Volume 09 Number 06 – Wednesday, 08 February 2017

Part I: Denmark

Part II: Epicos Newsroom

Denmark: Defence Budget and Future Defence Procurements

The Danish Armed Forces consist of the Royal Danish Army, the Royal Danish Navy, the Royal Danish Air Force and the Danish Home Guard (with local presence across the country, it is a voluntary military organisation supporting defence and civilian authorities).

Their main tasks at a national level, besides operations related to monitoring of the national territory and enforcement of sovereignty, are more civil-oriented operations, such as search and rescue, environmental tasks, as well as provision of support to public authorities (e.g. police, emergency rescue services, tax authorities). At an international level, the Danish Armed Forces are engaged in armed conflict and stabilisation tasks, as well as international policing operations.

As per the data published by the Danish MoD (Ministry of Defence), the main cost categories of the Defence Expenditure are Joint Expenses, Military Defence and Emergency Management (See chart below for the related appropriations for the year 2016).

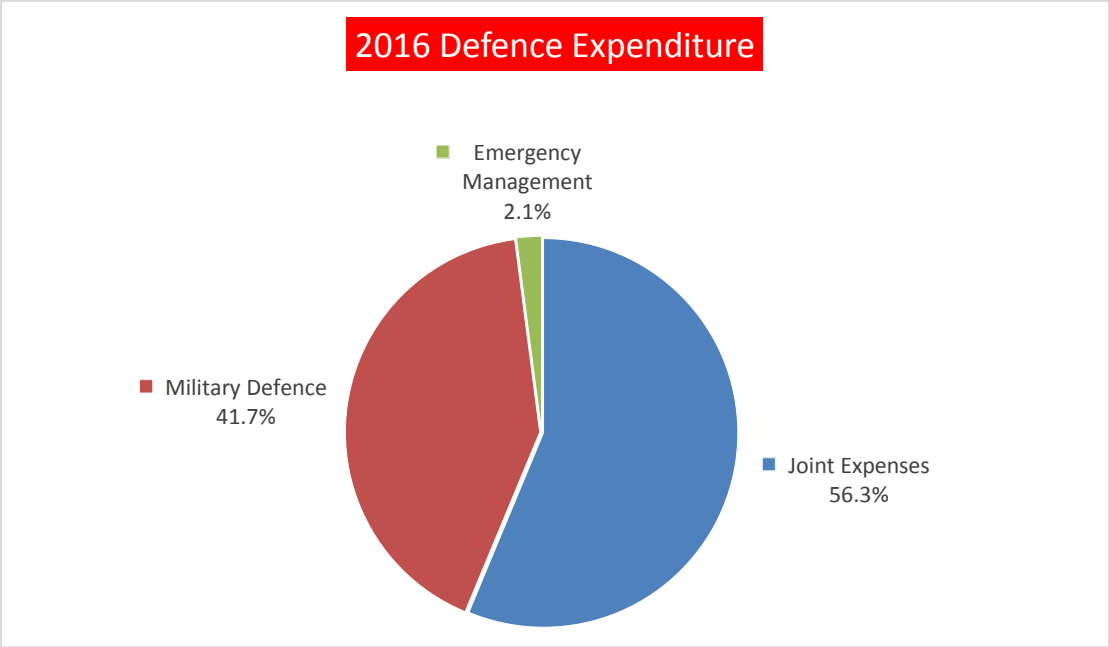

Chart Source: http://www.fmn.dk/eng/allabout/Pages/Defenceexpenditure.aspx

The Defence expenditure allocated by the government, amounted to DKK 22.78 billion, in 2015. Governmental expenditure for Social protection, Health and Education accounted for a staggering 71.4% of the 2015 Budget, while General public services for a further 13.5%, and Defence for just 2% (see chart below).

