

ITEM	NÚMERO	TÍTULO	DESCRIPCIÓN	VALOR	FECHA DE APERTURA	FECHA DE CIERRE	LINK	LINK HERMES	Estado
1	815	Fortalecimiento en la producción de proyectos museológicos para la Apropiación Social de CTel desarrollados por Centros de Ciencia	Apoyar la realización, producción y circulación de proyectos museológicos que propicien los procesos de Apropiación Social de la Ciencia, Tecnología e Innovación – ASCTI liderados y desarrollados por los Centros de Ciencia, que fortalezcan la relación entre ciencia, tecnología y sociedad.	\$900.000.000	Jueves, Abril 26, 2018	jueves 14 junio 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/mentalidad-y-cultura/fortalecimiento-en-la-produccion-proyectos-museologicos-para-la		Activa
2	814	Selección de empresas beneficiarias - Sistemas de Innovación Empresarial - Nariño	La presente convocatoria requiere seleccionar empresas del Departamento de Nariño que estén interesadas en desarrollar capacidades en los componentes clave que impulsan la innovación empresarial para la creación y/o consolidación de sistemas básicos de innovación.	\$4.095.935.917	Miércoles, Abril 25, 2018	viernes 24 agosto 2018 11:59 pm	http://www.colciencias.gov.co/convocatorias/innovacion/seleccion-empresas-beneficiarias-sistemas-innovacion-empresarial-narino		Activa
3	813	Jóvenes Investigadores e Innovadores en Medicina	Fomentar la vocación científica en investigación de jóvenes profesionales en medicina o estudiante de medicina que se encuentre finalizando el internado, a través de la realización de una beca pasantía durante la ejecución del Servicio Social Obligatoria (SSO), en alianza con grupos de investigación, desarrollo tecnológico o de innovación, con reconocimiento vigente por COLCIENCIAS a la fecha de cierre de la convocatoria.	\$200.000.000	Miércoles, Abril 25, 2018	martes 12 junio 2018 05:00 pm	http://www.colciencias.gov.co/convocatorias/mentalidad-y-cultura/jovenes-investigadores-e-innovadores-en-medicina		Activa
4	812	Jóvenes Investigadores e Innovadores	Fomentar la vocación científica en jóvenes profesionales con excelencia académica a través de la realización de becas-pasantía en alianza con grupos de investigación, desarrollo tecnológico o de innovación, avalados por instituciones que hacen parte del Sistema Nacional de Ciencia, Tecnología e Innovación.	\$5.500.000.000	Martes, Abril 10, 2018	viernes 15 junio 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/mentalidad-y-cultura/jovenes-investigadores-e-innovadores	http://www.hermes.unal.edu.co/pages/Consultas/ConvocatoriaExterna.xhtml?idConvocatoria=750&tipo=E	Activa
5	811	Programa de estancias postdoctorales para beneficiarios de formación Colciencias en entidades del SNCTel	Facilitar la vinculación de profesionales colombianos con título de doctor a entidades del Sistema Nacional de Ciencia, Tecnología e Innovación a través del desarrollo de estancias postdoctorales.	\$16.800.000.000	Jueves, Marzo 22, 2018	jueves 31 mayo 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/investigacion/programa-estancias-postdoctorales-para-beneficiarios-formacion	http://www.hermes.unal.edu.co/pages/Consultas/ConvocatoriaExterna.xhtml?idConvocatoria=753&tipo=E	Activa
6	810	Formación de capital humano de alto nivel para las regiones- Guajira	Incrementar el número de profesionales del Departamento de La Guajira formados en maestrías investigativas y vinculados a ACTI	\$17.041.044.800	Jueves, Marzo 22, 2018	viernes 29 junio 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/oportunidades-formacion/formacion-capital-humano-alto-nivel-para-las-regiones-guajira		Activa
7	809	Formación de capital humano de alto nivel para las regiones- Atlántico	Formar profesionales, en focos priorizados por el Departamento que promuevan iniciativas de articulación academia - empresa - sector productivo, para afrontar los procesos de competitividad y desarrollo regional de manera eficiente.	\$19.241.950.000	Jueves, Marzo 22, 2018	viernes 29 junio 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/oportunidades-formacion/formacion-capital-humano-alto-nivel-para-las-regiones		Activa
8	808	Convocatoria para proyectos de Ciencia, Tecnología e Innovación y su contribución a los retos de país- 2018	Fomentar la generación de conocimiento a través de proyectos de CTel que afronten retos de país, que estimulen la formación de capital humano a nivel de doctorado y deriven en productos con potencial de transferencia de resultados a diferentes grupos de interés.	\$26.500.000.000	Viernes, Marzo 16, 2018	miércoles 23 mayo 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/investigacion/convocatoria-para-proyectos-ciencia-tecnologia-e-innovacion-y-su-0	http://www.hermes.unal.edu.co/pages/Consultas/ConvocatoriaExterna.xhtml?idConvocatoria=743&tipo=E	Activa
9	800	Selección de empresas beneficiarias - Sistemas de Innovación Empresarial - Cundinamarca	Seleccionar empresas del Departamento de Cundinamarca que estén interesadas en desarrollar capacidades en los componentes clave que impulsan la innovación empresarial para la creación y/o consolidación de sistemas básicos de innovación.	\$1.688.637.225	Lunes, Febrero 19, 2018	viernes 01 junio 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/innovacion/seleccion-empresas-beneficiarias-sistemas-innovacion-empresarial		Activa
10	798	Selección de empresas beneficiarias - Sistemas de Innovación Empresarial - Boyacá	Seleccionar empresas del Departamento de Boyacá que estén interesadas en desarrollar capacidades en los componentes clave que impulsan la innovación empresarial para la creación y/o consolidación de sistemas básicos de innovación.	\$958.459.217	Lunes, Febrero 19, 2018	viernes 15 junio 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/innovacion/seleccion-empresas-beneficiarias-sistemas-innovacion-empresarial-boyaca		Activa

11	796	II Fase convocatoria para conformar las ternas del Consejo Nacional de Bioética	Completar la lista de candidatos que cumplen requisitos para conformar las 15 ternas de las entidades participantes de la sociedad civil, que COLCIENCIAS presentará al Presidente de la República para la designación de los integrantes del Consejo Nacional de Bioética - CNB.		Miércoles, Noviembre 15, 2017	viernes 01 junio 2018 05:00 pm	http://www.colciencias.gov.co/convocatorias/investigacion/ii-fase-convocatoria-para-conformar-las-ternas-del-consejo-nacional	Activa	
12	793	Convocatoria para la selección de beneficiarios de la Estrategia Nacional de Fomento a la Protección de Inventiones	Cofinanciar actividades relacionadas con la protección nacional de invenciones derivadas de actividades de investigación, desarrollo e innovación (I+D+i), en la modalidad de patentes en todos los sectores tecnológicos que sean susceptibles de protección mediante patente, las cuales se verán reflejadas en mínimo 160 solicitudes de patentes presentadas ante la Oficina Nacional competente colombiana.	\$960.000.000	Miércoles, Mayo 2, 2018	viernes 29 junio 2018 04:00 pm	http://www.colciencias.gov.co/convocatorias/innovacion/convocatoria-para-la-seleccion-beneficiarios-la-estrategia-nacional-fomento	Activa	
13	786	Convocatoria para el registro de proyectos que aspiran a obtener beneficios tributarios por inversión en CTel (ventanilla abierta). convocatoria 786	Estímulo a la inversión privada en Actividades de Ciencia, Tecnología e Innovación (ACTel) mediante el registro y calificación de los proyectos de investigación, desarrollo tecnológico e Innovación, y asignar los respectivos cupos de deducibilidad y descuento tributario, para que los contribuyentes del impuesto de renta que hagan dichas inversiones, puedan acceder a los beneficios tributarios estipulados en el artículo 158-1 y 256 del E.T.	\$640.000.000.000	Ventanilla Abierta	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/convocatoria-para-el-registro-proyectos-que-aspiran-obtener-beneficios-0	http://www.hermes.unal.edu.co/pages/Consultas/ConvocatoriaExterna.xhtml?idConvocatoria=701&tipo=E	Activa
14	770	Convocatoria Jóvenes Investigadores e Innovadores en alianza SENA 2016-2017	Fortalecer la vocación en áreas de Ciencia, la Tecnología y la Innovación, mediante la vinculación por contrato de aprendizaje en jóvenes estudiantes en las modalidades especiales de formación técnica, tecnológica y profesional, que se encuentren en etapa o semestre de práctica.	\$1.400.000.000	Jueves, Noviembre 17, 2016	viernes 01 junio 2018 11:59 pm	http://www.colciencias.gov.co/convocatorias/mentalidad-y-cultura/convocatoria-jovenes-investigadores-e-innovadores-en-alianza-sena	http://www.hermes.unal.edu.co/pages/Consultas/ConvocatoriaExterna.xhtml?idConvocatoria=588&tipo=E	Activa
15		A Ciencia Cierta	Fortalecimiento de experiencias ciudadanas y/o comunitarias a partir de la apropiación social de la CTel, desde la identificación y el reconocimiento de prácticas en donde la incorporación y aplicación del conocimiento científico y tecnológico han mejorado, optimizado o transformado un proceso en beneficio de la sociedad.	\$900.000.000	Mayo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/mentalidad-y-cultura/ciencia-cierta	Activa	
16		Apoyo a empresas beneficiarias del programa de Alianzas para la innovación para el desarrollo de proyectos/prototipos ejecutado a través de Confecámaras - Selección de entidad operadora.	Apoyo para empresas beneficiarias del programa de Alianzas para la innovación para el desarrollo de proyectos/prototipos ejecutada a través de las alianzas regionales con Cámaras de Comercio con la coordinación a través de Confecámaras.	\$497.079.152	Marzo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/apoyo-empresas-beneficiarias-del-programa-alianzas-para-la-innovacion-0	Activa	
17		Apoyo a empresas beneficiarias del programa de Alianzas para la innovación para el desarrollo de proyectos/prototipos ejecutado a través de las alianzas regionales con Cámaras de Comercio con la coordinación a través de Confecámaras - Selección de empresa	Apoyo para empresas beneficiarias del programa de Alianzas para la innovación para el desarrollo de proyectos/prototipos ejecutada a través de las alianzas regionales con Cámaras de Comercio con la coordinación a través de Confecámaras.	\$1.944.390.848	Marzo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/apoyo-empresas-beneficiarias-del-programa-alianzas-para-la-innovacion-para	Activa	

18	Cierre de Brechas Tecnológicas	Apoyar proyectos de Desarrollo Tecnológico e Innovación para ser ejecutados por empresas domiciliadas en Colombia, que den como resultado un prototipo funcional con validación pre-comercial en las áreas priorizadas, que contribuyan a mejorar su productividad, a sofisticar su oferta productiva, y a fortalecer las alianzas y/o vínculos con los diferentes actores del SNCTI mediante el cierre de brechas tecnológicas.	\$4.714.778.513	Mayo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/cierre-brechas-tecnologicas	Activa
19	Cofinanciación línea de crédito Colciencias - Bancoldex.	Apoyar proyectos de desarrollo tecnológico e innovación a través de la oferta de una línea especial de crédito y un incentivo a la innovación en modalidad de recuperación contingente, para ser ejecutados por empresas domiciliadas en Colombia y que den como resultado, un prototipo funcional que contribuya a mejorar su productividad, a diversificar y sofisticar su oferta productiva, que tenga potencial de ingresar a nuevos mercados y, a fortalecer las alianzas y/o vínculos con los actores	\$2.500.000.000	Mayo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/cofinanciacion-linea-credito-colciencias-bancoldex	Activa
20	Convocatoria para apoyar la internacionalización de patentes colombianas vía PCT	Identificar tecnologías con potencial de protección mediante patente en personas naturales y/o jurídicas, para cofinanciar el alistamiento de la solicitud de patente y su posterior presentación vía nacional y/o vía PCT.	\$1.091.000.000	Mayo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/convocatoria-para-apoyar-la-internacionalizacion-patentes-colombianas-pct	Activa
21	Convocatoria para el registro de propuestas que accederán a los beneficios tributarios de Ingresos No Constitutivos de Renta y Exención del IVA (ventanilla abierta)	Registro de proyectos que solicitarán los beneficios tributarios de Ingresos no Constitutivos de Renta y/o Ganancia Ocasional y Exención del IVA estipulados en los artículos 57-2 y 428 -1 del Estatuto Tributario respectivamente. Formulario: http://www.colciencias.gov.co/innovacion/beneficios-tributarios/formulario-exenciones-tributarias	N/A	Ventanilla Abierta	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/convocatoria-para-el-registro-propuestas-que-accederan-los-beneficios-0	Activa
22	Convocatoria para fortalecimiento de las capacidades de investigación del departamento de Nariño a través de la financiación de proyectos en CTel. Nariño	Fortalecer e impulsar las capacidades científicas en las cuales se sustenten la I+D y los procesos de transformación tecnológica en los focos Ambiente y Agropecuario – Agroindustrial para el departamento de Nariño.	\$5.819.522.469	Mayo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/investigacion/convocatoria-para-fortalecimiento-las-capacidades-investigacion-del	Activa
23	Formación de capital humano de alto nivel para las regiones- Cauca	Becas para la formación de maestría en el departamento del Cauca	\$3.903.744.000	Junio de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/oportunidades-informacion/formacion-capital-humano-alto-nivel-para-las-regiones-cauca	Futura
24	Formación de capital humano de alto nivel para las regiones- Cauca para docentes de establecimientos educativos oficiales del Cauca	Becas para la formación de maestría docentes de Establecimientos Educativos Oficiales del Cauca	\$5.311.562.400	Junio de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/oportunidades-informacion/formacion-capital-humano-alto-nivel-para-las-regiones-0	Futura
25	Formación de capital humano de alto nivel para las regiones- Cesar	Becas para la formación de maestría en el departamento del Cesar	\$3.886.000.000	Junio de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/oportunidades-informacion/formacion-capital-humano-alto-nivel-para-las-regiones-cesar	Futura
26	Formación de capital humano de alto nivel para las regiones- Guajira para docentes de establecimientos educativos oficiales de La Guajira	Becas para la formación de maestría para docentes de Establecimientos Educativos Oficiales de La Guajira.	\$7.600.000.000	Junio de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/oportunidades-informacion/formacion-capital-humano-alto-nivel-para-las-regiones	Futura

