Priedas 3. EKA šalių kompetencijų žemėlapis.

	Technology domain		Technology subdomain	AT	BE	CA	CZ	DK	EE	FI	FR	DE	GR	HU	IE	IT	LV	LU	NL	NO	PL	PT	RO	SI	ES	SE	CH	UK	No of SME's declared competencies
1	On-Board Data Systems	A	Payload data processing	a	a	a	d		d	a	a	a		d	a	a		a	a		d	d	d		a	a	a	a	187
		B	On Board Data Management	a	a	a	d	a	d	a	a	a	a	d	a	a		d			d		d		a	a	a	a	131
		C	Microelectronics for digital and analogue applications	a	a	a	d	a		a	a	a	a			a			a	a	d	a	d		a	a	a	a	144
			Total	**a**	**a**	**a**	**d**	**a**	**d**	**a**	**a**	**a**	**a**	**d**	**a**	**a**		**a**	**a**	**a**	**d**	**a**	**d**		**a**	**a**	**a**	**a**	**462**
2	Space System Software	A	Advanced Software technologies	a		d	a	a		d	a	a	a	d		a			d		d	d	d		a	a	d	a	281
		B	Space Segment Software	a	a	d	a	a	d	a	a	a	a	d	a	a			a	a	d	a	d		a	a	a	a	190
		C	Ground Segment Software			d	d	d		d	d	o				d			d	d	d			d	d		d	o	139
		D	Ground Data Processing			d	d	d		d	d	o		d		d													130
		E	Earth Observation Payload Data Exploitation			d	d	d		d	d	o		d		d		d	d	d	d	o	d	d	d		d	o	207
			Total	**a**	**a**	**d**	**a**	**a**	**d**	**a**	**a**	**a**		**d**		**a**		**d**	**a**	**a**	**d**	**a**	**d**	**d**	**a**	**a**	**a**	**a**	**947**
3	Spacecraft Electrical Pov	A	Power System Architecture	a	a	d	d	a		a	a	a		d		d					d				a	a		a	70
		B	Power generation technologies		a		d		d	a	a	a				a		a	a	d	d				a		d	a	47
		C	Energy storage technologies				a		a		a	a	a			a				a		a			d		a	a	47
		D	Power conditioning and distribution	a	a	d	d	a	d	a	a	a				a					d		d		a	a	d	a	71
			Total	**a**	**a**	**d**	**a**	**a**	**a**	**a**	**a**	**a**	**a**	**d**		**a**		**a**	**a**	**d**	**d**	**a**	**d**		**a**	**a**	**a**	**a**	**235**
4	Space Environments & I	A	Space Environment	a	a	d	a	a		a	a	a	a		a	a			a	a	d	a	d		a	a	a	a	112
		B	Environment Effects	a	a	d	d			a	a	a				a			a	a	d	a	d	d	a	a	a	a	158
		C	Space Weather			d	d	d		d		o				d				a	a		d		d	o	d	o	131
			Total	**a**	**a**	**d**	**a**	**a**		**a**	**a**	**a**	**a**		**a**	**a**			**a**	**a**	**d**	**a**	**d**	**d**	**a**	**a**	**a**	**a**	**401**
5	Space System Control	A	Space system acrhitecture and autonomy	a		d	d	a			a	a				a		d	d	d	d	d	d	d	a	a	d	a	80
		B	Space segment guidance navigation and control (GNC)	a	a	a	d	a		a	a	a	a			a		a	a	a	d	a	d	d	a	a	a	a	111
			Total	**a**	**a**	**a**	**d**	**a**		**a**	**a**	**a**	**a**			**a**		**a**	**a**	**a**	**d**	**a**	**d**	**d**	**a**	**a**	**a**	**a**	**191**
6	RF Payload and System	A	Telecommunication (sub-) systems			a	d		d	a	o	o		d		d		d	a		d	d	d		a	o	a	o	169
		B	Radio navigation sub-sustems	a	a	a	d				a	a				a				a	d		d	d	a	a	a	a	118
		C	TT&C (sub-) systems		d	d	a				a	a				a		d		a	d			d	a	o	d	a	170
		D	RF payloads			d	d				a	a		d		a			o	d	d			d	d	d	d	o	181
		E	Microwave and milimeter wave tcehnologies and equipments	a	a	a	d	a	d	a	a	a			a	a			a	a	d		d		a	a	a	a	165
			Total	**a**	**a**	**a**	**d**	**a**		**a**	**a**	**a**	**a**			**a**		**a**	**a**	**a**	**d**	**a**	**d**	**d**	**a**	**a**	**a**	**a**	**803**
7	Electromagnetic Techno	A	Antennas	a	a	a	a	a		a	a	a	a		a	a		d	a	a	a	a	d	d	a	a	a	a	167
