

Key Skills and Competences for Defence

EDA contract reference: 14.CPS.OP.030

Annex B

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The work described in this report was carried out under EDA contract. Responsibility for the contents resides with the organisation that prepared it.

RAND Europe

RR-1226/1-EDA
10 March 2015

Annex B - Current and Prospective European Equipment Programmes

This Annex accompanies Chapter 3 and presents three tables:

- A table of current procurement programmes with major involvement (design and production) of European defence industry (Table B.1)
- A table of maintenance and upgrades requirements currently on contract (Table B.2)
- A table of prospective requirements treated as likely in open source literature (Table B.3)

The data underpinning this Annex comes from publically available sources; principally: IHS Jane's, IISS Military Balance 2014 and SIPRI Trade Register. Additional search with regard to specific programmes was conducted through other open source literature such as defence magazines (e.g. Defence Industry Daily), company press releases and other public media websites (e.g. the Guardian, the BBC, etc).

The difficulty to access accurate data on cost, schedule, workshare arrangements or even the full coverage of a given contract in the defence sector is well known. Using publically available data naturally carries with it several risks in terms of its accuracy:

- Publically available data is likely to underestimate the number of procurement programmes as some programmes will not be made known to open sources due to national security reasons or due to lack of transparency. The level of information varies per programme and per country (i.e. cost and schedule information is not available for many large programmes)
- Publically available data on cost of programmes is likely to underestimate the true cost¹
- Publically available data points are difficult to validate and verify and different information may appear in different (and equally reliable) sources

With these caveats in mind, this Annex seeks to provide some indication of developments in the European defence equipment market, with a focus on those programmes that require significant design and production contribution by European companies (and hence 'European' skills). Our analysis does not consider joint programmes with majority share of non- EU companies (such as the Joint Strike Fighter Programme) even though we do recognise that these programmes contain an element of EU companies' involvement and thus their skills (especially in areas such as management, certification and maintenance).

¹ See past RAND studies highlighting underestimation of cost in defence procurement such as Arena et al (2006).

Table B.1. Current procurement programmes²

Type of equipment	Specific designation (recipient country)	Producer (country)	Delivery schedule	Quantity	Contract value	Notes	Sources
Guided precision weapons	SCALP Naval (FR)	MBDA (FR, UK, IT)	From 2013 Deployment on Aquitaine - class in 2014 Deployment on Barracuda - class on 2017	200	Originally 910m EUR BUT for 250 msl	Order cut from 250 to 200 Originally 200 to be fitted on Aquitaine-class frigates (16 per ship) and 50 on Barracuda (12 per ship)	ISS.2014. <i>The Military Balance 2014</i> . London: Routledge Missile threat. 2013. 'SCALP Naval/MCDN.' George C. Marshall and Claremont Institutes, 2 April 2013, 4:50 p.m. As of 08/12/2014: http://missilethreat.com/missiles/scalp-navalmdcn/
Guided precision weapons	Meteor (FR)	MBDA (FR, UK, IT)	2018	200	Unknown	Next generation Beyond Visual Range Air-to-Air Missile system (BVRAAM) that will totally revolutionise air-to-air combat in the 21st century : new technology so new skills	ISS.2014. <i>The Military Balance 2014</i> . London: Routledge MBDA. 'Meteor, Beyond visual range air-to-air missile (BVRAAM)'. As of 08/12/2014:

² AT= Austria, BE=Belgium, DE= Germany, ES= Spain, FI= Finland, FR= France, IT= Italy, NL= Netherlands, PL= Poland, SE= Sweden, UK= United Kingdom

						Compatible with Eurofighter, Typhoon, Rafale, Gripen and potentially F-35 Lightning II Joint Strike Fighter	http://www.mbdasystems.com/mediagallery/files/Meteor_ds.pdf
Support weapons / small arms/ artillery	F.21 heavyweight torpedo (also called Artemis) (FR)	DCNS (FR) and Atlas Elektronik (DE)	2015		420 million EUR (2008)	First production missile manufactured from the end of 2012	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
Support weapons / small arms/ artillery	IRIS-T SLS (SE)	Diehl Defence (DE) German-led consortium, which also includes Italy, Norway, Sweden and Greece	2016		SEK1 billion (2013) for the initial tranche according to some Swedish accounts	For trials in late 2015 and are expected to be commissioned in 2016 To be used on Barracuda class submarines	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
Support weapons / small arms/ artillery	IRIS-T SLS (ES)	Diehl Defence (DE) German-led consortium, which also includes Italy, Norway,	2010-2020	700 operational missiles, 70 training missiles and associated	247.32 million EUR (2009)	Funding to integrate IRIS-T on Spain's EF-18 Hornets has also been earmarked.	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Spain.'

		Sweden and Greece		test and support equipment			
Support weapons / small arms/ artillery	L43A5 105mm Illuminating artillery shells (UK)	BAE Systems (UK)	2014-2016	60 000 rounds	20.31 million EUR (2014)		BAE Systems, 2014. 'BAE Systems wins \$16,8 million illuminating shell contract', 7 April 2014.
Support weapons / small arms/ artillery	Common Anti-air Modular Missile (CAMM)(UK)	MBDA (FR, UK, IT)	2016 (in-service-time 2015-2020)		583.72 million EUR (2012)	Development of the Sea Ceptor shibome local area defence system for the Royal Navy	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.'
Guided precision weapons	Future Anti-Surface Guided Weapon - Heavy (FASGW-H) (for both France and the UK)	MBDA (FR, UK, IT)	At best tested in 2017-early 2018 France is planning to equip its NH90 by 2020		USD827 million (2014)	Project to replace the legacy MBDA Sea Skua air-to-surface missile; and France's Anti-Navire Léger (ANL) light anti-ship missile programme. A MoU was signed by David Cameron and François Hollande on 31 January 2014 for the production of the FASGW. Integration contract was awarded to Augusta Westland by the UK for GBP90 million	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' Defense Industry Daily, 2014. 'Light Naval Strike: MBDA's Sea Venom / ANL Missile'. 28 October 2014, 05:12 p.m. As of 08/12/2014: http://www.defenseindustrydaily.com/light-naval-strike-mbdas-fasgw-h-anl-missile-012879/

Support weapons / small arms/ artillery	Vulcano extended-range projectile programme (IT)	Oto Melara (IT)	2015-2016				IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'
Support weapons / small arms/ artillery	RBS-15 Mk-3 (DE)	Diehl (DE) Licence contract with Saab (SE)	2014-2016	15	SEK168 m (\$25 m) deal (SEK83 m option on more) (2012)		SIPRI Register Trade
Support weapons / small arms/ artillery	127/64LW (DE)	Oto Melara (IT)	2012-2018	5	EUR70 m deal; for 4 F-125 frigates produced in FRG and 1 for training (2007)		SIPRI Register Trade
Support weapons / small arms/ artillery	Krab Self-Propelled Howitzer (PL)	HSW (PL) [license agreement with BAE System (UK)]	2020	24	PLN500 million (2012)		IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
Support weapons / small arms/ artillery	PzH-2000 155mm (Qatar)	Rheinmetall (DE)	2015-2018	24	Part of EUR1.9 b deal (2013)		SIPRI Trade Register
Guided precision weapons	Paveway IV (Saudi Arabia)	Raytheon (UK)	2015	2400	GBP150 m (\$250 m) (2013)	Paveway-4 version for Typhoon and modernised Tornado combat aircraft	SIPRI Trade Register

A vehicle	VBCI 8x8 (FR)	Nexter (FR)	2008-2015 (already 400 in service in 2013)	630	EUR3.49 billion (2012)	<p>Additional order for 332 in Sept. 2009 bringing the total amount to 630 Renault is in charge of the mobility systems and on board electrical networks Nexter is responsible for the armoured hull, interior furnishing, assembly and integration of the turret and vehicle, observation, command and control, weapons and self-protection system The first 5 prototypes were delivered in 2004 and the first 3 production vehicles in May 2008</p>	<p>IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.' Sénat, 2012. 'Projet de loi de finances pour 2013: Défense: équipement des forces'. As of 08/12/2014 : http://www.senat.fr/rap/a12-150-8/a12-150-815.html#toc290</p>
A vehicle	Puma (DE)	PSM (DE)	2014 for the first ones, production should be completed in 2020 but could be extended	350	EUR3.1 billion (for 405 vehicles as initially ordered), revised down to EUR2.7 billion (2012) for 350	<p>342 IFVs and 8 driver training vehicles Training of vehicle and maintenance instructors should begin by the end of the year, with training of operational users to begin in mid-2015. Two of the five pre-production Puma IFVs have been fitted a pod of two EuroSpike long-range anti-tank guided</p>	<p>ISS.2014. <i>The Military Balance 2014</i>. London: Routledge Foss, Cristopher. F. 2014. 'German Puma IFV moves towards service'. IHS Jane's/Berlin, 2 September 2014. As of 08/12/2014: http://www.janes.com/article/42659/german-puma-ifv-moves-towards-service</p>

						weapons, and it is anticipated that this will be fitted to production vehicles. Installation of a defensive aids system (DAS) developed by Airbus Defense and Space.	
A vehicle	Leopard 2A6 (Qatar)	Krauss-Maffei & Maschinenbau Kiel (DE)	2015-2018	62	Part of EUR1.9 b deal (2013)	Leopard-2A7 version	SIPRI Trade Register
A vehicle	Rosomak (PL)	WZM (PL) [license agreement with Patria (FI)]	2014-2019	307	USD544.1 million (2013)	Additional order bringing the country's inventory to 877 vehicles Incl. mortar carrier, command and reconnaissance versions	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
B vehicle	Military trucks (PL)	HSW (PL)	2014-2018	910	USD218 million (2013)		IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
B vehicle	Utility vehicles (ES)	UROVESA (ES)	2014-2019	770 (this notably includes 185 AMV APC + 122 AMV IFV)	EUR149 million (2013)	99 to be handed over to the navy over a five year period from 2014	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Spain.' SIPRI Trade Register
A vehicle	Badger - AMV IFV	License agreement with	2015-2022	238	ZAR8.8 b (\$1.2 b)	'Hoefyster' programme (incl 222 produced in	SIPRI Trade Register

	(South Africa)	Patria (FI) (70% produced in South Africa)					South Africa with up to 70% of vehicle incl turrets produced in South Africa); most IFV version; South African designation Badger	
B vehicle	WZT-3M (India)	Zakłady Mechaniczne Bumar-Łabędy S.A. (PL) (licence contract)	From 2014	204	\$275 m (2011)			SIPRI Trade Register
A vehicle	CV-90 (Norway)	Hagglunds, Bofors (SE) (licence contract)	2015-2017/2018	103	Part of NOK6 b (\$750 m) (2012)		Offsets 100% incl production of components in Norway Part of NOK10 b programme Includes 88 to be fitted with turrets from old Norwegian CV-9030 IFV and 15 command post version	SIPRI Trade Register
A vehicle	CV-9030 (Norway)	Hagglunds, Bofors (SE) (licence contract)	2015-2017/2018	7	Part of NOK6 b (\$750 m) (2012)		Offsets 100% incl production of components in Norway Part of NOK10 b programme. Includes 88 to be fitted with turrets from old Norwegian CV-9030 IFV and 15 command post version	SIPRI Trade Register