27	Formación de empresas en procesos de innovación a través de sesiones de mentalidad innovadora en alianza con la Cámara de Comercio de Bogotá	Desarrollo de sesiones de mentalidad innovadora para que empresarios adquieran capacidades para aplicar herramientas de innovación, identificando necesidades de los clientes en alianza con la Cámara de Comercio de Bogotá.	\$203.469.326	Julio de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/formacion-empresas-en-procesos-innovacion-traves-sesiones-mentalidad	Futura	
28	Implementación de la estrategia de Sistemas de Innovación Empresarial a través de las Cámaras de Comercio - Selección de empresas beneficiarias	Convocatoria para impulsar la creación de Sistemas de Innovación en empresas, ejecutada a través de las Cámaras de Comercio como aliados operadores.	Esta convocatoria no entrega recursos	Febrero 2018 Cali y Atlántico	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/implimentacion-la-estrategia-sistemas-innovacion-empresarial-traves-las	Activa	
29	Implementación de la estrategia de Sistemas de Innovación Empresarial a través de las Cámaras de Comercio - Selección de entidades asesoras.	Selección y contratación de entidades de manera individual o mediante la modalidad de consorcios o uniones temporales, para prestar servicios de asesoría con el objetivo de impulsar la creación de Sistemas de Innovación en empresas ubicadas en los departamentos de Atlántico y Valle del Cauca.	\$2.096.000.000	Febrero de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/implimentacion-la-estrategia-sistemas-innovacion-empresarial-traves-las-0	Activa	
30	Invitación a presentar propuesta para apoyar empresas beneficiadas por el Programa Alianzas para la innovación	Apoyo para la implementación de proyectos o el desarrollo de prototipos de empresas que han hecho parte del programa Alianzas para la Innovación.	\$516.000.000	Martes, Agosto 15, 2017	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion-invitation-para-presentacion-propuestas/invitacion-presentar-propuesta-para	Activa	
31	Invitación a presentar propuesta para la financiación de programas y proyectos relacionados con gestión pública	Financiación de proyectos de investigación relacionados con la gestión pública.	\$755.000.000	Viernes, Abril 28, 2017	NO TIENE	http://www.colciencias.gov.co/convocatorias/investigacion/invitacion-presentar-propuestas-para-la-financiacion-programas-y	Activa	
32	Invitación a presentar propuesta para la investigación e innovación en la calidad de la educación inicial y preescolar	Contribuir en el mejoramiento de la calidad de la educación inicial y preescolar en el país, a través de la formulación, diseño y ejecución de programas de investigación e innovación que, partiendo del Modelo de Medición de la Calidad y del análisis de sus resultados, realicen transformaciones para		Miércoles, Abril 25, 2018	miércoles 20 junio 2018 05:00 pm	http://www.colciencias.gov.co/convocatorias/invitacion-para-presentacion-propuestas/invitacion-presentar-propuesta-para-la-2	Activa	
33	Invitación a presentar propuestas para la ejecución de proyectos de I+D+i orientados al fortalecimiento del portafolio I+D+i de la ARC – 2018	Fortalecer el Portafolio I+D+i de la Armada Nacional para atender las necesidades de sus programas, generar mayores niveles de independencia y ventaja Tecnológica y adquirir nuevos conocimientos a través de la financiación de proyectos de I+D+i.		Viernes, Abril 27, 2018	martes 03 julio 2018 11:59 pm	http://www.colciencias.gov.co/convocatorias/invitacion-para-presentacion-propuestas/invitacion-presentar-propuestas-para-la	Activa	
34	Jóvenes Innovadores alianza SENA	Otorgar becas pasantía para fortalecer la vocación científica en jóvenes estudiantes en modalidades técnica y tecnológica, estableciendo vínculos entre profesionales jóvenes con la empresa privada, involucrándolos en sus actividades, promoviendo la apropiación de métodos y conocimientos del que hacer científico y tecnológico.	\$783.000.000	Viernes, Marzo 23, 2018	viernes 01 junio 2018 11:59 pm	http://www.colciencias.gov.co/convocatorias/mentalidad-y-cultura/convocatoria-jovenes-investigadores-e-innovadores-en-alianza-sena	http://www.hermes.unal.edu.co/pages/Consultas/ConvocatoriaExterna.xhtml?idConvocatoria=588&tipo=E	Activa
35	Programa de Ciencia Tecnología para la paz en comunidades sostenibles en conjunto con el PNUD.	Apropiación de soluciones tecnológicas en energías renovables, agua potable y saneamiento básico y desarrollo productivo solidario y cooperativo en comunidades afectadas por el conflicto armado y en proceso de reincorporación (departamentos de Caquetá y Meta).	\$6.649.700.000	Julio de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/construccion-paz/programa-ciencia-tecnologia-para-la-paz-en-comunidades-sostenibles-en	Futura	
36	Selección de emprendedores de Apps.co que desarrollen soluciones tecnológicas en la fase de Oferta y Demanda.	Convocatoria dirigida a emprendedores que han sido apoyados a través de Apps.co para financiar el desarrollo de soluciones TIC como respuesta a las problemáticas que presentan los diferentes sectores productivos y de gobierno del país, identificadas en la fase de Oferta y Demanda. Dicha convocatoria será publicada en la página de Apps.co	\$560.730.000	Mayo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/seleccion-emprendedores-appsco-que-desarrollen-soluciones-tecnologicas-en	activa	

37	Selección de entidades asesoras - Sistemas de Innovación Empresarial - Nariño	Selección y contratación de entidades de manera individual o mediante la modalidad de consorcios o uniones temporales, para prestar servicios de asesoría con el objetivo de impulsar la creación de Sistemas de Innovación en cuarenta y cinco (45) empresas del Departamento de Nariño.	\$1.620.935.917	Junio de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/seleccion-entidades-asesoras-sistemas-innovacion-empresarial-narino	Futura
38	Seleccionar empresas TI para acompañar en la fase de Expansión	Convocatoria para seleccionar empresas TIC beneficiarias para recibir acompañamiento a fin de promover su escalamiento, articulación y expansión a nuevos mercados en el mismo segmento o bien en otros segmentos de clientes conexos. Dicha convocatoria será publicada en la página de Apps.co	Esta convocatoria no entrega recursos	Mayo de 2018	NO TIENE	http://www.colciencias.gov.co/convocatorias/innovacion/seleccionar-empresas-ti-para-companar-en-la-fase-expansion	Activa
39	Servicio de homologación de revistas especializadas en CTeI - Publindex	Actualización para incluir las revistas extranjeras homologadas - Publindex	Esta convocatoria no entrega recursos Esta convocatoria no entrega recursos	Servicio permanente	NO TIENE	http://www.colciencias.gov.co/convocatorias/servicios-del-snctei/servicio-homologacion-revistas-especializadas-en-ctei-publindex	Activa
40	Servicio permanente para el reconocimiento de actores del SNCTI.	Promover la especialización y excelencia de los Centros de Investigación colombianos en la generación de nuevo conocimiento. Promover la especialización y excelencia de Centros de Ciencia (museos de ciencia y tecnología, zoológicos, planetarios, jardines botánicos, centros interactivos, entre otros). Reconocimiento de Centros de Desarrollo Tecnológico, Centros de Innovación y Unidades I+D+i de Empresas.	Esta convocatoria no entrega recursos Esta convocatoria no entrega recursos	Servicio permanente	NO TIENE	http://www.colciencias.gov.co/convocatorias/servicios-del-snctei/servicio-permanente-para-el-reconocimiento-actores-del-sncti	Activa
41	Convocatoria Nacional de Extensión Solidaria 2018: «Regiones y Comunidades Sostenibles»	Apoyar la ejecución de proyectos con enfoque de innovación social, adelantados por la Universidad Nacional de Colombia, orientados al desarrollo sostenible e inclusión de comunidades vulnerables del país, que aporten al mejoramiento de su calidad de vida, a través de un proceso de diálogo de saberes entre el conocimiento propio de las comunidades y el sistemático generado en la academia, para que de manera conjunta y colaborativa, se construyan soluciones a problemáticas sociales	\$ 1 620 000 000, pertenecientes al Fondo Nacional de Extensión Solidaria y al Fondo Nacional de Extensión de la Universidad Nacional de Colombia	15 de mayo de 2018	15 de agosto de 2018, 17:00 hora colombiana (UTC-05:00)	http://extension.unal.edu.co/acercade/convocatorias/nacional-extension-solidaria2018/	Activa
42	PREMIOS A LA EXCELENCIA DE LAS TESIS DOCTORALES DE TEMÁTICA VALENCIANA CONVOCATORIA 2018	El objeto de esta convocatoria de la Real Academia de Cultura Valenciana (desde ahora RACV) es promover el conocimiento y difusión de las mejores tesis doctorales realizadas en cualquier universidad del mundo y en las diferentes áreas de conocimiento que a continuación se especifican, siempre que su contenido sea de temática valenciana. Se pretende fomentar la investigación en los ámbitos indicados, reconocer y divulgar sus mejores resultados.		12 de abril de 2018	Cierre: 15 de septiembre de 2018	http://www.racv.es/es/premios-la-excelencia-de-las-tesis-doctorales-de-tematica-valenciana-convocatoria-2018	Activa
43	Becas para maestría en política pública y buen gobierno (PPGG) - Programa Helmut Schmidt	A través del programa Helmut Schmidt, el DAAD apoya la formación de futuros dirigentes, líderes o expertos en el ámbito de la Política, el Derecho, la Economía y la Administración mediante la realización de estudios de maestría en universidades alemanas, en el ámbito de la Política Pública y el Buen Gobierno (Public Policy and Good Governance – PPGG).	850 € mensuales para manutención y vivienda. 460 € anuales para gastos adicionales de estudio e investigación.	12 de abril de 2018	31 de julio de 2018.	http://www.daad.co/es/14237/	Activa

44	Convocatoria para estancia corta de investigación en el Centro Tecnológico de Transferencia de Calor y Masa (CTTC) de la Universidad Politécnica de Catalunya en Terrassa, Barcelona	Dentro del marco de las de políticas de investigación y divulgación del CTTC (www.cttc.upc.edu) y del proyecto colaborativo con su spin-off TermoFluids (www.termofluids.com), abrimos 1 plaza para estancias cortas de investigación a estudiantes doctorales beneficiarios de programas de formación doctoral de Colciencias. Estas estancias cortas (de 3 meses) están encaminadas a reforzar la formación recibida por los estudiantes mediante su participación en proyectos de investigación afines a sus temas de tesis doctoral.		05 de abril de 2018	30 de junio de 2018	http://colciencias.gov.co/sala_de_prensa/convocatoria-para-estancia-corta-investigacion-en-el-centro-tecnologico-transferencia	Activa	
45	PhD grants in Quantum electronics starting in 2018 at QuESTech	Este proyecto ha recibido financiación del programa de investigación e innovación Horizonte 2020 de la Unión Europea en virtud del acuerdo de subvención Marie Skłodowska-Curie no 766025		23 de marzo de 2018	Sin fecha límite establecida	https://www.questech.org/	Activa	
46	Research Fellowship Programme - Türkiye Scholarships	El Programa de becas de investigación tiene como objetivo alentar a investigadores y académicos internacionales a trabajar con académicos turcos en investigaciones colaborativas en Turquía y contribuir al desarrollo de la interacción científica internacional entre investigadores.		01 de marzo de 2018	30 June, 30 September, 31 December 2018.	https://www.turkiyeburslari.gov.tr/en/arastirma-burs-programi-basvurulari-yil-boyu-acik/	Activa	
47	Research Fellowship Program 2019 (Matsumae International Foundation)	Solicitantes de nacionalidad no japonesa; un grado de Doctorado; debe tener 49 años o menos; no haber estado en Japón previamente; tener puestos firmes y profesiones en sus países de origen; etc.	¥220,000 per month	01 de marzo de 2018	31 Agosto 2018, 03:00 hora Colombiana.	http://www.mif-japan.org/fellowship/announcement/?hl=en	Activa	
48	Cursos de formación de alto nivel del Centro Argentino Brasileño de Biotecnología (CABBIO) 2018	El Departamento Administrativo de Ciencia, Tecnología e Innovación - Colciencias, invita a las instituciones colombianas pertenecientes al Sistema de Ciencia, Tecnología e Innovación en el campo de biotecnología, a presentar candidatos para su capacitación a través de los cursos de formación de alto nivel que organiza el Centro Argentino Brasileño de Biotecnología – CABBIO 2018.	Apoyo economico	25 de enero de 2018	varían según el curso (entre febrero y septiembre de 2018)	http://www.colciencias.gov.co/sala_de_prensa/conoce-y-participa-en-los-cursos-corta-duracion-cabbio-2018	Activa	
49	Convocatoria 2018 Viajes de grupos de concertistas a Alemania	En este programa de becas el Servicio Alemán de Intercambio Académico (DAAD) financia con beca parcial viajes de máximo 12 días para grupos de coros o concertistas a Alemania. ¿A través de estos viajes para realizar conciertos en Alemania, el DAAD también busca promover el intercambio de conocimientos e ideas por medio de visitas, excursiones y conferencias en el ámbito de la educación superior. Para alcanzar este objetivo, los grupos de concertistas deberán reunirse en Alemania con estudiantes, músicos e investigadores del ámbito de la música	Monto diario de 50 € por persona	24 de enero de 2018	3 de septiembre de 2018	http://www.daad.co/es/28389/	Activa	
50	Convocatoria para participar en el Laboratorio de Innovación para la Paz en Bogotá (Trust for the Americas, CAF, OEA y Universidad Nacional de Colombia)	Dirigida a mujeres y hombres jóvenes entre los 16 y los 35 años que pertenezcan a comunidades en contexto de postconflicto, víctimas del conflicto armado y personas en proceso de reintegración y en proceso de reincorporación.	Suministros para la convocatoria	11 de abril de 2018	Permanente	http://extension.bogota.unal.edu.co/innovacion-social/labpaz/	Activa	
51	«UN Innova»: Convocatoria de Proyectos para el Fortalecimiento de la Innovación en la Universidad Nacional de Colombia a partir del Desarrollo de Prototipos y Experiencias Piloto 2016-2018 (segunda cohorte)	Fortalecer la innovación y mejorar la calidad e impacto de la producción científica y tecnológica, a través de la construcción, el mejoramiento o el escalamiento de prototipos o pilotos de procesos o productos que incorporen conocimiento generado en actividades de gestión de conocimiento o creación artística de la Universidad Nacional de Colombia y que cuenten con potencial de transferirse a la sociedad.	\$ 1 000 000 000	19 de abril de 2018	28 de mayo de 2018 a las 17:00 hora colombiana (UTC-05:00)	http://innovacion.unal.edu.co/servicios/convocatorias-innovacion/prototipado-2016-2018-segunda/	http://innovacion.unal.edu.co/servicios/convocatorias-innovacion/prototipado-2016-2018-segunda/	Activa

