, eds. G. Hauser & F. Kernic, 18

In the last decade, Europe's security architecture has developed a multi-level structure of close security and defense cooperation among all European states and the US and Canada, i.e. a system that aims at integrating a stronger European pillar into a broader defined transatlantic structure with strengthened cooperation and integration in the security and military domain among all European states. As a result, security and defense have become an integral part of the EU's daily business, thus, gradually eroding the rigid distinction between foreign and security, as well as defense cooperation and other Union policies. Although the Union's military weakness is still a fact, continued efforts over the past ten years have led to the establishment of permanent political and military structures and to the development of civilian and military capabilities. The Union has also defined with NATO the framework of relations between the two organizations, allowing the Union to have access to NATO's assets and capabilities.

## AT: EU is dependent on US

### EU Soft Power Does Not Rely on the US to Defend It from Threats

William **Pfaff**, staff writer International Herald Tribune, 1/5/**05**, “Soft Power Victories” http://www.iht.com/articles/2005/01/04/opinion/edpfaff.php

During 2004, the "soft power" of the Europeans proved much more effective in shaping international events than American hard power. The irrelevance of America's military power to its real problems still goes unacknowledged.   European soft power, during this same year, made a fundamental change in the troubled Balkans by incorporating states in the region into the European Union, and it hopes to have taken a decisive step toward restoring Muslim-Western relations by offering EU membership to Turkey. At the end of the year, Europe's "soft" intervention to consolidate the independence of Ukraine altered the contours of Russian as well as Ukrainian political and cultural geography. That, of course, is the optimistic judgment on what Europe did this year.   The Yugoslav succession crisis is still not over, and Albanian irredentism is still unresolved. The promise to Turkey could fail - or be betrayed - and Europe's opening to Islam could close, with unhappy consequences for Western Europe's Islamic minorities. Moreover, successful deployment of the European Union's soft power has been achieved at the cost of destroying the European Union itself, as it has existed until now. The original European ambition to form an integrated political union has had to be abandoned. A new "Europe" has been substituted, whose nature and limits are still undetermined.   Power can no longer be defined in conventional ways. Americans have recently argued that European soft power is fine, but that it depends on American hard power. Why should this be so? What is the threat against which the United States defends Europe?   Not Iraq, surely. Not Iran - the Europeans are dealing with Iran in their own way and seem to see no threat to themselves. North Korea? China? Vladimir Putin's Russia? Why should any of these want to attack Europe, a distant trading, industrial and aerospace giant - and if it ever had to become one, potentially a military giant?   Only militant Islam is a threat in 2005, and everyone knows that its foreign targets are the United States and Israel, while its ultimate aim is the religious radicalization of Islamic civilization itself, which is an impossible goal. So who is defending whom against what in 2005?

## \*\*\*WARMING DEBATE\*\*\*

## Warming Impact Ext.

### Warming turns their war scenarios--Global warming causes resource wars and is a threat multiplier

Knickerbocker 7 (Brad, Staff writer at the Christian Science Monitor, Apr 19, http://www.csmonitor.com/2007/0419/p02s01-usgn.html , *Christian Science Monitor*)

For years, the debate over global warming has focused on the three big "E's": environment, energy, and economic impact. This week it officially entered the realm of national security threats and avoiding wars as well. A platoon of retired US generals and admirals warned that global warming "presents significant national security challenges to the United States." The United Nations Security Council held its first ever debate on the impact of climate change on conflicts. And in Congress, a bipartisan bill would require a National Intelligence Estimate by all federal intelligence agencies to assess the security threats posed by global climate change. Many experts view climate change as a "threat multiplier" that intensifies instability around the world by worsening water shortages, food insecurity, disease, and flooding that lead to forced migration. That's the thrust of a 35-page report (PDF) by 11 admirals and generals this week issued by the Alexandria, Va.-based national security think tank The CNA Corporation. The study, titled National Security and the Threat of Climate Change, predicts: "Projected climate change will seriously exacerbate already marginal living standards in many Asian, African, and Middle Eastern nations, causing widespread political instability and the likelihood of failed states.... The chaos that results can be an incubator of civil strife, genocide, and the growth of terrorism. "The U.S. may be drawn more frequently into these situations, either alone or with allies, to help provide stability before conditions worsen and are exploited by extremists. The U.S. may also be called upon to undertake stability and reconstruction efforts once a conflict has begun, to avert further disaster and reconstitute a stable environment." "We will pay for this one way or another," retired Marine Gen. Anthony Zinni, former commander of American forces in the Middle East and one of the report's authors, told the Los Angeles Times. "We will pay to reduce greenhouse gas emissions today … or we'll pay the price later in military terms. And that will involve human lives." As quoted in the Associated Press, British Foreign Secretary Margaret Beckett, who presided over the UN meeting in New York April 17, posed the question "What makes wars start?" The answer: "Fights over water. Changing patterns of rainfall. Fights over food production, land use. There are few greater potential threats to our economies ... but also to peace and security itself." This is the concern behind a recently introduced bipartisan bill by Sens. Richard Durbin (D) of Illinois and Chuck Hagel (R) of Nebraska. It would require all US intelligence agencies – the CIA, the NSA, the Pentagon, and the FBI – to conduct a comprehensive review of potential security threats related to climate change around the world.

## AT: Ice Age T/

**Turn: Warming Causes an Ice Age**

William Calvin, Whole Earth Review, 12/22/91; LEXIS

RECURRENT NIGHTMARE for some scientists is to imagine Europe suddenly deprived of its customary, wintertime bonus of tropical heat, traditionally delivered courtesy of the North Atlantic Current. As it happens, that shutoff scenario doesn't require a catastrophe-prone imagination: it has already happened many times in the past.1 What's new is the fear that **global warming might paradoxically** trigger **yet another abrupt episode of continental cooling**.

**Human made warming massively outstrips any natural Ice Age effect:**

John Cook, 7/9/2010 (http://www.skepticalscience.com/heading-into-new-little-ice-age-intermediate.htm)

The warming effect from more CO2 greatly outstrips the influence from changes in the Earth's orbit or solar activity, even if solar levels were to drop to Maunder Minimum levels. Just a few centuries ago, the planet experienced a mild ice age, quaintly dubbed the Little Ice Age. Part of the Little Ice Age coincided with a period of low solar activity termed the Maunder Minimum (named after astronomer Edward Maunder). It's believed that a combination of lower solar output and high volcanic activity were major contributors (Free 1999, Crowley 2001), with changes in ocean circulation also having an effect on European temperatures (Mann 2002). Solar Activity - Total Solar Irradiance (TSI) including Maunder Minimum Figure 1: Total Solar Irradiance (TSI). TSI from 1880 to 1978 from Solanki. TSI from 1979 to 2009 from Physikalisch-Meteorologisches Observatorium Davos (PMOD). Could we be heading into another Maunder Minimum? Solar activity is currently showing a long-term cooling trend. 2009 saw solar output at its lowest level in over a century. However, predicting future solar activity is problematic. The transition from a period of 'grand maxima' (the situation in the latter 20th century) to a 'grand minima' (Maunder Minimum conditions) is a chaotic process and difficult to predict (Usoskin 2007). Let's say for the sake of argument that the sun does enter another Maunder Minimum over the 21st century. What effect would this have on Earth's climate? Simulations of the climate response if the sun did fall to Maunder Minimum levels find that the decrease in temperature from the sun is minimal compared to the warming from [sic hu]man-made greenhouse gases (Feulner 2010). Cooling from the lowered solar output is estimated at around 0.1°C (with a maximum possible value of 0.3°C) while the greenhouse gas warming will be around 3.7°C to 4.5°C, depending on how much CO2 we emit throughout the 21st century (more on this study...).

**Melting ice sheets prove—no ice age is around the corner:**

John Cook, 7/9/2010 (http://www.skepticalscience.com/heading-into-new-little-ice-age-intermediate.htm)

So we can rest assured, there is no ice age around the corner. To those with lingering doubts that an ice age might be imminent, turn your eyes towards the northern ice sheets. If they're growing, then yes, the 10,000 year process of glaciation may have begun. However, currently the Arctic permafrost is degrading, Arctic sea ice is melting and the Greenland ice sheet is losing mass at an accelerating rate. These are hardly good conditions for an imminent ice age.

## AT: Not Anthropogenic

**Peer reviewed research proves: current climate change isn’t natural—it’s caused by humans:**

James Wight, 8/20/2010 (<http://www.skepticalscience.com/climate-change-little-ice-age-medieval-warm-period.htm>)

Climate reacts to whatever forces it to change at the time; humans are now the dominant forcing. A common skeptic argument is that climate has changed naturally in the past, long before SUVs and coal-fired power plants, so therefore humans cannot be causing global warming now. Interestingly, the peer-reviewed research into past climate change comes to the opposite conclusion. To understand this, first you have to ask why climate has changed in the past. It doesn't happen by magic. Climate changes when it’s forced to change. When our planet suffers an energy imbalance and gains or loses heat, global temperature changes. There are a number of different forces which can influence the Earth’s climate. When the sun gets brighter, the planet receives more energy and warms. When volcanoes erupt, they emit particles into the atmosphere which reflect sunlight, and the planet cools. When there are more greenhouse gases in the atmosphere, the planet warms. These effects are referred to as external forcings because by changing the planet's energy balance, they force climate to change. It is obviously true that past climate change was caused by natural forcings. However, to argue that this means we can’t cause climate change is like arguing that humans can’t start bushfires because in the past they’ve happened naturally. Greenhouse gas increases have caused climate change many times in Earth’s history, and we are now adding greenhouse gases to the atmosphere at a increasingly rapid rate. Looking at the past gives us insight into how our climate responds to external forcings. Using ice cores, for instance, we can work out the degree of past temperature change, the level of solar activity, and the amount of greenhouse gases and volcanic dust in the atmosphere. From this, we can determine how temperature has changed due to past energy imbalances. What we have found, looking at many different periods and timescales in Earth's history, is that when the Earth gains heat, positive feedbacks amplify the warming. This is why we've experienced such dramatic changes in temperature in the past. Our climate is highly sensitive to changes in heat. We can even quantify this: when you include positive feedbacks, a doubling of CO2 causes a warming of around 3°C. What does that mean for today? Rising greenhouse gas levels are an external forcing, which has caused climate changes many times in Earth's history. They're causing an energy imbalance and the planet is building up heat. From Earth's history, we know that positive feedbacks will amplify the greenhouse warming. So past climate change doesn't tell us that humans can't influence climate; on the contrary, it tells us that climate is highly sensitive to the greenhouse warming we're now causing.

**Vast bulk of scientific evidence shows warming ---- mean temperatures are increasing due to GHG emissions**

Strom in ‘7 (Robert, Prof. Emeritus Planetary Sciences @ U. Arizona and Former Dir. Space Imagery Center of NASA, “Hot House: Global Climate Change and the Human Condition”, Online: SpringerLink, p. 94)

The vast preponderance of scientific studies overwhelmingly indicate that the Earth is rapidly warming. Although there have been other climate changes in the past 10,000 years, the present global warming is unprecedented in its rapid increase and worldwide scope. Furthermore, the warming is not uniform. The high northern latitudes are warming faster than elsewhere. The average global temperature is 0.5 'C higher than the 1951-1980 average. In the Northern Hemisphere it is 0.6 'C higher and in the Southern hemisphere it is 0.4 ° C higher. The main cause of this warming is discussed in the next chapter. It is almost certainly due to the rapid rise of greenhouse gases caused predominantly by the human burning of fossil fuels.

## AT: We’ll Adapt

And, warming happens too fast, no chance of adaptation

Costello 8 (Anthony, co-director of the Institute for Global Health at University College London, *Oxford University Press*, 8)

Climate change affects all ecosystems. Carbon dioxide will reach two to three times its mid-19th-century level by 2100 leading to major changes in seasonal temperatures and rainfall patterns. Normally with this sort of climate change animals and plants would simply migrate with their preferred climate. However, the rate of human-induced climate change is so rapid that many plant species cannot migrate fast enough and also in many places human beings already occupy the space into which the ecosystem would migrate. Ecosystems most at risk are alpine meadows, cloud forests, arctic tundra, and coral reefs.