		B	Wave interaction and propagation			d	d			d	a	a		d						d	d				d		a	a	109
		C	EMC/RFC/ESD			d	d				o	o				d			d		d				d	o	d	o	65
			Total	**a**	**a**	**a**	**a**			**a**	**a**	**a**	**a**	**d**	**a**	**a**		**d**	**a**	**a**	**a**	**a**	**d**	**d**	**a**	**a**	**a**	**a**	**341**
8	System Design & Verific	A	Mission and system specification			d	d	d	d	o	o	o				d		d	d	d	d	d	d	d	d	o	d	o	198
		B	Collaborative and concurrent engineering			d	d		d	o	o	o				d			d	d	d		d	d	d		d	o	188
		C	System analysis and design		a	a	d	a		a	a	a				a		a	a	d	d	a	d	d	a	a	d	a	232
		D	Verification and AIT			d	d	d		o	a	o				d		d	d		d				d	o	d	a	197
			Total		**a**	**a**	**d**	**a**	**d**	**a**	**a**	**a**				**a**		**a**	**a**	**d**	**d**	**a**	**d**	**d**	**a**	**a**	**d**	**a**	**815**
9	Mission Operation & Gr	A	Advanced system concepts			d	d					o							d		d				d			d	147
		B	Mission operations			d	d	a		o	a	a				a		a	a	d	d		d		a		d	a	102
		C	Ground data systems			d	d			d	d	o				d		d	d	d	d	o	d		d		d	o	184
			Total			**d**	**d**	**a**		**d**	**a**	**a**				**a**		**a**	**a**	**d**	**d**	**o**	**d**		**d**		**d**	**a**	**433**
10	Flight Dynamics & GNS	A	Flight dynamics			d	d				o	o				d		d			d	d	d		d	o	d	o	25
		B	GNSS systems and ground-related technologies			d	d				o	o				d			d		d	d	d		d		d	o	151
			Total			**d**	**d**				**o**	**o**				**d**		**d**	**d**		**d**	**d**	**d**		**d**	**o**	**d**	**o**	**176**

	Technology domain		Technology subdomain	AT	BE	CA	CZ	DK	EE	FI	FR	DE	GR	HU	IE	IT	LV	LU	NL	NO	PL	PT	RO	SI	ES	SE	CH	UK	No of SME's declared competencies
11	Space Debris	A	Measurements			d	d			d	o					d					d				d	o	d		43
		B	Modelling, databases and risk analysis			d	d				o	o				d		o			d		d	d	d	o	d	o	117
		C	Hyper-velocity impact (HVI) and protection			d	d				d	o				d		o			d				d	o			18
			Total			**d**	**d**			**d**	**d**	**o**				**d**		**o**			**d**		**d**	**d**	**d**	**o**	**d**	**o**	**178**
12	Ground Station System	A	Ground station system		a	a	d	a	d	o	a	a		d		a		d	d	d	d	d	d	d	a	a	a	a	225
		B	Ground communiations networks			a	a					o		d		d		d	d		d	d	d		d			o	118
			Total		**a**	**a**	**d**	**a**	**d**	**o**	**a**	**a**		**d**		**a**		**d**	**d**	**d**	**d**	**d**	**d**	**d**	**a**	**a**	**a**	**a**	**343**
13	Automation, Telepresen	A	Applications and concepts		a	a	d				a	a				a			a		d	d		d	a		d	a	41
		B	Automation and robotics systems		a	a	d		d	a	a	a				a			a		d	a		d	d		a	a	85
		C	Automation & robotics components and technologies	a	a	a	d		d		a	a		d		a			d	a	d	d	d	d	a	d	a	a	196
			Total	**a**	**a**	**a**	**d**		**d**	**a**	**a**	**a**		**d**		**a**			**a**	**a**	**d**	**d**	**d**	**d**	**a**	**d**	**a**	**a**	**322**
14	Life & Physical Sciences	A	Instrumentation in support of Life Sciences		o	d	d	d	d	d	d	o				d			d	d			d		d		d		137
		B	Instrumentation in support of physical sciences		o	d	d		d	d	d	o		d		d			d	d					d		d	o	158
		C	Applied life science technology		o	d	d	d	d										d				d		d		d	o	80
		D	Applied physical science technology			d	d												d								d		64
			Total		**o**	**d**	**d**	**d**	**d**	**d**	**d**	**o**		**d**		**d**			**d**	**d**			**d**		**d**		**d**	**o**	**439**