52	Convocatoria Nacional de Apoyo a la Difusión del Conocimiento mediante Eventos de Investigación, Creación e Innovación 2017-2018	Profesores de la Universidad Nacional de Colombia que desarrollen actividades de investigación, en virtud del Acuerdo 123 de 2013 del Consejo Superior Universitario, y que participen en la organización de eventos de investigación, creación o innovación en los cuales la U. N. sea organizadora o coorganizadora en colaboración con otras instituciones.	1 425 000 000	29 de marzo de 2017	30 de octubre de 2018	http://investigacion.unal.edu.co/servicios/convocatorias/convocatorias-internas/convocatorias-2017-2018/eventos/	http://investigacion.unal.edu.co/servicios/convocatorias/convocatorias-internas/convocatorias-2017-2018/eventos/#convocatoria	Activa
53	Convocatoria Nacional para el Apoyo a la Movilidad Internacional de la Universidad Nacional de Colombia 2017-2018	Profesores(as) de la Universidad Nacional de Colombia que desarrollen actividades de investigación y creación, en virtud del Acuerdo 123 de 2013 del Consejo Superior Universitario. Estudiantes de doctorados o de maestrías de investigación, en cualquier área del conocimiento, y de especialidades en el área de la salud, de la Universidad Nacional de Colombia.	5 235 000 000	29 de marzo de 2017	30 de octubre de 2018	http://investigacion.unal.edu.co/servicios/convocatorias/convocatorias-internas/convocatorias-2017-2018/movilidad/	http://investigacion.unal.edu.co/servicios/convocatorias/convocatorias-internas/convocatorias-2017-2018/movilidad/#convocatoria	Activa
54	Convocatoria Green Talents 2018	“Green Talents” es un concurso organizado desde el 2009 por el Ministerio de Educación e Investigación de Alemania BMBF. “Talentos Verdes - Foro internacional para grandes potenciales en desarrollo sostenible” promueve el intercambio internacional de ideas ecológicas innovadoras	una invitación con todos los gastos pagados al Science Forum de la Ciencia 2018 y otros beneficios	NO TIENE	23 may. 2018	http://www.greentelents.de/ - https://drive.google.com/file/d/1XC4uCapHFauOGuD5IH975bUnPluD-TfO/view		Activa
55	Intermediate Fellowship in Public Health and Tropical Medicine (Wellcome Trust, May 2018 round)	Este esquema ayuda a los investigadores de mitad de carrera de países de bajos y medianos ingresos a establecer programas de investigación independientes en esos países. El plan tiene como objetivo apoyar la investigación que mejorará la salud pública y la medicina tropical a nivel local, nacional y mundial.	a basic salary (determined by your host organisation)	03 de mayo de 2018	17 July 2018, 17:00 BST	https://wellcome.ac.uk/funding/intermediate-fellowships-public-health-and-tropical-medicine		Activa
56	The Icelandic Research Fund (IRF): Postdoctoral Fellowship Grant 2019	The purpose of the postdoctoral fellowship grant is to help young research scientists to develop their academic careers	24 million (around 193,000 euros) 36-month project; 16 million (around 129,000 euros) 24 month project; 8 million (around 64,000 euros) 12-month project.	03 de mayo de 2018	15 June 2018	https://euraxess.ec.europa.eu/jobs/funding/icelandic-research-fund-irf-postdoctoral-fellowship-grant		Activa
57	GSO-Leadership Academy 2018/2019	El programa está diseñado para otorgar 25 becas completas a 25 sobresalientes investigadores de todas las disciplinas y todas las nacionalidades que están a punto de dar el siguiente paso en su carrera: como líder del grupo junior en ciencia o industria, como asistente o profesor titular, como fundador de una nueva empresa o como alguien que asume responsabilidades en una organización relacionada con la investigación.	Para los becarios seleccionados hay una tarifa única de registro de € 250.00	03 de mayo de 2018	27 de mayo de 2018	https://www.gsonet.org/gso-leadership-academy/bewerbung.html		Activa
58	AXA Chair - AXA Research Fund	The AXA Research Fund evaluation process has been carefully designed to assess scientific excellence irrespective of the gender and nationality of the Chair holder or any other potential biases. The evaluations are monitored to guarantee transparency, fairness and impartiality in the processing of applications.	120.000€ per year	03 de mayo de 2018	15 de octubre de 2018	https://www.axa-research.org/en/page/chairs		Activa
59	Premio CEMEX-TEC 2018 Global	El Premio CEMEX-TEC por primera ocasión, lanza su convocatoria 2018 a nivel GLOBAL, con el objetivo de reconocer a propuestas de proyectos de alto impacto en materia de desarrollo sostenible, innovación y emprendimiento social.			2/1/2018	5/31/2018	http://www.cdcs.com.mx/premio/convocatoria-2018	Activa
60	Becas para la Realización de la Tesis Doctoral en la Universidad de Málaga	La Universidad de Málaga considera fundamental para los países iberoamericanos, la creación y fortalecimiento de un “Espacio Iberoamericano del Conocimiento” (EIC) en el cual promover la investigación, el desarrollo y la innovación	Apoyo de 6000 euros/ 9 meses	4/17/2018	1 de junio de 2018	http://auip.org/es/becas-auip/1540		Activa

61	FPIT - Fundación para la promoción de la investigación y la tecnología	Entre los objetivos de la Fundación se contempla también, en menor grado, prestar apoyo financiero para organizar seminarios en el país, así como para la participación de investigadores en eventos científicos internacionales, de trabajos previamente financiados por ella misma.	hasta US 1.000	PERMANENTE		http://www.banrepcultural.org/fpit	Activa
62	Newton Fund Institutional Links Grants - Biodiversity (UK and LATAM)	Newton Fund Institutional aims to build UK-partner country research and innovation collaborations centred on shared research and innovation challenges which have direct relevance to social welfare and economic development.	£125,000	abr.-18	8 June 2018, 16:00 UK time	https://www.britishcouncil.org/education/science/current-opportunities/latam-institutional-links-2018	Activa
63	Convocatoria a trabajos VII Conferencia REDLAS "Los servicios basados en conocimiento como oportunidad para la diversificación productiva y exportadora"	Organizado por: Ministerio de Producción, Subsecretaría de Servicios Tecnológicos y Productivos de Argentina, Universidad de Buenos Aires, Universidad de Chile, Fundación Konrad Adenauer (KAS) y REDLAS			1 de junio de 2018	http://www.redsudamericana.org/concursos-llamados/convocatoria-trabajos-vii-conferencia-redlas-los-servicios-basados-en	Activa
64	Horizon 2020 Work Programme from 2018 to 2020	La Unión Europea concentra gran parte de sus actividades de investigación e innovación en el Programa Marco que en esta edición se denominará Horizonte 2020 (H2020). En el período 2014-2020 y mediante la implantación de tres pilares, contribuye a abordar los principales retos sociales, promover el liderazgo industrial en Europa y reforzar la excelencia de su base científica.	€30.000 millones		under Horizon 2020	http://europa.eu/rapid/press-release_MEMO-17-4123_en.htm	Activa
65	Educación y entrenamiento	El programa de becas del ICGEB de Arturo Falaschi ofrece becas de corto y largo plazo para científicos nacionales de los Estados Miembros del ICGBE que realicen investigaciones en Trieste , Nueva Delhi o Ciudad del Cabo .	2- Postdoctoral fellowships: Euro 100. 3. Short-term fellowships: Euro 1,300		30 de junio, 30 de septiembre, 31 de diciembre 2018	http://www.icgeb.org/fellowships.html	Activa
66	Call for new OWSD Fellowships for Early Career Women Scientists now open	In partnership with UNESCO's Organization for Women in Science for the Developing World (OWSD), IDRC is pleased to announce that the first call for applications for the new Early Career Women Scientists (ECWS) fellowships is now open.	US\$50,000	May 03, 2018	August 31, 2018	https://www.idrc.ca/en/news/call-new-owsd-fellowships-early-career-women-scientists-now-open	Activa
67	Sharing opportunities for innovation in climate change adaptation	En este segundo taller, los participantes exploraron barreras comunes para la implementación de iniciativas para la adaptación al cambio climático en América Latina y el Caribe, y estrategias efectivas para superarlas		April 24, 2018	March 2019	https://www.idrc.ca/en/news/sharing-opportunities-innovation-climate-change-adaptation	Activa
68	EmTech Asia 2019 Innovadores menores de 35	EmTech es donde confluyen la tecnología, los negocios y la cultura. En EmTech Asia, conocerá a los innovadores, los científicos, los inversionistas y los ejecutivos de tecnología en el corazón de la próxima revolución tecnológica			January 22, 2019— January 23, 2019 9:00am—5:00pm UTC+8	https://www.innovatorsunder35.com/events/emtech-asia-2019/	Activa
69	Corporación Interamericana de Inversiones (BID)	Los proyectos deben que cumplir con ciertos criterios para poder aspirar a recibir financiamiento de la Corporación.Estos son: Originarse en el sector privado, incluyendo empresas estatales Llevarse a cabo en un país miembro de la CII y contribuir a su desarrollo Demostrar viabilidad financiera y rentabilidad Proporcionar estados financieros auditados Cumplir con los estándares de la CII en el ámbito ambiental, social y corporativo	Depende de requerimientos.		Permanente	https://www.iic.org/es/que-ofrecemos/como-solicitar-financiamiento#.WvMqVIIFPIV	Activa

70	Apply for Grants using Workspace	Workspace is the standard way to apply for grants in Grants.gov for both organizations or individuals. It is designed to work for individual applicants and large teams applying on behalf of an organization, so there are a variety of features for you to utilize.			Permanente	https://www.grants.gov/web/grants/applicants/works-pace-overview.html	Activa
71	Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo: Redes Temáticas	Las Redes Temáticas son asociaciones de grupos de investigación y desarrollo (I+D) de entidades públicas o privadas y empresas de los países miembros del Programa CYTED, cuyas actividades científicas o tecnológicas están relacionadas dentro de un ámbito común de interés y enmarcadas en una de las Áreas del Programa. Tienen como objetivo principal el intercambio de conocimientos entre grupos de I+D y la potenciación de la cooperación como método de trabajo.	30.000 euros anuales		Permanente	http://www.cytel.org/es/1%2Bd_redes	Activa
72	Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo: Proyectos Estratégicos	Los Proyectos en Temáticas Estratégicas son proyectos de investigación y desarrollo tecnológico entre grupos de los países CYTED que se financian tanto con fondos CYTED como con aportes externos de los países integrantes a través de sus organismos nacionales (ONCYT). Los proyectos deberán ser relevantes desde los puntos de vista de Investigación e Innovación, tendrán carácter trans-nacional y su duración tendrá un máximo de tres años	Cada propuesta podrá aspirar a financiar no más allá de la suma total de los montos máximos que aporta cada país involucrado para cada línea		Permanente 2018	http://www.cytel.org/es/1%2Bd_proyectos_estrategicos	Activa
73	Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo: Becas a emprendedores	El Programa ha decidido lanzar un nuevo instrumento, basado en estancias de emprendedores, que pretende ser una oportunidad para que las empresas en período de incubación dentro de Parques científicos iberoamericanos puedan acceder a nuevos mercados y desarrollar su negocio a escala internacional en el contexto de los países que integran CYTED.	Ayudas cofinanciación hasta 1 mes de duración		Permanente	http://www.cytel.org/es/1%2Bd_becas_emprendedores	Activa
74	Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo: Proyectos Iberoeka	IBEROEKA es una certificación que realiza CYTED para proyectos de innovación estratégicos para los países miembro que incluyan empresas socias de al menos dos países iberoamericanos y que cuenten con el financiamiento de las agencias nacionales.	El Programa CYTED certifica el proyecto y comienza la ejecución con fondos de agencias nacionales y el seguimiento de los OGI(Organismo Gestor Iberoeka).		Permanente	http://www.cytel.org/es/Innovacion_iberoeaka	Activa
75	EIC Horizon Prize for 'Fuel from the Sun: Artificial Photosynthesis'	The challenge is to build a fully functional, bench-scale prototype of an artificial photosynthesis based system which is able to produce a useable synthetic fuel.	5.000.000 EUR	12 December 2017	03 February 2021 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sunfuel-eicprize-2021.html	Activa
76	EIC Horizon Prize for 'Innovative Batteries for eVehicles'	The challenge is to develop a safe and sustainable battery for electric-vehicles through the development of new materials and chemistries making use of abundant, sustainable low cost materials, which are easily available in Europe.	10.000.000 EUR	22 February 2018	17 December 2020 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/batteries-eicprize-2018.html	Activa
77	EIC Horizon Prize for 'Early Warning for Epidemics'	The challenge is to develop a scalable, reliable and cost-effective early warning system prototype to forecast and monitor vector-borne diseases in order to contribute to the prevention of outbreaks mitigating their impact on local, regional and global scales and providing support to existing elimination efforts.	5.000.000 EUR	26 April 2018	01 September 2020 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/epidemics-eicprize-2020.html	Activa
78	EIC Horizon Prize for 'Affordable High-Tech for Humanitarian Aid'	The challenge consists of developing innovative solutions for the delivery of humanitarian aid based on frugal application of advanced technologies.	5.000.000 EUR	30 November 2017	15 January 2020 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/humanitarianaid-eicprize-2020.html	Activa