## \*\*\*PROLIF DEBATE\*\*\*

## Miscalc Impact

**High risk of a nuclear accident – experts confirm.**

Below, 2008 [Tim D. Q. Below, Wing Commander for the Royal Air Force, (Master of Arts degree in Defence Studies from Kings College London), “Options for Us Nuclear Disarmament: Exemplary Leadership or Extraordinary Lunacy?,” June 2008]

Despite his relative optimism that proliferation may not present the dangers that other commentators fear, Waltz can not escape the fact that the chances of an explosive accident or an unauthorized or inadvertent launch increase as the number of nuclear states increases. However, he retains his optimism, arguing against the notion that unstable and bordering states necessarily present higher risks than other nations. Ivan Oelrich contends that the real threat is not something external that needs to be *countered*. Rather, it is something internal that the United States is self-generating through its retention of nuclear weapons, and is worsened by maintaining high states of alert. He is particularly concerned that “we [the United States] are not looking at the risks which nuclear weapons *create*.”In his view, nuclear weapons are the only thing that today poses an existential threat to the United States, and the perpetuation of their existence simply prolongs that threat. Meanwhile, Barry Blechman and Cathleen Fisher view **the specific dangers of nuclear accident or inadvertent use as the greatest short term threat.**

## AT: Deterrence Checks

**The terminal impact is extinction – deterrence fails in a proliferated world.**

Krieger, 2009 [David, Pres. Nuclear Age Peace Foundation and Councilor – World Future Council, “Still Loving the Bomb After All These Years”, 9-4, https://www.wagingpeace.org/articles/2009/09/04\_krieger\_newsweek\_response.php?krieger]

Jonathan Tepperman’s article in the September 7, 2009 issue of Newsweek, “Why Obama Should Learn to Love the Bomb,” provides a novel but frivolous argument that nuclear weapons “may not, in fact, make the world more dangerous….” Rather, in Tepperman’s world, “The bomb may actually make us safer.” Tepperman shares this world with Kenneth Waltz, a University of California professor emeritus of political science, who Tepperman describes as “the leading ‘nuclear optimist.’” Waltz expresses his optimism in this way: “We’ve now had 64 years of experience since Hiroshima. It’s striking and against all historical precedent that for that substantial period, there has not been any war among nuclear states.” Actually, there were a number of proxy wars between nuclear weapons states, such as those in Korea, Vietnam and Afghanistan, and some near disasters, the most notable being the 1962 Cuban Missile Crisis. Waltz’s logic is akin to observing a man falling from a high rise building, and noting that he had already fallen for 64 floors without anything bad happening to him, and concluding that so far it looked so good that others should try it. Dangerous logic! Tepperman builds upon Waltz’s logic, and concludes “that all states are rational,” even though their leaders may have a lot of bad qualities, including being “stupid, petty, venal, even evil….” He asks us to trust that rationality will always prevail when there is a risk of nuclear retaliation, because these weapons make “the costs of war obvious, inevitable, and unacceptable.” Actually, he is asking us to do more than trust in the rationality of leaders; he is asking us to gamble the future on this proposition. “The iron logic of deterrence and mutually assured destruction is so compelling,” Tepperman argues, “it’s led to what’s known as the nuclear peace….” But if this is a peace worthy of the name, which it isn’t, it certainly is not one on which to risk the future of civilization. One irrational leader with control over a nuclear arsenal could start a nuclear conflagration, resulting in a global Hiroshima. Tepperman celebrates “the iron logic of deterrence,” but deterrence is a theory that is far from rooted in “iron logic.” It is a theory based upon threats that must be effectively communicated and believed. Leaders of Country A with nuclear weapons must communicate to other countries (B, C, etc.) the conditions under which A will retaliate with nuclear weapons. The leaders of the other countries must understand and believe the threat from Country A will, in fact, be carried out. The longer that nuclear weapons are not used, the more other countries may come to believe that they can challenge Country A with impunity from nuclear retaliation. The more that Country A bullies other countries, the greater the incentive for these countries to develop their own nuclear arsenals. Deterrence is unstable and therefore precarious. Most of the countries in the world reject the argument, made most prominently by Kenneth Waltz, that the spread of nuclear weapons makes the world safer. These countries joined together in the Nuclear Non-Proliferation Treaty (NPT) to prevent the spread of nuclear weapons, but they never agreed to maintain indefinitely a system of nuclear apartheid in which some states possess nuclear weapons and others are prohibited from doing so. The principal bargain of the NPT requires the five NPT nuclear weapons states (US, Russia, UK, France and China) to engage in good faith negotiations for nuclear disarmament, and the International Court of Justice interpreted this to mean complete nuclear disarmament in all its aspects. Tepperman seems to be arguing that seeking to prevent the proliferation of nuclear weapons is bad policy, and that nuclear weapons, because of their threat, make efforts at non-proliferation unnecessary and even unwise. If some additional states, including Iran, developed nuclear arsenals, he concludes that wouldn’t be so bad “given the way that bombs tend to mellow behavior.” Those who oppose Tepperman’s favorable disposition toward the bomb, he refers to as “nuclear pessimists.” These would be the people, and I would certainly be one of them, who see nuclear weapons as presenting an urgent danger to our security, our species and our future. Tepperman finds that when viewed from his “nuclear optimist” perspective, “nuclear weapons start to seem a lot less frightening.” “Nuclear peace,” he tells us, “rests on a scary bargain: you accept a small chance that something extremely bad will happen in exchange for a much bigger chance that something very bad – conventional war – won’t happen.” But the “extremely bad” thing he asks us to accept is the end of the human species. Yes, that would be serious. He also doesn’t make the case that in a world without nuclear weapons, the prospects of conventional war would increase dramatically. After all, it is only an unproven supposition that nuclear weapons have prevented wars, or would do so in the future. We have certainly come far too close to the precipice of catastrophic nuclear war. As an ultimate celebration of the faulty logic of deterrence, Tepperman calls for providing any nuclear weapons state with a “survivable second strike option.” Thus, he not only favors nuclear weapons, but finds the security of these weapons to trump human security. Presumably he would have President Obama providing new and secure nuclear weapons to North Korea, Pakistan and any other nuclear weapons states that come along so that they will feel secure enough not to use their weapons in a first-strike attack. Do we really want to bet the human future that Kim Jong-Il and his successors are more rational than Mr. Tepperman?

# \*\*\*EU Economy

## 1NC Economy Net Benefit

### INDEPENDENT space development is key to EU economy and competitiveness

Flight International 6-14-11(MAKING SPACEHeadline to come; Europe's space policy aims to ensure the continent's independence, create highly skilled jobs, boost competitiveness and improve the safety and daily lives of its citizens- http://www.lexisnexis.com.turing.library.northwestern.edu/hottopics/lnacademic/?

ESA's Ariane 5 is the cornerstone of European access to orbit Europe's presence in space has been increasingly visible in recent years. To cite a recent example, the 16 May launch of NASA's Space Shuttle Endeavour carried the biggest, most ambitious science payload ever delivered to the International Space Station, the European Space Agency-built alpha magnetic spectrometer - a 6.9t particle detector physicists hope will help unravel the secrets of so-called "dark matter". Endeavour's crew included Italian astronaut Roberto Vittori - who, on boarding the ISS was greeted by countryman Paolo Nespoli. Meanwhile, Nespoli and his ISS crewmates have been enjoying food, water, air and spare parts delivered by two ESA-built automated transfer vehicle robotic cargo vessels. While trips to the ISS make headlines, and it is to be hoped, strike blows for science and international co-operation, Europe's political leaders are clear-headed about why they support spaceflight, with one theme playing consistently: space is about benefits for Europe's citizens. The European Commission spelled this vision out with admirable clarity in an April 2011 paper detailing its priorities for a new, "reinforced" European space policy, which will emerge from the coming rounds of EU budget making. As commission vice-president for industry Antonio Tajani puts it, space is about improving the safety and daily lives of Europeans. He says: "Space is strategic for Europe's independence, job creation and competitiveness. Space activities create high-skilled jobs, innovation, new commercial opportunities and improve citizens' well-being and security." And, he adds: "In order to achieve our goals, Europe needs to keep an independent access to space." First priorities are realisation of the flagship Galileo navigation and global monitoring for environmental and security (GMES) satellite constellations. Galileo, a European counterpart to the US GPS system, is behind time and budget - 18 spacecraft are expected to be in orbit by 2014, six years after the system was to be fully operational, and Galileo will need 24 spacecraft to provide global coverage - but the Commission has underscored the need to get the constellation deployed "within a reasonable amount of time". One clear benefit of satellite navigation came on stream earlier this year, when Europe's EGNOS safety-of-life service went live. A network of 40 EU-owned EGNOS ground stations take signals from GPS - and, eventually, Galileo - and enhance their accuracy to less than 1m (3ft). As with the wide area augmentation system available in the USA, aircraft with EGNOS receivers can now make super-precision approaches in Europe. And, says Tajani, the free-to-use signals are a public service, so private companies are encouraged to develop receivers capable of exploiting them. ENHANCE UNDERSTANDING The civilian-use GMES system is intended to enhance understanding of the sea, air, land and atmospheric environment, as a basis for policy making, and the data generated would also be available for private use. The EC wants to see GMES fully operational by 2014. A third priority is the establishment of an independent, European space situational awareness (SSA) system. This would be a single radar installation somewhere in Europe supplemented by 20 optical telescopes at four sites equally spaced near the equator, to track the orbiting debris that poses a risk to satellites and other spacecraft. The system, complementing similar observation carried out by the USA and possibly at some point including some space-based telescopes, would also in principle provide some guide to so-called near-Earth objects: meteors and asteroids that could, if they struck the Earth, cause immeasurable damage. The system would be expensive - ESA's SSA programme office foresees an initial five-year development phase starting in 2012 or 2013 with a E600-700 million budget - but looks like a good investment. Orbiting debris and solar radiation are two space-based hazards that the Commission estimates causes around E332 million ($480 million) of damage to European assets annually. The EC has also identified continued European participation in space exploration as a policy priority. As the Commission paper points out - and as programmes ranging from ISS participation to detailed pictures of Mars currently being beamed home by ESA's Mars Express planetary orbiter amply support - "Europe is a partner that is known for its competence and reliability in this sector, but it is not making the most of its potential because its actions are too piecemeal". Thus, the Commission hopes to give momentum to Europe's role in four aspects of international co-operation: development of critical technologies (life-support systems, for example), scientific exploitation of the ISS, access to space (through Europe's indigenous launch capabilities) and the establishment of an international forum to allow the EU to co-ordinate Europe's space activities. In keeping with the overall theme of space benefiting citizens, European leaders are keen that exploration should not be seen as an esoteric activity. As Frank de Winne, the astronaut and Belgian air force general who was the first non-American or Russian to command an ISS mission, has put it, Europe's annual budget for space exploration of around E400 million represents about one euro per citizen and good value, with spin-off technologies from life-support systems development feeding through into medical care, as just one example. But space exploration is, he adds, no longer a matter of nation-versus-nation competition; it can only be a matter of international partnership and it is important to play a leading role. He says: "Europe should be part of exploration because we want to bring our European values to this venture." ECONOMIC GROWTH Lastly, the Commission's list of priorities includes the agreement of a European space industry policy. This should boost industrial competitiveness in a sector that generates economic growth, high-quality jobs and opportunities for product and service innovation beyond the space sector. It should also "increase the excellence of European research"

### EU economic collapse causes a global depression.

### Wall Street Journal 10(Feb-13th: The Greek Tragedy That Changed Europe- http://online.wsj.com/article/SB10001424052748703525704575061172926967984.html?KEYWORDS=simon+johnson)

Plutus, the Greek god of wealth, did not have an easy life. As the myth goes, Plutus wanted to grant riches only to the "the just, the wise, the men of ordered life." Zeus blinded him out of jealousy of mankind (and envy of the good), leaving Plutus to indiscriminately distribute his favors. Modern-day Greece may be just and wise, but it certainly has not had an ordered life. As a result, the great opportunity and wealth bestowed by European integration has been largely squandered. And lower interest rates over the past decade—brought down to German levels through Greece being allowed, rather generously, into the euro zone—led to little more than further deficits and a dangerous buildup of government debt. Now Plutus wants his money back. Europe is entering unprepared into a serious economic crisis—and the nascent global recovery could easily collapse due to the unsustainable and Ponzi-like buildup of government debt in weaker countries. At the end of the G7 meeting in Canada last weekend, Treasury Secretary Tim Geithner told reporters, "I just want to underscore they made it clear to us—they, the European authorities—that they will manage this [Greek debt crisis] with great care." But the Europeans have not been careful so far. The issues for troubled euro zone countries are straightforward: Portugal, Ireland, Italy, Greece and Spain (known to the financial markets, and not in a polite way, as the PIIGS) had varying degrees of foreign- and bank credit-financed rapid expansions over the past decade. In fall 2008, these bubbles collapsed. As custodian of their shared currency, the European Central Bank responded by quietly opening lifelines to all these countries, effectively buying government bonds through special credit windows. Europe's periphery was fragile but surviving on this intravenous line of credit from the ECB until a few weeks ago, when it suddenly became apparent that Jean-Claude Trichet, president of the ECB, and his German backers were finally lining up to cut Greece off from that implicit subsidy. The Germans have become tired of supporting countries that do not, to their minds, try hard enough. Investors naturally flew from Greek debt—Greece's debt yields rose, and its banking system verged near collapse as investors and savers ran from the country. But it's not just about Greece any more. Thursday's European Union summit ended with vague assurances of mutual support but did not fundamentally change the financial markets' assessment. Other countries can also be cut off from easy ECB funding, so worries have spread through the euro zone to Spain and Portugal. Ireland and Italy are also up for hostile reconsideration by the markets, and Austria and Belgium may not be far behind. If these problems are not addressed quickly and effectively, Europe's economy will be derailed—with serious, if hard to quantify, implications for the rest of the world. Germany and France are cooking up a belated support package for Greece, but they have made it abundantly clear that Greece must slash public sector wages and other spending; the Greek trade unions get this and are in the streets. If Greece (and the other troubled countries) still had their own currencies, it would all be a lot easier. Just as in the U.K. since 2008, their exchange rates would depreciate sharply. This would lower the cost of labor, making them competitive again (remember Asia after 1997-'98) while also inflating asset prices and helping to refloat borrowers who are underwater on their mortgages and other debts. It would undoubtedly hurt the Germans and the French, who would suffer from less competitiveness—but when you are in deep trouble, who cares? Since these struggling countries share the euro, run by the European Central Bank in Frankfurt, their currencies cannot fall in this fashion. So they are left with the need to massively curtail demand, lower wages and reduce the public sector workforce. The last time we saw this kind of precipitate fiscal austerity—when nations were tied to the gold standard—it contributed directly to the onset of the Great Depression in the 1930s. The International Monetary Fund is supposed to lend to countries in trouble, to cushion the blow of crisis and to offer a form of international circuit breaker when everything looks fragile. The idea is not to prevent necessary adjustments—for example, in the form of budget deficit reduction—but to spread those out over time, to restore confidence, and to serve as an external seal of approval on a government's credibility. Despite the fact that the IMF was created after World War II essentially as a U.S.-Western European partnership, and despite the fact that Europe has strong representation at the fund and has always chosen its top leader, in this instance the fund has been reduced to not-entirely-helpful kibitzing from the sidelines. Dominique Strauss-Kahn, the fund's managing director, said recently on French radio that the fund stands ready to help Greece. But he knows this is wishful thinking. "Going to the IMF" brings with it a great deal of stigma; just ask the Asian countries that had to borrow from the fund during their crises of the 1990s. And many in Europe view the fund as an American-influenced institution—located three blocks from the White House for a reason—that would be invading Europe's territory. In addition, French President Nicolas Sarkozy has serious personal reasons to push the IMF away. Mr. Strauss-Kahn is a serious potential challenger in France's upcoming elections; Mr. Sarkozy would hate to see the IMF play a statesman-like role on his home turf. Chancellor Angela Merkel, currently maneuvering to ensure a German is the next head at the ECB, is also concerned. The IMF might take the position that ECB policies have been overly contractionary—resulting in a strong euro and very low inflation—and not appropriate for member countries in the midst of a financial collapse.

