

Name of investment	Initial NPP RP2*									Revised NPP RP2**									
	Total CAPEX for the project	Planned Amount of Capital Expenditures (in national currency)					Lifecycle (Amortisation period in years)	Allocation en route / terminal ANS (%)	Planned date of entry into operation (IOC / FOC dates)	Total CAPEX for the project	Planned Amount of Capital Expenditures (in national currency)					Lifecycle (Amortisation period in years)	Allocation en route / terminal ANS (%)	Planned date of entry into operation (IOC / FOC dates)	
		2015	2016	2017	2018	2019					2015 A	2016	2017	2018	2019				
1 Radio location system	107,80	43,07	8,79	26,06	28,37	1,52	15	100/0	2016-2019	125 791 749	24 312 123	18 069 626	45 210 000	500 000	37 700 000	15, 20	100 / 0	2016-2020	
2 Ground stations	3,20	3,20	0,00	0,00	0,00	0,00	15	100/ 0	2015-2016	58 987 106	12 391 106	474 000	20 582 000	19 968 000	5 572 000	15, 20	100 / 0	2016-2021	
3 ATC training and contingency infrastructure	200,10	15,00	14,05	44,00	127,00	0,00	40	100/ 0	2015, 2019	311 276 287	24 754 844	64 321 443	12 200 000	74 700 000	135 300 000	15, 40	85 /14 / 1 (Other)	2016-2023	
4 DVOR/DME Infrastructure	12,10	1,10	4,60	0,35	0,00	6,00	15	100/0	2016, 2019	33 387 219	5 371 137	7 506 082	5 750 000	4 840 000	9 920 000	15, 20	max 100 / 0 min 88 / 12	2016-2021	
5 Towers	111,60	35,10	16,50	32,20	27,80	0,00	40, 15	70/30 0/ 100	2015-2018	157 817 291	7 976 928	26 582 446	61 056 068	36 001 849	26 200 000	15, 40	max 96 / 4 min 30 / 70	2017-2019	
6 ERP Enterprise Resource Planning system	16,00	10,40	5,60	0,00	0,00	0,00	5	90/10	2016	15 984 462	0	0	4 795 338	5 594 562	5 594 562	5	83 / 15 / 2 (other)	2019	
7 ILS/DME Infrastructure	15,90	5,70	0,00	7,50	2,70	0,00	20	50/50	2015-2018	21 712 131	5 194 645	4 517 486	4 700 000	7 300 000	0	15, 20	max 60 /40 min 42 / 58	2016-2019	
8 Implementation of 8,33 kHz channel separation below FL195	6,00	0,00	6,00	0,00	0,00	0,00	5	75/25	2017	8 333 746	0	8 333 746	0	0	0	15	72 / 28	2016	
9 MLAT Poznań, Wrocław, Kraków, Katowice	20,00	0,00	0,00	14,00	6,00	0,00	15	100/0	2019	28 170 000	0	3 670 000	7 000 000	10 000 000	7 500 000	10	100 / 0	2020	
10 System A-SMGCS	16,70	0,00	16,70	0,00	0,00	0,00	5	0/100	2016	28 294 942	0	3 294 942	5 000 000	20 000 000	0	15	0 / 100	2015-2018	
11 Search & Rescue infrastructure	23,40	0,00	2,00	21,40	0,00	0,00	5	100/0	2017	0	0	0	0	0	0		100 / 0		
12 Pegasus ATM system and supporting systems	85,80	11,40	0,00	11,40	0,00	63,00	15, 10	94/6	2015-2019	134 413 925	36 131 353	14 920 325	68 062 247	15 300 000	0	10, 15	80 /20	2016-2020	
13 ATM Systems inspection aircraft	36,50	36,50	0,00	0,00	0,00	0,00	20	100/ 0	2016	33 116 535	33 116 535	0	0	0	0	20	100 / 0	2020	
14 AIM- Aeronautical Information Management	2,50	0,00	2,50	0,00	0,00	0,00	3,10,40	90/10	2016	2 733 469	82 146	2 651 323	0	0	0	5	80 / 20	2017-2017	
Sub-total of main capex above (1)	657,50	161,50	76,80	156,90	191,90	70,50				960 018 861	149 330 816	154 341 419	234 355 653	194 204 411	227 786 562				
Sub-total other Capex (2)	39,50	7,00	9,00	9,00	9,00	5,00				118 199 591	19 168 584	38 081 507	27 251 500	27 376 000	6 322 000				
Total capex (1) + (2)	697,00	168,00	86,00	166,00	201,00	76,00				1 078 218 452	168 499 400	192 422 926	261 607 153	221 580 411	234 108 562				
Additional comments										Additional comments									
* In the initial NPP CAPEX is presented in M PLN.										** CAPEX presented in PLN.									