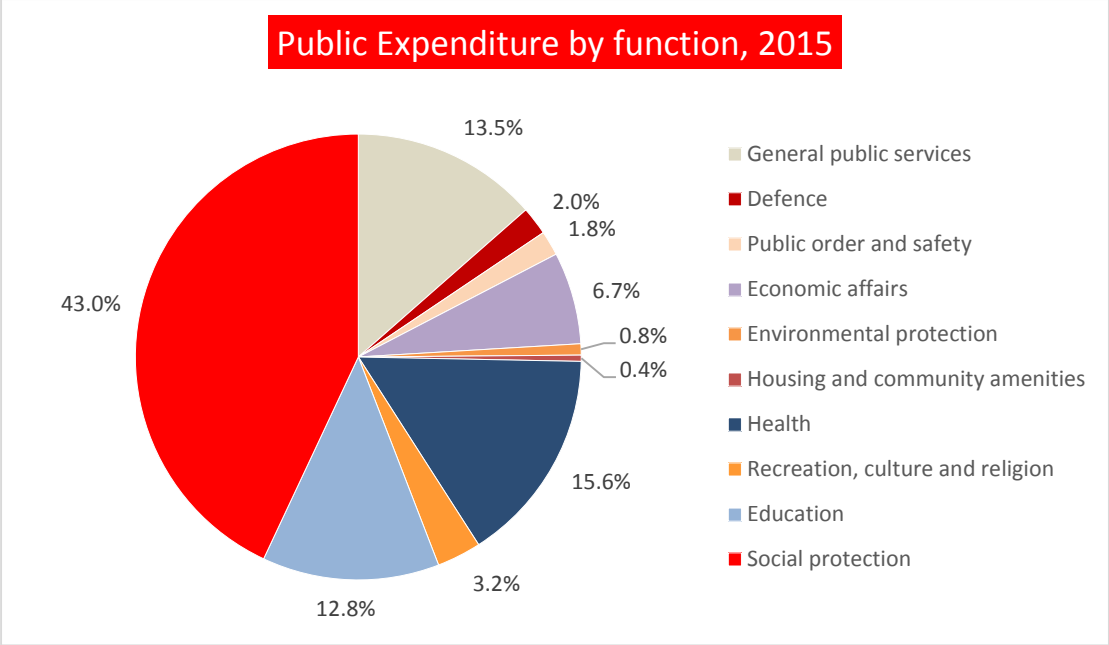

Chart Source: http://www.statbank.dk/off29

Considering the geopolitical situation of Denmark after the end of the Cold War, which found the country surrounded by friends and allies, the 2% allocated for Defence expenditure is quite expectable. Characteristically, Danish public expenditure on Defence, has not exceeded in the last 15 years or so, the 3% mark (See chart below).

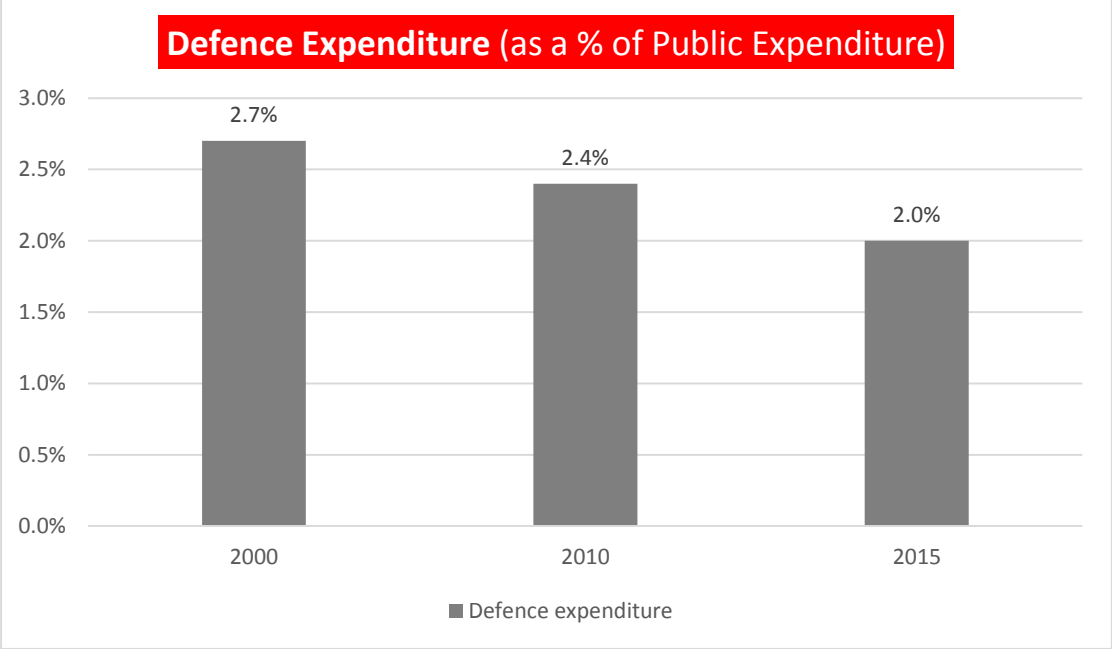

Chart Source: http://www.dst.dk/en/Statistik/Publikationer/VisPub?cid=21500

According to the five-year Danish Defence Agreement (for the period 2013-2017), Denmark's military expenditure, was reduced during the 2013-2015 period as a % of GDP, and reached DKK 21.04 billion (€2.83 billion), in 2016. This trend is to further continue according to the government's projections, up to 2019, with minor exceptions (See chart below).