Global economic crisis causes nuclear great-power war

Mead 9 – Walter Russell Mead, the Henry A. Kissinger Senior Fellow in U.S. Foreign Policy at the Council on Foreign Relations, 2-4, 2009, “Only Makes You Stronger,” The New Republic, http://www.tnr.com/politics/story.html?id=571cbbb9-2887-4d81-8542-92e83915f5f8&p=2

If current market turmoil seriously damaged the performance and prospects of India and China, the current crisis could join the Great Depression in the list of economic events that changed history, even if the recessions in the West are relatively short and mild. The United States should stand ready to assist Chinese and Indian financial authorities on an emergency basis--and work very hard to help both countries escape or at least weather any economic downturn. It may test the political will of the Obama administration, but the United States must avoid a protectionist response to the economic slowdown. U.S. moves to limit market access for Chinese and Indian producers could poison relations for years. For billions of people in nuclear-armed countries to emerge from this crisis believing either that the United States was indifferent to their well-being or that it had profited from their distress could damage U.S. foreign policy far more severely than any mistake made by George W. Bush. It's not just the great powers whose trajectories have been affected by the crash. Lesser powers like Saudi Arabia and Iran also face new constraints. The crisis has strengthened the U.S. position in the Middle East as falling oil prices reduce Iranian influence and increase the dependence of the oil sheikdoms on U.S. protection. Success in Iraq--however late, however undeserved, however limited--had already improved the Obama administration's prospects for addressing regional crises. Now, the collapse in oil prices has put the Iranian regime on the defensive. The annual inflation rate rose above 29 percent last September, up from about 17 percent in 2007, according to Iran's Bank Markazi. Economists forecast that Iran's real GDP growth will drop markedly in the coming months as stagnating oil revenues and the continued global economic downturn force the government to rein in its expansionary fiscal policy. All this has weakened Ahmadinejad at home and Iran abroad. Iranian officials must balance the relative merits of support for allies like Hamas, Hezbollah, and Syria against domestic needs, while international sanctions and other diplomatic sticks have been made more painful and Western carrots (like trade opportunities) have become more attractive. Meanwhile, Saudi Arabia and other oil states have become more dependent on the United States for protection against Iran, and they have fewer resources to fund religious extremism as they use diminished oil revenues to support basic domestic spending and development goals. None of this makes the Middle East an easy target for U.S. diplomacy, but thanks in part to the economic crisis, the incoming administration has the chance to try some new ideas and to enter negotiations with Iran (and Syria) from a position of enhanced strength. Every crisis is different, but there seem to be reasons why, over time, financial crises on balance reinforce rather than undermine the world position of the leading capitalist countries. Since capitalism first emerged in early modern Europe, the ability to exploit the advantages of rapid economic development has been a key factor in international competition. Countries that can encourage--or at least allow and sustain--the change, dislocation, upheaval, and pain that capitalism often involves, while providing their tumultuous market societies with appropriate regulatory and legal frameworks, grow swiftly. They produce cutting-edge technologies that translate into military and economic power. They are able to invest in education, making their workforces ever more productive. They typically develop liberal political institutions and cultural norms that value, or at least tolerate, dissent and that allow people of different political and religious viewpoints to collaborate on a vast social project of modernization--and to maintain political stability in the face of accelerating social and economic change. The vast productive capacity of leading capitalist powers gives them the ability to project influence around the world and, to some degree, to remake the world to suit their own interests and preferences. This is what the United Kingdom and the United States have done in past centuries, and what other capitalist powers like France, Germany, and Japan have done to a lesser extent. In these countries, the social forces that support the idea of a competitive market economy within an appropriately liberal legal and political framework are relatively strong. But, in many other countries where capitalism rubs people the wrong way, this is not the case. On either side of the Atlantic, for example, the Latin world is often drawn to anti-capitalist movements and rulers on both the right and the left. Russia, too, has never really taken to capitalism and liberal society--whether during the time of the czars, the commissars, or the post-cold war leaders who so signally failed to build a stable, open system of liberal democratic capitalism even as many former Warsaw Pact nations were making rapid transitions. Partly as a result of these internal cultural pressures, and partly because, in much of the world, capitalism has appeared as an unwelcome interloper, imposed by foreign forces and shaped to fit foreign rather than domestic interests and preferences, many countries are only half-heartedly capitalist. When crisis strikes, they are quick to decide that capitalism is a failure and look for alternatives. So far, such half-hearted experiments not only have failed to work; they have left the societies that have tried them in a progressively worse position, farther behind the front-runners as time goes by. Argentina has lost ground to Chile; Russian development has fallen farther behind that of the Baltic states and Central Europe. Frequently, the crisis has weakened the power of the merchants, industrialists, financiers, and professionals who want to develop a liberal capitalist society integrated into the world. Crisis can also strengthen the hand of religious extremists, populist radicals, or authoritarian traditionalists who are determined to resist liberal capitalist society for a variety of reasons. Meanwhile, the companies and banks based in these societies are often less established and more vulnerable to the consequences of a financial crisis than more established firms in wealthier societies. As a result, developing countries and countries where capitalism has relatively recent and shallow roots tend to suffer greater economic and political damage when crisis strikes--as, inevitably, it does. And, consequently, financial crises often reinforce rather than challenge the global distribution of power and wealth. This may be happening yet again. None of which means that we can just sit back and enjoy the recession. History may suggest that financial crises actually help capitalist great powers maintain their leads--but it has other, less reassuring messages as well. If financial crises have been a normal part of life during the 300-year rise of the liberal capitalist system under the Anglophone powers, so has war. The wars of the League of Augsburg and the Spanish Succession; the Seven Years War; the American Revolution; the Napoleonic Wars; the two World Wars; the cold war: The list of wars is almost as long as the list of financial crises. Bad economic times can breed wars. Europe was a pretty peaceful place in 1928, but the Depression poisoned German public opinion and helped bring Adolf Hitler to power. If the current crisis turns into a depression, what rough beasts might start slouching toward Moscow, Karachi, Beijing, or New Delhi to be born? The United States may not, yet, decline, but, if we can't get the world economy back on track, we may still have to fight.

## R&D/Growth Key

### Increase in R&D key to EU competitiveness

CNN 01’ (CNN Tech, November 27, 2001, EU lags behind U.S. tech innovations, http://articles.cnn.com/2001-11-27/tech/tech.innovation.idg\_1\_erkki-liikanen-innovation-competitiveness?\_s=PM:TECH)

### The European Union'slack of technological innovation and urgency in bringing cutting-edge technologies to market is causing the EU to lag behind the U.S. in competitiveness and living standard**s,** the European Commission (EC) said in its annual report on competitiveness, enterprise policy and innovation. "For most sectors, R&D (research and development) intensity is higher in the U.S. than in the EU**.** Most strikingly, in office machinery and computers, research intensity in the U.S. is three times greater than in the EU," said Erkki Liikanen, Commissioner for Enterprise and the Information Society in a speech in Brussels Thursday. Technology-driven industries have become a key aspect in driving productivity increases in the U.S. and only more recently in the EU, Liikanen said. One way of tracking the health of the IT industry in a given country is to measure the nation's success in international markets, and Liikanen pointed out that when it comes to high-tech products -- including products from aerospace, information and communications technology (ICT) and pharmaceuticals technology sectors -- the EU's total exports are only about two thirds of the corresponding U.S. share. Of all of the countries that make up the EU, only Ireland performed better than the U.S., Liikanen said. Although almost all EU member states were able to increase the share of high-tech products in their total exports between 1999 and 2000, "the differences relative to the U.S. and Japan remain substantial," Liikanen said. "This gap underlines the need for continued and increased efforts to restructure, innovate and adapt new technologies. Behind the successful and innovative companies are always people with ideas and a willingness to take risks," Liikanen said.

### R&D must be increased to catch up

### Euronet.com 11’ (Tuesday, February 01, 2011, EU still lagging behind US and Japan on innovation performance, http://euroalert.net/en/news.aspx?idn=11611)

### Comparing the indicators from EU member states, with those from US and Japan, results show that the European Union is not closing its innovation performance gap with its main competitors. While the EU still maintains a clear lead over the emerging economies of India and Russia, Brazil is making steady progress, and China is catching up rapidly. Within the EU, Sweden is the most impressive performer followed by Denmark, Finland and Germany. The UK, Belgium, Austria, Ireland, Luxembourg, France, Cyprus, Slovenia and Estonia, in that order, are in the next group. Main conclusions from Innovation Union Scoreboard (IUS) According to the Innovation Union Scoreboard, the largest gap appears in the "Firm activities" category where the European Union lags behind in terms of public-private co-publications, business R&D expenditures, and, compared to Japan, in PCT (Patent Cooperation Treaty) patents. The priority should therefore be to createthe regulatory and other framework conditions that will encourage more private sector investment and facilitate the exploitation of research results by the business sector, in particular through a more efficient patent system.

## EU Econ Key to Global

### **EU economy key to global economy**

Dür & Elsig 4-3-11(Andreas/ Manfred School of Politics and International Relations/ World Trade Institute Bern: The EU in the World Economy; <http://www.ecprnet.eu/ecpr/lisbon/documents/ws11_000.pdf>)

Ever since its creation, the EU’s economic weight has made it an influential player in the global economy. The EU-27 accounts for 19 percent of global trade and is one of the largest hosts and sources of foreign direct investments. Internal coordination of foreign economic policies has meant that it could at least partially translate its economic weight into influence in global economic relations. In both trade and competition policy, the EU has been able to speak with “one voice” in dealing with third countries since the 1960s. For the last decade, moreover, increased internal coordination in the field of monetary policy (in particular due to the launch of a common currency and the creation of the European Central Bank) has increased the leverage of the EU in the international monetary system. Most recently, financial regulators’ reactions to financial crises have sparked a debate on the need for additional internal coordination within the EU as to tackling market imbalances. These key facts illustrate the substantive importance of research on the EU as an actor in international economic relations. It is no wonder, hence, that a substantial literature has been written on the EU’s foreign economic policies. Some of the questions that have driven research on this topic are: is the EU a “norm exporter” in the area of economic policy and, if so, what are the important drivers? Alternatively, could we frame the EU as a “conflicted power” in foreign economic policy as its conduct is based on “replication” of internal polices and of “domination” (Meunier and Nicolaidis 2006)? Or has economic policy become the EU’s main instrument for power politics where it shapes foreign relations with developing countries on the basis of economic conditionality? This workshop aims to push the research frontier as to what explains the EU’s role in the global economy. In particular, current research on the EU’s foreign economic relations is fragmented, with authors concentrating on one of the many policy fields in which the EU is active in its foreign economic relations. These fields include (but are not restricted to): trade 1 policy, monetary policy, competition policy, global taxation issues, financial markets and financial stability, and development policy. Only little attention has been paid to the interactions between these various policy fields. The workshop attempts to capture the nature of the EU as a key player in the world economy by overcoming this shortcoming in the literature. Across the various policy fields, the workshop aims to cover the following major topics:

## \*\*\*EU Aerospace\*\*\*

## CP Solves EU Aerospace

### An invigorated space policy boosts the EU aerospace industry

SPARACO 95(PIERRE July, 31: Aviation Journalist: EUROPEAN AEROSPACE JOBS STILL ERODING- [http://www.aviationnow.com.turing.library.northwestern.edu](http://www.aviationnow.com.turing.library.northwestern.edu/))

The European aerospace industry's workforce is shrinking markedly as a result of plummeting military budgets, weak civil markets and improved productivity. According to a European Union (EU) survey covering the member countries, airframe, engine and component manufacturers have cut 108,062 jobs since 1985. The aerospace workforce decreased to 373,585 on Dec. 31, 1993, down from 481,647 in 1985, and is still eroding. The total is now estimated at about 350,000. At current exchange rates, European aerospace sales decreased to about $ 63 billion per year, down from $ 72.3 billion in 1990, not counting inflation. Nevertheless, the industry still plays a key role in the EU's overall economy. Despite a steady flow of imports, including military products and U.S. commercial transports, Europe's aerospace sector produces a positive foreign trade balance. Commercial sales surplus is estimated by the EU at $ 4-5 billion/year. SINCE THE END OF THE Cold War, European countries, except France, slashed defense spending to cope with sharply curtailed budgets. Major military export contracts are rarer, and commercial transport sales remain weak. Unfavorable exchange rates of European currencies against the U.S. dollar are hurting company profits, officials have claimed repeatedly. The U.S. dollar is now valued at 1.35 European Currency Units, compared with 0.76 in 1985. Comprehensive statistics for 1994 are not available yet and the EU would not comment on last year's trend, according to Michael Mollgaard, an official with the European Commission's aerospace unit. Seven European countries have a sizable aerospace industry, and four (the U.K., France, Germany and Italy) have major industrial capabilities. The British aerospace industry lost as many as 124,860 jobs since the early 1980s. The U.K. workforce today totals about 125,000, down from a peak of 249,863 in late 1981. The dramatic decrease, however, also is the result of efficiency improvements. Productivity previously was considered poor, but an upturn was accelerated by a consolidation move that created a ''double keystone'' -- Rolls-Royce, now the country's sole engine manufacturer, and British Aerospace, a strong industrial group. France's aerospace industry, Europe's second largest, cut about 27,000 jobs over the 1990-94 period, nearly 32,000 when taking into account the continuous flow of temporary layoffs. Additional cuts are planned during the next few months, a French aerospace industries association (GIFAS) official said. GIFAS member companies currently employ about 95,000. In the early 1990s, Germany completed a wide-ranging consolidation move that gave birth to Daimler-Benz Aerospace (DASA). The country's aerospace workforce peaked at 95,042 in 1990, according to the EU survey. But employment decreased to 72,895 in late 1993 and is 68,000 today, according to a German aerospace industries association (BDLI) report released in June. Small and mid-size German aerospace companies (employing 13,000 workers) eliminated as much as half of their workforce during the last three years, the BDLI report indicated. DASA Chairman/CEO Manfred Bischoff recently warned that more job cuts and production relocation moves are planned (AW&ST June 26, p. 62). Italy also has been hit by shrinking military budgets, restrictive military export rules and the resulting excess industrial capacity. According to the EU survey, Italian aerospace employment slipped to 37,000, down from nearly 51,000 in 1990. Alenia, the country's major aerospace company which is now part of the Finmeccanica group, again foresees additional job cuts (AW&ST July 3, p. 73). European engine manufacturers' total workforce slipped to 67,200, down from 82,890 in 1985 and 112,180 in the early 1980s. Airframe-missile employment decreased to 174,400, down from 234,830 in 1985. Subcontractors and component manufacturers cut 60,420 jobs during a 10-year period, the EU survey showed. Although the overall picture is gloomy, Europe's strong civil-military space programs are providing a bright spot. Since the early 1980s, space business generated thousands of additional jobs in several countries, such as France and Germany. The space-related workforce in the EU peaked at 24,230 in 1991, up from about 11,000 in the early 1980s. HOWEVER, NEARLY 3,000 space-related jobs disappeared during the last three years. Since the 1980s, the Airbus Industrie industrial venture also generated additional jobs in the four participating countries (France, Germany, the U.K. and Spain) and in two associated countries (Belgium and the Netherlands). Despite lower production rates tied to a weak civil market, the consortium gives work to 32,000 employees among its four partners and generates thousands of additional jobs to subcontractors, vendors and suppliers.