PANSZA		Initial NPP	
Number of capex	14		
Name of capex 1	Radio location system		
Description	Radars: S-E, MSSR N-E, ASR-10 Warszawa, N-E, Kraków, MLAT Poznan Wroclaw, MLAT Kraków Katowice; modernization of radars: Gdansk, Katowice, MSSR Rzeszów; ADS-B Receiver -Modlin, Szczecin, Lublin		
Accountable entity	ANSP-PANSZA		

Justification of the cost, nature and contribution		
Differentiation	New system	Modernization of existing systems and development through the purchase of new radars
Replacement investment	Yes	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ATM MP : CTE-S5, CTE-S9, CTE-S1a, CTE-S1b
Joint investment	No	
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.3) Implementation Plan
Consultation with stakeholders	Yes	9th and 14th May 2014
Decision-making process	Yes	Radars replacement has been performed due to end-of-life of existing radars. ADS-B provides an alternative surveillance layer

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Precise identification and determination of the position of aircraft with surveillance information continuity, enable to provide continuous coverage of the area and maintain the current level of security with an increasing level of air traffic.	2016-2017	En route
Environment	Yes	The use of new technologies will reduce the level of transmission of electromagnetic waves and reduce electricity consumption	2016-2017	En route
Capacity	Yes	Determine the position of the aircraft along with ensuring continuity of information, surveillance, can reduce the separation of aircraft and leads to increased capacity and reduce delays in air traffic.	2016-2017	En route
Cost efficiency	Yes	Maintaining and developing surveillance infrastructure, increased the number of aircraft operated. Analysis of the investment costs and possible operational and technical solutions lead to the selection of a solution requires the least cost in complying with the operational requirements	2016-2017	En route

Name of capex 2	Ground stations
Description	Ground stations Wloclawek, Drezdenko,
Accountable entity	ANSP-PANSZA

Justification of the cost, nature and contribution		
Differentiation	New system	
Replacement investment	No	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ATM MP: CTE-C11b, CTE-C5
Joint investment	No	
Synergies achieved at FAB level or other MS	No	
Consultation with stakeholders	Yes	9th and 14th May 2014
Decision-making process	Yes	Separation of the functions of transmitting and receiving

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Separation of the functions of transmitting and receiving in the Ground stations, will reduce the interference of waves, causing the cut frequency to reduce the number of usable channels	2015-2016	En-route
Environment	Yes	Reducing consumption energy for retrofitted and new equipment	2015-2016	En-route
Capacity	Yes	Increasing the number of frequencies in the Ground station, will increase the number of sectors possible to handle, which in turn helps to reduce air traffic delays	2015-2016	En-route

PANSZA		Revision of National Performance Plan (NPP)	
Number of capex	14		
Name of capex 1	Radio location system		
Description	MSSR Mode S Radars: S-E, N-E, N-W, Rzeszów, PSR/MSSR Mode S Warszawa, Kraków, Gdańsk, Katowice, MSSR Rzeszów; mobile radar MSSR Mode S, WAM Gdansk, WAM FIR Warszawa		
Accountable entity	ANSP-PANSZA		

Justification of the cost, nature and contribution		
Differentiation	New system	SUR coverage optimization plan combined with radars replacement due to end-of-life of existing radars and gradual implementation of alternative SUR technologies - WAM/ADS-B.
Replacement investment	Yes	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ACID IR - (EU) No 1206/2011; OI Step ATM MP: CNS-0003-A; Enabler ATM MP: CTE-S05, CTE-SGOV02, Deployment Package: DP1.1; LSSIP:ITY-ACID
Joint investment	No	
Synergies achieved at FAB level or other MS	Yes	
Consultation with stakeholders	Yes	19th May 2016
Decision-making process	Yes	Strategic SUR development plan and investment plan, based on revised operational requirements and current system assesment.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Precise identification and determination of the position of aircraft with surveillance information continuity, enable to provide continuous coverage of the area and maintain the current level of security with an increasing level of air traffic.	2016-2020+	En-route/Terminal
Environment	Yes	The use of new technologies and optimized coverage will reduce the level of transmission of electromagnetic waves and reduce electricity consumption	2016-2020+	En-route/Terminal
Capacity	Yes	Increased precision of aircraft position determination along with ensuring continuity of surveillance information, allows to reduce the separation of aircraft and leads to increased capacity and reduced delays in air traffic.	2016-2020+	En-route/Terminal
Cost efficiency	Yes	Cost savings, complying with the operational requirements, with optimised coverage combined with use alternative SUR technologies	2016-2020+	En-route/Terminal

Name of capex 2	Ground stations
Description	Ground stations 30 pieces in different location (Warszawa, Poznań, Rzeszów, Przedbórz, Konin, Tarnobrzeg, Brzesko, Piła, Wrocław, Chojnice, Radom, Lidzbark, Krotoszyn, Kraśnik, Wyszków, etc.)
Accountable entity	ANSP-PANSZA

Justification of the cost, nature and contribution		
Differentiation	New system	
Replacement investment	No	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ATM MP: OI Steps: CNS-0001-A; LSSIP: COM11, ITY-AGDL, ITY-FMTP
Joint investment	No	
Synergies achieved at FAB level or other MS	No	
Consultation with stakeholders	Yes	19th May 2016
Decision-making process	Yes	Further improvements of the radio coverage for the coming next airspace reorganization (3 layers); modernization of the radio sites infrastructure by the separation of the Rx and Tx baseband hardware (frequencies inferences)

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Separation of the functions of transmitting and receiving in the Ground stations, will reduce the interference of waves, causing the cut frequency to reduce the number of usable channels	2015-2016	En-route
Environment	Yes	Reducing consumption energy for retrofitted and new equipment	2015-2016	En-route
Capacity	Yes	Increasing the number of radio sites and operational frequencies, will increase the radio coverage with growing number of sectors possible to handle	2015-2016	En-route