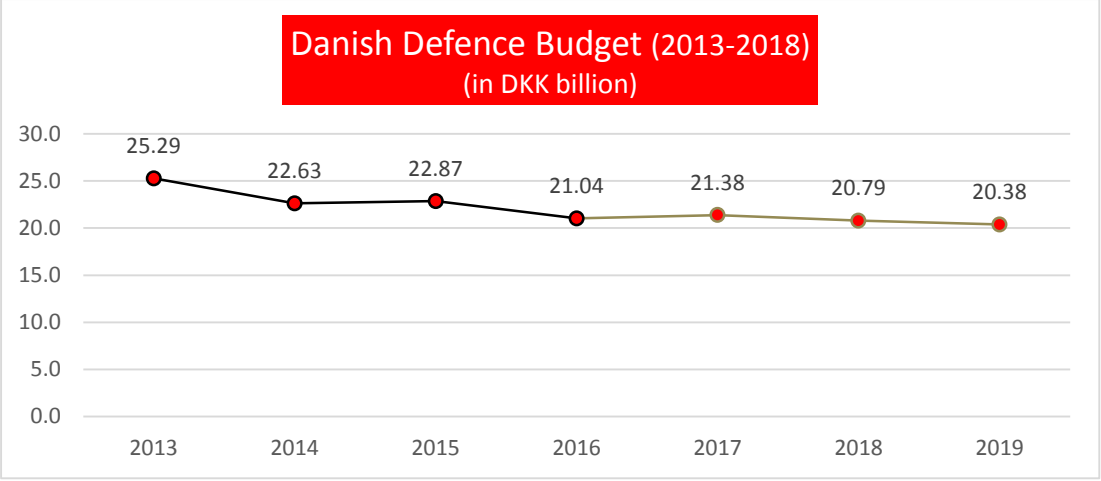

Chart Source: http://www.dst.dk/Site/Dst/Udgivelser/GetPubFile.aspx?id=22256&sid=nat
http://www.fmn.dk/eng/allabout/Pages/Defenceexpenditure.aspx

However, the increased global insecurity as a result of terrorism and cyber-attacks, in addition to the planned tasks in the Arctic area –i.e. increased responsibilities for search & rescue, environmental protection-, imply the need for Denmark to raise its defence budget; it is indicative that Denmark is the only country in the Baltic region that has not yet responded to this new norm.

However, Denmark has always been a country with a 'proactive' defence policy, based to a great extent on its cooperation with other nations and its participation as an ally to the UN, the EU and NATO. Considering the latter, realising the importance of NATO, as a cornerstone of its security guarantee, Denmark has committed to put an end to the decline of its defence expenditure in real terms, and try to move towards the 2% of the GDP spending goal, agreed by the NATO members.

For 2016, the Defence Budget has been distributed to the items indicated in the following figure, with Personnel (46%), Administration (25%) and Equipment Management (18%), accounting for the lion's share.

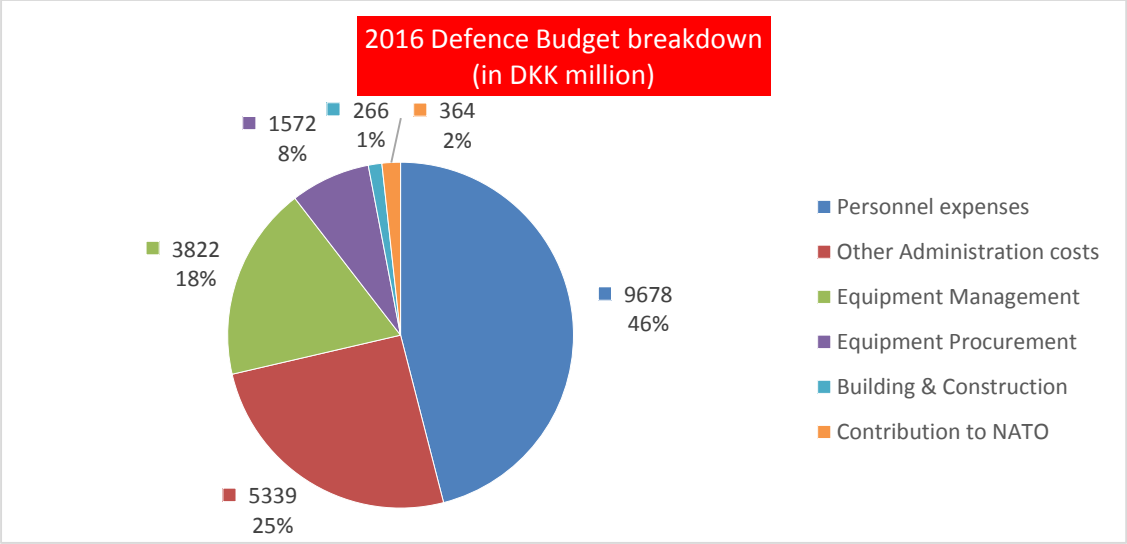

Chart Source: http://www.fmn.dk/eng/allabout/Pages/Defenceexpenditure.aspx

In a different breakdown by the Danish Ministry of Defence, the areas of "Equipment and IT", and "Joint Services Defence Command" were the main 'recipients' of the 2016 Danish Defence Budget (see chart below).