### **Space Policy boosts aerospace industry**

European Commission 02(Sept. 23: Aeronautics and space: Europe’s right stuff- http://ec.europa.eu/research/ briefings/aeronautics\_en.html)

Today, space is no longer the exclusive realm of scientists and astronauts. Simply stated, space technologies have penetrated every field of economic, social and cultural life. Whole sectors of human activity depend on the exploitation of space, including telecommunications, so much a part of our daily lives, but also meteorology, cartography, environmental observation and surveillance, agriculture, transport, security and defence. The joint European Commission and European Space Agency (ESA) Communication, entitled ‘Europe and Space: Turning to a new chapter’, issued in September 2000, was a major step in establishing a coherent approach to space in Europe. The approach is built on three pillars: Strengthening the foundation for space activities – preserving independent and affordable access to space and ensuring the industrial capability for designing, manufacturing and operating satellite systems and ground infrastructure; Enhancing scientific knowledge – for a better understanding of our planet and its atmosphere, the solar system and the universe; Exploiting the benefits of space-based tools – for industry and society through exploitation of telecommunications, navigation and environmental capabilities. A joint task force has been charged with implementing this strategy, including identifying a coherent set of space priorities and mobilising public and private resources and scientific and industrial skills for carrying out major projects. Community space activities are carried out in close coordination with ESA, other space agencies, research centres and industry, in order to optimise the use of funding, and are focused on: satellite-based information systems and services relevant to the Galileo satellite navigation project; satellite-based systems relevant for the Global Monitoring for Environment and Security (GMES) platform; the integration of space-based and ground-based communications technologies. The Star 21 report A high-level advisory group was set up in 2001 to analyse the state of the European aerospace industry and to assess its longer-term policy needs. In its report, ‘Strategic Aerospace Review for the 21st Century’ (STAR 21), issued in July 2002, the group identified five key areas that deserve specific attention: Competing on world markets – “Fair conditions in international trade and access to markets are essential pre-conditions for ensuring competitiveness-based growth in aerospace.” The operating environment for European aerospace – “A broad range of policies determines the operating environment for Europe’s aerospace industry.” European governance of civil aviation – “It is time to establish a truly integrated regulatory framework for civil aviation.” Vital need for European security and defence capabilities – “A primary responsibility of government is to protect the citizen.” Safeguarding Europe’s role in space – “Over the past 40 years Europe has developed significant space capabilities through its spacecraft and launchers and the ground infrastructure to support them.” Fulfilling Europe’s ambitions in the aerospace sector means looking into the future, anticipating developments and taking the appropriate policy decisions in the near term that will help Europe to meet its medium- and long-term goals. The STAR 21 report represents a major push towards the creation of a coherent market and policy framework for a vital European industry, and with the new emphasis on ‘Aeronautics and space’ under FP6, aerospace research looks to be on the right track. Such moves should allow European companies to continue to answer customer needs worldwide in what is a highly competitive and strategic market.

## UQ- EU Aerospace declining

### EU is falling behind it’s competitors in the Aerospace Industry

Meyer 6/10 (David, Reporter at ZDNet UK,10 June, 2011, Europe falling behind US and Asia in R&D,http://www.zdnet.co.uk/blogs/communication-breakdown-10000030/europe-falling-behind-us-and-asia-in-randd-ec-says-10022708/)

**Europe's** research and development **is growing slowly**, but **the continent is increasingly falling behind the US and Asia,** the European Commission has warned. In the Innovation Union Competitiveness Report 2011, published on Thursday, **EU research, innovation and science commissioner Máire Geoghegan-Quinn said member states had to act to ensure** sustainable growth and jobs. She said EU research and innovation (**R&I**) **remained fairly competitive**, **but was lagging behind in many areas**. "**The overall R&I competitive position of the EU has been progressively declining in the last decade**," the report read. "**This decline is mainly due to the sharp rise of Asia, a trend likely to continue given the ambitious R&D targets of South Korea, Japan or China;** and the inability of the EU to address some important weaknesses of its R&I system." According to the report, **one chief weakness is severe underinvestment, compared with the US and major Asian economie**s, and particularly in the private sector. There are also "weak knowledge exchanges between science and industry" in Europe, stymieing the commercialization of existing knowledge, the Commission said. Europe also has "a lower percentage of scientific publications among the most cited publications worldwide and much lower licence and patent revenues" than the US does, the report added. Finally, European innovators find it harder to get financing and have to pay more for patenting. "The persistence of these weaknesses threatens the capacity of the EU to enhance its future R&I competitive position and its capacity to accelerate its currently sluggish progress towards a knowledge-intensive economy," the report stated. "Without this structural change to the EU economy, its future economic competitiveness in high-value-added products and services may be at risk." According to the report, new opportunities that need grasping include closer cooperation with Asian economies, the rise of new areas of economic growth, and an "increasing demand for R&I to address societal challenges".

## AT: Perm- Zero Sum

### EU aerospace can’t compete with US companies- they are only strong when acting alone.

Political Science Quarterly 07’ (J O H N G . F R A N C I S A L E X F . P E V Z N E R, Airbus and Boeing: Strengths and Limitations of Strong States, Volume 121·Number 4·Winter 2006-07, http://www.psqonline.org/?redir=%2F99\_article.php3%3Fbyear%3D2006%26bmonth%3Dwinter%26a%3D04free)

The central importance of a strong state in reestablishing the commercial aviation industry through the commitment of resources—both within its borders and outside its borders—was not lost on the Europeans. By the 1960s, European states recognized that their respective national aviation industries JOHN G. FRANCIS is a professor of political science at the University of Utah. He works on comparative regulatory policy. He has published The Politics of Regulation: A Comparative Perspective and various articles on comparative subnational decision making. ALEX F. PEVZNER is an associate with Alexander Anolik, APLC, where he focuses on aviation law and litigation. Political Science Quarterly Volume 121 Number 4 2006 629had dwindled to next to nothing in the world commercial aviation market. Individually, the European states were unable to compete with American firms and their powerful state backer, the American government. This recognition led four leading Western European states to coalesce and form a common industrial policy, a coalition that in time came to work together as a “strong state” to compete with the Americans.

### The EU and US aerospace industries are zero sum: GATT dispute proves

Financial Post 94(May 19th, Europe, U.S. revving up for aircraft melee- http://www.lexisnexis.com.turing.library. northwestern. edu/hottopics/lnacademic/?

Three European aerospace manufacturers are threatening to call on the European Union to tear up its two-year-old agreement with the U.S. on civil-aircraft subsidies unless Washington accepts tighter curbs on support to the U.S. industry. The threat follows extensive consultation between the European industry and the European Commission ahead of today's resumed negotiations in the General Agreement on Tariffs and Trade on international rules covering aircraft subsidies. An EU renunciation of the bilateral agreement could trigger a serious transatlantic trade dispute. U.S. manufacturers say they would respond by renewing complaints under GATT that government support to Europe's four-nation Airbus program is illegal. In that event, European manufacturers say they would consider invoking GATT dispute procedures and pressing for action against U.S. aircraft sales under hitherto unused EU rules designed to punish subsidized foreign exports. The EU-U.S. agreement can be abrogated by either side with one year's notice. If the EU renounced it, the grace period could allow further attempts to negotiate a settlement. The European manufacturers' threat reflects growing frustration with the workings of the bilateral accord and what they consider U.S. refusal to negotiate seriously on a more comprehensive GATT agreement. The main stumbling block is Washington's reluctance to accept tighter curbs on ''indirect'' support for purposes such as research and development. The European manufacturers - Aerospatiale SA of France, Dasa of Germany and British Aerospace PLC - claim the U.S. has not fulfilled obligations to limit such support under the bilateral agreement. They say Washington is balking at a GATT agreement because that could limit extensive U.S. government support for aero-engine manufacturers and call into question large commercial-aircraft research programs funded by the National Aeronautics and Space Administration. The GATT talks were adjourned in December after the U.S. rejected a draft agreement acceptable to the 21 other governments.

### EU US Aerospace is zero sum: WTO dispute.

The Nation 10(March 25th- EU subsides the Case- http://www.lexisnexis.com.turing.library.northwestern.edu/hottopics/ lnacademic)

US and European aerospace giants say verdict is in their favour and its European rival Airbus both claimed victory over a landmark World Trade Organisation (WTO) ruling on their dispute over state subsidies. Authorities in the European Union and the United States kept mum on the contents of the 1,000-page confidential judgement transmitted by the WTO only to the two parties involved in the litigation. But the two aircraft manufacturers hailed the outcome of the dispute, brought by Washington against the European Union (EU) over alleged subsidies paid to Airbus."This is a powerful, landmark judgement and good news for aerospace workers across America who for decades have had to compete against a heavily subsidised did not provide details of the ruling. It referred only to news reports, which it said "indicated that the United States has prevailed on all of the major issues in the WTO's final decision". At least four US lawmakers claimed the WTO had ruled that Airbus claimed in a statement that the ruling rejected "70 per cent of the US claims". It added the WTO panel had determined that reimbursable EU loans made to Airbus amounted to a "legal and compliant instrument of partnership between government and industry". The panel also "refused the US request for remedies as legally inappropriate", Airbus claimed. But the group acknowledged the panel found that some of the loans it received contained "a certain element of subsidy". The decision on the US complaint was mostly already issued confidentially in September in the form of an interim ruling by the WTO panel. However, unusually little has filtered out in six months. Another ruling on a counter-complaint brought by the EU against US aid for Boeing is expected later this year, suggesting the jury remains out on who might have won the overall dispute, analysts said. EU trade commission spokesman John Clancy cautioned against being "too hasty in claiming any victory". "It is only when we get the second report that we will have a sense of how to move forward, including whether we move towards a negotiated settlement" with the United States. The WTO decision came amid European charges of protectionism in the US Defence Department's competition for a US 35-billion (Bt1.13-trillion) contract for US Air Force refuelling tankers. The Europeans were upset when Northrop Grumman, which had teamed up with parent European Aeronautic Defence and Space Company (EADS ), dropped out of the bidding for the tanker contract. The Pentagon then said it might extend a deadline for bids after EADS For analysts, the ruling was far from the end of the battle between the two aerospace giants. "We can expect no answer for this commercial battle in the next few years," said analysts from French investment group CM-CIC Securities. "In fact, the preliminary report of the WTO on the counter-complaint which was brought by the EU against the US is expected by June. "It is possible that each party would file appeals, which could bring about a final ruling in 2013 at the earliest," they added. In its complaint lodged in 2004, Washington charged that the EU had illegally provided subsidies worth up to 200 billion (Bt6.4 trillion) to Airbus. It said an accord allowing Brussels to provide up to a third of development costs of new airliners was no longer valid since Airbus had by then become a major industry player and was not the fledgling firm it was when the deal was struck. On the same day, the EU retaliated with a complaint against Washington's help to Boeing, accusing the United States of violating international trade rules by funnelling subsidies to civil aviation through military research funds. Some 23 billion of subsidies were masked as defence research, Brussels claimed. If the damage to the European aviation industry were calculated using the same figures as the United States, it would amount to some 305 billion, it said

## Aerospace Key to the Economy

### Aerospace is key to solve Europe’s economic problems

Mackenzie 09’ (Christina, Graduate 2006 Centre des Hautes Etudes Militaires, Paris; MSj 1986 Medill School of Journalism, Northwestern University, MA Hispanic Languages and Literature 1979 St Andrews University, Scotland, Senior European Editor DTI, 7/8/2009, European Aerospace and Defense Companies Hold Their Own in 2008, [http://www.aviationweek.com/aw/blogs/defense/index.jsp?plckController=Blog&plckScript=blogScript&plckElementId=blogDest&plckBlogPage=BlogViewPost&plckPostId=Blog%3A27ec4a53-dcc8-42d0-bd3a-01329aef79a7Post%3A456c4cc2-5bfe-4f76-b3f4-dd044b05663d&plckCommentSortOrder=TimeStampAscending](http://www.aviationweek.com/aw/blogs/defense/index.jsp?plckController=Blog&plckScript=blogScript&plckElementId=blogDest&plckBlogPage=BlogViewPost&plckPostId=Blog%3A27ec4a53-dcc8-42d0-bd3a-01329aef79a7Post%3A456c4cc2-5bfe-4f76-b3f4-dd044b05663d&plckCommentS))

“These good results mainly stem from the strong growth recorded in the first half of last year. The last months of 2008 were marked by a significant slowdown, especially in the civil manufacturing sector.,” Cook said. He added: “We are concerned that falling global growth rates, coupled with shortages of consumer finance, will have a more severe impact in 2009. We remain particularly vigilant over the situation of our SMEs. Preserving our supply chain in this difficult period is crucial to ensure that our industry will be fully operational when the economy - and global demand - start growing again.” Cook also called on EU decision-makers to recognise the importance of Europe’s aerospace and defence sectors: “Our industries are strategic assets for Europe. They are world leaders in advanced engineering, and a vital part of Europe’s prosperous economy. Investing in our growth-enhancing sector will propel the whole European economy forward and will help us continue providing highly-skilled employment, technological innovation and environmental performance.”