79	FutureEnginePrize-01-2016	Cleanest engine of the future prize aims at reducing the pollution produced by future new vehicles using either gasoline or diesel fuels and their low biofuel blends available on the market.	3.500.000 EUR	20 April 2016	20 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/h2020-futureengineprize-2016.html	Activa
80	Horizon prize for a Combined Heat and Power (CHP) Installation in a hospital using 100% Renewable Energy Sources	The integration and use of renewable energy in buildings for heat and power generation still encounter unsolved technological problems linked to the security and reliability of energy supply and related costs.	1.000.000 EUR	05 July 2016	03 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lce-prize-renewablehospital-01-2016.html	Activa
81	LCE-Prize-CO2Reuse-01-2016: Horizon prize for CO2 reuse	Preventing dangerous climate change is a key priority for the European Union. Europe is working hard to cut its greenhouse gas emissions substantially while encouraging other nations and regions to do likewise.	1.500.000 EUR	05 July 2016	03 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lce-prize-co2reuse-01-2016.html	Activa
82	Horizon Prize for Social Innovation in Europe	Innovations are new or significantly improved goods, services, processes and methods which are social when they aim at gains for society rather than for the individual, i.e. when they are good for society and enhance society's capacity to act.	2.000.000 EUR	27 November 2017	28 February 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc6-social-innovation-prize-2019.html	Activa
83	Inducement prize: Tactile Displays for the Visually Impaired	People with visual impairment have serious difficulties in accessing digital information. This is a growing challenge as digital content becomes increasingly reliant on graphics which are particularly challenging to translate. Existing solutions are very costly and provide limited reading experience, usually in braille and not graphics	3.000.000 EUR	17 April 2018	27 November 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/tactileprize-01-2017.html	Activa
84	FET Innovation Launchpad	This topic aims at turning results from FET-funded projects into genuine societal or economic innovations.	100.000 EUR	07 November 2017	16 October 2018 17:00:00 08 October 2019 17:00:00 14 October 2020 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/fetopen-03-2018-2019-2020.html	Activa
85	Inducement prize: Online security - Seamless personal authentication	Internet has come to play an integral part in the lives of many European citizens. A large majority of people believe and even accept that there is no alternative other than to provide personal information if they want to obtain products or services online	4.000.000 EUR	28 September 2017	27 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/onlinesecurityprize-01-2017.html	Activa
86	Co-funding of regional, national and international programmes	The COFUND scheme aims to stimulate regional, national or international programmes to foster excellence in researchers' training, mobility and career development, spreading the best practices of the Marie Skłodowska-Curie actions.	receive funding	12 April 2018	27 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/msca-cofund-2018.html	Activa
87	Horizon prize for Integrated Photovoltaic System in European Protected Historic Urban districts	In Europe, architectural and planning rules for protected historic buildings lead to major technical constrains in integrating renewable energy such as photovoltaic. These problems call for innovative and creative solutions for building integrated photovoltaic that must combine aesthetic and photovoltaic technology applied in historical buildings that represent the artistic and cultural heritage of a city.	750.000 EUR	05 July 2016	26 September 2018 17:00:00 Brussels	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lce-prize-photovoltaicshistory-01-2016.html	Activa
88	Widening Fellowships	The Marie Skłodowska-Curie actions (MSCA) contribute to boosting jobs, growth and investment by equipping researchers with the new knowledge, skills and international and inter-sectorial exposure to fill the top positions of tomorrow and solve current and future societal challenges.	receive funding	12 April 2018	12 September 2018 17:00:00 brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/wf-01-2018.html	Activa

89	Individual Fellowships	The goal of the Individual Fellowships is to enhance the creative and innovative potential of experienced researchers, wishing to diversify their individual competence in terms of skill acquisition through advanced training, international and intersectoral mobility.	receive funding	12 April 2018	12 September 2018 17:00:00 brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/msca-if-2018.html	Activa
90	Inducement prize: Zero Power Water Infrastructure Monitoring	The objectives of this inducement prize are: to empower the EU water distribution market with solutions based on wireless sensor networks with energy harvesting technologies, designed for real-time monitoring of water management; and, to stimulate broader European efforts in developing solutions for this societal need	2.000.000 EUR	19 December 2017	11 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/powerwaterprize-01-2017.html	Activa
91	Identify opportunities to promote careers, education and research activities in the European bio-based industry	Crossing the boundaries between existing and new industrial sectors and involving partners in a variety of fields entails working in areas where different academic disciplines cross paths and in diverse teams to speed up innovation.	1.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so4.s3.html	Activa
92	Expand the bio-based industry across Europe	The level of activities of the Bio-based Industries Consortium (BIC) is not balanced throughout Europe. This is particularly the case in 'moderate/modest innovator' countries according to the European Innovation Scoreboard	750.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so4.s2.html	Activa
93	Benefit from previous and current work to create a coherent and stimulating 'environment' for a sustainable bio-based industry in Europe	Coordination and support actions (CSAs) funded by the 6th and 7th Framework Programmes1, Horizon 2020 including the BBI JU, various Interreg2 and other European programmes have addressed many aspects related to the bio-based industry	250.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so4.s1.html	Activa
94	Develop functional molecules for bio-based coatings outperforming existing products and meeting market requirements	The global market for coatings is changing and growing as the requirements for the properties and performances of end-products (durability for packaging, wear resistance in machinery, etc.) become more demanding.	2.000.000 a 5.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so3.r9.html	Activa
95	Develop technologies and systems to produce bio-based aromatics that outperform fossil-based counterparts	Aromatic building blocks make up a significant share of today's building blocks for a wide array of day-to-day products and applications, including nylons, polystyrene, resins and polycarbonates.	1.000.000 a 2.500.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so3.r11.html	Activa
96	Develop bio-based packaging products that are biodegradable/ compostable and/or recyclable	Currently, most of the packaging used in a wide variety of applications in different market sectors – including food, pharmaceuticals and clothing – is not recyclable.	2.000.000 a 5.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so3.r10.html	Activa
97	Large-scale production of proteins for food and feed applications from alternative, sustainable sources	The worldwide demand for protein is progressively expanding due to strong growth in the world's population. Improvements in the standard of living in large parts of the world are adding to the protein demand	21.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so3.f2.html	Activa
98	Produce on a large scale competitive bio-based building blocks, polymers and materials that outperform existing alternatives in identified market applications	Research and demonstration activities have applied innovative technologies and processes to obtain novel bio-based building blocks, polymers and materials with improved functionalities and performances for packaging, coatings, resins and paints, additives, composites, fibres, cosmetics and others.	21.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so3.f1.html	Activa
99	Produce sustainable and cost-efficient high-performance functional ingredients from alternative sources	Boosted by the increasing world population and the subsequent growth in demand for functional products for food, feed, nutraceuticals, cosmetics, pharma, etc., industry and academia are looking at alternative sources for bio-active ingredients that can provide functionality.	7.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so3.d5.html	Activa

100	Produce biopesticides or bio-based fertilisers as components of sustainable agricultural management plans (1)	Biopesticides are pesticides derived from natural materials such as animals, plants, bacteria and certain minerals. They can improve the management of pests for sustainable agricultural management programmes, by combatting only the targeted pest and closely related organisms, making them sometimes more selective than conventional pesticides.	7.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so3.d4.html	Activa
101	Develop adequate computational systems for modelling the design, start-up, scaling-up and continuous improvement of bioprocesses involving microorganisms	The state-of-the-art approach to designing, scaling up and starting up bioprocesses is governed by 'trial and error' and replicating traditional manufacturing methods. These methods often cause scaling-up losses and start-up delays or failures.	1.000.000 a 2.500.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so2.r8.html	Activa
102	Electrochemical processes for bio-based monomers and polymers	Electrical energy prices fluctuate greatly, due to the widespread adoption of renewable sources. At peak production times – on sunny summer or windy winter days, for instance – energy can become virtually free.	1.000.000 a 2.500.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so2.r7.html	Activa
103	Apply emerging breakthrough technologies to improve existing value chains	The emerging bio-based industry in Europe is taking shape thanks to its many value chains, either built on existing value chains from the participating industrial sectors, or afresh, from new partnerships across sector boundaries. As the industry progresses, the existing situation offers opportunities to (further) improve existing value chains by integrating breakthrough technologies where applicable	1.000.000 a 2.500.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so2.r6.html	Activa
104	Develop innovative single-step processes for conversion of a biomass feedstock into multiple readily usable intermediate streams	Due to the nature of most bio-based feedstocks, industry often faces a situation in which just a fraction of the feedstock is converted into a main product. The other fractions are discarded or routed through subsequent cascading steps to recover or produce useful compounds	1.000.000 a 2.500.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so2.r5.html	Activa
105	Apply advanced biotechnologies to convert biomass that contains inhibitors into high value-added chemicals and materials	Residual streams from various bio-based operations contain, among others, low-molecular compounds that severely inhibit the growth of the currently known fermenting microorganisms. As a result, the yields and quality of the desired products are too low for a successful, large-scale application of fermentation pathways to valorise these residual streams	1.000.000 a 2.500.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so2.r4.html	Activa
106	Introduce new technologies to make pulping operations more resource-efficient	The objective of wood pulping is to separate cellulose fibres from the other wood components (lignin, hemicelluloses, extractives, etc.). Those components end up as side streams, making up a considerable share of the pulp mill's output.	2.000.000 a 5.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so2.r3.html	Activa
107	Develop techniques and systems to improve the performance of biocatalysts	Biocatalysts – enzymes and the microorganisms that contain them – offer great potential for the large-scale production of high-value products from renewable, bio-based feedstock. Unlike the conventional chemical conversion processes, biocatalytic conversions typically take place under mild conditions and achieve higher selectivity of specific characteristics, such as chirality	2.000.000 a 5.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so2.r2.html	Activa
108	Valorise sugars from the cellulosic and/or hemicellulosic fractions of lignocellulosic biomass	The use of lignocellulosic feedstock to produce chemicals and materials for commercially viable applications usually focuses on valorising cellulose.	7.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so2.d3.html	Activa

109	Resolve logistical, infrastructural and technological challenges to valorise residual and side streams from aquaculture, fisheries and the aquatic biomass processing industries	Residual streams from aquaculture, fisheries and the aquatic processing industries contain a varied mixture of bone, cartilage, skin and shells, liquid streams and other material. Some is processed into animal feed or fertilisers, but a large proportion is treated as waste, despite containing interesting molecules for cosmetics, nutraceutical and pharmaceutical applications, among others	2.000.000 a 5.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so1.r1.html	Activa
110	Find solutions to dilution, pollution and content diversity challenges to turn mixed urban bio-waste (1) into sustainable feedstock for the bio-based industry	In 2016, an estimated 54 % of the world's population lived in urban areas. That figure is projected to exceed 60 % in 2030. Cities, and the people living within them, produce an immense amount of solid waste and wastewater.	7.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so1.d2.html	Activa
111	Improve the logistical and pre-processing steps of locally sourced biomass to serve as feedstock for the bio-based industry	Getting biomass feedstock from its sources in rural and coastal areas to processing plants in the bio-based industry today has to contend with many hindrances. These relate to the (often varying) quality of the biomass, its quantity, location and distance from the operating facilities and state-of-the-art logistical systems and equipment.	7.000.000 EUR	11 April 2018	06 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bbi.2018.so1.d1.html	Activa
112	Innovative financing for energy efficiency investments	There is a need to set up innovative financing schemes at regional or national level in order to create the conditions for adequate supply of private finance for energy efficiency investments. Innovative financing schemes for energy efficiency aim to progressively maximise the leverage ratio of public funds to private finance	1.000.000 a 1.500.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-9-2018-2019.html	Activa
113	Innovative financing for energy efficiency investments. Forthcoming	There is a need to set up innovative financing schemes at regional or national level in order to create the conditions for adequate supply of private finance for energy efficiency investments. Innovative financing schemes for energy efficiency aim to progressively maximise the leverage ratio of public funds to private finance	1.000.000 a 1.500.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-9-2018-2019.html	Futura
114	Capacity building programmes to support implementation of energy audits	The Energy Efficiency Directive, in its art.8, requires Member States to develop programmes encouraging SMEs to undergo energy audits and to implement the recommended energy-saving measures. SMEs represent enormous energy saving potential.	1.000.000 a 2.000.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-8-2018-2019.html	Activa
115	Capacity building programmes to support implementation of energy audits. Forthcoming	The Energy Efficiency Directive, in its art.8, requires Member States to develop programmes encouraging SMEs to undergo energy audits and to implement the recommended energy-saving measures. SMEs represent enormous energy saving potential.	1.000.000 a 2.000.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-8-2018-2019.html	Futura
116	Business case for industrial waste heat/cold recovery	Energy and fuels represent an important part of the production costs in several Resource and Energy Intensive Industries (REII). While a lot of technical progress has already been done in REII to reduce the energy consumption of the main industrial processes, significant parts of the input-energy are still lost in the form of waste heat/cold by gas, liquid or solid streams	3.000.000 a 4.000.000 EUR 2018	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-6-2018-2019-2020.html	Activa
117	Business case for industrial waste heat/cold recovery. Forthcoming	Energy and fuels represent an important part of the production costs in several Resource and Energy Intensive Industries (REII). While a lot of technical progress has already been done in REII to reduce the energy consumption of the main industrial processes, significant parts of the input-energy are still lost in the form of waste heat/cold by gas, liquid or solid streams	1.000.000 a 2.000.000 2019	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-6-2018-2019-2020.html	Futura