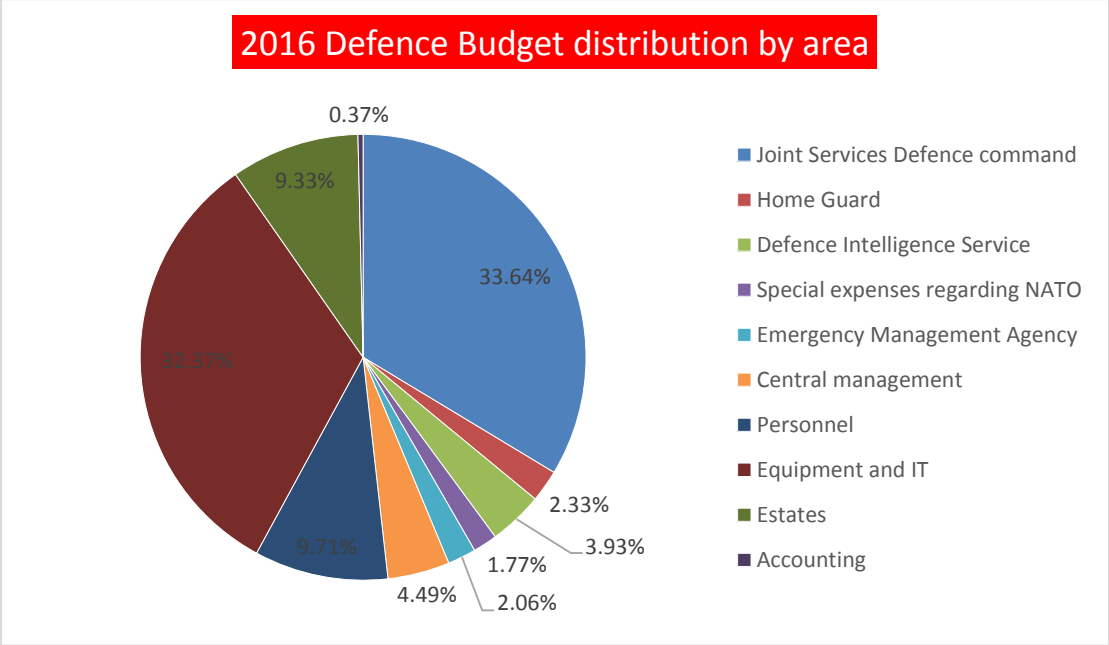

Chart Source: http://www.fmn.dk/eng/allabout/Pages/Defenceexpenditure.aspx

Major strategic directions + Future procurements

In order to address potential threats and preserve the security of its nation, the Danish Defence Strategy focuses on six main directions:

- A competitive international defence market
- Beneficial framework for the defence industry
- Cooperation between the Ministry of Defence and the Danish Industry
- International cooperation regarding acquisitions and development
- Security of supply
- Industrial cooperation

Realising the fragile environment outside its borders, and in order to address potential threats to its territory in the future, Denmark is, amongst other items, focusing on investments in cyber-security, surveillance and intelligence technologies.

Future Procurements of Defence equipment

According to 2014 data of the Danish Defence Acquisition and Logistics Organisation (DALO), the specialised materiel centre and logistics authority of the Danish Armed Forces, the following new defence platforms, equipment and materiel were to be procured from 2015 onwards:

- For the Army:
  - ✓ Heavy 120mm Mortar Systems

- ✓ Satellite communication systems/ Vehicle mounted SATCOM terminals
- ✓ Electronic Counter Measures systems (self–propelled, for protection) - both vehicle mounted and hand-held
- ✓ Broad range of Sensor systems (Night Vision, weapon sights and Nano-UAS)
- ✓ Armoured 4x4 Patrol Vehicles
- ✓ Laser Target Designators
- ✓ Remote controlled Weapon Stations
- ✓ Army Simulation Systems
- ✓ Containers and Logistic Vehicles
- ✓ 155mm artillery systems
- ✓ All types of ammunition
- ✓ CBRN protection suites and equipment

- For the Navy:
  - ✓ Close in Weapon System
  - ✓ Fast (Motor) Rescue Boats (initially 3 units are to be procured)
  - ✓ Scan Sonar replacement/Mine Counter Measures (MCM) modularity
  - ✓ IFF Mode 5 upgrade
  - ✓ Continuous Wave Illuminators replacement
  - ✓ Vessel Traffic Service radar replacement
  - ✓ Replacement of Navy RHIBs (Rigid-Hulled Inflatable Boats)
  - ✓ Upgrade of Tactical Data Links

- For the Air Force:
  - ✓ Terminal Control Area Radars acquisition/TACAN - Tactical Air Navigation
  - ✓ F-16 M6 Simulator update
  - ✓ EH-101 Simulator
  - ✓ Fennec scout helicopter update
  - ✓ Encrypted radio communications for F-16
  - ✓ EH-101 IFF Mode 5 upgrade
  - ✓ APS-143 surveillance radar replacement (Challenger 604 aircraft)
  - ✓ F-16 replacement (F-35 selected; 27 aircraft to be procured)

Many of the related sourcing procedures are well underway, if not already awarded. Further requirements materialised and are already underway for: Military Terrain Capable Trucks (400-500 vehicles); MASTIFF III IEDD vehicles; 155mm Artillery systems (15 self-propelled); C2IS systems, including the Battle Management System for the Army; the acquisition of Environmental Protection Vessels; and, semi-automatic cameras and sensor systems for identification, classification and verification of ships. In addition, a number of current assets of the Armed Forces were to be upgraded (e.g. the Leopard 2 Main Battle Tank, the CV9035 DK Infantry Fighting Vehicles, the C-130 aircraft, the F-16 aircraft targeting pods, the TPS77 radars).

Defence Imports

When compared to some years earlier, arms imports have recorded a decrease in the last five years (2010-2015). In order to tackle the new arisen challenges, Denmark has obtained

weaponry able to confront tactical threats, as well as national and international operations. The main arms imports, during the latter referred period, consisted mostly of Sensors, Naval Weapons, Engines and Missiles (see chart below).