### Aerospace Industry helps wealth and employment all across the EU

Flight International 02( July 23rd- Newspaper on Aerospace: Standing together;

The latest report on the European aerospace industry calls for a common policy promoting co-operation. But will anyone listen? http://www.lexisnexis.com.turing.library.northwestern.edu/hottopics/lnacademic/?

Last week the European Union's (EU) Advisory Group on Aerospace presented its first report -- the Strategic Aerospace Review for the 21st Century (STAR 21) -- and set out its views on how an industrial sector that it views as fundamental to the continent's future economic success should be developed. The report's five key recommendations called for a global market with a level playing field and fair competition; a co-ordinated strategy for research and the investment of the necessary resources; for the EU to become the policy-maker and regulator in civil aviation; a coherent defence and security infrastructure; and a consolidated European space policy. That the EU is keen to ensure the sustainment of the European aerospace industry is no surprise. Brussels' figures for 2000 show that the sector directly employed 429,000 people and achieved a consolidated turnover of 72.3 billion ($72.3 billion). It exported around half its output and contributed a positive trade balance of around 1.9 billion. And in a happy coincidence for the EU, the aerospace supply chain spreads throughout the EU's 15 member nations. In short, as the STAR 21 report sets out, "aerospace [is] a leading contributor to wealth and employment all across the EU". The five key policy points set out in STAR 21 should not surprise anyone remotely connected with the European aerospace industry -- they have been articulated on more than one occasion in recent years, but Europe, and its principal government organisations, are bureaucratic behemoths that are slow to respond. A criticism within the STAR 21 report is that, while Europe's aerospace industry has consolidated over the past five or so years, the policy framework that governs its activities is fragmented. This obviously needs changing, but the reason for the fragmentation is all too clear. Each EU member has different rules -- despite the good intentions that led to the formation of the European Community -- and not one of the 15 nations is overly keen on losing "sovereignty" over a "crown jewel" industry. Europe's six leading aerospace nations -- France, Germany, Italy, Spain, Sweden and the UK -- have already signed up to an agreement covering research and development and other aerospace and defence co-operation. If this were taken a step further, to a common policy framework governing the industry in those six countries, it would soon become obvious to the nine remaining nations that signing up to common rules was crucial to sustaining their aerospace capabilities. One barricade that could be placed in the way of European aerospace industry progress could well be a failure to ensure its future viability by choking the research and development process. STAR 21 describes the "huge challenge involved in mobilising the estimated 100 billion from private and public sources" to funding a concerted R&D programme over the next 20 years. Again the fractured nature of the European policy framework and each nation's sensitivity to possibly losing what is seen as a critical capability are hindering progress. Once the battle to create a cohesive single aerospace environment in Europe is won, the next task will be to level the playing field with the USA. The Europeans look enviously at the US internal market. In 2000 the US Department of Defense and other government agencies placed orders worth $60.3 billion with US manufacturers, compared with $15.9 billion spent by the 15 EU governments with European contractors. But convincing Washington DC that Europe should be given a slice of that spending pie will not be easy, particularly with the heightened mood to "buy American" after the 11 September attacks. What Europe must do is instead ensure that its industry is in a position to provide its own internal market with the right equipment on time and to specification. This will mean an end to the interminable delays to European co-operative programmes caused when one country or another stalls the approval and/or funding process. There will be no point in decrying an EU member for buying, for instance, a US missile in 2010, if the equivalent European product is still two years from service because of a stream of government-instigated delays. STAR 21 provides a strong foundation for the EU to continue as a player in the global aerospace industry. But it needs to act and act fast. There have been plenty of reports giving similar warnings and recommendations; it would be a sad day for Europe if STAR 21 joins them on the shelf simply gathering dust.

### **Aerospace is key to Europe’s economy: Laundry List**

### **European Commission 02**(July- STAR 21 Strategic Aerospace Review for the 21st century: http://ec.europa.eu/enterprise/sectors/aerospace/files/report\_star21\_screen\_en.pdf)

The aerospace industry has a key strategic role in ensuring a secure and prosperous Europe: A generator of wealth In 2000, the European aerospace industry employed 429 000 persons directly and many more indirectly, with a consolidated turnover of €72 300 million. Almost 15 per cent of turnover was spent on research and development. Exporting more than half its output, the industry provided a positive trade balance of about €1 900 million for the EU as a whole. Aerospace depends on an extended supply chain, including many small and medium-sized companies located in all 15countries of the Union. This complex industrial structure makes aerospace a leading contributor to wealth and employment all across the EU. Maintaining global competition Strong European aerospace capabilities have become indispensable to maintaining global competition across a wide range of products. The outstanding example is Airbus, in whose absence airlines would be left with no choice in the most important market segment of the civil aerospace industry. Choice of supplier is also vital for cost- effective government procurement programmes for defence and security. Home to key skills and key technologies Aerospace integrates and promotes the development of a wide range of skills, processes and technologies vital to maintaining a broad-based and prosperous economy. Prime manufacturers depend on a network of second and third tier specialist companies to meet their needs. These firms, operating at many different levels of the industry, are home to the key technologies essential for Europe’s future. Driver of innovation The aerospace industry is a powerful driver of innovation in the economy as a whole. It makes extreme demands on its products, requiring simultaneously safety and reliability, low weight, good economics and minimal environmental impact, enhanced power and high efficiency. The technologies developed for aerospace products provide spin-off in many different sectors. Services from space European industry has played a leading role in developing new services which rely heavily on space infrastructures, ranging from telecommunications to navigation and earth observation. Transport, telecommunications, media and other sectors of the economy including public bodies benefit from these capabilities, stimulating in turn innovative downstream activities.

### Aerospace is key to the economy, defense, and the environment

### Aerospace Defense Industries 10’ (AEROSPACE – POLICY MANIFESTO Flying towards Europe’s future, 2010, http://www.eutrio.be/files/bveu/asd-policy\_manifesto.pdf)

Aerospace is a crucial industry for our continent. It contributes to the achievement of many of Europe’s key socio-economic goals through: • Ensuring sustainable mobility; • Providing highly-skilled jobs; • Generating economic wealth; and • Fostering Europe’s knowledge economy through massive R&D investments. Thanks to its dynamism and innovative drive, the aerospace industry helps Europe achieve technological excellence and global leadership. It is a strategic asset for Europe’s future. The aerospace industry is also fully aware of its responsibilities towards Europe’s citizens. In particular, it is determined to continue making progress on the environmental front. However, today European aerospace stands at a crossroads. Europe must choose between making the necessary efforts in research and development to maintain the leadership of its aerospace sector, or to stand still, taking success for granted, and being exposed to rising competition from emerging aerospace powers. Europe must choose between giving its aerospace industry the means to develop environmentally-friendly technologies which will make tomorrow’s air transport sustainable, or to rely on regulation alone to solve environmental problems, letting other players develop new technologies and set new standards worldwide. The time for decision has come. This Manifesto aims to set a flightpath for the future of aerospace in Europe, in partnership with Europe’s policymakers.

### Aerospace is key to economic success

### Aerospace Defense Industries 10’ (AEROSPACE – POLICY MANIFESTO Flying towards Europe’s future, 2010, http://www.eutrio.be/files/bveu/asd-policy\_manifesto.pdf)

In Europe, the aerospace manufacturing industry generates a turnover in excess of €100 billion and directly employs nearly half a million highly-skilled professionals in long-term, sustainable jobs. It is a major contributor to the EU balance of trade: around three-quarters of Europe’s civil aviation output is exported outside of the EU. It is also one of the most R&D intensive sectors in Europe, dedicating more than 12% of its turnover to research and development). 20% of its employees work in R&D activities. Aviation (encompassing all its components: manufacturing, airports, airlines, air navigation, maintenance) represents around 2.3% of the EU GDP (i.e. roughly €275bn) and 3.4 million jobs.

### Aerospace sector creates economic growth

Ibt 11’ (ibt partners, IBT Partners provides International Business and Trade development services to Government economic development agencies and Corporate clients, 2011, <http://www.ibtpartners.com/sectors/aerospace>)

The aerospace sector\* has been one of the greatest sources for innovation and growth for the global economy since its inception. Yet the pace shows no sign of slowing and the 21st century will again be marked by developments in aerospace. Two key drivers for the sector today are the relentless demand for affordable air travel and the rising need for global security. According to a study carried out by Deloitte1, aerospace operating profits have increased from approximately $8 billion in 1995 to $30 billion in 2009 on an inflation adjusted basis. Among other factors, this has been achieved by use of digital product development, Six Sigma strategies, lean programs, and industry consolidation that resulted in greater economies of scale. Thanks to established efficiencies, aerospace products are of ever better quality and reliability, while also increasingly cost competitive.

## Aerospace K2: Technology

### Aerospace is a catalyst for innovation

### Aerospace Defense Industries 10’ (AEROSPACE – POLICY MANIFESTO Flying towards Europe’s future, 2010, http://www.eutrio.be/files/bveu/asd-policy\_manifesto.pdf)

Aeronautical technologies are catalysts for innovation, enabling the spill over of developments in many other areas. Beyond the direct technological catalyst effect, aerospace also has indirect and induced knock-on effect on other businesses, economic and technological sectors, thus further contributing to the growth of the European economy as a whole. Sustainable development and energy efficiency are of paramount importance to aeronautical innovation. The sector is also a catalyst for growth and skilled employment. As such, Aeronautics is at the heart of the EUROPE 2020 strategy and its flagship initiatives: Innovation Union – An industrial policy for the globalisation era – Resource efficient Europe.

### Aeronautics sector is the spearhead of technological innovation

### Aerospace Defense Industries 10’ (European Aerospace sector: R&T and innovation, 2010, http://www.asd-europe.org/site/fileadmin/aeroweek/ASD\_AW\_RnT.pdf)

The Framework Programmes in the field of aeronautics have continued to bring the full range of European aeronautics communities into truly effective and cooperative networks through ACARE. • The Aeronautics sector is at the spearhead of technological innovation. It provides competitive high-value products whilst enhancing the development of highly skilled researchers in Europe and critical Intellectual Property. • The beneficial effects of R&D undertaken by the European aerospace industry spread to other sectors of the economy. The social return to R&D spend in the sector is estimated to be 70%, compared with 50% for manufacturing as a whole. Every €100 million of R&T eventually generating additional GDP of €70 million year-after-year

## Aerospace K2: Competition

### Space exploration and development boosts the aerospace sector which leads to European space dominance

Ibt 11’ (ibt partners, IBT Partners provides International Business and Trade development services to Government economic development agencies and Corporate clients, 2011, <http://www.ibtpartners.com/sectors/aerospace>)

The situation in the European aerospace industry is particularly interesting. One of the goals set out by the EU is to create a “European Space Programme” by 2014. The programme is likely to include activities such as research and technology development, exploration and exploitation of space, and space activities related to navigation, Earth observation, science and exploration. Economic benefits coming from the implementation of the EU space programme include increases in employment and investments for both direct and indirect space sectors. Proposed objectives related to the exploration of the solar system are to support robotics missions to improve knowledge of the solar system and specifically Mars; to prepare future human flights to beyond the Earth’s orbit towards Mars and other bodies in the solar system, and to exploit the International Space Station for scientific and technological purposes. → In order to increase international cooperation with other space agencies (USA, China, India, Russia), to strengthen European leadership, and to fulfil the intended goals, the EU proposes to dedicate 1.8 billion € per year in the period 2014-2020; in addition to the European Space Agency’s own resources. This should transform Europe into one of the major world space players2.

### Europe must remain a leading space- faring nation in order to be competitive

ESA 07’ (11-9-2007, European Objectives and Interests in Space Exploration, <http://esamultimedia.esa.int/docs/exploration/EuropeanThemes/European_Objectives_in_Space_Exploration.pdf>)

50 years ago, humanity made its first tiny step into the Universe. Since then, many thousands of spacecraft and more than 450 people have been launched into orbit. Although most of the missions have been designed to operate in near-Earth space, several hundred robotic ambassadors have been despatched to distant worlds, and 12 people have walked on another world. Having reached its 50th anniversary, the Space Age has reached some degree of maturity. Many nations now recognise space as a highly visible activity that enhances their prestige in the international arena. At the same time, space is becoming a key driver for educational, economic, scientific and technological advancement. Against this background, it is essential that Europe, with its great heritage of exploration and broad experience of space activities, maintains its status as a leading space-faring nation.

### Aerospace is the key sector for Europe’s position in world politics

### Aerospace Defense Industries 10’ (European Aerospace sector: R&T and innovation, 2010, http://www.asd-europe.org/site/fileadmin/aeroweek/ASD\_AW\_RnT.pdf)

The European Aerospace Industry is a strategic asset for Europe. It is a world leader in advanced engineering, and a vital part of Europe’s prosperous economy. Its products are at the core of Europe’s mobility. It contributes to the EU agenda with respect to economical, social and environmental improvements. Innovation and breakthrough development are more than just an element of the sector’s strategy: they are an absolute necessity for the whole European Aerospace Industry. Worldwide competition is growing exponentially, both from highly subsidised established competitors and new entrance. For this reason, it is necessary to increase the level of R&T funding to address new and growing societal challenges.