B vehicle	Tpz-1 Fuchs (Algeria)	Rheinmetall Landsysteme (DE)	2015-2025	1200			SIPRI Trade Register
Non-nuclear submarine	S-80A (ES)	Navantia (ES)	2014-2017	4	EUR2.13 billion (2013)	Delay for redesign reasons First vessel S-82 to be delivered in 2014	ISS.2014. <i>The Military Balance 2014</i> . London: Routledge
Non-nuclear submarine	Katsonis-class (Type-214) (HE)	TKMS (HDW) (DE)	2004-2016	6	EUR2.03 billion (2010)	First commissioned Dec 2010 3 further vessels launched but commissioning stalled	ISS.2014. <i>The Military Balance 2014</i> . London: Routledge
Nuclear submarine	Successor-class SSBN (UK)	BAE Systems / Rolls Royce / Babcock Marine (UK)	By 2028	6	Total of: GBP15-20 billion (2006 White paper, cited in NAO Major Projects Report 2013) Concept phase: GBP66 million	Reactor easier to operate than the current reactors, requires less maintenance, and has a longer operational life, meaning that the Successor submarines will be able to stay in service until the 2060s.	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' NAO Major Projects Report 2013
Non-nuclear submarine	Second batch of two Todaro-class (Type 212A) (IT)	Fincantieri (IT)	2015 and 2016	2	EUR915 million (2008)	Already two submarines of this class commissioned in 2006 and 2007	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'
Non-nuclear submarine	Scorpene (Brazil)	DCNS (FR) (licence contract)	2017-2021	4	Part of EUR6.8 b 'SDP' programme (2009)	SBR version	SIPRI Trade Register
Non-nuclear submarine	Scorpene (India)	DCNS (FR) (licence contract)	Delayed from 2012-2017 to	6	INR207-230 b (\$4.1-4.5 b) (2005)	'Project-75' programme	SIPRI Trade Register

		2016/2017- 2021/2022					
Non-nuclear submarine	Type-214 (Turkey)	HDW (DE) (Licence contract) (U214/1200 Cerbe class has an 80% industrial offset provision, with Golcuk Naval Shipyard (Turkey) retaining its position as the build location. STM (Turkey) will assist.)	2015-2020	6	EUR2.2 b	Replacement of older boats like Turkey's U209-based Preveze and Atilay classes	SIPRI Trade Register Ege Bekdil, Burak. 2014. 'Turkish-German Submarine Deal Faces Setbacks'. Ankara: DefenseNews: 8 November 2014, 03:45 a.m. As of 09/12/2014: http://www.defensenews.com/article/20141108/DEFRE G01/311080012/Turkish-German-Submarine-Deal-Faces-Setbacks Defense Industry Daily. 2014. 'Today's special: Turkey subs'. 13 May 2014, 06:06 p.m. UTC. As of 09/12/2014: http://www.defenseindustrydaily.com/todays-special-turkey-sub-rfi-02088/
Non-nuclear submarine	Todaro-class (Type-212) (IT)	HDW (DE) (licence contract)	2015-2016	2			SIPRI Trade Register
Non-nuclear submarine	Type-214 (South Korea)	HDW (DE) (Licence contract)	2014-2020	6		'KSS-2' programme	SIPRI Trade Register
Non-nuclear	Type-	HDW (DE)	From 2016	2			SIPRI Trade Register

submarine	209/1500 (Egypt)									
Nuclear submarine	SNBR (Brazil)	Joint venture comprising Odebrecht (Brazil) and DCNS (FR)	2025	1	Part of EUR6.8 b 'SDP' programme (2009)	Nuclear reactor designed and produced in Brazil				SIPRI Trade Register Naval-technology.com. 2014. 'Brazil building new nuclear submarine to safeguard offshore resources'. 4 June 2014. As of 09/12/2014: http://www.naval-technology.com/news/newsbrazil-building-new-nuclear-submarine-to-safeguard-offshore-resources-4284615
Frigate	Aquitaine - class (FR) - FREMM	DCNS (FR)	First one on Nov. 2012 / Next one scheduled on May 2012 and launched on Oct. 2012; 5 to be delivered 2014-2019; 8 have been ordered; 11 are planned Expected in service: 2022	11	USD23.6 billion					IISS.2014. <i>The Military Balance 2014</i> . London: Routledge Barreira, Victor. 2014. 'Second French FREMM completes sea trials'. IHS Jane's/Lisbon, 28 June 2014. As of 08/12/2014: http://www.janes.com/article/40094/second-french-fremm-completes-sea-trials
Frigate	Baden-	TKMS (DE)	2016-2018	4	EUR2 billion (2007)					IISS.2014. <i>The Military</i>

	Wurttemberg class (DE)								<i>Balance 2014</i> . London: Routledge
Frigate	Bergamini-class (IT)	Orizzonte Sistemi Navali (FR, IT)	2013-2017 (in-service time 2021)	6	EUR1.6 billion (2008)			Third ship Carlo Margottini is 76% complete and delivery is expected for February 2014. Carabiniere , 54% completed, Alpino, and Luigi Rizzo - respectively the fourth, fifth, and sixth FREMM - will follow in February 2015, 2016, and 2017	ISS.2014. <i>The Military Balance 2014</i> . London: Routledge
Multi-purpose frigate	Karel Doorman-class (NL)	Damen Schelde (NL)	2014	1	EUR364million (2009)				ISS.2014. <i>The Military Balance 2014</i> . London: Routledge
Carrier	Queen Elizabeth - CV class (UK)	Aircraft Carrier Alliance, partnering relationship between BAE Systems, Thales UK, Babcock and the Ministry of Defence (UK)	2014-2016	2	GBP3.9 billion (2008)			ISD delayed until 2018 and 2020 Trials expected to begin on 2016 British engineers constructing the Royal Navy's largest ever warships have invented a novel mobile application to help them find their way around one of the most complex workplaces in the world.	ISS.2014. <i>The Military Balance 2014</i> . London: Routledge BAE Systems, 2014. 'Assembly begins on HMS Prince of Wales', 10 September 2014.

Frigate	Type-26 class (UK)	BAE Systems (UK) + many subcontractors and partners	From 2016 In-service time from the 2020's - mid-2030's (remaining in service till 2060)	13	GBP158million (2010) for Assessment phase	They are designed to replace the existing Type 23 frigates, which, under current planning assumptions, will be phased out of service at the rate of about one a year beginning in 2019, with the last Type 23 ship retiring in 2036. The Type 26 will form the backbone of the RN fleet until at least 2060.	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.', NAO Major Projects Report, 2013.
Frigate	Sigma-105 (Indonesia)	Licence contract: manufacturing on Schelde shipyard (NL)	2017	1	\$220 m (2013)	Includes production of components and assembly in Indonesia Part of 'PKR' programme; SIGMA-10514 version	SIPRI Trade Register
Amphibious / landing craft	Canberra-class (Australia)	BAE Systems Australia Navantia (ES) (licence contract)	2014-2015	2	AUD3 b (\$2.4b) (2007)	First ship commissioned in November 2014 'Project Sea-4000' Phase-4A/B/C'	SIPRI Trade Register Hardy, James. 2014. 'Australia receives first Canberra-class LHD'. IHS Jane's Defence Weekly, 9 October 2014. As of 09/12/2014: http://www.janes.com/article/44335/australia-receives-first-canberra-class-lhd
Cruiser / destroyer	Hobart-Class (Australia)	AWD Alliance (Australia)	2016-2018	3	AUD4.8 b (\$4.1 b) (2007)	'Project Sea-4000' for 'Air	SIPRI Trade Register

		Navantia (ES) (licence contract)						Naval-technology.com. 2014. 'Hobart Class Air Warfare Destroyers, Australia'. As of 09/12/2014: http://www.naval-technology.com/projects/hobartclassairwarfar/
Coastal patrol vessel	Roussen-class (HE)	Elefsis Shipyards (HE) BAE Systems Surface Ships (UK) (licence contract)	2015-2016	2	EUR299 m (2008)			SIPRI Trade Register
Frigate	Meko-A200 (Algeria)	TKMS (DE)	From 2017	2		Possible option on 2 more		SIPRI Trade Register
Amphibious / landing craft	Vladivostok-class (Mistral-Class) (Russia)	DCNS (FR) (licence contract)	2014-2015	2	EUR1.1 b deal (incl production of components in Russia) (2011)	Postponed until further notice due to the Ukrainian crisis		SIPRI Trade Register
Auxiliary / offshore patrol vessel	BMM (Multi Mission Ships) (FR)	DCNS and Piriou (FR)	2015-2016	3 + option for a fourth one	EUR100 million (2014)	Contract signed in early 2014		IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.' Cognasse, Olivier. 2014. 'Piriou gagne avec DCNS le contrat des B2M'. Usine Nouvelle.com/Bretagne, 9 January 2014, 04:51 p.m.