PANSÁ		Initial NPP		
Number of capex	14			
Cost efficiency	Yes	Implementation of new technologies in the COM area allows to reduce the operating costs of systems. Separation of the functions of transmitting and receiving in the Ground station, reducing the number needed to build the facilities, which in turn will reduce operating costs	2015-2016	En-route

Name of capex 3		ATC training and contingency infrastructure		
Description	Infrastructure investments			
Accountable entity	ANSP-PANSÁ			

Justification of the cost, nature and contribution				
Differentiation	New system			
Replacement investment	No			
Common project	No			
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	No			
Joint investment	No			
Synergies achieved at FAB level or other MS	No			
Consultation with stakeholders	Yes	9th and 14th May 2014		
Decision-making process	Yes	In order to safeguard a continuity of air navigation services provision in a long-term perspective and with the aim to reduce APP control centres in FIR EPWW.		

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	To ensure the continuity of services	2015-2019	En-route
Environment	Yes	Implementation of energy saving solutions possible to used in the building.		
Capacity	Yes	To ensure the continuity of services	2015-2019	En-route
Cost efficiency	No			

Name of capex 4		DVOR/DME Infrastructure		
Description	DME Wielun, Olsztyn, Działyn, DVOR/ DME Okęcie, Poznań			
Accountable entity	ANSP-PANSÁ			

Justification of the cost, nature and contribution				
Differentiation	Overhaul of existing system			
Replacement investment	Yes			
Common project	No			
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ATM MP: AOM-0601, AOM-0602, CTE-NSa		
Joint investment	No			
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.3) Implementation Plan		
Consultation with stakeholders	Yes	9th and 14th May 2014		
Decision-making process	Yes	Fulfill the requirements of navigation coverage.		

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Fulfill the requirements of navigation coverage. Multiple coverage of the beacon signal, will increase the accuracy of the aircraft location and to provide redundancy radionavigation coverage.	2016,2017, 2019	En-route/ Terminal
Environment	Yes	The flexibility to design procedures for fluent air traffic management and reduction trajectory	2016,2017, 2019	En-route/ Terminal

PANSÁ		Revision of National Performance Plan (NPP)		
Number of capex	14			
Cost efficiency	Yes	Implementation of new technologies in the COM area allows to reduce the operating costs of systems. Separation of the functions of transmitting and receiving in the Ground station, reducing the number needed to build the facilities, which in turn will reduce operating costs	2015-2016	En-route

Name of capex 3		ATC training and contingency infrastructure		
Description	Extension of PANSÁ's training capabilities (new modern training center) and Business Continuity improvements (incl. ITEC infrastructure).			
Accountable entity	ANSP-PANSÁ			

Justification of the cost, nature and contribution				
Differentiation	New system			
Replacement investment	No			
Common project	No			
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	No			
Joint investment	No			
Synergies achieved at FAB level or other MS	No			
Consultation with stakeholders	Yes	19th May 2016		
Decision-making process	Yes	Objective - to ensure continuity of air navigation services provision in FIR EPWW for ACC, APPS, FIS, AMC and new ATM system development (i-TEC).		

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	To ensure the continuity of services	a) 2017-2020 2021+	a) En-route /Warsaw TMA b) En-route /Terminal /EPMO & EPWA, EPGD, EPPO & EPZG, EPKK & EPKT, /FIS /AMC
Environment	Yes	Implementation of energy saving solutions possible to used in the building.	2021+	
Capacity	Yes	Crucial to ensure the ATM services continuity as well as for i-TEC development. To ensure smooth capacity recovery during contingencies.	a) 2017-2020 2021+	b) a) ACC c.a. 30-50%, APP WA c.a. 40-70% b) at least 70% En-route & Terminal / at least 50% Airports
Cost efficiency	No	Optimized use of existing infrastructure and estate. Reduced maintenance and training costs due to unification of CNS systems,	2021+	

Name of capex 4		DVOR/DME Infrastructure		
Description	DVOR/DME TMA Warszawa, TMA Gdańsk, DVOR/DME Radom, Czempin, Szymany, Okęcie, Poznań, DME Płońsk, Kmiecin, Karnice DME-OR Działyn, Karnice, Olsztyn			
Accountable entity	ANSP-PANSÁ			

Justification of the cost, nature and contribution				
Differentiation	Overhaul of existing system			
Replacement investment	Yes			
Common project	No			
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ATM MP: AOM-0601, AOM-0602, OI Step: CNS-002-A; Enablers: CTE-N08, CTE-N12, CTE-NGOV01; LSSIP:NAV03		
Joint investment	No			
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.3) Implementation Plan		
Consultation with stakeholders	Yes	19th May 2016		
Decision-making process	Yes	Fulfill the requirements of navigation coverage.		