### Europe cannot be left behind in the space race

ESA 07’ (11-9-2007, European Objectives and Interests in Space Exploration, <http://esamultimedia.esa.int/docs/exploration/EuropeanThemes/European_Objectives_in_Space_Exploration.pdf>)

Besides, exploration is associated with certain basic cultural aspects. Astronautics expands the intellectual horizon as well as the physical range of mankind considerably beyond the confines of our home planet, giving us not only technological progress but also the chance of gratifying our immanent wish to expand our sphere of existence. The future that we are planning and shaping during this conference will show whether Europe will retain the position of importance in this field which it enjoys in the cultural history of the world to this day. As Karl Kaiser, a political scientist, so poignantly put it, ‘If space should be populated only by Americans, Russians, Japanese and maybe Chinese by the end of the 21st century, this would have a symbolic significance of a profoundly political nature

## Aerospace K2: Military

### Aerospace plays a crucial role in Europe’s security and defense

EU 03’ (COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS - A Coherent Framework for Aerospace - a Response to the STAR 21 Report, 2003, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52003DC0600:EN:HTML)

As a high-technology and highly-skilled, dual-use industry, the European aerospace industry is uniquely placed to contribute significantly to these economic and strategic objectives. It plays a crucial role in maintaining Europe's industrial and technological capability for transportation, communication, observation, security and defence. A globally competitive aerospace industry is central to the achievement of Europe's economic and political objectives.

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## AT: Perm [Tradeoff]

### The perm prevents international backlash to US policies --- that’s crucial to EU leadership

Melvin 5 Don, Austin American-Statesman, 5/15, “The United States of Europe”, lexis

\* Europe, with its emphasis on communalism rather than rugged individualism, is increasingly seen as the model to emulate by nations seeking to integrate traditional culture with the forces of globalization. \* Europe has significant political influence, which can sometimes limit American options in the world, and which U.S. policy-makers and voters must take into account. The EU's increasing clout internationally stems from several factors, from the vastly greater amount of money that the EU spends on foreign aid compared with the United States to the strongly secular values it promotes at a time when America appears to be promoting what is perceived as a "Christian fundamentalist" agenda. The recipients of EU aid listen closely to European views. "There are about 80 countries around the world that cover 1.5 billion people for whom the European Union is the most important and critical player," said Leonard, director of foreign policy for the London-based Center for European Reform. Observers who believe that Europe is on the rise tend to applaud its emphasis on pooled sovereignty rather than heightened nationalism, on valuing sustainability over growth, and on lifestyle -- working to live rather than living to work. They argue that Europe, with its "soft power" emphasis on environmentalism, human rights and international cooperation, now offers a vision of hope to much of the world. They contend that its tactics of trying to reform Turkey and the Balkans by dangling the incentive of EU membership, and trying to negotiate nuclear regulation with Iran, are more suited to the 21st century than the "hard power" of unbridled military force that is often perceived to be the first option for Washington in the post-Sept. 11, 2001, world. "If you go to Tehran, if you go to Ankara, if you go to the Balkans, if you go to many Middle Eastern countries and North African countries, it is the European Union that is delivering change," Leonard said. Happy unity? The EU, of course, has its share of problems. The economies of France and Germany, two of the biggest member countries, are in the doldrums. And the effort to approve a European Constitution as a further step toward confirming the EU as a superstate appears to be in deep trouble, even in France, where the vote is scheduled for May 29. The constitution needs to be ratified by all 25 member states, a prospect that looks increasingly unlikely. Many Europeans also are coming to view the EU government in the Belgian capital of Brussels as a bureaucracy run amok, a group of rule-making officials remote from everyday life. And there is fear on the streets of EU capitals that the open borders inside Europe make each country more vulnerable to uncontrolled immigration. Indeed, not everyone agrees that the European Union is destined to integrate further and grow as a world power. Marian Tupy, assistant director of the Project on Global Economic Liberty at the Washington-based Cato Institute, compares Europe to the United States and sees slower economic growth, higher unemployment and a more pressing pension crisis. Beyond that, Tupy said, the EU now encompasses two rival philosophies: the newer members, the former Communist countries, are devoted to market capitalism while the older, western members are attached to socialism. The only glue holding the EU together is anti-Americanism, and even that could fade if the United States pursues a less "jingoistic" foreign policy, he said.

**Decline in NASA budget allows the EU to take over**

Friedman 11 (Louis Friedman, Cofounder and Executive Director of The Planetary Society, “European Leadership”, <http://www.planetary.org/programs/projects/space_information/20110221.html>) SV

The decision on which of these three large-class science missions to develop could come in the middle of this year. U.S. and JAXA decisions will clearly affect European decision making, and visa-versa. I am concerned that the lack of funding in the President’s proposed budget for an outer planet flagship mission, expected to be a Europa orbiter, might lead ESA to give up on its Ganymede companion. But perhaps it will have the opposite effect since it could be re-cast as an independent mission and allow Europe to take over from the U.S as the main outer planets explorer in the 2020s. LISA and IXO are more interdependent international missions, and LISA in particular will be affected by the proposed cuts in U.S. space science. IXO could be done solely with Japan, but Japan is having its own space science budget problems and might be influenced by the cuts in other countries.

**US decline in Space leadership allows the EU to gain power**

Ensinger 10 (Dustin Ensinger, Freelance Journalist, “NASA is Losing its Leadership Role in Space Exploration”, <http://www.economyincrisis.org/content/nasa-losing-its-leadership-role-space-exploration>, 4/15/2010) SV

Having already been knocked off its perch as the world’s top manufacturer, soon to be surpassed as the world’s largest economy and rapidly ceding international political influence, the U.S. could also lose its leadership role in space exploration. President Barack Obama is traveling to the Kennedy Space Center in Cape Canaveral, Florida, Thursday to unveil his administration’s plans for the National Aeronautics and Space Administration’s human space flight program. After announcing steep cuts to some NASA programs in February, critics have assailed the plan, saying the cuts will devastate the space program. "For the United States, the leading space faring nation for nearly half a century, to be without carriage to low Earth orbit and with no human exploration capability to go beyond Earth orbit for an indeterminate time into the future, destines our nation to become one of second or even third rate stature," a group of former astronauts and NASA officials wrote to the president in a letter. The president plans to shutter the Constellation program, which was supposed to eventually take American astronauts back to the moon. The administration said the program, which is still years in the making after $9 billion, was too costly and too slow. The president also plans to shutter the space shuttle program, which takes astronauts to the international space station. The president has said that he would encourage private companies to pick up the slack and develop the technology to fill the gap. In the mean time, the administration plans to hitch rides in Russian spacecrafts to the international space station. "America’s only path to low Earth orbit and the International Space Station will now be subject to an agreement with Russia to purchase space on their Soyuz (at a price of over 50 million dollars per seat with significant increases expected in the near future) until we have the capacity to provide transportation for ourselves," the letter from the former astronauts, which included Neil Armstrong, the first man to land on the moon, said. The budget cuts could provide an opening for an American rival to take the lead in the space exploration. At the same time that the U.S. is cutting its NASA budget, nations such as China, Russia, Brazil and India are ramping up their programs. **The European Union** also **appears to be emerging as a worthy adversary** as well. But, more than just national pride is at stake in the 21st Century space race. Being the leader in the field could pay huge economic dividends down the road. “Losing the lead in space has national-security and industrial consequences,” according to The Wall Street Journal. “Such industries as shipping, airlines and oil exploration depend on orbiting satellites to gather and send essential data. TV signals, cell phones, ATMs, some credit card machines and many Internet connections rely on space technology. Recent estimates peg global civilian and military spending on space and space-related technologies at more than $260 billion annually.”

## AT: Perm [Follower]

**Autonomous European action is key to EU soft power, economic development and innovation**

Eurospace 9 (ASD Eurospace, European Space Industry, “Space Exploration Position Paper”, <http://eurospace.pagesperso-orange.fr/Eurospace%20Position%20Paper%20on%20Space%20Exploration%20Oct_09.pdf>, 10/12/2009) SV

Lessons can be learned from the past experiences of Europe in international space cooperation. It has become obvious that the success and sustainability of a European exploration programme requires: - Autonomous European contributions: past experience, recent studies, workshops and discussions with the various stakeholders, demonstrate that European contributions to International Exploration programmes have to be built on autonomous developments. This is a requirement for sufficient independence in realising Europe’s technology roadmap. This should be based on the concept of building blocks, i.e. the development of autonomous European missions representing substantial contributions to larger international programmes (e.g. landing on planets, surface mobility, habitability, crew/cargo transport, scientific instruments, high rate telecommunications, etc...). - A coordinated European approach: a number of European space agencies have expressed interest in exploration missions, and initiated studies for national or bilateral lunar and Mars missions. For Europe to play a significant role at an international level, it is essential that such initiatives contribute to the overall European strategy in the development of the required technologies and capabilities. The European autonomous contributions to an exploration programme are to be selected in such a way that these promote innovation and technology development, applicable also to non space sectors like energy, health and Environment. The share of industry should enable building on the capabilities already developed but also allow for economic expansion and maintaining Europe at the forefront of technological excellence.

### EU independence is key-Cooperation makes the EU look like a follower and kills soft power

Peter 8 (Nicolas, Research Fellow at European Space Policy Institute, “Space Exploration 2025: Global Perspectives and Options for Europe” http://www.lpi.usra.edu/meetings/leagilewg2008/presentations/oct29pmSalonIII/Peter4088.pdf, 8/14/2008) SV

While Europe has invested enormous volumes in the last 50 years to become a leader in space, the plans of other countries are threatening Europe’s position in the future “space hierarchy” (Cf. Chapter 3). Space exploration is a global undertaking that will receive increased visibility in the decades to come. In an evolving multipolar space context, Europe should not lose its credibility as a reliable partner in space and create the impression that it is only a follower. Future space exploration activities will be a highly symbolic representation of Earthly powers and overall national standings and will undoubtedly be a persuasive method of demonstrating national power to the rest of the world. Therefore, Europe needs to be actively involved in space affairs including space exploration, because what is at stake is the future agenda-setting power of Europe in the international system, its abilities to shape the priorities and timing of events, and its abilities to attract the best partners in order to benefit from enabling opportunities wherever it supports European space exploration objectives, but also wider European policies goals. Following the evolution of the European space context with the adoption of the European Space Policy, the eventual entry into force of the Treaty of Lisbon, the EU will be able to increase its involvement in space activities (Cf. Chapter 3). The growing role of the EU in space exploration could ensure a higher degree of political visibility in Europe and the rest of the world. Europe and the EU, in particular, should thus engage in an ambitious long-term commitment to support space exploration in cooperation with ESA and national actors that could emerge as a new “flagship” programme following the footsteps of Galileo and GMES. This would imply in particular that the appropriate EU financial instruments in the framework of the multi-annual Financial Perspective and appropriate long-term Community investment are developed, because a “go-as-you-pay” approach should be avoided. Existing mechanisms such as the Framework Programme (FP) could be used to provide new institutional funding opportunities to European exploration activities in the context of the next FPs (post-2013). As a complement to the FPs, some TransEuropean Networks funds as well as the Competitiveness and Innovation Framework Programme (CIP) and other Community mechanisms could be used. The FP could also help to reach out to new partners to join this endeavour as it has considerably supported the involvement of non-European countries in European S&T activities as illustrated in Chapter 3.

## AT: Perm [Econ DA]

### Unilateral EU Space Policy is key-economic competitiveness, tech base, industrial innovation and S&T education

Stone 5/16 (Christopher Stone, space policy analyst and strategist at The Space Review, “Collective assurance vs. independence in national space policies”, http://www.thespacereview.com/article/1843/1, 5/16/2011) SV

Earlier this year, after the fanfare and applause by many for the new US Space Policy and National Security Space Strategy, the European Union released their long awaited space strategy. Despite numerous articles, commentaries, and international discussions about the merits and failings of American space policies released in 2006 and 2010, there is very little commentary on the EU’s new priority statement on space. This article outlines some views about this policy that national leaders could consider as the United States implements its policy that has been described by the Pentagon Space Policy office as “collective assurance.” The EU produced a highly unilateral document focused on the advancement of European domestic space capabilities. The EU space policy is based on years of meetings within the European Commission and its space council regarding the direction for Europe in space. The policy articulates goals and objectives within three main areas: strategic interests, security, and economic prosperity. Throughout the document, strategic language interweaves itself throughout with Euro-centric goals and objectives for its industry, economy, and civil and military arenas. This policy indicates that the Europeans understand the political and economic importance of space power as a vital interest, its impact on the everyday life of European citizens, and its affect on Europe’s quest for greater security, prestige, and wealth. Interestingly, the order and precedence of their strategic objectives were like a national-focused document with end states reflecting the interests of Europe first, and lacking the global flavor of the 2010 US space policy and follow-on strategy. The strategic goals of this document are not what many might expect: a US-modeled push for “interdependence”, “collective self-defense”, and further integration in the “global economy.” Rather, the EU produced a highly unilateral document focused on the advancement of European domestic space capabilities. These capabilities aim to enable “economic and political independence” for European citizens and a greater role for European excellence in space and worldwide. They view space as an area of strategic importance and acknowledge the need for enhanced military capabilities in space, in order to “strengthen its security missions.” Galileo is one example of many projects, where the Europeans desire is to remain independent and lead in other areas as well, such as space launch. One other key area to note is that this “independent access” to space is underscored by the statement that Europe will not rely on any foreign launch or service provider. This is interesting when comparing EU with current US plans and policy that project reliance on Russian Soyuz for human access to the International Space Station and American reliance on commercial and foreign partners overall. This US reliance on foreign partners could potentially lead to advantages for foreign commercial entities and possibly hurt, not help, US space industrial and high tech jobs. This is an area that shows potential strategic contradictions within the US policy and bears further scrutiny. Second, the Europeans’ vision for space power advancement includes growth for its domestic space industry and economic capabilities as well. The EU policy states, “a solid technological base [is required] if [Europe] is to have an independent, competitive space industry.” To advance the influence of the EU space industrial base globally, they recognize they must increase innovation. Like the US space policy that advocates increased innovation in research and development, the EU policy also advocates innovation but with a different tone. To promote “industrial competitiveness” in the marketing of European space technology, they see “the setting of ambitious space objectives” as the key to “stimulating innovation,” not endless funding of STEM (Science, Technology, Engineering, and Math) education initiatives to keep the youth excited about entering the apparently dwindling US space sector. They understand that beyond mere research and development alone, with no concrete commitment to any funded ambitious space objectives in space exploration and national security programs, their space industrial base will neither innovate nor compete on the world stage. As a result of this understanding, the Europeans desire a strong industry that will assist/provide the increased prestige and influence necessary for European space efforts to be advanced in multilateral forums.