118	Next-generation of Energy Performance Assessment and Certification	Under the Energy Performance of Buildings Directive [1], all EU countries have established independent energy performance certification systems supported by independent mechanisms of control and verification.	1.000.000 a 2.000.000 EUR 2018	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-5-2018-2019-2020.html	Activa
119	Next-generation of Energy Performance Assessment and Certification. Forthcoming	Under the Energy Performance of Buildings Directive [1], all EU countries have established independent energy performance certification systems supported by independent mechanisms of control and verification.	2.000.000 a 2.500.000 EUR 2019	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-5-2018-2019-2020.html	Futura
120	Integrated home renovation services	Many project promoters – public authorities, individuals or businesses – lack the skills and capacity to set up, implement and finance ambitious low-energy and clean energy building projects. In addition, many project developers still face obstacles in raising the necessary up-front costs for their projects – particularly as the small-size of investments and the lack of turnkey solutions increase implementation cost – and lack access to attractive and adequate financing products from the market.	500.000 a 1.500.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-2-2018-2019.html	Activa
121	Integrated home renovation services	Many project promoters – public authorities, individuals or businesses – lack the skills and capacity to set up, implement and finance ambitious low-energy and clean energy building projects. In addition, many project developers still face obstacles in raising the necessary up-front costs for their projects – particularly as the small-size of investments and the lack of turnkey solutions increase implementation cost – and lack access to attractive and adequate financing products from the market.	500.000 a 1.500.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-2-2018-2019.html	Futura
122	Supporting public authorities to implement the Energy Union	The delivery of the Energy Union targets requires the full engagement of the public sector at all governance levels.	1.000.000 a 1.500.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-16-2018-2019-2020.html	Activa
123	Supporting public authorities to implement the Energy Union. Forthcoming	The delivery of the Energy Union targets requires the full engagement of the public sector at all governance levels.	1.000.000 a 1.500.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-16-2018-2019-2020.html	Activa
124	Supporting public authorities to implement the Energy Union. Forthcoming	The delivery of the Energy Union targets requires the full engagement of the public sector at all governance levels.	1.000.000 a 1.500.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-16-2018-2019-2020.html	Futura
125	New energy label driving and boosting innovation in products energy efficiency	The energy label is a key driver for innovation in the energy efficiency area. For more than 20 years the tangible results of the transformation of the European market are being observed, where only the products with the highest energy efficiency parameters and innovative solutions to save energy are being commercialised.	1.000.000 a 1.500.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-15-2018.html	Activa
126	Socio-economic research conceptualising and modelling energy efficiency and energy demand	In the Energy Union Strategy, Energy Efficiency was recognised as a resource in its own right which should be enabled to compete on equal terms with generation capacity and to have primary consideration across all policies	1.000.000 a 1.500.000 EUR 2018	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-14-2018-2019-2020.html	Activa
127	Socio-economic research conceptualising and modelling energy efficiency and energy demand. Forthcoming	In the Energy Union Strategy, Energy Efficiency was recognised as a resource in its own right which should be enabled to compete on equal terms with generation capacity and to have primary consideration across all policies	1.000.000 a 2.000.000 EUR 2019	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-14-2018-2019-2020.html	Futura

128	Enabling next-generation of smart energy services valorising energy efficiency and flexibility at demand-side as energy resource	Energy Efficiency services (e.g. Energy Performance Contracting (EPC)) are available on the market already for quite some time. However, there is a big untapped potential in sectors and with actors not yet engaged in services triggering energy, CO2 and cost savings	1.000.000 a 2.000.000 EUR 2018	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-13-2018-2019-2020.html	Activa
129	Enabling next-generation of smart energy services valorising energy efficiency and flexibility at demand-side as energy resource. Forthcoming	Energy Efficiency services (e.g. Energy Performance Contracting (EPC)) are available on the market already for quite some time. However, there is a big untapped potential in sectors and with actors not yet engaged in services triggering energy, CO2 and cost savings	3.000.000 a 4.000.000 EUR 2019	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-13-2018-2019-2020.html	Futura
130	Aggregation - Project Development Assistance	Investors and lenders need to gain more confidence on investment projects related to energy efficiency which are still seen as risky and fragmented. EU added value can be realised in particular where projects introduce innovation to the market regarding project aggregation and financing solutions minimising transaction costs and engaging the private finance community	500.000 a 1.500.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-11-2018-2019-2020.html	Activa
131	Aggregation - Project Development Assistance. Forthcoming	Investors and lenders need to gain more confidence on investment projects related to energy efficiency which are still seen as risky and fragmented. EU added value can be realised in particular where projects introduce innovation to the market regarding project aggregation and financing solutions minimising transaction costs and engaging the private finance community	500.000 a 1.500.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-11-2018-2019-2020.html	Futura
132	Mainstreaming energy efficiency finance	Energy efficiency is not yet considered as an attractive investment by the financial sector which limits the possibility to use external private finance on top of equity of project owners and available public funding.	1.000.000 a 1.500.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-10-2018-2019-2020.html	Activa
133	Mainstreaming energy efficiency finance. Forthcoming	Energy efficiency is not yet considered as an attractive investment by the financial sector which limits the possibility to use external private finance on top of equity of project owners and available public funding.	1.000.000 a 1.500.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-10-2018-2019-2020.html	Futura
134	Decarbonisation of the EU building stock: innovative approaches and affordable solutions changing the market for buildings renovation	The market for deep renovation of buildings needs to be transformed in terms of technologies, processes and business models. The multiple benefits of improved energy efficiency are well known, but more action is needed for Europe to achieve the higher rates of renovation that would reduce energy use and decarbonize the building stock in order to meet long-term climate and energy targets	3.000.000 a 4.000.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-1-2018-2019-2020.html	Activa
135	Decarbonisation of the EU building stock: innovative approaches and affordable solutions changing the market for buildings renovation. Forthcoming	The market for deep renovation of buildings needs to be transformed in terms of technologies, processes and business models. The multiple benefits of improved energy efficiency are well known, but more action is needed for Europe to achieve the higher rates of renovation that would reduce energy use and decarbonize the building stock in order to meet long-term climate and energy targets	3.000.000 a 4.000.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-1-2018-2019-2020.html	Futura
136	Mitigating household energy poverty	European households continue to spend an increasing share of income on energy, leading to higher rates of energy poverty and negatively affecting living conditions and health. Recent estimates suggest that more than 50 million Europeans are affected by energy poverty	1.000.000 a 2.000.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ec-2-2018-2019-2020.html	Activa

137	Mitigating household energy poverty. Forthcoming	European households continue to spend an increasing share of income on energy, leading to higher rates of energy poverty and negatively affecting living conditions and health. Recent estimates suggest that more than 50 million Europeans are affected by energy poverty	1.000.000 a 2.000.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ec-2-2018-2019-2020.html	Futura
138	The role of consumers in changing the market through informed decision and collective actions	A precondition for active demand is for consumers to be aware of their own potential to permanently or temporarily reduce energy consumption; and moreover, for them to know how to offer this potential to the market and what it would represent in terms of monetary value by bringing benefits to the energy system.	1.000.000 a 2.000.000 EUR	25 January 2018	04 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ec-1-2018-2019-2020.html	Activa
139	The role of consumers in changing the market through informed decision and collective actions. Forthcoming	A precondition for active demand is for consumers to be aware of their own potential to permanently or temporarily reduce energy consumption; and moreover, for them to know how to offer this potential to the market and what it would represent in terms of monetary value by bringing benefits to the energy system.	1.000.000 a 2.000.000 EUR	24 January 2019	03 September 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ec-2-2018-2019-2020.html	Futura
140	Dynamic countering of cyber-attacks	The prevention of and the protection against attacks that target modern ICT components, complex ICT infrastructures and emerging technologies (e.g. IoT) remains a difficult task. The complexity of heterogeneous collections of hardware and software components finds its roots in the diversity of development contexts and of levels of maturity, in the growing means of networked interactions, in the massive exchange of information and data, and in the varied schedules of systems lifecycles that generate highly dynamic behaviours	4.000.000 a 5.000.000 EUR	15 March 2018	28 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ict-01-2018.html	Activa
141	Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe	Disruptions in the operation of our countries' critical infrastructure may result from many kinds of hazards and physical and/or cyber-attacks on installations and their interconnected systems. Recent events demonstrate the increase of combined physical and cyber-attacks due to their interdependencies.	7.000.000 a 8.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-infra01-2018-2019-2020.html	Activa
142	Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe. Forthcoming	Disruptions in the operation of our countries' critical infrastructure may result from many kinds of hazards and physical and/or cyber-attacks on installations and their interconnected systems. Recent events demonstrate the increase of combined physical and cyber-attacks due to their interdependencies.	7.000.000 a 8.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-infra01-2018-2019-2020.html	Activa
143	Pre-commercial procurements of innovative solutions to enhance security	Innovative solutions are needed when resources from different countries are required to work more closely together. Such solutions should support the development of the EU's Security Union.	2.000.000 EUR a 12.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-gm03-2018-2019-2020.html	Activa
144	Pre-commercial procurements of innovative solutions to enhance security. Forthcoming	Innovative solutions are needed when resources from different countries are required to work more closely together. Such solutions should support the development of the EU's Security Union.	2.000.000 EUR a 12.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-gm03-2018-2019-2020.html	Futura
145	Strategic pre-commercial procurements of innovative, advanced systems to support security	Innovative solutions are needed when resources from different countries are required to work more closely together. Such solutions should support the development of the EU's Security Union.	1.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-gm02-2018-2020.html	Activa

146	Pan-European networks of practitioners and other actors in the field of security	In Europe, practitioners interested in the uptake of security research and innovation are dedicated to performing their duty and are focused on their tasks. In general, however, practitioner organisations have little scope to free workforces from daily operations in order to allocate time and resources to monitor innovation and research that could be useful to them	3.500.000 EUR for y d 1.000.000 EUR for c	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-gm01-2018-2019-2020.html	Activa
147	Pan-European networks of practitioners and other actors in the field of security. Forthcoming	In Europe, practitioners interested in the uptake of security research and innovation are dedicated to performing their duty and are focused on their tasks. In general, however, practitioner organisations have little scope to free workforces from daily operations in order to allocate time and resources to monitor innovation and research that could be useful to them	3.500.000 EUR for y d 1.000.000 EUR for c	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-gm01-2018-2019-2020.html	Futura
148	Information and data stream management to fight against (cyber)crime and terrorism	Large amounts of data and information from a variety of origins have become available to practitioners involved in fighting crime and terrorism. Full advantage is not currently taken of the most advanced techniques for Big Data analysis, and artificial intelligence.	8.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct03-2018-2019-2020.html	Activa
149	Information and data stream management to fight against (cyber)crime and terrorism	Large amounts of data and information from a variety of origins have become available to practitioners involved in fighting crime and terrorism. Full advantage is not currently taken of the most advanced techniques for Big Data analysis, and artificial intelligence.	8.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct03-2018-2019-2020.html	Futura
150	Technologies to enhance the fight against crime and terrorism	Organized crime and terrorist organisations are often at the forefront of technological innovation in planning, executing and concealing their criminal activities and the revenues stemming from them. Law Enforcement Agencies (LEAs) are often lagging behind when tackling criminal activities supported by advanced technologies.	7.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct02-2018-2019-2020.html	Activa
151	Technologies to enhance the fight against crime and terrorism	Organized crime and terrorist organisations are often at the forefront of technological innovation in planning, executing and concealing their criminal activities and the revenues stemming from them. Law Enforcement Agencies (LEAs) are often lagging behind when tackling criminal activities supported by advanced technologies.	7.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct02-2018-2019-2020.html	Futura
152	Human factors, and social, societal, and organisational aspects to solve issues in fighting against crime and terrorism	The free and democratic EU society, based on the rule of law, mobility across national borders, globalised communication and finance infrastructure, provides many opportunities to its people. However, the benefits come along with risks related to crime and terrorism, a significant number of which have cross-border impacts within the EU	5.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct01-2018-2019-2020.html	Activa
153	Human factors, and social, societal, and organisational aspects to solve issues in fighting against crime and terrorism. Forthcoming	The free and democratic EU society, based on the rule of law, mobility across national borders, globalised communication and finance infrastructure, provides many opportunities to its people. However, the benefits come along with risks related to crime and terrorism, a significant number of which have cross-border impacts within the EU	5.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct01-2018-2019-2020.html	Futura
154	Digital security, privacy, data protection and accountability in critical sectors	In critical vertical sectors/domains, cybersecurity technologies deployed in several application domains should be aligned to the specific domain needs, linking the demand and supply sides for such cyber technologies.	5.000.000 EUR for / b 3.000.000 a 4.000.000 EUR for c	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ds05-2018-2019.html	Activa

155	Digital security, privacy, data protection and accountability in critical sectors. Forthcoming	In critical vertical sectors/domains, cybersecurity technologies deployed in several application domains should be aligned to the specific domain needs, linking the demand and supply sides for such cyber technologies.	5.000.000 EUR for / b 3.000.000 a 4.000.000 EUR for c	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ds05-2018-2019.html	Futura
156	Cybersecurity in the Electrical Power and Energy System (EPES): an armour against cyber and privacy attacks and data breaches	The Electrical Power and Energy System (EPES) is of key importance to the economy, as all other domains rely on the availability of electricity, hence a power outage can have direct impact on the availability of other services (e.g. transport, finance, communication, water supply) where backup power is not available or the power restoration time goes beyond the backup autonomy	5.000.000 a 6.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ds04-2018-2020.html	Activa
157	Cybersecurity preparedness - cyber range, simulation and economics	The digital infrastructure, upon which other sectors, businesses and society at large critically depend, must be resilient and trustworthy, and must remain secure despite the escalating cyber-threats. New technologies and their novel combinations require innovative ways to implement security measures and to make new security-related assumptions, identifying "zero-day" or potential unknown vulnerabilities, forecasting new threats (plus their cascading effects) and emerging attacks, and managing cyber risks	5.000.000 a 6.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ds01-2018.html	Activa
158	Pre-normative research and demonstration for disaster-resilient societies	A reason for the difficult interaction among practitioners, and for the low levels of interoperability of equipment and procedures implemented by first responders, lies in there being insufficient harmonisation and standardisation, which pre-normative research and demonstrations may address effectively.	6.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs03-2018-2019-2020.html	Activa
159	Pre-normative research and demonstration for disaster-resilient societies. Forthcoming	A reason for the difficult interaction among practitioners, and for the low levels of interoperability of equipment and procedures implemented by first responders, lies in there being insufficient harmonisation and standardisation, which pre-normative research and demonstrations may address effectively.	6.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs03-2018-2019-2020.html	Futura
160	Technologies for first responders	Resilience is critical to allow authorities to take proper measures in response to severe disasters, both natural (including climate-related extreme events) and man-made. Innovation for disaster-resilient societies may draw from novel technologies, provided that they are affordable, accepted by the citizens, and customized and implemented for the (cross-sectoral) needs of first responders.	7.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs02-2018-2019-2020.html	Activa
161	Technologies for first responders. Forthcoming	Resilience is critical to allow authorities to take proper measures in response to severe disasters, both natural (including climate-related extreme events) and man-made. Innovation for disaster-resilient societies may draw from novel technologies, provided that they are affordable, accepted by the citizens, and customized and implemented for the (cross-sectoral) needs of first responders.	7.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs02-2018-2019-2020.html	Futura
162	Demonstration of applied solutions to enhance border and external security	Solutions at high Technological Readiness Levels (TRL; please see General Annex G) to enhance border and external security do exist, but if they are not to remain unused they need to be demonstrated in the context of actual operations or exercises for validation by practitioners.	5.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes03-2018-2019-2020.html	Activa