15	Mechanisms & Tribolog	A	Mechanism core technologies	a	a	a	d		d		a	a			a	a		a	a	a	d		d		a	a	a	a	120
		B	Non-explosive release technologies	a	a	d	d				a	a				d			a	a	d				a		a	a	34
		C	Exploration tool technologies			d						o				d									d		d		10
		D	Control electronics technologies		a	d	d				a	a		d		d			d	a	d				d		a	a	91
		E	MEMS technologies		a	d	d			d	a	a				d			d	a	d		d	d	d		a	a	53
		F	Tribology technologies	a		d	d				a	a				d			o	a	d			d	d		a	a	45
		G	Mechanism engineering	a		d	d				a	a				d		d	a	a	d			d	a	o	a	a	114
			Total	**a**	**a**	**a**	**d**		**d**	**d**	**a**	**a**		**d**	**a**	**d**		**a**	**a**	**a**	**d**		**d**	**d**	**a**	**a**	**a**	**a**	**467**
16	Optics	A	Optical system engineering		a	d	d			o	a	a				d			o	d	d	d	d		a		a	a	69
		B	Optical component technology and materials		o	d	d		d	a	a	a			a	a			d		d				d		a	a	63
		C	Optical equipment and instrument technology	a	a	a	d	d	d	a	a	a	a			a			a		d	d	d		d	a	a	a	83
			Total	**a**	**a**	**a**	**s**	**s**	**s**	**a**	**a**	**a**	**a**		**a**	**a**			**a**	**d**	**d**	**d**	**d**		**d**	**a**	**a**	**a**	**215**
17	Optoelectronics	A	Laser technologies			a	a	d	d	a	a	a				a	a			d	d		d		a	a	a	a	53
		B	Detector technologies	a	a	a	d	a	d	a	a	a		d	a	a			a	a	d				d	a	a	a	109
		C	Photonics		a	a	d	d		a	a	a				a			a	a	d				d	a	a	a	116
			Total	**a**	**a**	**a**	**a**	**a**	**d**	**a**	**a**	**a**		**d**	**a**	**a**	**a**		**a**	**a**	**d**		**d**		**a**	**a**	**a**	**a**	**278**
18	Aerothermodynamics	A	Computational tools		a		a			a	a	a			a	a			a	a			d	d	a	a	a	a	114
		B	Ground based facilities		a	d	a				a	a			a	a			a	a					d	a	a	a	19
		C	Flight testing		a	d	d				a	a				a			a	a			d		d		d		14
		D	Multidisciplinary tools			d	a				a	a				a			d						a		d	a	101
			Total		**a**	**s**	**a**			**a**	**a**	**a**			**a**	**a**			**a**	**a**			**d**	**a**	**a**	**a**	**a**	**a**	**248**
19	Propulsion	A	Chemical propulsion technologies	a	a	d					a	a			a	a			a	a	a	d	d		d	a	a	a	47
		B	Electric propulsion technologies	a			d				a	a				a			a		d				a	d	a	a	34
		C	Advanced propulsion							d	o	o				d			o	d	d				d		d	o	25
		D	Supporting propulsion technologies and tools	a	a	d	d				a	a			a	a			a	a	d	a	d	d	d	a	d	a	116
			Total	**a**	**a**	**d**	**d**			**d**	**a**	**a**			**a**	**a**			**a**	**a**	**d**	**a**	**d**	**d**	**a**	**a**	**a**	**a**	**222**
20	Structures & Pyrotechn	A	Structural design and verification methods and tools		o	d	d			d	o	a				d		d	a	a	d	d	d	d	d	o	a	o	208
		B	High stability and high precision S/C structures		o	d	d	d		a		a				a		d	d		d				d	o	a	a	87
		C	Inflatable and deployable structures		a	d	d				a	a				a		a	a	a	d		d		a		a	a	156
		D	Hot structures			a					o	o				d			d	d	d	d			d	o	d	o	125
		E	Active/adaptive structures		o	d	d				o					d			o		d				d		d	a	177
		F	Damage tolerance and health monitoring			d	d				o	o				d		o	d	d	d	o	d		d		d		163
		G	Launchers, re-entry vehicles, planetary vehicles			d					a	a				a			d	d	d		d		d	o	d	a	156
		H	Crew habitation, safe haven and EVA suits													d					d					d	d		59