								As of 08/12/2014 : http://www.usinenouvelle.com/article/piriou-gagne-avec-dcns-le-contrat-des-b2m.N231017
Offshore patrol vessel	Offshore Patrol Vessels (UK)	BAE Systems (UK)	2017	3	GBP348 million (2014)	Shared Infrastructure (new state of the art operating system) revolutionises the way ships operate by using virtual technologies to host and integrate the sensors, weapons and management systems that complex warships require.		BAE Systems, 2014. 'New contract awarded for Royal Navy offshore patrol vessels', 12 August 2014.
Coastal patrol vessel	ORP Slazak, Gawron-class corvette (PL)	Thales Nederland (FR) and Polish company Enamor (PL)	Nov 2016	1	EUR100 million (2013)			IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
Coastal patrol vessel	Ready Duty Ships - Castor (RDS) (BE)	Socarenam (FR)	2014-2015	2	EUR26.6 million (2013)			IHS Jane's, 20/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Belgium.'
Offshore patrol vessel	Samuel Beckett-class OPV (Ireland)	Babcock Marine (UK)	2014-2015	2	EUR99 m (2010)	Option for a 3 rd one Should be delivered in 2016		SIPRI Trade Register Scott, Richard. 2014. 'Second Irish OPV afloat at

								Babcock's Appledore shipyard'. IHS Jane's Navy International, 24 November 2014. As of 09/12/2014: http://www.janes.com/article/46240/second-irish-opv-afloat-at-babcock-s-appledore-shipyard
Offshore patrol vessel	20 de Julio (OPV-80) (Colombia)	Fassmer (DE) (licence contract)	2015	1				SIPRI Trade Register
Frigate	Gowind Combat (Malaysia)	DCNS (FR) (licence contract)	From 2017	6			'SGVP-LCS' programme	SIPRI Trade Register
Offshore patrol vessel	Macaé-class (P-400) (Brazil)	CMN (FR) (licence contract)	2015	1			NAPA-500 version	SIPRI Trade Register
Auxiliary	Queenston-class (Canada)	Seaspan Marine Corporation (Canada) (licence contract with DE)	From 2017	2	CAD2.6 b (\$2.6 b)	Replacing the aging Protecteur-class Joint Support Ships programme Option for a third ship		SIPRI Trade Register Public Works and Government Services Canada. 2014. 'Backgrounder: Joint Support Ships (JSS)' 19 November 2014. As of 09/12/2014: http://www.tpsgc-pwgsc.gc.ca/app-acq/sammps/dinsi-bkjss-eng.html
Coastal patrol vessel	Kormoran II mine	Remontowa Shipbuilding	2018, 2022 and 2026	3	Unknown	Saab (Sw) double eagle system to be added to the		IHS Jane's, 19/02/2014. 'Jane's Sentinel Security

	destroyers (PL)	Gdańsk and Naval Shipyard Gdynia consortium (PL)	(according to a strategic plan March 2013)		ships	Assessment – Western Europe. Procurement Poland.'
			2016 for the first one and then the two others between 2019 and 2022 (according to another doc published by the Navy)			
Air defence / interdiction (multirole)	Rafale F3 (FR)	Dassault (FR)	2006 and still ongoing The delivery of the retrofitted Rafale Marine aircraft will be staggered over a period up to 2017.	180	Order increased to 180 in 2009 but annual production rate slowed 133 delivered in October 2014	IISS.2014. <i>The Military Balance 2014</i> . London: Routledge Dassault, 2014. 'The French defense procurement agency (DGA) takes delivery of its 1st retrofitted Rafale "Marine" from Dassault Aviation', 10 July 2014. As of 08/12/2014: http://www.dassault-aviation.com/en/dassault-aviation/press/press-kits/french-defense-procurement-agency-dga

							takes-delivery-1st-retrofitted- rafale-marine-dassault- aviation/
Air defence / interdiction (multirole)	Eurofighter EF2000 (Typhoon) (DE)	Eurofighter GmbH (UK, DE, IT, ES)	From 2003 Mostly already in service but due to delays or additional orders, some new aircrafts to be delivered	143 (31 in Tranche 3A)	EUR2.8 billion (2009) for Tranche 3	31 aircraft Tranche 3A order signed in 2009 Eurofighter Typhoon deliveries to Germany, Italy and Spain have been halted while the fighter company and the governments discuss commercial issues related to the discovery of a manufacturing fault on the rear fuselage of the aircraft	IISS.2014. <i>The Military Balance 2014</i> . London: Routledge Chuter, Andrew. 2014. 'Manufacturing Fault Suspends Typhoon Deliveries to Germany, Italy, Spain'. DefenseNews, 2 October 2014, 03:45 a.m. As of 08/12/2014: http://www.defensenews.com/article/20141002/DEFREG01/310020026/Manufacturing-Fault-Suspends-Typhoon-Deliveries-Germany-Italy-Spain
Air defence / interdiction (multirole)	Typhoon (IT)	Eurofighter GmbH (UK, DE, IT, ES)	From 2004 Mostly already in service but due to delays or additional orders, some new aircrafts to be delivered	96 (21 in Tranche 3A)	EUR9 billion (2009) for all of the different countries' Eurofighter Tranche 3 orders combined - unclear what Italy's contribution was	21 aircraft order Tranche 3A order signed in 2009 + first Eurofighter partner to formally withdraw from Tranche 3B of the programme + In May 2013, 69 Eurofighters had been delivered	Briganti, Giovanni de. 2013. 'Cassidian Faulted for Eurofighter Costs, EuroHawk Debacle'. Defense- aerospace.com, 15 July 2013. As of 08/12/2014: http://www.defense-aerospace.com/article-view/feature/146590/cassidian-hit-by-eurofighter,-eurohawk-controversies.html
Air defence / interdiction (multirole)	Typhoon (ES)	Eurofighter GmbH (UK, DE, IT, ES)	From 2003 Mostly already in service but due to delays or additional orders, some	74	EUR9 billion (2009) for all of the different countries' Eurofighter Tranche 3 orders combined - unclear what Spain's	21 aircraft Tranche A order signed in 2009 Agreement to postpone delivery of 15 Tranche 2 Eurofighters until 2015	

			new aircrafts to be delivered		contribution was	
Air defence / interdiction (multirole)	Typhoon (UK)	Eurofighter GmbH (UK, DE, IT, ES)	From 2004 Mostly already in service but due to delays or additional orders, some new aircrafts to be delivered	160 (40 in Tranche 3A)	USD4.97 billion (2009) for Tranche 3	40 aircraft ordered as part of Tranche 3A, including 24 to replace elements of Tranche 2 order diverted to the RSAF as part of Project Salam Britain, the fourth nation of the pan-European fighter program, is continuing to accept aircraft and has already received 124 aircrafts out of 160
Air defence / interdiction (multirole)	Typhoon Tranche 3 (Oman)	Eurofighter GmbH (UK, DE, IT, ES)	From 2017	12	Part of GBP2.5 b (\$4 b) deal (2012)	SIPRI Trade Register

Air defence / interdiction / air support (multirole)	Gripen NG (SE)	Saab (SE)	2018-2016	60	USD2.5 billion (2013)	In addition, Saab is contracted to provide 60 Gripen E to the Swedish Air Force. Originally, these were going to be re-manufactured upgrades of Gripen C/D aircraft, but the Swedish Parliament recently decided to have Saab provide 60 completely new-build Gripen E between 2018 -2026	IHS Jane's. 2014. 'Saab JAS 39 Gripen' As of 08/12/2014: https://janes.ihs.com/CustomPages/Janes/DisplayPage.aspx?DocType=Reference&Itemid=+++1343049&Pubabbr ev=JAWA
Air defence / interdiction / air support (multirole)	Gripen NG (Brazil)	Saab (SE)	2019-2024	36	SEK39.3 billion (2014)	This 36 will comprise 28 single-seat Gripen E and 8 twin-seat Gripen F aircraft to be delivered between 2019 and 2024	IHS Jane's. 2014. 'Saab JAS 39 Gripen' As of 08/12/2014: https://janes.ihs.com/CustomPages/Janes/DisplayPage.aspx?DocType=Reference&Itemid=+++1343049&Pubabbr ev=JAWA
Air support	M346 (Israel)	Aermacchi (IT)	From 2014	30	\$600 m deal (without engines; offsets 100%) (2012)	SIPRI Trade Register	

Air support	M346 (PL)	Aermacchi (IT)	2016-2017	8	EUR280 m	Option on 4 more	SIPRI Trade Register
Air support	M-349 Advanced Jet Trainer (PL)	Alenia Aermacchi (Finmeccanica) (IT)	2016-2017	8	USD377 million (2014)		IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
Air support	Hawk-100 (India)	BAE Systems (UK) (licence contract with Indian manufacturers)	2013-2015	57	GBP700-735 m (\$1.1 b) (2010)	Hawk-132 version	SIPRI Trade Register
Air support	Hawk-100 (Saudi Arabia)	BAE Systems (UK)	From 2016	22	Part of GBP1.6 b deal (2012)	Hawk AJT version	SIPRI Trade Register
Tactical and strategic lift	A400M Atlas (FR)	EADS / Airbus (FR, DE, ES)	From 2013 (3rd aircraft delivered in	50	25 billion euros for 180 A400Ms for 7 European countries		ISS.2014. <i>The Military Balance 2014</i> . London: Routledge

			july 2014, 5th a/c delivered in Sept 2014); deliveries to be completed by 2025				Airforce-technology.com, 2014. 'France receives fifth A400M aircraft from Airbus'. 11 September 2014. As of 08/12/2014: http://www.airforce-technology.com/news/newsfrance-receives-fifth-a400m-aircraft-from-airbus-4368413
Tactical and strategic lift	A400M Atlas (DE)	EADS / Airbus (FR, DE, ES)	From 2014 (first one to be delivered in November 2014)	53	25 billion euros for 180 A400Ms for 7 European countries	First German aircraft now expected on 2014 Originally 60 and then reduced to 53. Reduction proposal to 40 aircrafts in late 2011	ISS.2014. <i>The Military Balance 2014</i> . London: Routledge Airbus Defence and Space, 2014. 'Airbus Defence and Space begins final assembly of first A400M for Germany'. 4 February 2014. Black, Jeff. 2013. 'German Defense Ministry denies report on A400M delivery threat'. Bloomberg.com, 21 July 2013, 3:04 p.m. As of 08/12/2014: http://www.bloomberg.com/news/2013-07-21/german-defense-ministry-denies-report-on-a400m-delivery-threat.html
Tactical and strategic lift	A400M Atlas (ES)	EADS / Airbus (FR, DE, ES)	Completed in 2018	27	25 billion euros for 180 A400Ms for 7 European countries		ISS.2014. <i>The Military Balance 2014</i> . London: Routledge

Tactical and strategic lift	A400M Atlas (UK)	EADS / Airbus (FR, DE, ES)	2014 / expected to be completed in 2019	22	GBP2.8 billion (2014)	UK now due to take 1st of 22 aircrafts in 2014 Original order reduced by 3	ISS.2014. <i>The Military Balance 2014</i> . London: Routledge Defence Equipment and Support, Philip Dunne MP. 2014. 'The brand new aircraft has arrived at RAF Brize Norton.' MoD, 27 Novr 2014. As of 08/12/2014: https://www.gov.uk/government/news/first-uk-a400m-atlas-delivered-to-the-raf Royal Air Force 2014. 'A400M Atlas'. As of 08/12/2014: http://www.raf.mod.uk/rafbrizenorton/equipment/a400m-atlas.cfm
Tactical and strategic lift	A400M Atlas (Malaysia)	EADS / Airbus (FR, DE, ES)	2014: 1st aircraft delivered, 2015:2 more expected, 2016: last one	4	USD925 million (2005)	Defense Industry Daily, 2014. 'Airbus' A400M Aerial Transport: Delays, Development, and Deployment'. 27 November 2014, 06:35 p.m. UTC. As of 08/12/2014: https://www.defenseindustrydaily.com/a400m-delays-creating-contract-controversies-05080/	