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Fulfill the requirements of navigation coverage. Multiple coverage of the beacon signal, will increase the accuracy of the aircraft location and to provide redundancy radionavigation coverage.	2016,2017, 2019	En-route/ Terminal
Environment	Yes	The flexibility to design procedures for fluent air traffic management and reduction trajectory	2016,2017, 2019	En-route/ Terminal

PANSÁ		Initial NPP		
Number of capex	14			
Capacity	Yes	Increase the accuracy of the position of the aircraft by increasing the coverage of the navigation will allow more flexible airways and flight procedures. Minimizing delays in air traffic by increasing the precision of determining the position of the aircraft	2016,2017, 2019	En-route/ Terminal
Cost efficiency	Yes	Transition from the use of the DVOR / DME to the DME which is a cheapertechnology, will reduce infrastructure maintenance costs. Coverage of theRNP1 is much cheaper than RNP5, also due to the increased accuracy of the location of the aircraft, reducing delays and generated support for air trafficservices	2016,2017, 2019	En-route/ Terminal

Name of capex 5	Towers
Description	TWR (Towers): Katowice, Krakow, Poznan, Modlin;
Accountable entity	ANSP-PANSÁ

Justification of the cost, nature and contribution		
Differentiation	New system	
Replacement investment	No	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ATM MP; SDM-0201
Joint investment	No	
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.2) Implementation Plan
Consultation with stakeholders	Yes	9th and 14th May 2014
Decision-making process	Yes	Opportunity to develop services adequate to the level of traffic.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Fit build parameters to the characteristics of the airport and needs in the provision of aerodrome control services. Opportunity to develop services adequate to the level of traffic.	2015, 2017,2018	En-route/ Terminal
Environment	No			
Capacity	Yes	Opportunity to develop services adequate to the level of traffic.	2015, 2017,2018	En-route/ Terminal
Cost efficiency	Yes	Increasing cost efficiency resulting from leaving the airport services TWR. Reduction in demand for supporting staff. More efficient use of human resources (ATCOs and AFISOs), especially by serving multiple airports with medium to low traffic levels from a centralised location.	2015, 2017,2018	En-route/ Terminal

Name of capex 6	ERP Enterprise Resource Planning system
Description	ERP Enterprise Resource Planning system
Accountable entity	ANSP-PANSÁ

Justification of the cost, nature and contribution		
Differentiation	New system	
Replacement investment	No	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	No	
Joint investment	No	
Synergies achieved at FAB level or other MS	No	
Consultation with stakeholders	Yes	9th and 14th May 2014
Decision-making process	Yes	Investment plan elaboration procedure . Opportunity to improve the quality of the management process.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	No			
Environment	No			
Capacity	No			

PANSÁ		Revision of National Performance Plan (NPP)		
Number of capex	14			
Capacity	Yes	Increase the accuracy of the position of the aircraft by increasing the coverage of the navigation will allow more flexible airways and flight procedures. Minimizing delays in air traffic by increasing the precision of determining the position of the aircraft	2016,2017, 2019	En-route/ Terminal
Cost efficiency	Yes	Transition from the use of the DVOR / DME to the DME which is a cheapertechnology, will reduce infrastructure maintenance costs. Coverage of theRNP1 is much cheaper than RNP5, also due to the increased accuracy of the location of the aircraft, reducing delays and generated support for air trafficservices	2016,2017, 2019	En-route/ Terminal

Name of capex 5	Towers
Description	TWR (Towers): Warszawa, Kraków, Lublin, Modlin, Poznań, Katowice, remote tower, modernization of existing TWRs
Accountable entity	ANSP-PANSÁ

Justification of the cost, nature and contribution		
Differentiation	New system	
Replacement investment	No	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ATM MP OI step; SDM-0201
Joint investment	No	
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.2) Implementation Plan
Consultation with stakeholders	Yes	19th May 2016
Decision-making process	Yes	Opportunity to develop services adequate to the level of traffic.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Fit build parameters to the characteristics of the airport and needs in the provision of aerodrome control services. Opportunity to develop services adequate to the level of traffic.	2015, 2017,2018	En-route/ Terminal
Environment	No			
Capacity	Yes	Opportunity to develop services adequate to the level of traffic.	2015, 2017,2018	En-route/ Terminal
Cost efficiency	Yes	Increasing cost efficiency resulting from leaving the airport services TWR. Reduction in demand for supporting staff. More efficient use of human resources (ATCOs and AFISOs), especially by serving multiple airports with medium to low traffic levels from a centralised location.	2015, 2017,2018	En-route/ Terminal

Name of capex 6	ERP Enterprise Resource Planning system
Description	ERP Enterprise Resource Planning system
Accountable entity	ANSP-PANSÁ

Justification of the cost, nature and contribution		
Differentiation	New system	Reprioritised. Put away on 2017 because of the necessity of further audit of organizational needs.
Replacement investment	No	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	No	
Joint investment	No	
Synergies achieved at FAB level or other MS	No	
Consultation with stakeholders	Yes	19th May 2016
Decision-making process	Yes	Investment plan elaboration procedure. Opportunity to improve the quality of the management process.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	No			
Environment	No			
Capacity	No			

PANSÁ		Initial NPP		
Number of capex	14			
Cost efficiency	Yes	Ability to efficiently allocate human resources and define the possible bottlenecks. Improving the process of planning, controlling, costs allocating and create financial forecasts.	2016	

Name of capex 7	ILS/DME Infrastructure			
Description	ILS/DME Rzeszow, Gdansk, Bydgoszcz, Lodz, Poznan, Krakow, Warszawa (FFM)			
Accountable entity	ANSP-PANSA			