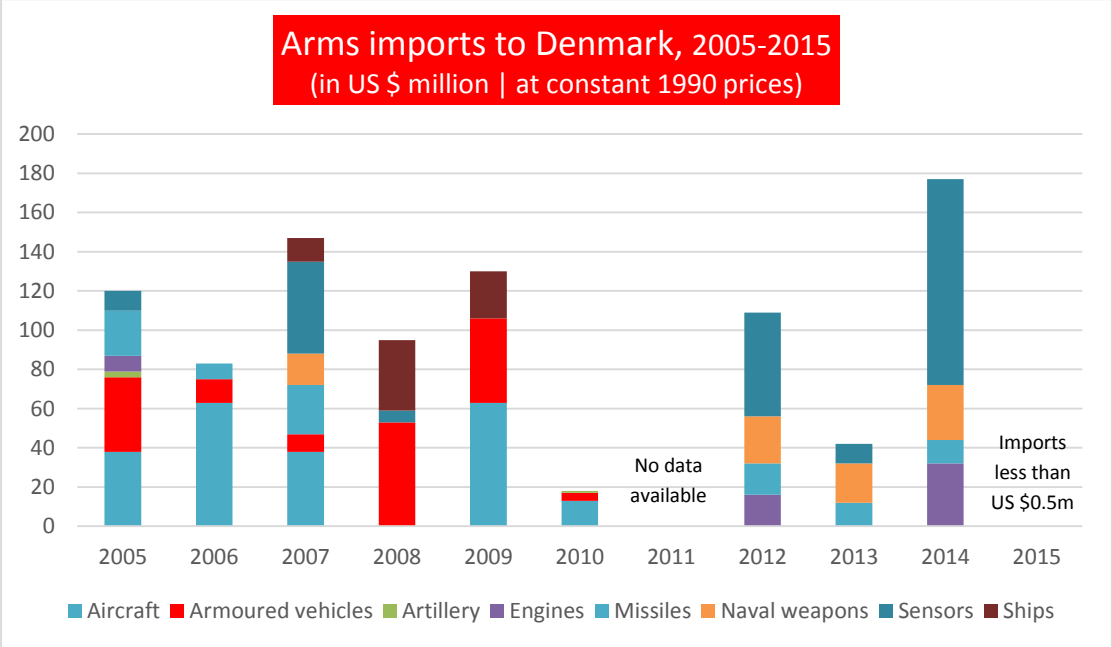

Chart Source: http://armstrade.sipri.org/armstrade/page/values.php

According to SIPRI (Stockholm International Peace Research Institute) data, in the last ten years, the main providers of Defence equipment to Denmark, were the US (24.6%), the UK (19%), Sweden (17.7%), the Netherlands (16.6%), as well as Germany (12.8%), Switzerland (8%) and Israel (1.2%), (see chart below).