Tactical and strategic lift	A400M Atlas (BE)	EADS / Airbus (FR, DE, ES)	Completed in 2018	7	25 billion euros for 180 A400Ms for 7 European countries		ISS.2014. <i>The Military Balance 2014</i> . London: Routledge
Tactical and strategic lift	C295 SAR(Brazil)	Airbus (FR, DE, ES)	2016-2017	3	EUR186.7 million (2014)	<p>Coupled with a 5-year Full in Support Service contract</p> <p>Also included: field service representatives, aircraft ground equipment, a mission support centre, training services, and more.</p> <p>Existing fleet of 12 aircrafts</p>	<p>Airbus Group, 2014. 'Three SAR aircraft add to existing fleet of 12 transports'. 28 July 2014. As of 08/12/2014: http://www.airbusgroup.com/int/en/news-media/press-releases/Airbus-Group/Financial_Communication/2014/07/20140728_airbus_defence_and_space_c295_brazil.html; Barreira, Victoria.2014. 'Brazil details new C295 acquisition'. Lisbon: IHS Jane's, 27 May 2014. As of 08/12/2014: http://www.janes.com/article/38439/brazil-details-new-c295-acquisition</p>
Tactical and strategic lift	C295 (Egypt)	Airbus (FR, DE, ES)	2015	8	Unknown	<p>This order is actually an extension of a previous order of 12 C295, of which 6 were already in use in July 2014</p>	<p>Airbus Defence & Space. 2014. 'Egypt orders eight more Airbus C295 tactical transports'. 17 July 2014. As of 08/12/2014: http://airbusdefenceandspace.com/egypt-orders-eight-more-airbus-c295-tactical-transports/#prettyPhoto</p>

Tactical and strategic lift	C295 (Mexico)	Airbus (FR, DE, ES)		2		Already 2 C295 in service in the Mexican navy and 6 in the Air Force from the previous order Extension of a previous order of 20 aircrafts Signed on 29/10/2014	Airbus Defence & Space. 2014. 'Mexico orders more C295 aircraft'. 29 October 2014. As of 09/12/2014: http://militaryaircraft-airbusds.com/PressCenter/LatestNews/TabId/176/ArtMID/681/ArticleID/347/Mexico-orders-more-Airbus-C295-aircraft.aspx AFP. 2014. 'Le Mexique achète deux Airbus C295'. Le Figaro.fr, 29 October 2014, 05:18 p.m. As of 09/12/2014: http://www.lefigaro.fr/flash-eco/2014/10/29/97002-20141029FILWWW00300-le-mexique-achete-deux-airbus-c295.php
Tactical and strategic lift	C-27J Spartan (Australia)	Alenia Aeronautica (IT)	2014-2016	10	AUD1.4 b (\$1.4 b)	'Project Air-8000 Phase-2'	SIPRI Trade Register
Air-to-Air refuelling	A330 MRTT [Multi Role Tanker Transport] (Qatar)	Airbus (FR, DE, ES)	In-service by 2030	2	Unknown		Airbus Defence & Space. 2014. 'Qatar selects Airbus A330 MRTT Multi Role Tanker Transport'. 27 March 2014. As of 08/12/2014: http://www.a330mrtt.com/PressCenter/LatestNews/TabId

									/176/ArtMID/681/ArticleID/317/Qatar-selects-Airbus-A330-MRTT-Multi-Role-Tanker-Transport.aspx
Air-to-Air refuelling	A330 MRTT [Multi Role Tanker Transport] (FR)	Airbus (FR)	2017-2018	12	EUR3 billion (2014)	Unique version with a cargo door in the upper desk so that it can be used as a freighter: customer oriented policy / adaptation	Not yet signed in Oct 2014 but to be signed before the end of the year	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'	Tran, Pierre. 2014. 'French AF to take 2 MRTT versions'. DefenseNews.com, 21 February 2014, 03:45 a.m. As of 08/12/2014: http://www.defensenews.com/article/20140221/DEFRE G01/302210021/French-AF-Take-2-MRTT-Versions
Air-to-Air refuelling	A330 MRTT [Multi Role Tanker Transport] (Singapore)	Airbus (FR)	Expected in-service time: 2030	6	EUR 1bn (2013)			Cabirol, Michel. 2014. 'Singapour s'offre six avions ravitailleurs MRTT d'Airbus Group'. Paris: La Tribune. 07 March 2014, 12:34 p.m.	
Air-to-Air refuelling	A330 MRTT [Multi Role Tanker Transport] (Saudi Arabia)	Airbus (FR)	2014-2016	3				SIPRI Trade Register	

Airborne Early Warning	Falcon-2000 (South Korea)	Dassault (FR)	2015	2			SIPRI Trade Register
Rotary	EC-225/EC-725 (Thailand)	Airbus Helicopters (FR, DE)	From 2015	4	THB4 b (\$128 m) (2012)	For SAR	SIPRI Trade Register
Rotary	EC645 T2 + EC725 (Thailand)	Airbus Helicopters (FR, DE)	From 2016 (EC645 T2) - 2017 2017 (EC725) (not positively sure all the EC645 T2 will be delivered in 2017)	5 EC645 T2 + 2 EC725	EUR101.9M	EC725 complete a previous order of 4 helicopters signed in 2012 for deliveries from 2015 (cf. above)	Airbus Helicopters. 2014. 'The Royal Thai Navy and Air Force acquire five EC645 T2 and two EC725 rotorcraft from Airbus Helicopters'. Marignane, France: Airbus. 22 October 2014. As of 08/12/2014: http://www.airbushelicopters.com/site/FO/scripts/myFO_publication.php?lang=EN&news_id=1212 UPI. 2014. 'Thailand increasing its helicopter fleet'. Marignane, France: BreitBart, 23 October 2014, 08:23 p.m. As of 08/12/2014: http://www.breitbart.com/system/wire/upiUPI-20141023-152329-9328
Rotary	EC645 T2 Light Utility Helicopter (DE)	Airbus Helicopters (FR, DE)	Dec 2015-June 2017	15	EUR194 million (2013), including training options for EUR1.1 million		IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement

							Germany. Airbus Helicopters. 2013. 'Germany's Special Forces Command Set to Fly Eurocopter's EC645 T2 Light Utility Helicopter'. 7 November 2013. As of 08/12/2014: http://www.airbushelicopters.com/site/en/press/Germany-s-Special-Forces-Command-Set-to-Fly-Eurocopter-s-EC645-T2-Light-Utility-Helicopter_1059.html
Rotary	EC-225/EC-725 (Brazil)	Airbus Helicopters (FR, DE)	2010-2017	48	EUR1.9 b deal (2008)	Brazilian designation H-36, HM-4 and UH-15 License contract	SIPRI Trade Register
Rotary	EC-135/EC-635 (Japan)	Airbus Helicopters (FR, DE)	2009-2017	15		For training Japanese designation TH-135	SIPRI Trade Register
Rotary	BK-117/EC-145 (Kazakhstan)	Airbus Helicopters (FR, DE)	2011-2016	12		EC-145 version; assembled in Kazakhstan as KH-145 (more delivered to non-military government agencies)	SIPRI Trade Register
Rotary	EC665 Tiger (FR)	Airbus Helicopters (FR, DE)	2005 and still ongoing for the HAD variant	80	Unknown	40 Tiger HAP (Support and Escort Helicopter) already delivered 40 Tiger HAD (Support	IISS.2014. <i>The Military Balance 2014</i> . London: Routledge

			In service time: From late 2014 for the HAD variant - November 2014 in the CAR			And Destruction) were also to be delivered and the first one has been in April 2013	
Rotary	NH90 NFH (FR)	NH Industries (FR, IT, NL)	2010-2019	68	Unknown		IISS.2014. <i>The Military Balance 2014</i> . London: Routledge
Rotary	NH90 TTH (FR)	NH Industries (FR, IT, NL)	First delivery in Jan. 2012 Last delivery of the TTH planned for 2024 (38 delivered by 2019 and all of them by 2024)	82 (64 TTH and 18 NFH)	Unknown	12 ordered in 2007 22 in 2009 34 in 2013	IISS.2014. <i>The Military Balance 2014</i> . London: Routledge Athena Defense. 2014. 'Armee de Terre: LPM phrases cles du CEMAT'. 16 October 2013. As of 08/12/2014 : http://www.athena- vostok.com/armee-de-terre- lpm-phrases-cles-du-cemat
Rotary	NH90 TTH/NFH (DE)	NH Industries (FR, IT, NL)	2007-2017	82 (64 TTH and 18 NFH)	EUR8 billion for 100 aircraft. Unclear what cost is for the revised order	Deliveries in progress to trials and tests	IISS.2014. <i>The Military Balance 2014</i> . London: Routledge Fryer-Biggs, Zachary. 2014. 'Executives Say NH90 Has Moved out of Development Phase'. Berlin: DefenseNews.com, 20 May 2014, 07:55 p.m. As of

							08/12/2014: http://www.defensenews.com/article/20140520/DEFRE G01/305200044/Executives-Say-NH90-Has-Moved-out-Development-Phase Die Welt. 2013. 'Bundeswehr kauft weniger Militärhubschrauber' 15 March 2013. As of 08/12/2014: http://www.welt.de/newsticker/news3/article114476338/Bundeswehr-kauft-weniger-Militaerhubschrauber.html
Rotary	NH90 TTH/NFH (IT)	NH Industries (FR, IT, NL)	2011-2016 (but delays in the deliveries)	116	EUR3.2 billion	60 TTH for army and 46 NHF + 10 TTH for the navy	IISS.2014. <i>The Military Balance 2014</i> . London: Routledge Kington, Tom. 2012. 'Plagued by Delays, NH90 Helos Head to Afghanistan Air Base'. Roma: DefenseNews.com, 4 September 2012, 07:54 a.m. As of 08/12/2014: http://www.defensenews.com/article/20120904/DEFRE G01/309040001/Plagued-by-Delays-NH90-Helos-Head-Afghanistan-Air-Base

Rotary	NH90 NFH/TTH (NL)	NH Industries (FR, IT, NL)	First one delivered in 2010 13 aircrafts delivered so far Official halt to the delivery of the 7 last aircrafts in July 2014 due to a severe corrosion pb on some helicopters used in counter piracy operations	20	EUR1.2 billion (2014)	12 NFH 8 TTH First NFH delivered in April 2010 8 NFH delivered as of late 2012	<p>ISS.2014. <i>The Military Balance 2014</i>. London: Routledge</p> <p>Fischer, Bob. 2014. 'Dutch NH90 delays cost government more than €100 million'. Flightglobal.com, 31 October 2014, 12:49 p.m. As of 08/12/2014: http://www.flightglobal.com/news/articles/dutch-nh90-delays-cost-government-more-than-100-million-405487/</p> <p>Gravemaker, Anno.2014. 'Corrosion issue halts Dutch NH90 deliveries'. Flightglobal.com/Flight International, 1 July 2014, 03:08 p.m. As of 08/12/2014: http://www.flightglobal.com/news/articles/corrosion-issue-halts-dutch-nh90-deliveries-400944/</p>
Rotary	NH90 TTH (ES)	NH Industries (FR, IT, NL)	2013-2019	32	EUR1.3billion	<p>ISS.2014. <i>The Military Balance 2014</i>. London: Routledge</p> <p>Illas, Gloria. 2012. 'King Juan Carlos I Takes to the Air in the Spanish NH90</p>	