Justification of the cost, nature and contribution		
Differentiation	Overhaul of existing system	
Replacement investment	Yes	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or Joint investment)	Yes	ATM MP : CTE-N6
	No	
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.3) Implementation Plan
Consultation with stakeholders	Yes	9th and 14th May 2014
Decision-making process	Yes	Replacement of the ILS system is required due to end-of-life of the current system

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Exchange of exploited ILS systems will increase safety - new equipment are generally more reliable. Increasing the accuracy of the aircraft location can navigate the aircraft with the prescribed rate on the path of approach in low visibility. Provide by instrument approach for depending on the E462 minimize the amount on which the decision is made whether to interrupted the approach to landing. The Airport with ILS system, are able to service the aircraft in bad weather conditions.	2015-2017	En-route/Terminal
Environment	Yes	Possibility of flexible design flight procedures, generating environmental effects (reduction emissions etc.)	2015-2017	En-route/Terminal
Capacity	Yes	Airport facilities in the ILS can reduce separation between landing aircraft and making possible to increase the number of landings.	2015-2017	En-route/Terminal
Cost efficiency	Yes	Airport facilities in the ILS allows to increase the number of aircraft to be serviced even under adverse weather conditions, which generates income for both ANSPs and Airport. Simultaneously are decreasing costs and delays associated with the return of aircraft to the another airport in heavy weather.	2015-2017	En-route/Terminal

Name of capex 8	Implementation of 8,33 kHz channel separation below FL195			
Description				
Accountable entity	ANSP-PANSA			

Justification of the cost, nature and contribution		
Differentiation	New system	
Replacement investment	No	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or Joint investment)	Yes	ATM MP: CTE-C5
	No	
Synergies achieved at FAB level or other MS	No	
Consultation with stakeholders	Yes	9th and 14th May 2014
Decision-making process	Yes	Due to EU regulation nr 1079/2012 16.11.2012. Achievement of technical ability to implement a new separation below FL195.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Reliability of radio-communication system	2017	En-route/Terminal
Environment	No			
Capacity	Yes	Additional transmission channels used to provide the service due to on voice necessity of handle generating level of traffic	2017	En-route/Terminal
Cost efficiency	No			

PANSÁ		Revision of National Performance Plan (NPP)		
Number of capex	14			
Cost efficiency	Yes	Ability to efficiently allocate human resources and define the possible bottlenecks. Improving the process of planning, controlling, costs allocating and create financial forecasts.	2019	

Name of capex 7	ILS/DME Infrastructure			
Description	ILS/DME Rzeszow, Gdansk, Bydgoszcz, Lodz, Poznan, Krakow, Warszawa (FFM), Katowice			
Accountable entity	ANSP-PANSA			

Justification of the cost, nature and contribution		
Differentiation	Overhaul of existing system	
Replacement investment	Yes	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or Joint investment)	Yes	ATM MP : OI Step: CNS-0002-A; Enabler: CTE-N14
	No	
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.3) Implementation Plan
Consultation with stakeholders	Yes	19th May 2016
Decision-making process	Yes	Replacement of the ILS system is required due to end-of-life of the current system also to improve to higher level of ILS.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Exchange of exploited ILS systems will increase safety - new equipment are generally more reliable. Increasing the accuracy of the aircraft location can navigate the aircraft with the prescribed rate on the path of approach in low visibility. Provide by instrument approach for depending on the E462 minimize the amount on which the decision is made whether to interrupted the approach to landing. The Airport with ILS system, are able to service the aircraft in bad weather conditions.	2015-2017	En-route/Terminal
Environment	Yes	Possibility of flexible design flight procedures, generating environmental effects (reduction emissions etc.)	2015-2017	En-route/Terminal
Capacity	Yes	Airport facilities in the ILS can reduce separation between landing aircraft and making possible to increase the number of landings.	2015-2017	En-route/Terminal
Cost efficiency	Yes	Airport facilities in the ILS allows to increase the number of aircraft to be serviced even under adverse weather conditions, which generates income for both ANSPs and Airport. Simultaneously are decreasing costs and delays associated with the return of aircraft to the another airport in heavy weather.	2015-2017	En-route/Terminal

Name of capex 8	Implementation of 8,33 kHz channel separation below FL195			
Description	Implementation of 8,33 kHz channel separation below FL195			
Accountable entity	ANSP-PANSA			

Justification of the cost, nature and contribution		
Differentiation	New system	
Replacement investment	No	
Common project	No	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or Joint investment)	Yes	ATM MP: OI Step: CNS-0001-A; Enabler: CTE-C07b; LSSIP Objectives: ITY-AGVCS2
	No	
Synergies achieved at FAB level or other MS	No	
Consultation with stakeholders	Yes	19th May 2016
Decision-making process	Yes	Due to EU regulation nr 1079/2012 16.11.2012. Achievement by the February 2018 a technical readiness to implement a new radio channel 8,33kHz separation below FL195.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Reliability of radio-communication system	2017	En-route/Terminal
Environment	No			
Capacity	Yes	Additional transmission channels used to provide the service due to on voice necessity of handle generating level of traffic. Increased capacity by satisfying the demand for new frequency.	2017	En-route/Terminal
Cost efficiency	No			