163	Demonstration of applied solutions to enhance border and external security. Forthcoming	Solutions at high Technological Readiness Levels (TRL; please see General Annex G) to enhance border and external security do exist, but if they are not to remain unused they need to be demonstrated in the context of actual operations or exercises for validation by practitioners.	5.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes03-2018-2019-2020.html	Futura
164	Technologies to enhance border and external security	Innovation for border and external security may draw, in particular, from novel technologies, provided that they are affordable, accepted by citizens and customized and implemented for the needs of security practitioners.	7.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes02-2018-2019-2020.html	Activa
165	Technologies to enhance border and external security. Forthcoming	Innovation for border and external security may draw, in particular, from novel technologies, provided that they are affordable, accepted by citizens and customized and implemented for the needs of security practitioners.	7.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes02-2018-2019-2020.html	Futura
166	Human factors, and social, societal, and organisational aspects of border and external security	Border and external security may depend on a variety of human factors, and social and societal issues including gender. The adoption of appropriate organisational measures and the deeper understanding of how novel technologies and social media impact border control are required.	5.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes01-2018-2019-2020.html	Activa
167	Human factors, and social, societal, and organisational aspects of border and external security. Forthcoming	Border and external security may depend on a variety of human factors, and social and societal issues including gender. The adoption of appropriate organisational measures and the deeper understanding of how novel technologies and social media impact border control are required.	5.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes01-2018-2019-2020.html	Futura
168	Development and testing of innovative Cr free anodic layers removal solution	In 2024, the use of CrVI substances will be forbidden by the Reach Regulation. Many studies have been focused on the development of alternative solutions to CAA or conversion coatings. These studies have led to the development of new protective layers (e.g. SAA, TSA, CrIII-based conversions coatings...)	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-03-18.html	Activa
169	Improved Thermal Properties of Computing Platforms for Next-Generation Avionics [SAT]	The proposed activity shall investigate, develop, and validate emerging thermal-aware SW-based techniques that will reduce operational temperature of electronic circuits. The expected impact of the improved thermal performance will both improve computing performance and will reduce size and weight of electronics due to relaxed dissipation requirements	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-03-17.html	Activa
170	Air treatment system for airborne microbe removal from air circulation or chambers	This topic will develop a prototype system designed to improve the biological quality of the air in aircraft cabins by using novel high performing technologies that do not rely on mechanical filtration. The developed system should feature rapid, efficient and durable broad range virus and bacteria deactivation potential, small footprint and low power consumption for integration into current/future aircraft ECS architecture	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-55.html	Activa
171	Development of a HVDC current limiter	The purpose of this research work is to design and develop a HVDC current limiter prototype. The work encompasses design, performance simulation and prototype testing of an HVDC current limiter. The targeted application is Large Aircraft HVDC Power management centre. The prototype shall be validated up to TRL6.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-54.html	Activa

172	Development of an optimized DC-DC converter for a smart electrical system	In the context of the More Electrical Aircraft, the purpose of this topic is to develop an optimized and compact bidirectional modular DC/DC converter to be used in a smart electrical system. Please refer to the full topic descriptions document published in this call.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-53.html	Activa
173	Innovative Composite Material Qualification Methodologies	Development and validation (testing) of a new material qualification and test methods of new composite materials in safety critical single load path aircraft structures. The aim is to reduce the number of material tests required, without compromising confidence level, robustness and reliability of the material allowables. Please refer to the full topic descriptions document published in this call.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-52.html	Activa
174	Innovative quality inspection methods for CFRP primary structural parts	Development of new NDI methods and/or techniques capable of inspecting the more complex features associated with the development of highly efficient composite landing gear parts. The objective is to reliably detect anomalies in complex structures and demonstrate qualification, in a cost-efficient way, suitable for a production environment	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-51.html	Activa
175	Innovative RTM tooling for CFRP primary structural parts	For complex shaped and high performance CFRP structures the metal moulding tools currently in use are complex, heavy and expensive. The topic aims to develop robust, wear resistant, lightweight, low cost tooling with integrated dynamic controlled electrical heating system, that is suitable for high-pressure resin injection processes and complex shaped products	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-50.html	Activa
176	Health Monitoring for Electro-Hydraulic Actuator fluid	The purpose of this research topic is to develop and validate a system to monitor the level of contamination of the aviation hydraulic fluids (e.g. number and size of the particles, the percentage of water, etc.) within a representative aircraft environment.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-49.html	Activa
177	Design and development of a long stroke Piezo Electric Actuator	The purpose of this topic is to design and develop a prototype of a long stroke piezo electric actuator with increased stroke and load capabilities. The actuator functionalities and performances will be assessed on a prototype laboratory in order to achieve a TRL4.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-48.html	Activa
178	New grip generation for active inceptor	New generation of active Inceptor will give the opportunity to provide to pilots more and more functionalities, especially fitted directly on the grip. The aim of this topic is to investigate new grip generation including new sensing devices, and the associated connections constraints, while keeping high integrity level, compliant with aeronautic requirements.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-47.html	Activa
179	Modeling of friction effects caused by surface contact with high pressure and rapid movement	The goal of this work package is to investigate the in-situ surface processes at a bearing contact of a landing gear shock strut during operation and to develop an enhanced model for simulation of stress / fatigue levels depending on the operational conditions. Within this project an experimental and theoretical assessment of laminar flow robustness, aerodynamic performances and load control effectiveness for a turboprop A/C wing has to be performed at high/medium speeds (Mach up to 0.67 and wind tunnel Reynolds number 10-11 million) including theoretical evaluation of propeller wake aerodynamic interference. Wind tunnel wing model (5 meters span) has not to be manufactured since already available from another Project under Call for Proposals	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-sys-02-46.html	Activa
180	Laminar Flow robustness and Load control effectiveness evaluation for a Regional Turboprop wing	Wind tunnel wing model (5 meters span) has not to be manufactured since already available from another Project under Call for Proposals	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-reg-03-01.html	Activa

181	High fidelity power effects aerodynamics at High Reynolds conditions in Regional turbo prop configuration	The topic targets the aerodynamic characterization at High Reynolds conditions of the active adaptive wing for future regional turbo prop aircraft with numerical (FCD) and experimental (WTTs) methods. The objective is to capture with the highest possible fidelity the aerodynamic behavior of the innovative devices on this wing, namely the smart flap, the new aileron, the winglet tab and the new spoiler.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-reg-02-05.html	Activa
182	Full scale innovative pressure bulkheads for Regional Aircraft Fuselage barrel on-ground demonstrators	Validation at full size level of innovative pressure bulkheads manufacturing process (out-of-autoclave liquid resin infusion or prepreg with automated lamination) and fabrication of 2 shipsets for Regional Aircraft Fuselage barrel on-ground demonstrators. Moreover an industrial and cost evaluation based on a pre-defined production business case is requested.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-reg-01-17.html	Activa
183	Innovative recirculation/air treatment system.	Scope of this topic is the development of technologies, design, manufacturing and testing, both in lab test environment and in a full scale regional A/C fuselage thermal cabin demonstrator (not part of Cfp), of an innovative recirculation and air distribution system which incorporates an air treatment subsystem to improve the recirculated air quality and reduce the fresh flow, along with its control logic and sensors, in order to support ELOS (Equivalent Level of Safety) demonstration for certain flight phases where meeting the ventilation certification requirement is not practical or economical	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-reg-01-16.html	Activa
184	Pilot monitoring in service data collection	This project will help ensuring that the Pilot State Monitoring technologies developed by the Topic Manager have a tangible path towards exploitation in commercial aircraft operations, especially in the light of its societal acceptance by its users and its adequation to their real needs. This will be achieved through active participation of the partner to the Topic Leader's activities.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-03-15.html	Activa
185	Multifunctional Aircraft Power Network with Electrical Switching	The topic contributes to develop advanced electrical distribution system architectures to be integrated in the Multifunctional Fuselage Demonstrator. Design, Development, Manufacturing and Validation of a "Multifunctional Aircraft Power Network with Electrical Switching" shall deliver a hardware and software system with an achieved Technology Readiness Level of 4	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-02-26.html	Activa
186	Micro mechanical characteristics of a PEKK Co-consolidation / welded joint for use in thermoplastic fuselages	The topic aims to contribute to a more fundamental understanding of the longer term quality aspects of new joining technologies allowing a radical lead time reduction for joining processes to improve the overall effectiveness of fuselage assembly. To better understand the durability of these processes themes like healing/aging in PEKK joints, process window comparison of welded carbon PEKK joints and durability of PEKK compounds need to be investigated.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-02-25.html	Activa
187	Generic added structures on shells made from thermoplastic sheet material	Lining panels for aircraft cabin interior are normally produced using glass-fiber reinforced sheet with epoxy resin. Any attachments are adhesively bonded afterwards. Within the Multifunctional Fuselage project the manufacturing of lining panels using thermoplastic sheets is investigated. Based on the benefits of the thermoplastic material methods to add these attachments by injection molding directly to the shell or using 3D-printing technology have to be developed and experimentally validated	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-02-24.html	Activa

188	Development and execution of new test procedures for thermoplastic aircraft fuselage panels	The main objective of the topic is to validate the structural behavior of thermoplastic aircraft fuselage panels in relation to new analytical methods for out of autoclave thermoplastic curing processes by static testing of panels under representative loads conditions. The tests will ensure the improved understanding of the structural response of the developed concept and proper design solutions for future application	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-02-23.html	Activa
189	Innovative Power and data transfer solutions for nacelle	Future Ultra High by-pass Ratio engines are bringing new challenges in integration to airframe, especially nacelle short and slim aerolines. These new constraints lead to define new solutions for the nacelle thrust reverser unit kinematics, and requires new compact electrical solutions to transfer electrical power and data from the fixed part of the thrust reverser to the translating one	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-57.html	Activa
190	Aerospace standard Lightweight SSPC for High voltage >1kA application.	Design and development of aerospace standard lightweight solid state protection component for >1kV and >1kA electrical architectures. Cooling and shielding should be integrated into the solution.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-56.html	Activa
191	Development of AC cabling technologies for >1kV aerospace applications	Build a simulation model to develop an understanding of the present capability of aerospace cables to withstand the demands of aerospace High Voltage (HV), high current, high frequency operation in an aerospace environment and identify an optimised aerospace cable for use with HV aerospace systems.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-55.html	Activa
192	Development of Measurement Techniques for Visualisation and Evaluation of Reverse Flow Interactions with Fan	Reverse flows generated by the thrust reverser unit (TRU) are of significant complexity. In order to ensure reliable fan performance when the TRU is deployed, the flow topologies up- and down-stream of the fan module need to be investigated and understood. For this purpose, advanced measurement techniques for a novel level of visualisation and evaluation of reverse flow interactions with fan aerodynamics need to be developed.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-54.html	Activa
193	Compact Matrix Air Oil Heat Exchanger	UHBR engine development will place a significant demand on the aircraft and engine's heat management system. With the current size and shape of Matrix Air Oil Heat Exchanger technology, it is becoming difficult to locate them on ever more, space constrained engines. New technology is required that increases compactness and allows conforming shaped units to be produced by exploiting novel design, manufacturing methods and materials	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-53.html	Activa
194	Thermo-mechanical design validation of compact heat exchanger by thermal cycling life prediction	Compact heat exchangers featured in innovative bleed systems could be early damaged when used in severe operating conditions (temperature, pressure and vibrations) such as the ones to be encountered in UHBR nacelle. The objective of this topic is to gain knowledge on physics involved in heat exchanger deterioration.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-52.html	Activa
195	Design and manufacturing of a large-scale HLFC wing model for a transonic WTT	The main purpose of this topic is to design and manufacture (instrumentation included) a large wing-model which will be equipped with wall-suction parts in the leading-edge region in order to perform Hybrid Laminar Flow Control (HLFC) by using active and passive suction systems.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-51.html	Activa