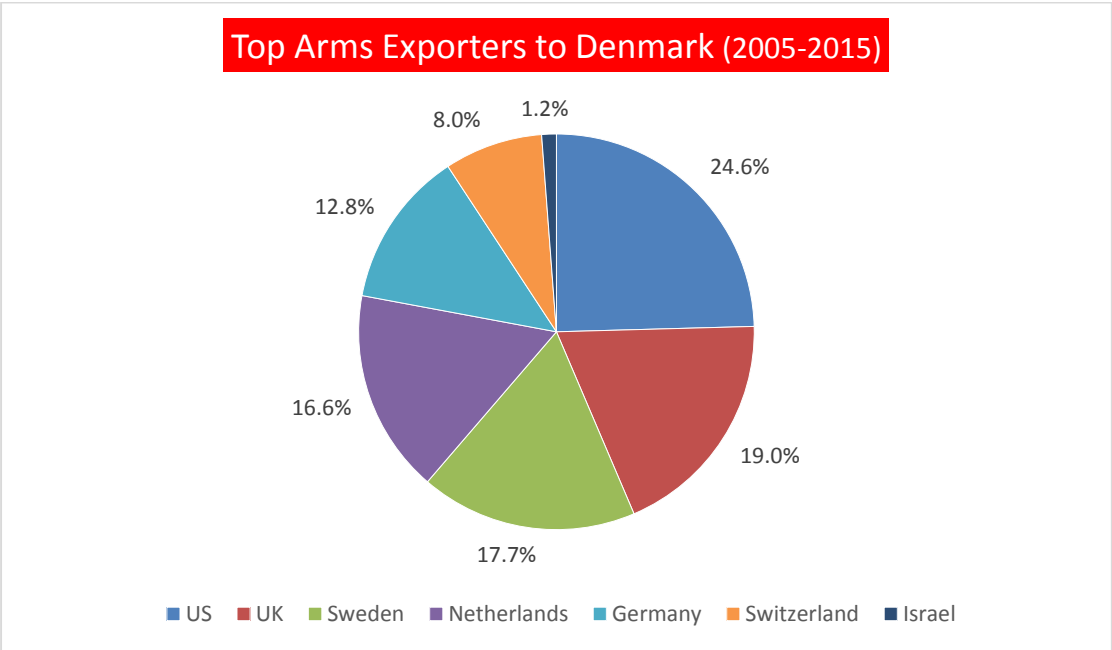

Chart Source: http://armstrade.sipri.org/armstrade/page/values.php

Danish Defence Industry

Denmark has approximately 450 companies supplying products and services to the wider defence, security and aerospace industries. These companies are primarily subcontractors, specialised in niche markets. The annual turnover of the Danish Defence Industry, has fluctuated somewhere between €240 and €400 million over the last 5 years. In 2015, the total annual revenue of the Danish Defence Industry increased by some €36 million to €338 million, when compared to the 2014 results. Moreover, due to the projected large national procurements (as per above), associated revenues are expected to record further growth, in the next few years. As an example, as a result of the mid-2016 decision to replace the ageing F-16s with 27 state-of-the-art F-35 aircraft, the Danish government hopes that the eventual value in spin-off (industrial participation) contracts for the local industry, could exceed the total capital investment cost for the programme, of some US $8.5 Billion.

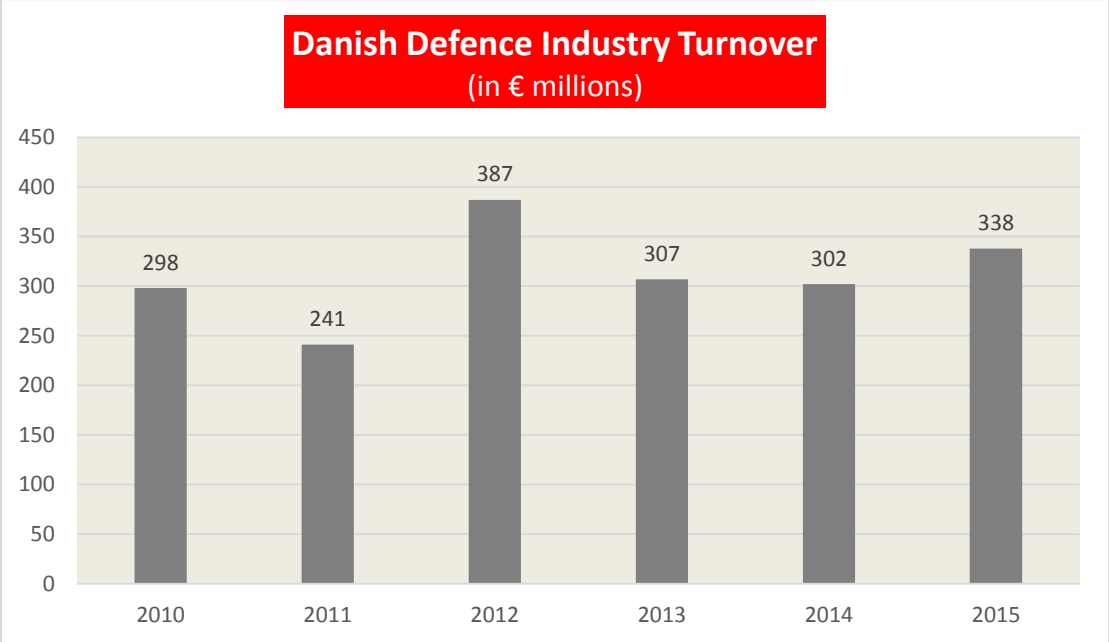

Chart Source:
http://fad.di.dk/About%20FAD/Newsandpress/Pages/TurnoverofDanishdefenceindustry2015.aspx

A large number of Danish Defence industry companies develop defence electronics, including software, command and control systems, surveillance and radar technology, as well as ammunition, ballistic protection solutions, minesweeping equipment, parts and systems for armoured vehicles and naval vessels.

In the Aerospace domain, Danish companies provide electronic and mechanical components for aircraft, helicopters and missiles, in addition to certification, support, maintenance and training services. In addition, in relation to space-based platforms, for commercial and/or

military purposes, Danish companies provide high-tech electronics for satellites and space rockets.

Danish defence companies rely heavily on exports to western allies, as about 80% of their products are sold abroad, while more specifically, about 50% of these exports are destined for the US and the other 50% for EU countries, mainly the UK, Sweden, Norway, France, Germany, Finland and Spain.

In the frame of the sizable on-going and future defence acquisitions by the country up to 2025 (as per in previous), export sales of the indigenous defence industry are expected to grow, especially in relation to parts, components and systems integrated in fighter aircraft, maritime helicopters, armoured personnel carriers, radars and communication systems, surveillance and cyber security solutions. To this end, and with the same horizon (i.e. up to 2025), the Danish Defence Ministry has foreseen some €6.3 billion, for capabilities' building.

FAD is the national organisation of the Danish defence, security, aerospace and space industry and the focal point of all matters relating to this, at a national and international level. Acting on behalf of the Danish Defence, Security and Aerospace industries, FAD is the forum for networking, cooperation and coordination in Denmark. In addition, FAD is actively involved in the development of policies affecting the aforementioned sectors, and represents the industry in EDA (European Defence Agency), ASD (Aerospace and Defence Industries Association of Europe), NIAG (NATO Industrial Advisory Group), NORDEFCO (Nordic Defence Cooperation) and other international organisations.