### Space Industry key to the overall EU economy

EC-SAG 10 (European Commission Space Advisory Group, “Space Exploration, a New European Flagship Programme”, http://ec.europa.eu/enterprise/newsroom/cf/\_getdocument.cfm?doc\_id=6195, 10/10/2010) SV

The added value of the European space industry is well above the average of the EU’s economy as a whole, as is the case with all high-tech industries. While precise information concerning the added value of the European space industry is not available, figures from the UK indicate that the value added of the upstream space sector is approximately 60 percent of gross sales. 12 This means that if € 1 bn of public funds is spent on space exploration, it will lead to up to € 600 million in direct value added within the space industry itself. This figure is considerably higher than figures found in other industrial sectors.

### EU economic decline causes US and global economic collapse

Breslow & Lombardi 10 (Jason Breslow, Senior Writer at PBS, Domenico Lombardi, Senior Fellow at the Brookings Institute, “What Is the Next Sick Economy of Europe?, http://www.pbs.org/newshour/rundown/2010/05/who-is-the-next-sick-economy-of-europe.html, 5/27/2011) SV

DOMENICO LOMBARDI: At this moment, the crisis has already become European in full respect. The euro is a global currency. It's the second largest currency in the world after the dollar so whatever happens to the euro has repercussions for all the other economies in the world. We see that even in Beijing they are following the European crisis with increasing concern because they have seen their own currency, the renminbi, has been appreciating vis-a-vis the euro in a non-negligible way over the last few weeks. If the European economy does badly, they will be exporting less to Europe, which is really their most important trading partner . Therefore, they might feel less inclined to appreciate their own exchange rate vis-a-vis the dollar, as the Americans have requested several times, not least in the context of the recent high-level meetings they held in Beijing in the beginning of this week. What does all this mean for the U.S. and global economy? DOMENICO LOMBARDI: This crisis clearly at this stage has spillover effects not just in the euro area but also vis-a-vis third countries, including the U.S. And there are at least a couple of channels through which the U.S. economy may be affected. First, there may be a chilling effect in its own banking sector. Americans banks are not directly exposed to Greece. However, they are exposed to other European banks which in turn are exposed to Greece. In the absence of enough information, this may generate a chilling effect and therefore break down transactions in the financial markets even if it's on the other side of the ocean. There is also another effect, and that is because the euro is going to stay weak in the near future, European manufacturers will increase their competitiveness in selling their goods abroad and therefore they will be slightly better off than U.S. manufacturers. Clearly this may be a problem for an economy like the U.S., which needs to export more in order to create more jobs. And indeed, President Obama has made increasing exports really one of the goals of his own economic strategy. So all in all, we have seen that by not containing the crisis early enough, the crisis has now spread to the euro area and is threatening the stability of the global economy.

## AT: Perm [Econ DA] Ext.

### New Space policy is key to EU economic recovery

EC-SAG 10 (European Commission Space Advisory Group, “Space Exploration, a New European Flagship Programme”, http://ec.europa.eu/enterprise/newsroom/cf/\_getdocument.cfm?doc\_id=6195, 10/10/2010) SV

In a period of economic crisis and tight budgets when Europe needs to increase innovation and competitiveness, it is wise to consider if Europe should wait some years before a full recovery of the economy has been attained before making such a significant commitment. SAG considers that today is the right moment to invest in space exploration. It will be seen that Space Exploration triggers innovation, strengthens competitiveness and creates wealth, three actions required for the desired recovery. To delay the launching of a Space Exploration programme will lead to a loss of the present technical competences, difficulties to exploit European facilities 6 and the difficulty to retain the European talent in our private and public entities. Furthermore, there is a risk that European strategic partners in space will not wait for Europe and our role will be less important in the future and our research institutions and industry will not be able to reap the full benefits of the initiative.

## AT: EU Bad

### European Space Policy is civilian and nonagressive

Cheli 3 (Simonetta Cheli, ESA Technical Officer, “Space and Security Policy in Europe”, http://ec.europa.eu/enterprise/policies/space/research/towards\_a\_european\_vision\_for\_space\_exploration\_en.htm, October 2003) SV

The Thessalonica European Council launched the concept of an EU Security Strategy. This was an important step towards a better definition of the political basis of future space applications for security. Also, the decision to create an intergovernmental agency in the field of defence capacities development, research, acquisition and armament by 2004 represents a cornerstone for the development of security technologies, and thus for space activities, in the EU. In the United States, space technology is “military oriented” due to a military strategy increasingly based on the concept of “information dominance”. European space technology is more “civilian oriented”; in fact, it is dual-use. This duality has been established politically. The preamble of the ESA Convention defines its mission as one of “peaceful purposes”. The development of European security policy, which deals with how to “help secure peace and defend stability”, confirms the compatibility of this political orientation with the “non aggressive” use of technology. **The European space framework is exclusively civilian**. Major defence/security programs have been developed on a national basis, and sometimes through bilateral or trilateral cooperation in data exchange. The development of dual-use programs calls for a “European” approach to space security, able to link national defence and European civilian approaches.

## AT: International Fiat Bad

### International Fiat is Good:

### 1. Good Advocates – The aff should be able to defend USFG action, International fiat forces the aff to think critically in the context of world affairs to determine the desirability of the plan, forcing them to better advocate their aff. This is the only real impact in the debate: policy debate teaches kids how to be better advocates, so they can grow up to be effective senators or lawyers.

### 2. Best Policy Option – The Judge is a non-governmental agent who is testifying for a policy in front of a country. He can choose to advocate space exploration either in the United States federal government or the European Union.

### 3. International Education – Space exploration and “Getting off the Rock” is an inherently global issue, it as critical for us as policymakers to understand the capacity of other nations in space policy.

### 4. Counterplans are Opportunity Costs – Counterplans don’t involve fiat, the plan just means that a competitive policy is not possible. If they win it’s is not competitive, then that just means they win the perm and the Counterplan goes away.

### 5. Lit Checks Abuse – There are only so many countries who can possibly do the plan in the context of space exploration, there have only been 11 countries to ever go into space: the literature doesn’t support the topic explosion that the aff talks about.

### 6. Reject the Arg not the Team – Worst case scenario the CP goes away, all their arguments are a reason the CP is illegit, not reasons why we should lose the debate

# \*\*\*AFF ANSWERS\*\*\*

## Perm Solvency

### Only the Perm works-US involvement is key

Peter 8 (Nicolas, Research Fellow at European Space Policy Institute, “Space Exploration 2025: Global Perspectives and Options for Europe” http://www.lpi.usra.edu/meetings/leagilewg2008/presentations/oct29pmSalonIII/Peter4088.pdf, 8/14/2008) SV

Up-to-now, the EU and the European Commission (EC) has been reluctant to get involved in space exploration but this is evolving. As indicated in April 2008 by Vice President of the European Commission Günter Verheugen, Commissioner for Industry and Enterprise in charge of space policy in the EC, while acknowledging that relatively little resources are allocated for space exploration from the EC budget, indicated that this needs to change. For him, in the context of the international situation, it is perceived that space exploration done in cooperation could be a way to ensure the competitiveness of the industrial and scientific sector in Europe. This echoes the space policy speech given by French President Nicolas Sarkozy on 11 February 2008 that encourages the EU’s involvement in space and underlines that France considers the EU as the right vector for large projects with ambitions that go beyond the reach of any member State, but also to strengthen Europe’s assets in space exploration. Space exploration could therefore become a new Community initiative. As underlined by Vice President Günter Verheugen, space exploration (to Mars) should be done in the context of international cooperation with Europe’s main partners. President Nicolas **Sarkozy indicated also that a stand alone European exploration programme should not be considered insofar as it should only be elaborated in collaboration with the United States and other space-faring countries, since space exploration can be only a global endeavour.**

### NASA & ESA cooperation on Mars is possible with the ESA leading the way

Berger 10 (Brian Berger, Deputy Editor at Space News, “NASA-ESA Mars Mission is a Prelude to Future Endeavors”, http://www.spacenews.com/civil/100806-nasa-esa-mars-prelude.html, 8/6/2011) SV

WASHINGTON — Embarking on what both sides are hailing as the start of a sustained team effort to explore Mars, NASA and the European Space Agency (ESA) intend to lay the foundation for a long-desired mission to retrieve rock and soil samples from the red planet by launching a science orbiter in 2016 that will double as a communications relay for future landers. But the cooperative strategy for exploring the red planet comes at the price of NASA’s Mars Scout series of missions, which will be discontinued after the Mars Atmosphere and Volatile Evolution (MAVEN) mission, now slated to launch in 2013. The 2016 mission, which began coming together after NASA and the 18-nation ESA agreed last year to pursue a joint Mars exploration program, reached a key milestone Aug. 2 with the announcement of the five instruments that will comprise the orbiter’s scientific payload. Four of the instruments will be built in the United States and paid for by NASA, which also will contribute communications components and launch the probe aboard a U.S. Air Force Atlas 5 rocket. ESA will supply the platform for the ExoMars Trace Gas Orbiter and also contribute a small, short-lived lander designed to test an all-European entry, descent and landing system. A fifth selected instrument, a spectrometer proposed by a Belgian scientist, will be built in Europe. But even that instrument will have U.S. participation. “**ESA is leading the mission**, but we actually have the science lead for 2016,” Michael Meyer, lead scientist for NASA’s Mars Exploration Program, said in an Aug. 4 interview. Meyer said NASA expects to spend “a little over $100 million” on the instruments.

## EU Space N/U

### ESA already pursuing space policy

Space Daily 11 (Staff Writers at Space Daily, “ESA announces 2011 launch plans”, <http://www.spacedaily.com/reports/ESA_announces_2011_launch_plans_999.html>, 1/14/2011) SV

The head of the European Space Agency says rocket launch "traffic will be much heavier" in 2011 at its French Guiana spaceport. Jean-Jacques Dordain says the ESA's workhorse Ariane rocket will be joined by the Russian Soyuz vehicle and a new small launch vehicle called the Vega, the BBC reported Friday. This represents a major change in the way ESA will conduct its space activities, previously centered on the Ariane, Dordain said. "From this year, we will exploit three launchers in parallel -- Ariane, Soyuz and Vega," he said. "It will introduce some constraints because the traffic will be much heavier from [the spaceport], and I'm not so sure we've yet totally understood the constraints which are linked to the exploitation of three launchers instead of one." At the French Guiana spaceport, a completely new launch facility has been constructed for Soyuz, allowing the Russian-built vehicle to shift some of its operations to the ESA's South American spaceport from its traditional home of the Baikonur Cosmodrome in Kazakhstan. With three different rockets operating, the ESA spaceport is going to be extremely busy and launches could be occurring at the rate of about one a month in future, ESA officials said.

### Non Unique-The EU is already pursuing lunar exploration

Amos 10 (Jonathan Amos, BBC News science correspondent, “Europe plans large lunar lander”, <http://www.bbc.co.uk/news/science-environment-11305553>, 9/16/2010) SV

EADS Astrium has been awarded a 6.5m-euro contract by the European Space Agency (Esa) to do further detailed design work on the mission. The 700-800kg robot would be aimed at the lunar south pole, using automated systems to guide itself into a gentle, precision landing. Once down, it would release a small rover to trundle across the surface. "The lander will have a set of scientific instruments onboard but the science will be geared towards human exploration," said Simonetta Di Pippo, the director of human spaceflight at Esa. "We will be looking for minerals and, hopefully, water in the soil, to see if we can prepare for a sustainable presence on the surface of the Moon," she told BBC News. Recent spacecraft observations have indicated that some polar craters on the Moon probably hide vast reserves of ice deep in their shadows. The new study is being led by the German division of EADS Astrium. Michael Menking from the company observed: "This is an important technology project. For sure, it's dedicated to the Moon but if you can make a soft, precision landing on the lunar surface you can also do it on other planetary bodies as well."

## Economy N/U

### **EU economy will collapse inevitably- Greek debt crisis.**

Market News International 7-19-11(IMF: EMU Debt Crisis “Key Risk” To Europe And World Economy; http://www.forexlive.com/blog/2011/07/19/imf-emu-debt-crisis-key-risk-to-europe-and-world-economy/)

BRUSSELS (MNI) – The debt crisis spreading across the Eurozone is a “key risk” to Europe and the global economy, and government leaders need to do more to stop potentially “costly” spillovers, the International Monetary Fund warned Tuesday. In a report analysing the 17-nation Eurozone’s economic policies, the IMF urged leaders of the euro area to take quick action to stem contagion and restore market confidence. Actions taken by European governments so far have failed to convince the market that a sustainable solution for Greece is near, the Fund said. With a strong message aimed clearly at Eurozone heads of state and government who will meet in Brussels to discuss the crisis this Thursday, the IMF called for “clarity” in plans to involve private creditors in the crisis resolution efforts — the most divisive issue in the ongoing talks. The fund also recommended that governments of the Euro area act quickly to increase the scale and flexibility of the European Financial Stability Facility, the bailout fund for struggling members created in the wake of the initial Greek crisis last year. Some countries’ dependence lending from the ECB and other public entities is “unsustainable,” the IMF said. Although monetary policy remains “very accommodative” overall, non-standard liquidity support should continue as long as needed, the IMF said. The European Banking Authority last Friday found only eight banks in the EU too weak to pass its stress test scenario, but the IMF today warned that Eurozone banks were significantly exposed to sovereign credit risk, particularly to those of their own governments, and that some banks looked “vulnerable to further shocks.” The IMF urged banks in the Eurozone to raise their capital buffers above the minimum levels set by Basel III. IMF economists characterized the Eurozone’s recovery as “broadly sound” but “uneven and moderate overall.” They projected GDP growth of +2.0% in 2011 and +1.7% in 2012. Inflation should rise by +2.6% in 2011 and +1.8% in 2012, they predicted.