196	Development and manufacturing of innovative tooling for composite parts	The development of this tooling should be innovative in order to implement the best performances in: – Eco-design for of the tooling manufactured, employing low cost/natural material – Time and energy saving innovations in manufacturing of the future parts, for example by implementation of a more efficient heating system – Use of innovative materials with automation (Hi-tape, NCF, etc.) – Production time savings to reduce the cost and production lead times.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-50.html	Activa
197	Oil Transfer Bearing for Advanced Pitch Change Mechanism	Future aeroengine architectures are likely to feature main power gearbox, as power transfer element between low pressure turbine and low pressure compressor, and may require performance pitch control mechanism. Both features, that may coexist or be implemented separately, are based on high energy oil transfers to rotating parts.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-49.html	Activa
198	High Performance Electrical Components for Bleed Control	This topic aims at developing of high performance, high reliability, low cost, low weight electrical bleed control valves and electrical inlet guide vane actuator, in order to be able to control the APU bleedflow of an innovative Non Propulsive Energy generation system.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-lpa-01-47.html	Activa
199	High efficiency full electrical low pressure Compartment Pressure Control System for tilt-rotor applications	The purpose activity requires the development, testing and qualification of a full electrical modular-based Low Pressure Compartment Pressure Control System, including analysis to determine the best architecture taking into account the special flight characteristics of a Tilt Rotor and an occupants range from 9 to 30.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-frc-01-24.html	Activa
200	Experimental characterization and optimization of the RH and LH Engine intakes configuration of the next generation Tilt Rotor	The Applicant shall characterize in wind tunnel the key design choices of the basic engine intake configuration, as defined by LH. The Applicant will also propose optimized geometries (by CFD) to be evaluated in the same testing campaign. Moreover, it will characterize (by CFD only) the interactional effects due to rotor wake and its impact on the intake performance.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-frc-01-23.html	Activa
201	Engine exhaust wake flow regulator for Tilt Rotor	The activity involves the design, manufacturing, testing and flight qualification of an engine exhaust, integrating a variable geometry system for gas residual energy recovery and active engine bay cooling system, inclusive of exhaust performance validation and associated impact on NGCTR Technology Demonstrator.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-frc-01-22.html	Activa
202	Development of integrated engine air intake and protection systems for Tilt Rotor	The activity involves the design, manufacturing, testing and flight qualification of a complex air intake, integrating a removable anti-ice system, integrated barrier filter, and a compressor washing system, inclusive of intake performance validation and associated impact on NGCTR Technology Demonstrator.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-frc-01-21.html	Activa
203	Design, development and flight qualification of a supercritical composite shaft drive line for tiltrotor main drive system	The objective is to design a supercritical composite drive shaft line for a tilt rotor drive system, including the design, development, manufacturing, testing and flight qualification activities of its components. The drive shaft line architecture should conceive suitable supports (i.e bearings), should be able to guarantee a proper damping behaviour into the operating range (i.e. damper elements) and should cope with angular deflections, mainly due to wing bending (i.e. flexible couplings).	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-frc-01-20.html	Activa

204	Certification by Simulation for Rotorcraft Flight Aspects (CSRFA)	The aim of this topic is to bring together, the rotorcraft industry (represented by LH), the certification authority (represented by EASA) and simulation excellences (simulation industries/research centres/academia) to define a virtual certification process for rotorcraft flight aspects that improves and standardizes the current case-by-case approach and brings it to a quality level acceptable to the certification authority	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-frc-01-19.html	Activa
205	Adoption of a "Digital Transformation" approach to improve NGCTR design and simulation	The Topic is aimed to develop a new approach in the develop of the NGCTR, using new technologies associated to the Digital Transformation concept (Big Data; IoT; AI; AR/VR;), and designing new methods capable to earn the maximum value from these.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-frc-01-18.html	Activa
206	Development of design methodologies for thermal management and scavenge / sealing interactions in future ventless UltraFan bearing chambers	This proposal is aimed at understanding design rules & methodologies required to facilitate the use of low pressure and temperature bearing chamber environments and sealing systems. The proposal will determine the most appropriate method(s) to manage local brg chamber temperatures and to understand scavenge and sealing system interactions in bearing chambers that are not vented.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-03-25.html	Activa
207	VHCF material model for case hardened gear steels for application in an epicyclic power gearbox	The projects aims to develop a material model for future gear steels considering representative conditions of an epicyclic gearbox such as material volume, stress ratio (R = -1), cycle waveform and dynamic effects but also the relevant very high cycle fatigue regime (VHCF) ≥ 108 cycles.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-03-24.html	Activa
208	Probabilistic simulation of defect probability in LWD – Wire fusion processes	Create a simulation chain that probabilistically can predict the likelihood of defect appearance for direct deposition AM processes, EB- and Laser weld processes for thick joints. The focus is to capture the variation in relative positioning of end-effector and component starting with a robot program and a component geometry and taking into account real path to programmed path variations. Models of physical defect generation is not in focus.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-03-23.html	Activa
209	Development and verification of microstructure, residual stress and deformation simulation capability for additive free-form deposition using multiple superalloys	Development and verification of microstructure, residual stress and deformation simulation capability for additive free-form powder deposition using multiple superalloys. The methods should be capable of handling typical design features for engine structures with a turn-around time for simulation set-up, execution and evaluation within a working week.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-02-09.html	Activa
210	Low NOx / Low soot injection system design for spinning combustion technology	Safran Helicopter Engines has recently developed and patented a new spinning combustion technology (SCT). This technology improves ignition and blow-off capabilities and enables combustor weight reduction, without compromising turbine nor combustor lifetime. This project is dedicated to further improvement of SCT.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-01-38.html	Activa

211	Aerodynamic upgrade of Surface Air Cooled Oil Cooler (SACOC)	The next generation of Geared Turbofan, like the UHBR concept, requires larger heat exchangers to dissipate the heat generated in operation. The main aims of this project are: • to develop a predictive numerical methodology to assess the performance of any new air heat exchanger concept. The methodology will be validated against an experimental database to be acquired in this project. • to evaluate numerically but also experimentally new concepts like SACOC without fins to improve the current SACOC technology, resulting from the better understanding of physical phenomena.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-01-37.html	Activa
212	Optimizing impingement cooling	The aim of this project is to test different configurations of LPTACC pipes with a variation of the drilling pattern, the pipe geometry, the impingement distance, the airflow, the air temperature in order to develop numerical methods to predict heat transfer coefficient. Safran Aircraft engines will design the pipes and the partner will manufacture the pipes, design and assembly the test vehicle, conduct the test campaign, analyse the test result and develop the numerical method to predict the heat transfer coefficient	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-01-36.html	Activa
213	Oil flow 4 channels regulation valves	The UHBR new architecture introduces a gearbox with a dedicated and complex oil cooling system. The solution foreseen in the oil circuit introduces an oil recirculation in order to control, through a three valve outputs, the oil flow provided to the engine and the gearbox. The gearbox system is very sensitive to the oil flow precision and these kinds of valve are not part of SAFRAN legacy, thus a demonstration of capability in terms of flow precision through the all range of oil flow, temperatures and pressures shall be done in order to improve the oil circuit architecture	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-01-35.html	Activa
214	Airflow characterization through rotating labyrinth seal	The aim of this project is to test different configurations of labyrinth seals to determine the pressure loss characteristics for different rotor speeds and different radial clearances. The test rig shall be able to test only a seal configuration in a simplified environment (see figure 4). Safran Aircraft Engines will design the seals and the partner will manufacture the seals, design and assembly the test vehicle, conduct the test campaign and analyse the results.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-01-34.html	Activa
215	Prediction of High Frequency Vibrations in Aircraft Engines	Definition of high-frequency modelling practices for a complex engine structure. Determine vibration levels at high frequencies, vibration transmission paths and loss factors for an engine frame structure.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-01-33.html	Activa
216	Optimized UHPE flow path cooling design and testing using advanced manufacturing techniques	The call is meant to support the technology maturation process through (1) the development of a multi-disciplinary optimization process to enhance thermal management while minimizing flow losses and component weight, (2) the design and detailed thermal and flow testing (up to TRL 4) of components optimized for additive manufacturing, (3) the assessment and the optimization of the additive process through manufacturing trials to locally control and improve HW quality for key design features	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-eng-01-32.html	Activa

217	Development and evaluation of a manufacturing process for a lightweight aircraft wheel made of CFRP	Based on an innovative design of an aircraft nose wheel made of CFRP, the objective of this project is the development and evaluation of a manufacturing process for the composite wheel via low-pressure RTM (LP-RTM). The project involves tasks such as manufacturing related advice during the design process of the wheel, development of a manufacturing process, collection of life cycle inventory data of the process, evaluation of fibre lay-up and manufacturing and testing of wheel prototypes	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iti-cs2-2018-cfp08-air-03-05.html	Activa
218	Sizing for recycled carbon fibres to optimise adhesion in organic/inorganic composite materials	In the present topic, carbon fibres' sizing shall be manufactured and modified in order to optimise the interlinkage between recycled carbon fibres and a polymeric or a cementitious matrix with the goal to produce improved carbon fibre composite materials with increased mechanical properties.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iti-cs2-2018-cfp08-air-03-03.html	Activa
219	Model based development of an innovative ECS air distribution system for ground testing with a Cabin Demonstrator	An innovative air distribution system based on innovative materials with e.g. better acoustical damping, higher level of functional integration, etc. shall be developed using a model based design approach. This development shall be integrated in a Cabin Demonstrator and allow for mock-up ventilation with fresh and recirculated air.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iti-cs2-2018-cfp08-air-02-67.html	Activa
220	Evaluation and modelling of comfort driving parameters in a Cabin Demonstrator	A vibro-acoustic actuation system for cabin comfort studies shall be developed and a comfort study on the thermal, vibro-acoustical, visual, spacial and ergonomic environment for passengers shall be performed within a Cabin Demonstrator. A suited measurement system to holistically assess the cabin environment shall be provided.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iti-cs2-2018-cfp08-air-02-66.html	Activa
221	Design of special welding head for FSW process with automatic adjustable pin and welding force control system [SAT]	The aim of the project is to develop a universal head for butt and lap joining of 0.4 – 3.0 mm thicknesses sheet metal plate using linear friction stir welding (FSW) for aluminum alloys 2xxx and 7xxx series. Developed head shall allow welding of flat and concave-convex geometries (R > 200 mm) and shall provide integration with most commercially available CNC machines (independently from machine control system)	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iti-cs2-2018-cfp08-air-02-65.html	Activa
222	Cold Spray of metallic coatings on polymer and composite materials [SAT]	Improving of thermal and lightning strike resistant properties of the aircraft polymer components and composite materials requires innovative approach for top surface deposition. Conventional spraying technologies although highly efficient do not work properly with temperature sensitive powder and substrate materials.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iti-cs2-2018-cfp08-air-02-64.html	Activa
223	Enhanced Low Cost Complex Composite Structures	The aim of this topic is to research and to develop design and manufacturing methodologies for A/C complex composite components applying Infusion (LRI) technologies in order to achieve improved primary structures in terms of weight and cost, and to enable immediate Design Office decisions for next future aircraft designs.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iti-cs2-2018-cfp08-air-02-63.html	Activa
224	Virtual-Hybrid-Real On Ground demonstration for HVDC & EMA Integration	The topic deals with design, development and installation of a configurable virtual/hybrid/real ground test environment, aircraft and airframe representative, according to VISTAS EUROCAE standard for be on-ground tested validation (up to TRL5 of technology integration of airframe) of flight control surfaces driven by electromechanical actuators powered by high voltage DC electrical generation (HVDC)	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/iti-cs2-2018-cfp08-air-02-62.html	Activa

225	Development and Optimization of Bonding Assembly Technology for a Composite Material Wingbox	The scope of this topic is to develop, design and manufacture the required full scale innovative bonding assembly tooling, in order to obtain a high quality airworthy structural bond between a lower wing cover to the already assembled wing substructure. Novel tooling concepts are necessary to apply the required pressure uniformly to ensure bonding integrity and dimensional tolerances	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-air-02-61.html	Activa
226	Full Scale Innovative Integrated Tooling for Composite Material Wing Box [SAT]	The activities in this topic will be to design, develop and manufacture innovative and integrated tooling for a "one shot" process which includes an integral composite material structure comprised of 3 spars and a skin. Novel tooling concepts will ensure efficient manufacture of this ambitious integral structure.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-air-02-60.html	Activa
227	In-Seat Ventilation & Supply for Personalized Comfort Control on Board an Aircraft	The project aims to provide and demonstrate a concept of integrated seat climatization, ventilation and air supply as technology bricks for personalized comfort controlled environment for passengers in an aircraft	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-air-01-39.html	Activa
228	Innovative test rig for the investigation of gust loads in transonic flow conditions	Benefiting from Clean Sky SFWA-ITD achievements, the main objective of this call is to contribute to the improvement of gust loads prediction and control in transonic flow conditions. The Applicant(s) will have to design and manufacture model parts composed of an innovative gust generator and a wall-mounted half-wing model to be tested in a selected ONERA transonic facility.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-air-01-38.html	Activa
229	Cognitive Computing potential for cockpit operations	The objective of this research project is to assess how Cognitive Computing could efficiently support by 2035+ pilot decision making in unexpected or very complex situations	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-tht-02.html	Activa
230	Composite mould tool based on 3D printing	The objective of the present topic is to develop a composite mould tool based on an innovative large additive manufactured structure. The tool surface shall be able to withstand a high production rate, similar to today's metallic tools. The tool is intended to be used for producing a composite demonstrator with a size of approximately 1.5x3 sqm.	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-air-01-37.html	Activa
231	Innovative NOx Reduction Technologies	This topic addresses the general objective of NOx reduction in aero-engines through specific technologies or methods of controlling nitric oxides production from the combustion process of kerosene. Proposals are expected to provide solutions focusing on key technologies and tools (numerical and/or experimental), innovative concepts for advanced low emissions combustion, for the mid-term (EIS 2035) and long-term (EIS 2050) technology goals	receive funding	03 May 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/jti-cs2-2018-cfp08-tht-01.html	Activa
232	Urban mobility:a cross-cutting challenge	The theme of smart, green and integrated transport has been identified as one of the major societal challenges which will be addressed within the framework of Horizon 2020. The 2011 Transport White Paper further reinforces the importance of taking action in this domain during the next decade. Urban mobility is a particularly challenging task.	receive funding	16 January 2018	12 July 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/eit-urban-mobility.html	Activa