PANSA	Initial NPP
Number of capex	14

Name of capex 9	MLAT Poznań, Wrocław, Kraków, Katowice
Description	
Accountable entity	ANSP-PANSA

Justification of the cost, nature and contribution		
Differentiation	<i>New system</i>	
Replacement investment	<i>No</i>	
Common project	<i>No</i>	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	<i>Yes</i>	ATM MP: CTE-S5
Joint investment	<i>No</i>	
Synergies achieved at FAB level or other MS	<i>No</i>	
Consultation with stakeholders	<i>Yes</i>	9th and 14th May 2014
Decision-making process	<i>Yes</i>	Opportunity to introduce new more economical solution to provide APP services

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	<i>Yes</i>	Precise identification and determination of the position of aircraft with surveillance information continuity, enable to provide continuous coverage of the area and maintain the current level of security with an increasing air traffic level.	2019	En-route
Environment	<i>No</i>			
Capacity	<i>Yes</i>	Determination the position of the aircraft with the ensuring of continuity of information surveillance, can reduce the aircraft separation and adjusted to increased capacity and reduce air traffic delays.	2019	En-route
Cost efficiency	<i>Yes</i>	Analysis of the investment costs and possible operational and technical solutions lead to the selection of a solution requires the least cost in complying with the operational requirements	2019	En-route

Name of capex 10	System A-SMGCS
Description	System A-SMGCS
Accountable entity	ANSP-PANSA

Justification of the cost, nature and contribution		
Differentiation	<i>New system</i>	
Replacement investment	<i>No</i>	
Common project	<i>Yes</i>	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	<i>Yes</i>	ESSIP Objectives: AOP04.1; AOP04.2 ATM MP:AO-0201, AO-0102, CTE-S5, CTE-S9
Joint investment	<i>No</i>	
Synergies achieved at FAB level or other MS	<i>No</i>	
Consultation with stakeholders	<i>Yes</i>	9th and 14th May 2014
Decision-making process	<i>Yes</i>	A-SMGCS Level 1 surveillance data may be used to replace visual observation as required, in accordance with ICAO EUR Doc 7030, chapter 6.5.6 (approved March 2009), and as the basis of controller decision making.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	<i>Yes</i>	Improved situational awareness for aerodrome controllers to ensure the safety of aerodrome operations.	2016	Terminal
Environment	<i>Yes</i>	Reduction of noise and emissions.	2016	Terminal
Capacity	<i>Yes</i>	Ability to maintain traffic throughput during periods when aerodrome traffic can not be observed visually by aerodrome controllers	2016	Terminal
Cost efficiency	<i>Yes</i>	More efficient control of aerodrome surface traffic, leading to a reduction in delay and fuel burn.	2016	Terminal

Name of capex 11	Search & Rescue infrastructure
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PANSA	Revision of National Performance Plan (NPP)
Number of capex	14

Name of capex 9	MLAT for FIR Warszawa
Description	Extension of concept of MLAT for FIR Warszawa
Accountable entity	ANSP-PANSA

Justification of the cost, nature and contribution		
Differentiation	<i>New system</i>	SUR coverage optimization plan combined with gradual implementation of alternative SUR technologies - WAM/ADS-B.
Replacement investment	<i>No</i>	
Common project	<i>No</i>	
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	<i>Yes</i>	ACID IR - (EU) No 1206/2011; ATM Master Plan: OI Step: CNS-0003-A; Enabler: CTE-S05, CTE-SGOV02; LSSIP: ITY-ACID
Joint investment	<i>No</i>	
Synergies achieved at FAB level or other MS	<i>No</i>	
Consultation with stakeholders	<i>Yes</i>	19th May 2016
Decision-making process	<i>Yes</i>	Strategic SUR development plan and investment plan, based on revised operational requirements and current system assesment.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	<i>Yes</i>	Precise identification and determination of the position of aircraft with surveillance information continuity, enable to provide continuous coverage of the area and maintain the current level of security with an increasing level of air traffic.	2017-2021+	En-route/Terminal
Environment	<i>No</i>	The use of new technologies will reduce the level of transmission of electromagnetic waves and reduce electricity consumption	2017-2021+	En-route/Terminal
Capacity	<i>Yes</i>	Increased precision of aircraft position determination along with ensuring continuity of surveillance information , allows to reduce the separation of aircraft and leads to increased capacity and reduced delays in air traffic.	2017-2021+	En-route/Terminal
Cost efficiency	<i>Yes</i>	Cost savings, complying with the operational requirements, with optimised coverage combined with use alternative SUR technologies	2017-2021+	En-route/Terminal

Name of capex 10	System A-SMGCS
Description	System A-SMGCS with radiolocation system of aerodrome visualisation
Accountable entity	ANSP-PANSA