									Helicopter' Madrid: Airbus Helicopter, 17 September 2012. As of 08/12/2014: http://www.airbushelicopters.com/site/en/press/King-Juan-Carlos-I-Takes-to-the-Air-in-the-Spanish-NH90-Helicopter_970.html SIPRI Trade Register
									IISS. 2014. <i>The Military Balance 2014</i> . London: Routledge
Rotary	NH90 (SE)	NH Industries (FR, IT, NL)	Initially expected for 2005 but delay so first one received in 2007 Only 5 delivered in late 2013 (huge delays) 2011-2019	18	USD450 million (2013)	13 TTT/SAR 5 ASW Option for 7 further helicopters but official announce in 2012 that it will not be taken up Swedish designation Hkp-14			O'Dwyer Gerard. 2014. 'Nordic Nations Navigate Hurdles to NH90 Purchases'. Helsinki: DefenseNews.com, 5 May 2014, 06:04 p.m. As of 08/12/2014: http://www.defensenews.com/article/20140505/DEFRE G01/305050023/Nordic-Nations-Navigate-Hurdles-NH90-Purchases Jennings, Gareth. 2013. 'Sweden receives first upgraded NH90 helicopter'. London: IHS Jane's, 16 December 2013. As of 08/12/2014: http://www.janes.com/articl

							e/31718/sweden-receives-first-upgraded-nh90-helicopter O'Dwyer. Gerard. 2014. 'Nordic Nations Navigate Hurdles to NH90 Purchases' Helsinki: DefenseNews, 5 May 2014, 06:04 p.m. As of 10/12/2014: http://www.defensenews.com/article/20140505/DEFRE G01/305050023/Nordic-Nations-Navigate-Hurdles-NH90-Purchases
Rotary	NH90 NFH/TTH (BE)	NH Industries (FR, IT, NL)	2012-2015	8	EUR293 million (2007)	4 TTH / First one delivered in Dec 2012 4NFH / First one delivered mid-2013 Option on two more NH90 TTH	IISS.2014. <i>The Military Balance 2014</i> . London: Routledge Fiorenza, Nicholas. 2014. 'Belgium Receives Last NH90 Troop Transport Helicopter'. Ares: Aviation Week, 17 November 2014. As of 08/12/2014: http://aviationweek.com/blog/belgium-receives-last-nh90-troop-transport-helicopter
Rotary	NH90 TTH (Australia)	NH Industries (FR, IT, NL) (licence agreement)	2011-2015	48	AUD2 b (\$1.5 b)	'Project Air-9000 Phase-3' or 'Project Air-9000 Phase-4' (incl 10 year support; assembled in Australia)	SIPRI Trade Register

Rotary	NH90 TTH (HE)	NH Industries (FR, IT, NL) (licence agreement)	2011-2015	20	EUR546 m deal (originally EUR657 m but reduced 2010 as compensation for delayed delivery; offsets 120% incl production of components in Greece)	Bought from France, FRG and Italy; option on 14 more; delivery delayed from 2006 to 2011-2015	SIPRI Trade Register
Rotary	AW159 Wildcat (UK)	AgustaWestland (IT, UK)	2012-2015	62	GBP1 billion (2006)	34 for army 28 for navy Option for a further 4 helicopters	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.'
Rotary	AW159 Wildcat (South Korea)	AgustaWestland (IT, UK)	2015-2016	8			SIPRI Trade Register
Rotary	ICH-47F Chinook (IT)	Finmeccanica (Agusta Westland) (IT)	2014-2017		EUR900 million (2009)	AgustaWestland and Boeing signed an industrial agreement for the joint manufacture of the ICH-47F in July 2008. "Under the agreement AgustaWestland, the prime contractor for the programme, is responsible for systems integration, final assembly and aircraft delivery to the customer."	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'

Rotary	SA-315B Lama (India)	Aérospatiale Sud- Aviation (FR) (licence contract)	2015-2016	20	INR3 b (\$48 m) (2013)	Cheetal version	SIPRI Trade Register
Rotary	AS365/AS5 65 Panther (Lithuania)	Airbus Helicopters (FR, DE)	From 2015	3	LTL180 m (EUR52 m/\$72 m) deal (financed by EU)	Mainly for SAR	SIPRI Trade Register
Rotary	AS-350/AS- 550 Fennec (Ecuador)	Airbus Helicopters (FR, DE)	2011-2015	9		Includes 2 AS-350B2 and 7 AS-550C3 version	SIPRI Trade Register
Rotary	AS-532 Cougar/AS- 332 (Bolivia)	Airbus Helicopters (FR, DE)	2014- 2015/2016	6			SIPRI Trade Register
Rotary	A-129C Mangusta (Turkey)	AgustaWestland (IT, UK) (licence contract)	2014-2018	50	Part of \$2.7 b (2008)	Part of \$2.7 b Part of 'ATAK' programme T-129B version; option on 32 more	SIPRI Trade Register
Rotary	W-3 Sokol (Algeria)	PZL (PL)	From 2014	5		W-3A version	SIPRI Trade Register
C4ISTAR	FELIN (FR)	Safran (FR)	2010-2015	22 588	EUR1 billion	"By October 2012, 8,152 systems had been delivered, enough to bring the number of equipped regiments up to eight. The number of delivered systems is expected to reach more than 10,000 by the end of 2012 and 4,036	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'

							additional systems are expected in 2013. Current planning calls for four regiments to be equipped each year through 2015."
C4ISTAR	Air-Land Operational Bubble (FR)	Thales Land and Joint Systems (FR) + some support from Sagem and Giat (now part of Safran and Nexter) (FR)	To be introduced between 2015-2030		EUR129 million (2005)		Study programme to shape the dvpt of the FALCON-S (French future combat system) to be introduced between 2015 and 2030 IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
C4ISTAR	Deployable wireless computer network using WiMAX (FR)	EADS (Intl) / TDF (FR)			EUR12 million (2007)		Project still in the technical assessment IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
C4ISTAR	Future Infantry Soldier Technology (FIST) (UK)	Thales (FR)	Assessment phase between 2003 and 2005 / Trials begun in late 2005 Expected in service time 2015-2020	35 000 kits	GBP150 million (2009) for Phase One	Many subcontractors / phases	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' Army-Technology.com. 2014. 'FIST - Future Infantry Soldier Technology, United Kingdom' As of 08/12/2014: http://www.army-technology.com/projects/fist/

C41STAR	Ground Master-400 (DE)	ThalesRaytheonSystem (licence contract) (FR)	2015	6	EUR100 m (2010)	'ARED' programme	SIPRI Trade Register
C41STAR	MMSR for Self-propelled ZDPSR Sola N-26 air-transportable (PL)	PIT-RADWAR S.A (PL)	From late 2015		USD47.3 million (2013)		IHS Jane's, 19/02/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
C41STAR	RZRA Liwiec Mobile Weapon-Locating Radar System (PL)	Polish Defense Holding (ex Bumar Group) (PL)		7	USD55 million (2013)		IHS Jane's, 19/02/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
C41STAR	TRS-15M (NUR-15) Odra-M Mobile Radar Station (PL)	Bumar Elektronik(PL)			USD106.25 million (2013)		IHS Jane's, 19/02/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
C41STAR	CEROS-200 (Canada)	Saab (SE)	2014-2017	24		For modernization of 12 Halifax (City) frigates	SIPRI Trade Register

Table B.2. Maintenance and upgrade contracts³

Type of equipment	Specific designation	Producer (country)	Delivery date	Quantity	Contract value	Notes	Sources
Support weapons / small arms / artillery	CAESAR howitzers (FR)	Nexter Systems (FR)		77	97.8m EUR	Contract that will run from 9y, from 2012 till 2020	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
Support weapons / small arms / artillery	2K12 'Kub' SAM System (Czech Rep)	MBDA (FR, UK, IT)		4 batteries	CZK1 billion	It seems MBDA was finally awarded the contract over Raytheon but not clear (late 2013, according to IHS Jane's, still not awarded) Expected out of service date in 2017	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Czech Republic.' IISS.2012. <i>The Military Balance 2012</i> . London: Routledge
A vehicle	Maintenance contract for Leclerc MBT (FR)	Nexter Systems (FR)	2009-2019	355	900m EUR		IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
A vehicle	Challenger 2 Life Extension Programme (LEP) (UK)	BAE Systems (UK)	An ISD tentatively set for 2020	227	GBP500 million	Life extension beyond 2035	IHS Jane's, 19/02/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'

³ AT= Austria, BE=Belgium, DE= Germany, ES= Spain, FI= Finland, FR= France, IT= Italy, NL= Netherlands, PL= Poland, SE= Sweden, UK= United Kingdom

A vehicle	Modernisation of Leopard 2PL (PL)		Oct 2014 – Oct 2019	128	EUR480 million	Modernisation of its current 128 Leopard 2A4 tanks	IHS Jane's, 19/02/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
A vehicle	CV90 Upgrade (Norway)	BAE Systems (UK)	2015/2017 (delivery of the upgraded vehicles)	<p>"When the initial contract is done, Norway's 103-vehicle CV90-30 fleet will become 146 vehicles: 74 modernized Infantry Fighting Vehicles, 21 reconnaissance, 16 multi-role (mortar carrier or cargo), 15 command & control, 16 engineering vehicles, and 4 driver training models"</p>	<p>\$750m according to BAE</p> <p>\$1bn according to Norway</p>		Defense Industry Daily. 2012. 'True Norsk: CV90 Armored Modernization'. 24 June 2012, 6:58 p.m. UTC. As of 08/12/2014: http://www.defenseindustrydaily.com/True-Norsk-CV90-Armored-Modernization-07439/
A vehicle	Fuchs 6x6 upgrade (DE)	Rheinmetall MAN Military Vehicles (DE)	To be delivered in 2016	25	EUR36.175 million		IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Germany.'
Nuclear submarine	Le Triomphant and Le Temeraire upgrades (FR)	DCNS (FR)		2		Le Triomphant will enter into the modification programme in 2013, to emerge in 2015. Le	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'