FAD is divided in in permanent industry groups, in which members can develop their business in a specific field of interest. Specifically, the following industry groups have been established under FAD:

- FAD Land (19 member companies)
- FAD Space (15 member companies)
- Danish Industry Fighter Aircraft Group (DIFAT) (17 member companies)
- Helicopter Group (10 members)
- Allied Ground Surveillance (AGS) Group (6 member companies)

There is a prevalent belief from both members of the Danish Armed Forces, as well as NATO's R&D community, that Denmark does not invest significant efforts or resources in R&D for Defence. To an extent this can be justified due to the small size of the Danish Armed Forces and the fact that Denmark has traditionally relied on COTS/MOTS technologies, but also in part as a conscious choice of this Scandinavian country. However, considering the new 'hybrid' risks that arise worldwide and the fact that Denmark has opted-out of the EU's CSDP (Common Security and Defence Policy), which as a result excludes the country from collaborating in EDA programmes, it seems imperative for Denmark to invest further in R&D for defence applications.

Epicos "Industrial Cooperation and Offset Projects"

Epicos "Industrial Cooperation and Offset Projects" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met…

For Further Information Press Here

Development of an advanced Dynamic Noise Reduction (DNR) algorithm for hands-free communication devices used in mixed noise environments

A leading technology provider, designer and manufacturer of hands-free communication solutions for demanding use, is proposing the development of a universal Dynamic Noise Reduction (DNR) algorithm to be used in several hands-free communication devices, applied in several military and homeland security applications.

For Further Information Contact our ICO Department
Mail at: a-kintis@epicos.com

Rigid tubes and hoses manufacturing for A&D applications

A company specialised in the production and commerce of hoses, control cables and rigid tubes for aircraft is willing to act as a lower tier subcontractor in the development and manufacturing of rigid tubes and hoses for A&D applications worldwide.

For Further Information Contact our ICO Department

Mail at: a-kintis@epicos.com

News from our A&D Business Network

KONGSBERG Signs Contracts for PROTECTOR RWS with Switzerland

KONGSBERG has signed new contracts for delivery of PROTECTOR RWS to armasuisse for approximately MNOK 130. The remote weapon system that will be delivered to armasuisse is an updated configuration with new advanced capabilities for new platforms. “KONGSBERG has delivered PROTECTOR remote weapon systems to Switzerland since 2007. This configuration is the result of a close cooperation with the customer to develop the system for a new generation of platforms,” says Espen Henriksen, President of Kongsberg Protech Systems.

The PROTECTOR RWS protects military troops by allowing the vehicle's weapons to be operated from a protected position inside the vehicle. As of today, PROTECTOR has been chosen by 18 nations and KONGSBERG is the world’s leading provider of remote weapon systems.

For Further Information Click Here

Boeing Agrees to Provide Wind Updates Solution for Etihad Airways

Boeing today announced that Etihad Airways signed a contract to introduce the Boeing Wind Updates solution into the airline's operations. The tool will increase efficiency and reduce fuel consumption across the carrier's global operations. By integrating the Wind Updates offering from Boeing Commercial Aviation Services, Etihad Airways can leverage real-time information to improve in-flight airplane performance based on atmospheric conditions. Boeing Wind Updates will optimize flight operations fleet-wide for Etihad Airways.

"Improved decision making by our flight crews and reduced fuel consumption are two of the hallmark features of the programme that we look forward to implementing with this agreement," said Richard Hill, chief operations officer at Etihad Airways. "Being aware of real-time wind data and their related conditions will enhance situational awareness in the flight deck, enabling us to fly the most efficient routes possible."

More current and accurate weather data is expected to reduce fuel consumption for Etihad Airways by an average of 200-400 lbs (90-180 kgs) of fuel per flight. Overall, Boeing Wind Updates will improve in-flight performance for Etihad Airways aircraft by providing customized, real-time wind and temperature information during every flight anywhere in the world.

"Helping customers drive increased operational efficiency through our integrated portfolio of flight optimization solutions allows airlines to improve bottom line results," said David Longridge, vice president, sales and marketing, Boeing Commercial Aviation Services. "Boeing Wind Updates is a key component of these optimization services and we look forward to assisting Etihad Airways in reaching its operational goals."

For Further Information Click Here

Epicos NewsRoom

Schiebel Camcopter® S-100 Unmanned Air System (UAS) Wins Contract with Royal Australian Navy (RAN)

The Royal Australian Navy released an international Request for Tender (RfT) in late February 2016 for a UAS capability. Schiebel was very pleased to be able to submit a comprehensive proposal to deliver the latest version of its highly successful CAMCOPTER® S-100 UAS. After thorough proposal evaluation and completing negotiations, the contract was signed at the end of December 2016. Hans Georg Schiebel, owner of Schiebel Group, emphasizes: "We feel most honored by the Royal Australian Navy's decision to purchase our CAMCOPTER® S-100 UAS. We are sure that the S-100 will prove to be an effective asset that will set a new benchmark for UAS capability."