Justification of the cost, nature and contribution		
Differentiation	<i>New system</i>	
Replacement investment	<i>No</i>	
Common project	<i>Yes</i>	Together with PPL
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	<i>Yes</i>	LSSIP Objectives: AOP04.1; AOP04.2 ATM MP:AO-0201, AO-0102, OI Step: AO-0205, Enabler: AERODROME-ATC-12, AERODROME-ATC-13, AERODROME-ATC-50, PCP: s-AF2.4, s-AF2.5, Deployment Package - Enhanced Airport Safety Nests, Ground Situation Awareness, Integrated Surface Management;
Joint investment	<i>No</i>	
Synergies achieved at FAB level or other MS	<i>No</i>	
Consultation with stakeholders	<i>Yes</i>	19th May 2016
Decision-making process	<i>Yes</i>	A-SMGCS Level 2+ compliant with ETSI EN 303 213 1-4 as an enhanced Warsaw TWR controller decision making tool for both procedural and radar aerodrome surface air traffic control.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	<i>Yes</i>	Improved situational awareness for aerodrome controllers to ensure the safety of aerodrome operations. Implementation of Airport Safety Nets.	2019	Terminal
Environment	<i>Yes</i>	Reduction of noise and fumes emissions.	2019	Terminal
Capacity	<i>Yes</i>	Ability to maintain traffic throughput during periods when aerodrome traffic can not be observed visually by aerodrome controllers	2019	Terminal
Cost efficiency	<i>Yes</i>	More efficient control of aerodrome surface traffic, leading to a reduction in delay and fuel burn.	2019	Terminal

Name of capex 11	Search & Rescue infrastructure
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PANSÁ		Initial NPP	
Number of capex	14		
Description	S&R (Search & Rescue infrastructure)		
Accountable entity	ANSP-PANSA		

Justification of the cost, nature and contribution			
Differentiation	New system		
Replacement investment	No		
Common project	No		
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	No		
Joint investment	No		
Synergies achieved at FAB level or other MS	Yes	This project is a part of (3.4) Implementation Plan	
Consultation with stakeholders	Yes	9th and 14th May 2014	
Decision-making process	Yes	Investment plan elaboration procedure. Provision of activities in the crisis situation.	

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Coordination Centre for Search and Rescue Air ARCC project in view of the amendment to the airline and the resulting regulations of the Minister of Infrastructure will be located in the Polish Air Navigation Services Agency.	2017	En-route/Terminal
Environment	No			
Capacity	No			
Cost efficiency	No			

Name of capex 12	Pegasus ATM system and supporting systems
Description	Pegasus ATM system and supporting systems
Accountable entity	ANSP-PANSA

Justification of the cost, nature and contribution			
Differentiation	New system		
Replacement investment	Yes		
Common project	No		
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	IS-0901; CM-0202; CM-0203	
Joint investment	No		
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.2) Implementation Plan	
Consultation with stakeholders	Yes	9th and 14th May 2014	
Decision-making process	Yes	Investment plan elaboration procedure	

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Enhanced airspace management adjusted to traffic volume in FIR Warsaw and maintenance or increase of air traffic safety	2015-2018	En-route/ Terminal
Environment	No	Airspace capacity increase; enabler for implementation of the vertical split	2015-2018	En-route/ Terminal
Capacity	Yes			
Cost efficiency	Yes	ATCOs productivity increase	2015-2018	En-route/ Terminal

Name of capex 13	ATM Systems inspection aircraft
Description	ATM Systems inspection aircraft

PANSÁ		Revision of National Performance Plan (NPP)	
Number of capex	14		
Description	As a result of change of legal provisions (Regulation of The Minister of Infrastructure and Construction of 27 August 2015) PANSA is not obliged to build system alone. Reprioritised.		
Accountable entity	ANSP-PANSA		

Justification of the cost, nature and contribution			
Differentiation	New system		
Replacement investment	No		
Common project	No		
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	No		
Joint investment	No		
Synergies achieved at FAB level or other MS	Yes		
Consultation with stakeholders	Yes	19th May 2016	
Decision-making process	Yes		

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Coordination between Civil and Military authorities; Promotion of Safety Program, Contingency Plan; Exchange of information - enhancing communication;		
Environment	No			
Capacity	Yes			
Cost efficiency	Yes			

Name of capex 12G225-K252G225-K254G225-K253I233G225-K	Pegasus ATM system and supporting systems
Description	Pegasus ATM system and supporting systems
Accountable entity	ANSP-PANSA

Justification of the cost, nature and contribution			
Differentiation	New system		
Replacement investment	Yes		
Common project	No		
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	IDP Activity 1 - WP1.1; PCP: AF3: Flexible Airspace Management and Free Route, s-AF3.2 Free Route, Family 3.2.1: Upgrade of ATM systems to support DCT and Free Route; ATM MP Operational Improvement Steps: AOM-0500, AOM-0501; CM-0105-A, CM-0202. LSSIP Objectives: AOM21.1 AOM21.2; ATC02.7; ITY-AGDL; FCM05	
Joint investment	No		
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.2) Implementation Plan	
Consultation with stakeholders	Yes	19th May 2016	
Decision-making process	Yes	Investment plan elaboration procedure	

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	Enhanced air traffic management capabilities adjusted to traffic volume in FIR Warsaw and maintenance or increase of air traffic safety	2016-2019	En-route/ Terminal
Environment	No	Reductions in emissions through use of more optimal routes		
Capacity	Yes	Airspace capacity increase; enabler for implementation of the vertical split for Warszawa ACC. Slightly increased through the better airspace utilisation to enhance productivity and reduce controller workload	2016-2019	En-route/ Terminal
Cost efficiency	Yes	ATCOs productivity increase. Savings in route distances as well as better fuel efficiency through increased use of preferred flight profiles and improved sectorisation	2016-2019	