							<p>Temeraire is due to undergo conversion from 2017 to 2018</p> <p>Equipped with M-51.41 ballistic missiles</p> <p>The contract includes through-life support services relating to crew-training facilities; undisclosed French Navy systems; and shore-base facilities including relay antenna stations.</p>
Nuclear submarine	Design Services Arrangement, a support contract to maintain the combat systems across all three classes of submarines (UK)	BAE Systems (UK)	<p>Expected out-of service dates:</p> <p>Trafalgar-class: 2008-2022 every two years</p> <p>Vanguard-class: 2022/2024 /2025/2028</p>	<p>6 Astute + 5 Trafalgar + 4 Vanguard (but watching: Trafalgar-class submarines are being removed as Astute-class submarines are entering into service)</p>	GBP46 million	<p>The contract will drive adoption of a common combat system across the fleet</p> <p>3 classes: Astute Class (6) and Trafalgar Class(5) as fleet submarines and Vanguard-class (4) as ballistic submarine</p>	<p>IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' Parliament. 2006. 'The UK's nuclear deterrent'. London, UK: Parliament. As of 08/12/2014: http://www.publications.parliament.uk/pa/cm200607/cmselect/cmdfence/59/5905.htm</p> <p>Royal Navy. 2014. 'Submarine Rescue System' As of 08/12/2014: http://www.royalnavy.mod.uk/our-organisation/the-fighting-arms/submarine-service#submarine-rescue-system</p>
Cruisers / Destroyers	Daring Class Type 45	BAE Systems (UK)	Expected to run from July	6	£70m	Contract to manage the support, maintenance	BAE Systems. 2014. '£70 million contract awarded to service type 45

	Destroyers (UK)		2014 till Nov. 2016			and upgrade of the Type 45 Destroyers at Portsmouth Naval Base and on all their operations in the UK and globally.	destroyers on all UK and global operations'. 23 June 2014.
Amphibious / landing craft	Albion-class LPD HMS Bulwark Upgrade (UK)	Babcock (UK)	2011-2016	1	GBP30 million		IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.'
Frigate	Upgrade of Type 23 frigates (UK)	BAE Systems (UK)	2023-2035 (one every year)	13	GBP26 million	Design, development and integration of the Surface Common Combat System computer infrastructure on Type 23 frigates.	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' The Royal Navy. 2014. 'Royal Naval Vessels, Duke Class Frigates (Type 23)'. As of 08/12/2014: http://www.armedforces.co.uk/navy/listings/I0016.html
Frigate	Karel Doorman-class Frigate Modification - BNS Louise-Marie (BE)	Damen (NL)	Expected out-of service date 2025	2		BNS Leopold I already completed BNS Louise-Marie: 2014-2015	IHS Jane's, 20/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Belgium.'
Frigate	Maintenance contract for Bergamini-class (IT)	Orizzonte Sistemi Navali (FR, IT)		6	EUR130 million	Six years of maintenance and logistic support	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'
Coastal patrol vessel	Service plus upgrade River	BAE Systems (UK)	2013-2018	4	£22m		BAE Systems. 2014. '£70 million contract awarded to service type 45

	Class Vessels (UK)						destroyers on all UK and global operations'. 23 June 2014.
Air defence / interdiction (multirole)	Upgrade of the Rafale => new Rafale F3R (FR)	Dassault (FR)	133		1bn EUR	Out of service date: 2040-2045 Standard to be validated by 2018 Contract for dvpt signed in early 2014 Risk reduction study previously undertaken by Dassault from late 2012 to mid-2014 Procurement of new planes of this standards for those still to be delivered and upgrade of the ones already in service	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.' Gallois, Dominique & Zecchini, Laurent. 2006. 'Le Rafale, trop français pour l'étranger'. Le Monde, 08 March 2006, 01:52 p.m. As of 08/12/2014: http://www.lemonde.fr/societe/article/2006/03/08/le-rafale-trop-francais-pour-l-etranger_748603_3224.html
Air defence / interdiction (multirole)	Upgrade of the Rafale M to F3 standard for the French navy	Dassault (FR)	2014-2017	10 (will be part of the upgrade to standard F3 R / out of the 40 Rafale the French Navy operates, 24 already delivered in F3 standard)	240m EUR	Out of service date: 2040-2045	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.' Gallois, Dominique & Zecchini, Laurent. 2006. 'Le Rafale, trop français pour l'étranger'. Le Monde, 08 March 2006, 01:52 p.m. As of 08/12/2014: http://www.lemonde.fr/societe/article/2006/03/08/le-rafale-trop-francais-pour-l-etranger_748603_3224.html

								<p>etranger_748603_3224.html Marine Nationale. 2013. 'Rafale Marine'. MoD, 12 August 2013, 03 :35 p.m. As of 08/12/2014: http://www.defense.gouv.fr/marine/decouverte/equipements-moyens-materiel-militaire/aeronefs/rafale-marine Guillermard, Veronique. 2014. 'La Marine reçoit des Rafale à la pointe de la technologie'. Le Figaro Economie, 8 October 2014, 01 :26 a.m.</p>
Air defence / interdiction (multirole)	UK Study contract awarded to integrate MBDA Brimstone 2 onto Typhoon (UK)	BAE Systems (UK)	Should be done by 2018	160	£5m	Expected upgrade contract		BAE Systems, 2014. 'UK study contract awarded to integrate Brimstone 2 onto Typhoon'. 19 June 2014.
Interdiction	Support for Tornados (UK)	BAE Systems (UK)		124	GBP125m	Expected out-of-service date: 2019 Extension to the decade long Availability Transformation: Tornado Aircraft Contact awarded in 2006 and due to expire in 2016 Original contract was worth GBP 1.3bn		<p>IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' Larrinaga, Nicolas de. 2014. 'UK awards final Tornado support contract'. London: IHS Jane's 360, 29 April 2014. As of 08/12/2014: http://www.janes.com/article/37218/uk-awards-final-tornado-support-contract Hoyle, Craig. 2012. 'UK Tornado</p>

								fleet to retire in 2019, says BAE'. London: FlightGlobal.com, 2 August 2012, 10:39 p.m. As of 08/12/2014: http://www.flightglobal.com/news/ articles/uk-tornado-fleet-to-retire-in- 2019-says-bae-375014/
Interdiction	Tornado ASTA Upgrades (DE)	Cassidian (Airbus Group, FR)	Upgraded to ASSTA 3.0 standard by 2018	85			Expected out-of service date: 2025	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Germany.'
Air defence / interdiction (multirole)	Indian Mirage- 2000H rebuilt to Mirage-2000-5 (India)	Dassault and Thales (FR) (licence contract)	2014-2023	49	INR109 b deal (offsets \$593 m)		2 produced in France and rest in India	SIPRI Trade Register
Tactical and strategic lift	C-130K (AT)	Marshall Aerospace (UK)	Upgrade is being conducted aircraft-by- aircraft: delivered in August 2013 / mid 2014 / early 2015	3				IHS Jane's, 17/01/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Austria.'
Tactical and strategic lift	Hercules Support (UK)	Marshall Aerospace (UK)	Support provided over the next 24y	19 C-130K and 24 C-130J aircraft, each of which has 4 engines.	GBP1.52 billion		Out of service date: 2030	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' Defense Industry Daily. 2012. '24-

									Year, GBP 1.5B contract to Maintain UK's Hercules Fleet'. 29 May 2012, 06:33 p.m. UTC. As of 08/12/2014: http://www.defenseindustrydaily.com/24year-gbp-15b-contract-to-maintain-uks-hercules-fleet-02327/
Air-to-Air refuelling	Atlantique 2 MPA (FR)	Dassault Aviation and Thales, in partnership with DCNS and Service Industriel de l'Aéronautique (SIAé) (FR)		15		GBP367 million	Extending life beyond 2030 Maritime patrol aircraft		IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
Rotary	Agusta-Bell AB212 (AT)	AgustaWestland (UK, IT)	2010-2014	23		63m EUR	Out of service date: 2035 No more than six of the helicopters present on the upgrading site at any given time First two upgraded planes delivered in late 2013		IHS Jane's, 17/01/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Austria.' AIRheads Fly. 2014. 'AHF Inside: Austrian AB212 on top'. 14 August 2014. As of 08/12/2014: http://airheadsfly.com/2014/08/14/ahf%E2%86%91inside-austrian-ab212-on-top/
Rotary	Rotary-wing flying training services (UK)	FB Heliservices (Cobham) (UK)	2012-2016			GBP193 million			IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.'

Rotary	Support for the Apache AH.64 and the navy & air force AW101 Merlin helicopters (UK)	Rolls-Royce (UK) / subcontracting Turbomeca (FR)	6 years of support	66 AH-64 Apache + 57 AW101 Merlin	GBP367 million		IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.'
Rotary	Apache IOS support contract - maintenance and technical support for the Apache Mk1 fleet (UK)	AgustaWestland (UK, IT)	Expected to continue adding 5-year negotiated contracts until the fleet is taken out of service in about 22 years.	67	2nd 5-year period within Britain's Apache Integrated Operational Support (IOS) contract, valued at about GBP 430 million from April 1/14 – March 31/19	Out of service date: 2031	Defense Industry Daily. 2014. 'Supporting Britain's Apaches: IOS and Beyond'. 29 January 2014, 05:51 p.m. UTC. As of 08/12/2014: http://www.defenseindustrydaily.com/supporting-britains-apaches-wah-64-ios-contract-05845/
C41STAR	Combat systems for Type 124 Frigates (DE)	Atlas Elektronik (DE) and Thales Deutschland (FR)	Programme is due to complete in 2017	3	Not disclosed		IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Germany.'

C41STAR	Sensors Support Optimisation Project (SSOP) (UK)	Thales (FR)	2013-2023	17 different systems	GBP600 million	The £600 million Sensor Support Optimisation Project will provide maintenance and repair for 17 different systems across the Royal Navy fleet, including the Astute, Trafalgar and Vanguard Classes as well as the Type 45, Type 23 and the Hunt and Sandown Classes.	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' Defence Equipment and Support, Philip Dunne MP. 2013. '£600 million Royal Navy contract secures more than 500 jobs'. 28 May 2013. As of 08/12/2014: https://www.gov.uk/government/news/600-million-royal-navy-contract-secures-more-than-500-jobs
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Table B.3. Future prospects⁴

Type of equipment	Specific designation	Potential producer (country recipient)	Delivery schedule	Quantity	Contract value	Notes	Sources
Support weapons / small arms / artillery	Procurement of a new insensitive munition (IM) depth charge for use from RN helicopters (UK)			Estimated 400-1,000 units.	£2-5m		IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' ¹ Think Defence. 2012. 'An Insensitive Depth Charge'. 22 December 2012. As of 09/12/2014: http://www.thinkdefence.co.uk/2012/12/an-insensitive-depth-charge/
Support weapons / small arms / artillery	Strategic rocket systems - Homar (PL)	HSW (PL)					IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
Support weapons / small arms / artillery	Langusta Multiple Rocket Launchers (PL)			62			IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'

⁴ AT= Austria, BE=Belgium, DE= Germany, ES= Spain, FI= Finland, FR= France, IT= Italy, NL= Netherlands, PL= Poland, SE= Sweden, UK= United Kingdom