## EU Bad [Arms Race]

### EU military policy causes the an arms race

Synon 8 (Mary Ellen Synon, Freelance Journalist, “EU military space policy could lead to expensive 'Star Wars' arms drive, say experts”, http://www.dailymail.co.uk/news/article-1087939/EU-military-space-policy-lead-expensive-Star-Wars-arms-drive-say-experts.html#ixzz1QscopyGY, 11/20/2008) SV

The European Union is pursuing **a secretive military space policy** which **could lead to a costly 'Star Wars' arms drive**, a report warned yesterday. It accused Brussels of using the European Space Agency to develop technologies - including a multimillion- pound EU Satellite Centre in Spain - for use by military as well as civilian authorities. The Transnational Institute, a Dutch think-tank, said: 'EU-financed communication and spy satellites are slowly becoming reality and in the long term the inclusion of space-based missile defence and other more offensive uses of space are real options for an increasingly ambitious EU military space policy.' Next week, ministers from all ESA member states will meet in The Hague to implement a new European space policy which identifies military 'security' as a priority. A driving force behind the switch in policy is President Nicolas Sarkozy of France, which holds the European presidency until December 31. In July, he said the space agenda was one of his priorities. The think-tank report also said French ambitions for the militarisation of space have caused rows with Britain - particularly over Galileo, the much-delayed European global positioning system.

## No Solvency

### Internal divisions between EU members means no solvency

Selding 10 (Peter B. de Selding, Staff Writer at Space News, “Mistrust Dilutes Goodwill at Global Space Exploration Conference”, http://www.spacenews.com/civil/101021-mistrust-global-exploration-conference.html, 10/22/2010) SV

PARIS — An Oct. 21 conference of the world’s spacefaring nations to discuss space exploration featured a heavy dose of good feelings but also highlighted the mistrust that will slow the effort: Germany’s suspicions of France, France’s fear of being dominated by the United States, Russia’s distrust of long-term U.S. government policy, the U.S. distaste for new international bureaucracies and many governments’ refusal to start multibillion-dollar investments. Organized by the European Union, of which Belgium holds the six-month rotating presidency, the second International Conference on Space Exploration in Brussels, Belgium, confirmed the results of the first conference, held in Prague, Czech Republic, a year ago: It is difficult to discuss a space exploration strategy in the absence of one. The meeting ended with an agreement to meet in Italy in 2011 to pursue discussions, and to consider the creation of a group of experts to guide the effort. But alongside the statements that space exploration is of necessity a global enterprise calling for global cooperation, individual governments used the conference to raise less-noble issues that lurk beneath the surface. Peter Hintze, state secretary in the German Ministry of Economics, which leads German space policy, said Germany wanted Europe’s Ariane 5 rocket to be center stage in Europe’s exploration strategy. But he also threw a dart at France: “If the Ariane 5 is needed for an institutional mission and is not available, then this is a major problem in terms of cooperation. If it is required for an institutional mission, it should be available for that mission,” Hintze said, referring to the fact that the Ariane 5 launch of Europe’s Automated Transfer Vehicle-2 (ATV-2) to the international space station scheduled for December has been moved to February to permit the vehicle to conduct three commercial launches.

## Warming Impact D

### No warming now – not anthropogenic and their models are inaccurate

Hayward 10 (Steven F, F.K. Weyerhaeuser fellow at the American Enterprise Institute, 2010, The Weekly Standard, “In Denial,” http://www.weeklystandard.com/print/articles/denial)

This central pillar of the climate campaign is unlikely to survive much longer, and each repetition of the “science-is-settled” mantra inflicts more damage on the credibility of the climate science community. The scientist at the center of the Climategate scandal at East Anglia University, Phil (“hide the decline”) Jones dealt the science-is-settled narrative a huge blow with his candid admission in a BBC interview that his surface temperature data are in such disarray they probably cannot be verified or replicated, that the medieval warm period may have been as warm as today, and that he agrees that there has been no statistically significant global warming for the last 15 years—all three points that climate campaigners have been bitterly contesting. And Jones specifically disavowed the “science-is-settled” slogan: BBC: When scientists say “the debate on climate change is over,” what exactly do they mean, and what don’t they mean? Jones: It would be supposition on my behalf to know whether all scientists who say the debate is over are saying that for the same reason. I don’t believe the vast majority of climate scientists think this. This is not my view. There is still much that needs to be undertaken to reduce uncertainties, not just for the future, but for the instrumental (and especially the palaeoclimatic) past as well [emphasis added]. Judith Curry, head of the School of Earth and Atmos-pheric Sciences at Georgia Tech and one of the few scientists convinced of the potential for catastrophic global warming who is willing to engage skeptics seriously, wrote February 24: “No one really believes that the ‘science is settled’ or that ‘the debate is over.’ Scientists and others that say this seem to want to advance a particular agenda. There is nothing more detrimental to public trust than such statements.” The next wave of climate revisionism is likely to reopen most of the central questions of “settled science” in the IPCC’s Working Group I, starting with the data purporting to prove how much the Earth has warmed over the last century. A London Times headline last month summarizes the shocking revision currently underway: “World May Not Be Warming, Scientists Say.” The Climategate emails and documents revealed the disarray in the surface temperature records the IPCC relies upon to validate its claim of 0.8 degrees Celsius of human-caused warming, prompting a flood of renewed focus on the veracity and handling of surface temperature data. Skeptics such as Anthony Watts, Joseph D’Aleo, and Stephen McIntyre have been pointing out the defects in the surface temperature record for years, but the media and the IPCC ignored them. Watts and D’Aleo have painstakingly documented (and in many cases photographed) the huge number of temperature stations that have been relocated, corrupted by the “urban heat island effect,” or placed too close to heat sources such as air conditioning compressors, airports, buildings, or paved surfaces, as well as surface temperature series that are conveniently left out of the IPCC reconstructions and undercut the IPCC’s simplistic story of rising temperatures. The compilation and statistical treatment of global temperature records is hugely complex, but the skeptics such as Watts and D’Aleo offer compelling critiques showing that most of the reported warming disappears if different sets of temperature records are included, or if compromised station records are excluded. The puzzle deepens when more accurate satellite temperature records, available starting in 1979, are considered. There is a glaring anomaly: The satellite records, which measure temperatures in the middle and upper atmosphere, show very little warming since 1979 and do not match up with the ground-based measurements. Furthermore, the satellite readings of the middle- and upper-air temperatures fail to record any of the increases the climate models say should be happening in response to rising greenhouse gas concentrations. John Christy of the University of Alabama, a contributing author to the IPCC’s Working Group I chapter on surface and atmospheric climate change, tried to get the IPCC to acknowledge this anomaly in its 2007 report but was ignored. (Christy is responsible for helping to develop the satellite monitoring system that has tracked global temperatures since 1979. He received NASA’s Medal for Exceptional Scientific Achievement for this work.) Bottom line: Expect some surprises to come out of the revisions of the surface temperature records that will take place over the next couple of years. Eventually the climate modeling community is going to have to reconsider the central question: Have the models the IPCC uses for its predictions of catastrophic warming overestimated the climate’s sensitivity to greenhouse gases? Two recently published studies funded by the U.S. Department of Energy, one by Brookhaven Lab scientist Stephen Schwartz in the Journal of Geophysical Research, and one by MIT’s Richard Lindzen and Yong-Sang Choi in Geophysical Research Letters, both argue for vastly lower climate sensitivity to greenhouse gases. The models the IPCC uses for projecting a 3 to 4 degree Celsius increase in temperature all assume large positive (that is, temperature-magnifying) feedbacks from a doubling of carbon dioxide in the atmosphere; Schwartz, Lindzen, and Choi discern strong negative (or temperature-reducing) feedbacks in the climate system, suggesting an upper-bound of future temperature rise of no more than 2 degrees Celsius. If the climate system is less sensitive to greenhouse gases than the climate campaign believes, then what is causing plainly observable changes in the climate, such as earlier arriving springs, receding glaciers, and shrinking Arctic Ocean ice caps? There have been alternative explanations in the scientific literature for several years, ignored by the media and the IPCC alike. The IPCC downplays theories of variations in solar activity, such as sunspot activity and gamma ray bursts, and although there is robust scientific literature on the issue, even the skeptic community is divided about whether solar activity is a primary cause of recent climate variation. Several studies of Arctic warming conclude that changes in ocean currents, cloud formation, and wind patterns in the upper atmosphere may explain the retreat of glaciers and sea ice better than greenhouse gases. Another factor in the Arctic is “black carbon”—essentially fine soot particles from coal-fired power plants and forest fires, imperceptible to the naked eye but reducing the albedo (solar reflectivity) of Arctic ice masses enough to cause increased summertime ice melt. Above all, if the medieval warm period was indeed as warm or warmer than today, we cannot rule out the possibility that the changes of recent decades are part of a natural rebound from the “Little Ice Age” that followed the medieval warm period and ended in the 19th century. Skeptics have known and tried to publicize all of these contrarian or confounding scientific findings, but the compliant news media routinely ignored all of them, enabling the IPCC to get away with its serial exaggeration and blatant advocacy for more than a decade.

### We’ll adapt to any warming

Fred Singer, 12/29/10 (professor emeritus of environmental sciences at the University of Virginia, Washington Times, “SINGER: No proof man causes global warming ", http://www.washingtontimes.com/news/2010/dec/28/no-proof-man-causes-global-warming/)

Everyone accepts that Kyoto, never ratified by the U.S. and due to expire in 2012, would reduce the calculated temperature rise for 2050 by only 0.05Celsius - an unmeasurable one-twentieth of a degree. Programs and policies associated with Kyoto should therefore be scrapped - including uneconomic alternative-energy sources, carbon-capture-and-sequestration efforts and costly emission-trading schemes. All of these schemes waste money and squander scarce resources without in any way impacting on the climate. Humans have adapted to natural climate changes in the past; we should have no problem doing so in the future.

### Warming is natural, not anthropegenic:

Fred Singer, 12/29/10 (professor emeritus of environmental sciences at the University of Virginia, Washington Times, “SINGER: No proof man causes global warming ", http://www.washingtontimes.com/news/2010/dec/28/no-proof-man-causes-global-warming/)

Crucially, greenhouse models cannot explain the observed patterns of warming - temperature trends at different latitudes and altitudes. These data, published in a U.S. government scientific report in May 2006, lead me to conclude that the human contribution is not significant. Most of current warming therefore must stem from natural causes; it may well be part of a solar-driven 1,500-year cycle of warming and cooling that's been documented in ice cores, ocean sediments, etc., going back a million years.

## Prolif Impact D

### No risk of war—deterrence checks

Waltz 03 [Kenneth N. Waltz, Adjunct Professor of Political Science at Columbia University, “More May Be Better” The Spread of Nuclear Weapons: A Debate Renewed, W.W. Norton, 2003]

Fourth, while some worry about nuclear states coming in hostile pairs, others worry that they won’t come in hostile pairs. The simplicity of relations when one party can concentrate its anxieties on a single other, and the ease of calculating forces and estimating the dangers they pose, may be lost. Early in the cold war, the United States deterred the Soviet Union, and in due course, the Soviet Union deterred the United States. As soon as additional states joined the nuclear club, however, the question of who deterred whom could no longer be easily answered. The Soviet Union had to worry lest a move made in Europe might cause France and Britain to retaliate, thus possibly setting off American forces as well. Much worries at once complicated calculations and strengthened deterrence. Somebody might have retaliated, and that was all a would-be attacker needed to know. Nuclear weapons restore the clarity and simplicity lost as bipolar situations are replaced by multipolar ones.

## Middle East Impact D

Iran will never cancel its nuclear program

Hasson 10 (Nir Hasson, MIT Grad Student and writer for Haaretz News, “Clinton: U.S. has no plan to strike Iran over nuclear program”, February 17, 2010, http://www.haaretz.com/news/clinton-u-s-has-no-plan-to-strike-iran-over-nuclear-program-1.263497)

Iran earlier Wednesday said it will not give up uranium enrichment and the West must get used to an Iran that is a "master of enrichment," Tehran's envoy to the UN nuclear watchdog was quoted as saying. Iran was "always ready to talk in a civilized manner," Ali Asghar Soltanieh said in an interview with New Statesman, a British current affairs magazine. "But the West just has to cope with a strong Iran, a country with thousands of years of civilization, that is now the master of enrichment. I know it is hard for them to digest, but it is the reality," he said. "Iran will never give up enrichment - at any price. Even the threat of military attack will not stop us," the Iranian ambassador to the International Atomic Energy Agency said.

Iran will never negotiate to end its nuclear program

BBC 10 (BBC News, “Q&A: Iran and the nuclear issue”, January 22, 2010, [http://news.bbc.co.uk/2/hi/middle\_east/4031603 .stm](http://news.bbc.co.uk/2/hi/middle_east/4031603%20.stm))

On 9 September 2009, Iran handed what appears to be its reply - a five page letter called "Cooperation for Peace, Justice and Progress". The letter offers global talks on a range of international issues, including global nuclear disarmament, but does not mention Iran's own nuclear work. President Ahmadinejad had said earlier that discussion of the Iranian nuclear issue was "finished" and that he would never negotiate on "the Iranian nation's obvious rights."