	Technology domain		Technology subdomain	AT	BE	CA	CZ	DK	EE	FI	FR	DE	GR	HU	IE	IT	LV	LU	NL	NO	PL	PT	RO	SI	ES	SE	CH	UK	No of SME's declared competencies
21	Thermal	A	Heat transport technology		a	d	d				a	a				a		d	a		d				a	d	a	a	50
		B	Cryogenics and refrigeration			d	d			a	a	a				a			a		d		d		a		a	a	56
		C	Thermal protection			d	d				o	o				d			d	d	d	d	d		d		d		67
		D	Heat storage and rejection	a	o	d	d				a	a		d		o		o	a		d				a	d	a		39
			Thermal analysis tools		a	d	d				a	o				d			d	d	d	d		d	d	o	d	a	162
			Total	**a**	**a**	**d**	**d**			**a**	**a**	**a**		**d**		**a**		**d**	**a**	**d**	**d**	**d**	**d**	**d**	**a**	**d**	**a**	**a**	**374**
22	Environmental Control I	A	Environmental control & life support (ECLS)		d	d					d	o				d			d	d					d		d		122
		B	In-Situ Resource Utilisation (ISRU)		d	d						o				d									d				33
			Total		**d**	**d**					**d**	**o**				**d**			**d**	**d**					**d**		**d**		**155**
23	EEE Components and q	A	Methods and processes for radiation hardness assurance	a	a	d	d			a	a	o				d			d		d				a	o	d		24
		B	EEE component technologies		a	d	d	a		a	a	a			a	a			a	a	d		d		d	a	a	a	117
			Total	**a**	**a**	**d**	**d**	**a**		**a**	**a**	**a**			**a**	**a**			**a**	**a**	**d**		**d**		**a**	**a**	**a**	**a**	**141**
24	Materials and Processes	A	Novel materials		d	d			d	a	a	a				a		o	a	d	d	d		d	d	o	a	a	56
		B	Materials processes	a	d	d			d	a	a	a		d	a	a		a	a	d	d	d	d	d	a	a	a	a	117
		C	Cleanliness and sterilisation		d	d					o	o				o		o	d		d				d	o	d	o	20
			Total	**a**	**d**	**d**			**d**	**a**	**a**	**a**		**d**	**a**	**a**		**a**	**a**	**d**	**d**	**d**	**d**	**d**	**a**	**a**	**a**	**a**	**193**
25	Quality, Dependability a	A	System dependability and safety			d	d			d	o	o				d			d	d	d	d			d	o	d		182
		B	Software quality			d	d			d	d	o				d			d	d	d	d			d		d	o	164
			Total			**d**	**d**			**d**	**d**	**o**				**d**			**d**	**d**	**d**	**d**			**d**	**o**	**d**	**o**	**346**
26	Other																												**849**
			No of SMEs	**11**	**16**	**13**	**12**	**7**	**4**	**6**	**62**	**56**	**20**	**3**	**7**	**72**		**4**	**31**	**4**	**5**	**10**	**5**		**38**	**7**	**20**	**54**	467

Kosmoso pramonės kompetencijų žemėlapis yra parengtas EKA remiantis Pramonės pajėgumų duomenų bazės (angl. Industry Capability Mapping (ICM) database) duomenimis apie šalių pateiktas kompetencijas atskirose technologijų srityse. Šios kompetencijos pavaizduotos trimis skirtingais lygiais:

a) „a“ raide pažymėta EKA akredituotos kompetencijos. Tai reiškia, kad technologijų Harmonizacijos proceso metu surinkta informacija buvo patikrinta pagal naujausių technologijų vertinimo kriterijus, pateiktus atitinkamų technologijų Techninėse dosjė. Iš esmės tai yra EKA patvirtintos tinkamos projektams šalių kompetencijos einamaisiais metais, iki kito Harmonizacijos proceso ciklo pasibaigimo.
b) „d“ raide pažymėtos kompetencijos yra pateiktos šalių-narių, pagal 2012 m. antrojo trimestro užklausą.
c) „o“ raide pažymėtos kompetencijos yra pateiktos pačių subjektų atitinkamose šalyse (pramonės įmonės, mokslo institucijos, tyrimų organizacijos, ir pan.) savo iniciatyva, pagal ESA pajėgumų apklausą.