Support weapons / small arms / artillery	Lightweight 40 mm revolver-type grenade launchers (PL)		2015-2017	200		Not at contract stage yet?	
Support weapons / small arms / artillery	Selfpropelled mortars and associated C2 and logistics elements (PL)	HSW (PL)	2014-2018	8 support companies			IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
A vehicle	WZT-BPz(PL) (PL)		2015-2022	28		Bergepanzer 2 Upgrade	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
B vehicle	Multipurpose armoured vehicles (FR)		Delivery from 2016	2080	1m EUR per vehicle => over 2bn EUR		IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
A vehicle	Armoured reconnaissance combat vehicles (FR)	Panhard Defense (FR) / Nexter (FR)	Delivery from 2019 for an in service date from 2020	248	3m EUR per vehicle => 744m EUR		IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
B vehicle	CAESAR (FR)	Nexter (FR)	Contract to be signed in 2017 Deliveries completed by 2019	141		Contract to be signed in 2017 but confirmed by the 2012 'Loi de Programmation Militaire'; Deliveries supposed to finish 2019	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.' Briganti, Giovanni de. 2013. 'Scoot and Shoot "à la Française:" Caesar SP Gun

									Transforms French Artillery'. Draguignan, France: Defense- aerospace.com, 7 May 2013. As of 09/12/2014: http://www.defense- aerospace.com/article- view/feature/144902/caesa r-sp-gun-transforms-french- artillery.html
B vehicle	VBL 4x4 (FR)	Panhard General Defense (FR)		1600				Upgrading of 200 units every year from 2015	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
B vehicle	MRAP vehicles (Czech Republic)	BAE Systems (UK) / SVOS Prelouc (CZ)	2014-2017	30	CZK 1bn			Pb with the availability of funds	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Czech Republic.'
B vehicle	Protected Multi Role Vehicle (UK)		The concept phase is expected to commence in 2015-16 Expected in service time by 2016 for the first units	2000	£400 million (US \$660 million) and above			Replacing the UK's unprotected Land Rover (4x4) and Pinzgaurer (4x4 and 6x6)	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' Chuter, Andrew. 2014. 'Future UK Armored Vehicle Programs Emerge'. London: DefenseNews, 12 January 2014, 03:45 a.m. As of 08/12/2014: http://www.defensenews.co m/article/20140112/DEFRE

							G01/301120019/Future-UK-Armored-Vehicle-Programs-Emerge
B vehicle	FRES Utility Vehicle (UK)	Bidding initially awarded to GDUK but disagreement around intellectual property rights	2015-2020	100		If the FRES UV do not enter service until 2017-18, then further interim purchases are likely to be necessary at considerable cost.	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.' Defense Industry Daily. 2014. 'FRES: The Future of British Armored Vehicles'. 14 September 2014, 06:14 p.m. UTC. As of 08/12/2014: https://www.defenseindustrydaily.com/uk-issues-several-fres-transformational-armored-vehicle-contracts-01130/
B vehicle	Medium and Heavy Utility Vehicles (ES)		By 2019	734	EUR127 million	Biddings opening on 18/03/2014	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Spain.'
B vehicle	Medium Multi-Role Vehicle (IT)		3 batches 2011-2017 2018-2026 2027-2031	550 vehicles for the first batch			IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'
B vehicle	Centaurio 2 (IT)	Iveco and Oto Melara (IT) (for sure)	70 first platforms to be completed by 2017	130			IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'

						with a total of 130 ISD by 2026	
B vehicle	Hippopotam (amphibious, 8x8 heavy APC) (PL)	AMZ Kutno (PL) (already contracted to develop the general design and subsystems - under a licence from Patria (FI)					IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
B vehicle	BRDM-2 Replacement (PL)	AMZ Kutno (PL) (already contracted to develop the general design in 2012)					IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
B vehicle	T-72 and BWP-1 Replacements (PL)	OBRUM (for the heavy variant)	2018-2022		PLN8.65 billion=2.08 bn EUR	Replacement of the Polish Land Force's Soviet-era T-72 tanks and BWP-1 IFVs Two version07/11/2014 light and heavy Heavy: Direct Support Vehicles and Armoured Recovery Vehicles Light: Borsuk (Badger)	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
B vehicle	Wheeled heavy recovery vehicles (KWZT) (PL)		2018	27			IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'

B vehicle	MS-20 Bridge Layers (PL)	OBRUM Gliwice (PL) (already contracted for the design R&D)	From 2017	30		IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.' Wilk, Remigiusz. 2014. 'Poland seeks MG-20 Daglezja-G tracked bridge layers'. Warsaw: IHS Jane's Defence Weekly, 26 October 2014. As of 09/12/2014: http://www.janes.com/article/45007/poland-seeks-mg-20-daglezja-g-tracked-bridge-layers	
B vehicle	Light Multipurpose Armoured Vehicles 4xd4 vehicles (PL)			1600	USD60 million	Two versions: soft skin; and ballistic- and mine-protected. A service life of 20 years is expected for both variants. Replacement of their fleets of ageing Polish-made Honker, Honker 2000 and Skorpion-3 vehicles and remaining Russian-origin UAZ469 jeeps.	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
A vehicle	Dingo armoured patrol (AT)	KMW (ES)	2015	145		Procurement delayed due to budget cuts? Deliveries initially planned in 2010 but postponed due to budget cuts	IHS Jane's, 17/01/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Austria.'
Non-nuclear submarine	Submarine (PL)	TKMS (Ger) with its Type 212A and	2019/2020 to be in	3		Contract yet to be awarded by 2015	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security

		214A / DCNS (FR) with its Scorpene-class	service by 2022 for the two first and 2030 for the last one)				Assessment – Western Europe. Procurement Poland.'
Frigate	Medium surface combatants (DE)		If there are no delays, the first ship could enter service around 2021	6	2.5bn EUR	To be procured after 2016	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Germany.'
Frigate	F-110 class (to replace the six Santa-Maria-class frigates) (ES)		Deliveries from 2022 through to 2030	6		Difficult budget procurement process dictate an operational life of not less than 40 years, which means F-110 will be designed with a mid-life update (MLU) in mind. A ballistic missile defence capability will be added during the MLU.	IHS Jane's, 20/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Spain.'
Amphibious / landing craft	LHA type amphibious vessel (IT)		2020-2022	1		Replacement of the aircraft carrier Giuseppe Garibaldi	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'
Amphibious / landing craft	New LHDs (IT)	Fincantieri (IT)	By 2016 In service between 2017 and 2022	2		Only in feasibility study stage Preliminary study and project definition contract for the LHDs awarded to Fincantieri	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'

Offshore patrol vessel	Multi-role Combat Boat (PL)			1		The technical dialogue will be carried out between December 2013 and February 2014, while applications are to be delivered by the end of November 2013	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
Coastal patrol vessel	Czapla (Heron) type and Miecznik (swordfish) type vessels (PL)		2017/2018 (Construction between 2015 and 2026)	3 of each			IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
Amphibious / landing craft	Amphibious Assault Ships – BPE (Turkey)	Navantia (ES) Licence contract	2017	1	\$3 b 'LPD' programme	"Main construction would occur in Turkey, but Navantia expects about 878,000 man-hours of work between pre-fabrication, ancillary items like 4 LCM-1E landing craft and 2 smaller LCVPs; and imported technologies like the engines and propulsion system, and the integrated platform control system"	SIPRI Trade Register Defense Industry Daily. 2014. 'Turkey Picks Navantia's LHD to Bulk up Amphibious Capabilities'. 6 January 2014, 03:42 p.m. UTC. As of 09/12/2014: http://www.defenseindustrydaily.com/turkey-picks-navantias-lhd-to-bulk-up-amphibious-capabilities-020411/
Coastal patrol vessel	6 new OPV/MHC, 12 new Pattugliatori d'Altura Multimissione (PAM) - High Sea Multimission Patrol Ship (IT)		By 2020	18	300m EUR	Concept design in dvpt Replacing both the eight Minerva-class corvettes and four Cassiopea-class OPVs due to retire in the second half of the present decade	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'

Coastal patrol vessel	New LCC (IT)	Fincantieri (IT)	Anticipated in 2015 but unlikely since would have required a contract award in 2012	3	EUR125 million	Replacing the ageing Stromboli-class vessels as well as the ITS Anteo and the Magnaghi vessel	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'
Coastal patrol vessel	ECUME (Embarcation Commandos à Usage Multiple Embarquable) multimission rigid-hull inflatable boats (RHIBs) (FR)	Zodiac MILPRO International (FR)	2015-2017	9 (initial batch but 20 to be procured in total) 11			IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
Auxiliary	BRAVE (Bâtiment Ravitailleur d'Escadre) multipurpose logistics support vessels (FR)	DCNS (FR)	2018-2021			Tender to be launched in 2015	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
Auxiliary	Replacing command and support vessel BNS Godetia (BE)		By 2015	1			IHS Jane's, 20/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Belgium.'

Air support	Future Combat Air System demonstration programme Anglo-French UCAV (UK/FR)	BAE Systems (UK) / Dassault (FR)	2030	USD191 million (2014) for the feasibility study	Aiming at fielding an unmanned combat aerial vehicle (UCAV)	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
Tactical and strategic lift	Maritime Patrol Aircraft (UK)		10 to 14		To be considered in the UK's next SDSR in 2015 following the cancellation of the BAE Systems Nimrod MRA.4 programme in the October 2010 SDSR. Costs will be an issue and an off-the-shelf purchase of aircraft is likely if a requirement is endorsed	IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.'
Air support	Full ASW and anti-surface warfare aircraft (IT)		Procurement postponed until 2020		Nine remaining Bréguet Atlantic 1s due to reach the end of their service lives in 2013 and 2014 but four Alenia ATR 72s with a long-range surveillance suite are being purchased as an interim solution.	IHS Jane's, 16/11/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Italy.'