Name of capex 13	ATM Systems inspection aircraft
Description	ATM Systems inspection aircraft

PANSÁ		Initial NPP	
Number of capex	14		
Accountable entity	ANSP-PANSÁ		

Justification of the cost, nature and contribution			
Differentiation	Overhaul of existing system		
Replacement investment	Yes		
Common project	No		
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	No		
Joint investment	No		
Synergies achieved at FAB level or other MS	Yes	This project is a part of (3.2) Implementation Plan	
Consultation with stakeholders	Yes	9th and 14th May 2014	
Decision-making process	Yes	Investment plan elaboration procedure	

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	To increase the possibility to immediately make the necessary inspectionflight, before taking the NAV etc. infrastructure into use.	2016	En-route
Environment	No			
Capacity	Yes	To increase the possibility to immediately make the necessary inspectionflight, before taking the NAV etc. infrastructure into use.	2016	En-route
Cost efficiency	Yes	ANSP will not have costs related with the provision of services by externalprovider.	2016	En-route

Name of capex 14	AIM- Aeronautical Information Management
Description	(System AIXM5.1; IWB System) System AIXM5.1 project is fully compliant to the Global Air Navigation Plan (Doc 9750) which was developed as a strategic document to guide the implementation of CNS/ATM systems with respect to the Global Air Traffic Management Operational Concept (Doc 9854) and the Strategic Objectives of ICAO.
Accountable entity	ANSP-PANSÁ

Justification of the cost, nature and contribution			
Differentiation	New system		
Replacement investment	No		
Common project	No		
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ESSIP Objectives: ITY_ADQ, INF-04 ATM MP: IS-0202; IS-0404	
Joint investment	No		
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.4) Implementation Plan	
Consultation with stakeholders	Yes	9th and 14th May 2014	
Decision-making process	Yes	The goal is to provide a service migration from manual processing and management of documents published in the paper version to an electronic one	

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	No	To assure the flight data in the relevant as shortes as possible time. Minimisation of the number of possible errors in the data systems of the ATM and the Integrated Aeronautical Information.	2019	En-route/ Terminal
Environment	No			
Capacity	No	Improving access to current flight data will allowa quick response to changes in the airspace and reduce the need for restrictions	2019	En-route/ Terminal
Cost efficiency	Yes	Creating dedicated products for the needs of airspace users	2019	En-route/ Terminal

PANSÁ		Revision of National Performance Plan (NPP)	
Number of capex	14		
Accountable entity	ANSP-PANSÁ		

Justification of the cost, nature and contribution			
Differentiation	Overhaul of existing system	Executed in 2015. Required for control flights.	
Replacement investment	Yes		
Common project	No		
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	No		
Joint investment	No		
Synergies achieved at FAB level or other MS	Yes	This project is a part of (3.2) Implementation Plan	
Consultation with stakeholders	Yes	19th May 2016	
Decision-making process	Yes	Investment plan elaboration procedure	

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	Yes	New features of the aircraft and Flight Inspection System increases the abilities of flight inspection and provides better availability of the aircraft.	2016-2020+	En-route
Environment	No			
Capacity	Yes	Flight inspection is an important part of the flight procedures validation process, the implementation of the procedures increases the capacity of the airspace. The same with NAV Aids.	2016-2020+	En-route
Cost efficiency	Yes	ANSP will not have costs related with the provision of services by external provider.	2016-2020+	En-route

Name of capex 14	AIM- Aeronautical Information Management
Description	(System AIXM5.1; IWB/GIS System) System AIXM5.1 project is fully compliant to the Global Air Navigation Plan (Doc 9750) which was developed as a strategic document to guide the implementation of CNS/ATM systems with respect to the Global Air Traffic Management Operational Concept (Doc 9854) and the Strategic Objectives of ICAO.
Accountable entity	ANSP-PANSÁ

Justification of the cost, nature and contribution			
Differentiation	New system		
Replacement investment	No		
Common project	No		
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	Yes	ELSP Objectives: ITY_ADQ, INF-04; Steps: IS-0205, Enabler: AIMS-07a, AIMS-19a, AIMS-06; Deployment Package: Digital Briefing; ATM MP: OI	
Joint investment	No		
Synergies achieved at FAB level or other MS	Yes	This project is a part of (2.4) Implementation Plan	
Consultation with stakeholders	Yes	19th May 2016	
Decision-making process	Yes	The goal is to provide a service migration from manual processing and management of documents published in the paper version to an electronic one	

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/Terminal/Airport/Phases>
Safety	No	To assure the flight data in the relevant as shortes as possible time. Minimisation of the number of possible errors in the data systems of the ATM and the Integrated Aeronautical Information. Some enhancement through reduction in controller workload.	2019	En-route/ Terminal
Environment	No	Reductions in emissions through use of more optimal routes.		
Capacity	No	Improving access to current flight data will allow a quick response to changes in the airspace and reduce the need for restrictions	2019	En-route/ Terminal
Cost efficiency	Yes	Creating dedicated products for the needs of airspace users. Optimising of ATCO resources will provide substantial cost effectiveness if this tool is coupled with the resource management tool.	2019	En-route/ Terminal