As the experience of the company's diverse maritime customers shows, the CAMCOPTER® S-100 improves the situational awareness of ship-borne operations substantially, making it the number one short-range tactical unmanned aircraft for naval applications. The CAMCOPTER® S-100 holds an impressive track record of supporting naval customers, with missions successfully completed on over 30 different ships on all the world's oceans, in every environment from the tropics to the Arctic.

For Further Information Click Here

Source: Epicos, Schiebel

Mikros Systems Corporation Announces $35 Million Contract Award for the Adaptive Diagnostic Electronic Portable Testset (ADEPT®)

Mikros Systems Corporation announced today that it has received a follow-on multi-year Small Business Innovation Research (SBIR) Phase III contract award from the Naval Surface Warfare Center at Crane, IN for delivery and support of Mikros' Adaptive Diagnostic Electronic Portable Testset (ADEPT). The award is an indefinite delivery, indefinite quantity (IDIQ) contract with a maximum value of $35.1 million over five years.

This contract covers procurement of ADEPT systems, together with engineering and technical services, logistics services, data management, training, calibration and repair of test sets. Mikros anticipates multiple deliveries and task orders in 2017, and will provide more details as such time as the subsequent orders are awarded.

For Further Information Click Here

Source: Epicos, Mikros Systems Corporation

DynCorp International Awarded War Reserve Materiel III Contract

On January 23, DynCorp International (DI) was awarded a contract by the U.S. Air Forces Central Command (USAFCENT) for War Reserve Materiel III (WRM III). This award is for a five-month base and seven option years, for a grand total of $412 million. DI will provide WRM storage, maintenance, outload, reconstitution, exercise and contingency logistics support. DI will also provide maintenance and repair and minor construction of Government furnished facilities. Work will be performed in Kuwait, Oman, Qatar and United Arab Emirates, to start February 1.

DI has been awarded WRM requirements in the Middle East continuously since 2000.

“The length of time we have worked on WRM is a true testament to the outstanding men and women who support this critical mission and the U.S. Government’s confidence in our ability to provide the highest quality of service,” said Randy Bockenstedt, head of DI Logistics programs.

“Key capture manager, Frans Nauta, was a critical leader in this win. Sadly, Frans passed away before we were notified of the award,” said Tim Edwards, business development lead for DI Logistics programs. “His efforts were vital in this pursuit and DI wishes to recognize his dedication.”

For Further Information Click Here

Source: Epicos, DynCorp International (DI)

Comtech Telecommunications Corp. Receives $1.6 Million Order for Location Gateway and Positioning Equipment

Comtech Telecommunications Corp. (Nasdaq:CMTL) announced today that during the second quarter of fiscal 2017, its Commercial Solutions segment has received a $1.6 million funded order from a major U.S. mobile network operator for the supply of Location Gateway and Location Positioning products.

Fred Kornberg, President and Chief Executive Officer of Comtech Telecommunications Corp., commented, "Comtech is honored to continue offering this unique capability to our customer, delivering added value to its products and services. This long-standing customer relationship is a testament to our commitment of providing advanced, market-leading location products, and we look forward to our collaboration throughout the upcoming years."

Comtech Telecommunications Corp. designs, develops, produces and markets innovative products, systems and services for advanced communications solutions. The Company sells

products to a diverse customer base in the global commercial and government communications markets. Certain information in this press release contains statements that are forward-looking in nature and involve certain significant risks and uncertainties. Actual results could differ materially from such forward-looking information. The Company's Securities and Exchange Commission filings identify many such risks and uncertainties. Any forward-looking information in this press release is qualified in its entirety by the risks and uncertainties described in such Securities and Exchange Commission filings.

For Further Information Click Here

Source: Epicos, Comtech Telecommunications Corp.

AAR Signs Landing Gear Overhaul Contract with SkyWest, Inc.

Global aerospace leader AAR has signed a three-year agreement to provide landing gear overhaul and exchange services for SkyWest, Inc.'s (NASDAQ: SKYW) operating carriers. The agreement, which covers landing gear assemblies and sub-assemblies on its fleet of more than 400 Bombardier CRJ aircraft, includes the option to extend to five years.

The agreement builds on a relationship with SkyWest that dates to the 1990s. AAR, which will perform the work at its landing gear repair station in Miami, has previously provided similar services for SkyWest Airlines and ExpressJet's fleet of Bombardier commercial passenger jets.

"This latest contract is a testament to the quality AAR delivers and the loyalty AAR earns from our customers," said Troy Jonas, Vice President of MRO Services, AAR. "SkyWest and ExpressJet carry over 56 million passengers a year, and AAR's team in Miami recognizes the role that our work plays in delivering them safely to each gate."

SkyWest, Inc. is the holding company for two scheduled passenger airline operations that provide commercial air service in cities throughout North America. Together, SkyWest Airlines and ExpressJet Airlines operate nearly 3,000 daily flights carrying more than 56 million passengers annually through partnerships with United Airlines, Delta Air Lines, American Airlines and Alaska Airlines.

"We're pleased to secure this agreement with a proven landing gear provider," said Bill Dykes, SkyWest Airlines' Vice President of Maintenance. "We know from experience that we can count on AAR as a reliable partner."

For Further Information Click Here

Source: Epicos, AAR