Air defence / interdiction (multirole)	Rafale (India)	Dassault (FR)	Once the project is finalized, the first 18 jets are to be delivered to IAF within 36-48 months (2016-2019/2020)	126	EUR7,783bn	Contract yet to be signed Choice announced in 2012	Bipindra, N. C. 2014. 'India Said to Target Signing Rafale Fighter Jet Deal by End 2014'. Bloomberg, 20 August 2014, 12:30 p.m.GMT. As of 09/12/2014: http://www.bloomberg.com/news/2014-08-20/india-said-to-target-signing-rafale-fighter-jet-deal-by-end-2014.html
			The other 108 will be manufactured by HAL with transfer of technology over the next seven years				Pandit, Rjat. 2014. 'India closes in on \$20 billion Rafale deal'. New Delhi: The Times of India, 16 July 2014, 10:05 a.m. IST. As of 09/12/2014: http://timesofindia.indiatimes.com/india/India-closes-in-on-20-billion-Rafale-deal/articleshow/38467237.cms Ranjan Sen, Sudhi. 2014. 'The Fighters India is Buying Can't Match Chinese Fighters: Russian Envoy'. New Delhi: NDTV, 18 October 2014, 11:06 p.m. IST. As of 09/12/2014:

						http://www.ndtv.com/article/india/rafale-fighters-india-is-buying-can-t-match-chinese-fighters-russian-envoy-608815 SIPRI Trade Register
Tactical and strategic lift	C295 (India)	Airbus (FR, DE, ES) & Tata Advanced Systems (India) Bid submitted but contract not yet awarded	16 + 40	Airbus Defence and Space will supply the first 16 aircraft in 'fly-away' condition from its own final assembly line The subsequent 40 aircraft will be manufactured and assembled by Tata Advanced Systems in India.		Kotoky, Anurag. 2014. 'Airbus Mulls India Assembly for C295 Plane in Military Pitch'. Bloomberg, 5 February 2014, 03:22 a.m. GMT. As of 09/12/2014: http://www.bloomberg.com/news/2014-02-04/airbus-mulls-india-assembly-for-c295-aircraft-in-military-pitch.html Shukla, Tarun. 2014. 'Tata, Airbus team up to make transport planes for IAF'. New Delhi: Livemint.com, 28 October 2014, 05:45 p.m. IST. As of 09/12/2014: http://www.livemint.com/Companies/buFura3oYvXdb5aW85JZQI/TataAirbus-submits-joint-bid-to-make-transport-planes-for-l.html

Tactical and strategic lift	KC-390 (Czech Rep)	Embraer (Braz) / Aero Vodochody (Cz)		2		Part of an agreement with Embraer to participate in the design and production of components for the Brazilian-led KC-390 programme.	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Czech Republic.'
Air-to-Air refuelling	A330 MRTT [Multi Role Tanker Transport] (India)	Airbus (FR)	From 2017	6			SIPRI Trade Register
Rotary	Attack helicopter (PL)	AgustaWestland/Turkish Aerospace Industries T129; the Boeing AH-64E Apache 'Guardian'; and the Airbus Helicopters EC 665 Tiger		32	PLN11.6 billion	Replacement of the country's ageing Mil Mi-24 'Hind' combat helicopters.	Wilk, Remisgiusz. 2014. 'Poland starts 'Kruk' attack helicopter acquisition programme'. IHS Jane's Defence Weekly, 9 July 2014. As of 09/12/2014: http://www.janes.com/article/40591/poland-starts-kruk-attack-helicopter-acquisition-programme
Rotary	Multirole helicopters (PL)	AgustaWestland with its AW149 / Sikorsky with the Black Hawk S-70i / Eurocopter with the EC 725 Caracal	2014-2022	70			IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'

C41STAR	C41STAR Maritime Mine Counter-measures (MMCM) (FR & UK)	Atlas Elektronik UK / Eca Robotics (FR) / QinetiQ, Thales SAS (FR) /Ultra Electronics Sonar Systems (UK)	Qualification of the mission packages expected to be completed by 2016. Operational evaluation of the system to be concluded by 2018. In service by 2024		160M EUR	Stand-alone system "able to carry out the tasks necessary to detect, classify, identify, and neutralise the mine threat" Contract award expected in late 2014 OCCAR is in charge of awarding the contract	IHS Jane's, 20/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement France.'
C41STAR	Landseeker (Electronic warfare system) (UK)		2017-2018				IHS Jane's, 31/12/2013. 'Jane's Sentinel Security Assessment – Western Europe. Procurement UK.'
C41STAR	3-D radars (Czech Rep, Hungary, Slovakia)	Lockheed Martin (US)/BAE Systems (UK)	2015-2016	30	CZK 1bn	Pb with the availability of funds	IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Czech Republic.'

C41STAR	Sola S-band systems (PL)		By 2015	12		IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
C41STAR	Bystra mobile C-band radars (PL)		By 2022	19		IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.'
C41STAR	Tytan Individual Battle System (PL)	Bumar-led consortium (PL)	Procurement in 2016 for deliveries completed between 2018 and 2022	800		IHS Jane's, 19/02/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Poland.' Wilk, Remigiusz. 2011. 'The Decisive Year for Tytan'. Soldiermod.com, 2011. As of 09/12/2014: http://www.soldiermod.com/volume-7/battlesystem-tytan.html
Airborne early warning	Hand-launched tactical UAVs (AT)		By 2018		12 to 16m EUR	IHS Jane's, 17/01/2014. 'Jane's Sentinel Security Assessment – Western Europe. Procurement Austria.'

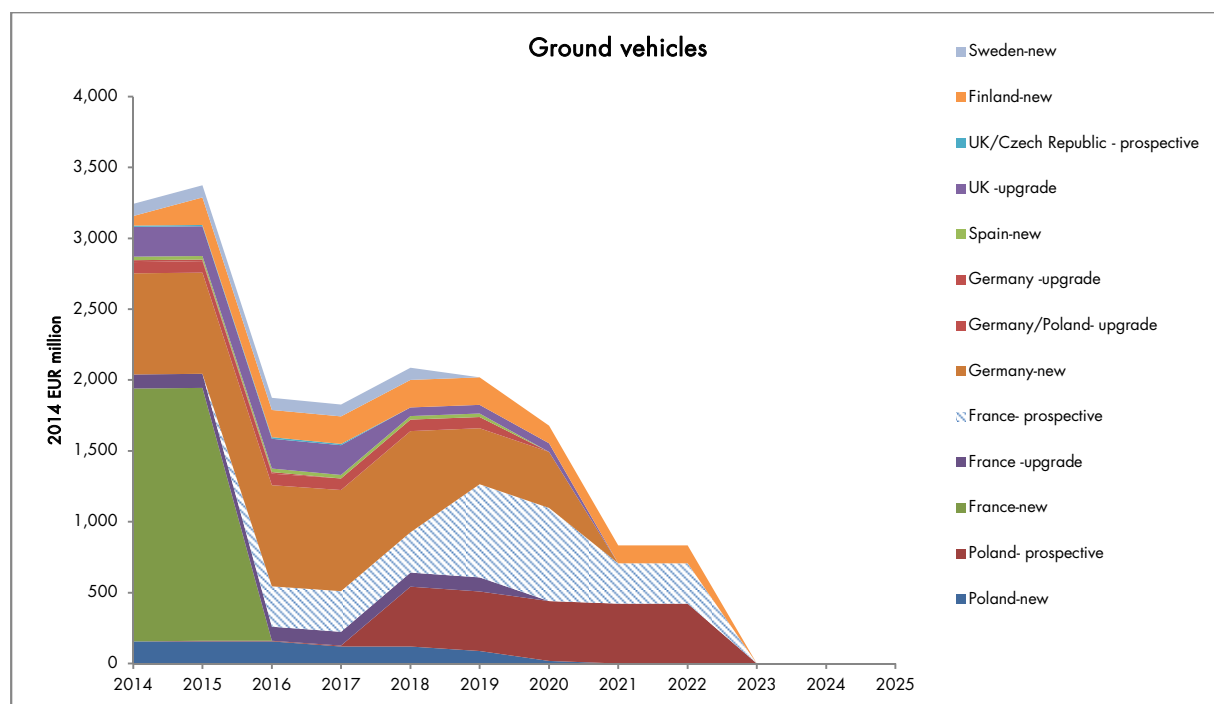
1.1. High level overview of current and future equipment programmes

To get an overall high level picture of trends in the European equipment market and the requirements for future equipment, we have used available data from the tables above and estimates on price and delivery schedule (where available) to produce a set of charts outlining the picture of equipment programmes for the next ten to twenty years. To produce these charts, we have:

- taken the publically available information on contract value, converted it to 2014 EUR (using exchange rates and inflation rates available on the website of the European Central Bank)⁵
- evenly divided the contract value over the period between contract signature and delivery date/in-service date (if specified)
- aggregated individual equipment programmes within one sector (e.g. air) to produce a chart for the whole sector

Given the paucity of data and its limited reliability and given the simplistic methodology used to derive a picture of current and future equipment programmes involving European defence companies, these charts should be viewed as indicative and illustrative, rather than conclusive and fully reliable.

Figure B.1. Equipment programmes post 2014 – Ground Vehicles



⁵ European Central Bank (n.d.a; n.d.b).

Figure B.2. Equipment programmes post 2014 – Ships and Submarines

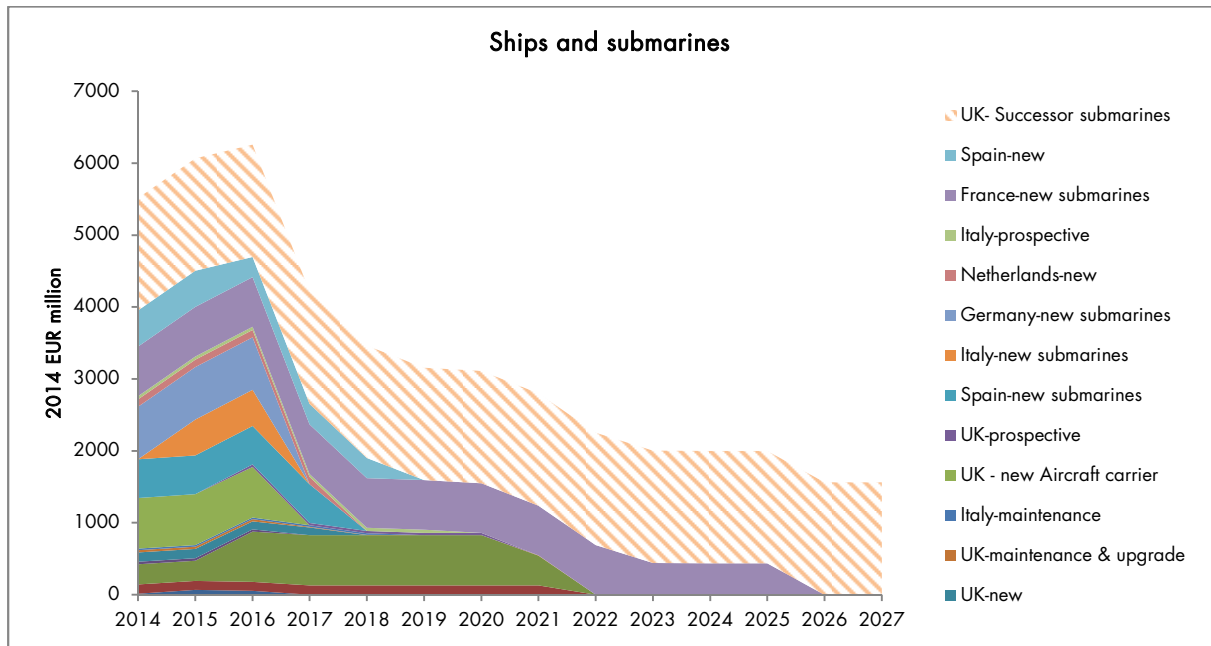


Figure B.3. Equipment programmes post 2014 – Aircraft