233	The European Capital of Innovation Award (iCapital)	With their capacity to connect people, places, public and private actors, cities can substantially enhance innovation in Europe and improve the quality of citizens' lives. New approaches to undertake and deploy innovative practices are gaining support, marking the shift from traditional top-down schemes to stronger bottom-up practices, where citizens are increasingly co-shaping public policies in an open, transparent way.	receive funding	22 February 2018	21 June 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/h2020-european-i-capital-prize-2018.html	Activa
234	Centre Of Excellence – Remote Decentralised Clinical Trials	Developing new medicines/health solutions and improving patient health rely on the successful conduct of clinical trials to generate relevant safety and efficacy data. Recruitment and retention of patients are some of the most challenging aspects in clinical trial protocol adherence. The 2017-global CISCRP survey reported the main barriers to patients' participation as "lack of patients' awareness of clinical trials" (~61%); and the "geography and the distance to the clinical site" (60%) .	receive funding	15 March 2018	14 June 2018 17:00:00 11 December 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/imi2-2018-14-04.html	Activa
235	Development of a platform for federated and privacy-preserving machine learning in support of drug discovery	Enabled by an ever-expanding arsenal of model systems, analysis methods, libraries of chemical compounds and other agents (like biologics), the amount of data generated during drug discovery programmes has never been greater, yet the biological complexity of many diseases still defies pharmaceutical treatment. Hand in hand with rising regulatory expectations, this growing complexity has inflated the research intensity and associated cost of the average discovery project.	receive funding	15 March 2018	14 June 2018 17:00:00 11 December 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/imi2-2018-14-03.html	Activa
236	Non-invasive clinical molecular imaging of immune cells	Current pharmacodynamic (PD) assessments of immune cells are based on peripheral blood biomarkers, or from biopsy samples which are acquired by invasive procedures. Some existing medical imaging modalities provide a quantifiable, non-invasive, repeatable and localised measure of biological processes in the living body	receive funding	15 March 2018	14 June 2018 17:00:00 11 December 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/imi2-2018-14-02.html	Activa
237	Targeted immune intervention for the management of non-response and relapse	A large number of patients suffering from immune-mediated diseases fail to respond well or at all to current standard-of-care treatments or quickly relapse while on, or following, treatment. Currently, one of the most challenging questions in human immunology is to understand whether it is possible to accurately predict which patients will fail to respond to treatment, which patients will sustain a longer term treatment response, or which patients will suddenly flare up during periods of disease control	EUR 3 million	15 March 2018	14 June 2018 17:00:00 11 December 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/imi2-2018-14-01.html	Activa
238	Establishing and operating a pilot for a Cybersecurity Competence Network to develop and implement a common Cybersecurity Research & Innovation Roadmap	EU's strategic interest is to ensure that the EU retains and develops essential capacities to secure its digital economy, infrastructures, society, and democracy. Europe's cybersecurity research, competences and investments are spread across Europe with too little alignment. There is an urgent need to step up investment in technological advancements that could make the EU's digital Single Market more cybersecure and to overcome the fragmentation of EU research capacities.	hasta 16.000.000 EUR	01 February 2018	29 May 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ict-03-2018.html	Activa
239	CSA for Lighthouse Initiative Mobility.E	In December 2016, the ECSEL JU Governing Board adopted, with the Lighthouse Initiative MOBILITY.E, an important effort in the field of Autonomous driving. It was accompanied by a first project Autodrive and by the set up of a LIASE (Lighthouse Initiative Advisory Service).	500.000 EUR	05 April 2018	24 May 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ecsel-2018-4-csa-mobilitye.html	Activa

240	CSA-for-Lighthouse Initiative Industry4.E	In December 2016, the ECSEL JU Governing Board adopted, with the Lighthouse Initiative Industry4.E, an important effort in the field of the Digitalisation of the European Industry. It was accompanied by a first project Productive4.0 and by the setting up of a LIASE (Lighthouse initiative Advisory Service).	500.000 EUR	05 April 2018	24 May 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ecsel-2018-3-csa-industry4e.html	Activa
241	FET-Open Challenging Current Thinking	to lay the foundations for radically new future technologies of any kind from visionary interdisciplinary collaborations that dissolve the traditional boundaries between sciences and disciplines, including the social sciences and humanities. This topic also encourages the driving role of new actors in research and innovation, including excellent young researchers, ambitious high-tech SMEs and first-time participants to FET under Horizon 2020 from across Europe.	receive funding	07 November 2017	16 May 2018 17:00:00 24 January 2019 17:00:00 18 September 2019 17:00:00 13 May 2020 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/fetopen-01-2018-2019-2020.html	Activa
242	Blockchain and distributed ledger technologies for SMEs	Blockchain and other distributed ledger technologies (DLTs) enable parties who are geographically distant or have no particular trust in each other to interact and exchange value and information on a peer-to-peer basis with fewer to non-existent central intermediaries. Beyond well-known applications in the financial sector, new developments are emerging in other fields.	1.500.000 EUR	01 February 2018	15 May 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/innosup-03-2018.html	Activa
243	International Cooperation on HPC	The aim is to develop strategic partnership in HPC with Brazil and Mexico that enables advancing the work on HPC applications in domains of common interest. Brazilian and Mexican partners will not be funded by the EU and they are expected to participate in the project with their own funding.	2.000.000 EUR	01 February 2018	15 May 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/fethpc-01-2018.html	Activa
244	Peer learning of innovation agencies	Innovation support agencies, i.e. the regional and national agencies that design and/or implement innovation support programmes for SMEs are important intermediaries for SME innovation. Focus, design and delivery mechanism of innovation support programmes determine to a large extent the economic impact from the supported actions and the satisfaction of the beneficiaries with the support provided	15 000 EUR / 50 000 EUR.	07 November 2017	18 October 2018 17:00:00 13 March 2019 17:00:00 16 October 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/innosup-05-2018-2020.html	Activa
245	Fast Track to Innovation (FTI)	FTI supports actions undertaking innovation from the demonstration stage through to market uptake, including activities such as piloting, test-beds, systems validation in real-world working conditions, validation of business models, pre-normative research, and standard-setting.	3.000.000 EUR	07 November 2017	31 May 2018 17:00:00 23 October 2018 17:00:00 21 February 2019 17:00:00 23 May 2019 17:00:00 22 October 2019 17:00:00 19 February 2020 17:00:00 09 June 2020 17:00:00 27 October 2020 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/eic-fti-2018-2020.html	Activa

246	SME instrument: SME-1 SME instrument phase 1	The SME Instrument supports high-risk, high-potential small and medium-sized enterprises to develop and bring to market new products, services and business models that could drive economic growth. The SME Instrument is for innovators with ground-breaking concepts that could shape new markets or disrupt existing ones in Europe and worldwide.	Subvención 50 000 fase 1, 70 % del proyecto	07 November 2017	05 September 2018 17:00:00 07 November 2018 17:00:00 13 February 2019 17:00:00 07 May 2019 17:00:00 05 September 2019 17:00:00 06 November 2019 17:00:00 12 February 2020 17:00:00 06 May 2020 17:00:00 02 September 2020 17:00:00 04 November 2020 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/eic-smeinst-2018-2020.html	Activa
247	SME instrument: SME-2 SME instrument phase 2	The SME Instrument supports high-risk, high-potential small and medium-sized enterprises to develop and bring to market new products, services and business models that could drive economic growth. The SME Instrument is for innovators with ground-breaking concepts that could shape new markets or disrupt existing ones in Europe and worldwide.	500.000 eur - 2.500.000 eur	07 November 2017	23 May 2018 17:00:00 10 October 2018 17:00:00 09 January 2019 17:00:00 03 April 2019 17:00:00 05 June 2019 17:00:00 09 October 2019 17:00:00 08 January 2020 17:00:00 18 March 2020 17:00:00 19 May 2020 17:00:00 07 October 2020 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/eic-smeinst-2018-2020.html	Activa
248	ERC Proof of Concept Grant	Frontier research often generates unexpected or new opportunities for commercial or societal application. The ERC Proof of Concept Grants aim to maximise the value of the excellent research that the ERC funds, by funding further work (i.e. activities which were not scheduled to be funded by the original ERC frontier research grant) to verify the innovation potential of ideas arising from ERC funded projects.	150.000 eur a 20.000.000 eur	06 September 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/erc-2018-poc.html	Activa
249	Proyectos CDTI de I+D	Financiación de proyectos de I+D desarrollados por empresas y destinados a la creación y mejora significativa de procesos productivos, productos o servicios.	Préstamo parcialmente reembolsable - Presupuesto mínimo elegible: 175.000 euros.	Permanente	Permanente	https://www.cdti.es/index.asp?MP=100&MS=802&MN=2	Activa
250	Proyectos estratégicos CIEN	Financiación de grandes proyectos de I+D, desarrollados en colaboración efectiva por agrupaciones empresariales y orientados a la realización de una investigación planificada en áreas estratégicas de futuro y con potencial proyección internacional.	Préstamo parcialmente reembolsable. Hasta 20.000.000 euros	Permanente	Permanente	https://www.cdti.es/index.asp?MP=100&MS=803&MN=2	Activa

251	Proyectos FEDER Interconecta 2018.	Financiación de proyectos de desarrollo experimental en la modalidad de cooperación entre empresas.	Subvención 4.000.000 euros	3 de mayo de 2018	5 de junio de 2018 a las 12:00 horas, hora peninsular	https://www.cdti.es/index.asp?MP=100&MS=807&MN=3	Activa
252	Proyectos de innovación FEMP	Financiación de proyectos de innovación de empresas del sector pesquero y acuicultura.	Préstamo parcialmente reembolsable - 175.000 euros	Todo el año	Todo el año/hasta agotamiento de fondos FEMP	https://www.cdti.es/index.asp?MP=100&MS=810&MN=3	Activa
253	Proyectos de inversión FEMP	Financiación de proyectos de inversión en actividades de transformación de los productos de la pesca y la acuicultura.	Préstamo parcialmente reembolsable 175.000 euros a 1.000.000 euros	Permanente	Permanente	https://www.cdti.es/index.asp?MP=100&MS=811&MN=3	Activa
254	Línea Directa de Innovación CDTI	Financiación de proyectos de carácter aplicado, muy cercanos al mercado, con riesgo tecnológico medio/bajo y cortos periodos de recuperación de la inversión, que consigan mejorar la competitividad de la empresa mediante la incorporación de tecnologías emergentes en el sector.	Préstamo parcialmente reembolsable. 175.000 euros.	Todo el año	Todo el año	https://www.cdti.es/index.asp?MP=100&MS=812&MN=2	Activa
255	Línea de innovación Global CDTI	Financiación de proyectos de inversión en innovación que permitan la internacionalización y crecimiento empresarial de los beneficiarios.	Préstamo 667.000 a 10.000.000 euros	Todo el año	Todo el año	https://www.cdti.es/index.asp?MP=100&MS=813&MN=2	Activa
256	Ayudas a Proyectos de I+D en Cooperación Internacional.	Ayudas destinadas a proyectos empresariales de carácter internacional orientados a mercado, presentados por una única empresa española, dentro de un consorcio internacional. Dichos proyectos pueden comprender tanto actividades de investigación industrial como de desarrollo experimental.	Subvención. 400.000 euros	7 de mayo 2018	5 de junio de 2018.	https://www.cdti.es/index.asp?MP=100&MS=816&MN=2&TR=C&IDR=2667	Activa
257	Financiaciones del Banco Europeo de Inversiones para préstamos a PYMEs	El Banco Europeo de Inversiones (BEI) ha otorgado a España un préstamo destinado a apoyar proyectos de inversión realizados por pequeñas y medianas empresas (PYMEs) y empresas de pequeña y mediana capitalización (empresas que tengan menos de 3000 trabajadores). CDTI destinará el importe de este préstamo a la cofinanciación de parte de los proyectos de I+D+i que gestiona.	Financiación 25 millones de EUR	Permanente	Permanente	https://www.cdti.es/index.asp?MP=100&MS=857&MN=3	Activa
258	Building blocks for resilience in evolving ICT systems	Algorithms, software and hardware systems must be designed having security, privacy, data protection and accountability in mind from their design phase in a measurable manner. Relevant challenges include: (a) to develop mechanisms that measure the performance of ICT systems with regards to cybersecurity and privacy and (b) to enhance control and trust of the consumer of digital products and services with innovative tools aiming to ensure the accountability of the security and privacy levels in the algorithms, in the software, and ultimately in the ICT systems, products and services across the supply chain	4.000.000 EUR a 5.000.000 EUR	25 July 2019	19 November 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ict-02-2020.html	Futura
259	Design Studies	New leading-edge research infrastructures in all fields of science and technology are needed by the European scientific community in order to remain at the forefront of the advancement of research, and to be able to help industry strengthen its base of knowledge and its technological know-how. The aim of this activity is to support the conceptual and technical design for new research infrastructures which are of a clear European dimension and interest.	1.000.000 EUR a 3.000.000 EUR	25 July 2019	12 November 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infra-dev-01-2019-2020.html	Futura
260	Co-funding of regional, national and international programmes. Forthcoming	The COFUND scheme aims to stimulate regional, national or international programmes to foster excellence in researchers' training, mobility and career development, spreading the best practices of the Marie Skłodowska-Curie actions.	receive funding	04 April 2019	26 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/msca-cofund-2019.html	Futura

261	Extreme scale computing technologies, methods and algorithms for key applications and support to the HPC ecosystem	To develop world-class extreme scale, power-efficient and highly resilient High Performance Computing and data technologies, and to provide support for a sustainable exascale HPC ecosystem in Europe, enabling collaborations among the relevant stakeholders.	5.000.000 EUR a 10.000.000 EUR	07 May 2019	24 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/fethpc-02-2019.html	Futura
262	Widening Fellowships. Forthcoming	The Marie Skłodowska-Curie actions (MSCA) contribute to boosting jobs, growth and investment by equipping researchers with the new knowledge, skills and international and inter-sectorial exposure to fill the top positions of tomorrow and solve current and future societal challenges. They are based on the principle of mobility, and researchers can receive funding on the condition that they move from one country to another to acquire new knowledge.	receive funding	11 April 2019	11 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/wf-02-2019.html	Futura
263	Upgrading smartness of existing buildings through innovations for legacy equipment	An essential part of Europe's clean energy transition is the changing role of buildings from energy consumers to actively controlling and optimising indoor environment while contributing to energy system flexibility by ensuring distributed energy generation from renewable energy sources, energy storage, facilitate smart charging of EVs, load reduction through energy efficiency and load shifting through demand response.	1.000.000 EUR	24 January 2019	03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-4-2019-2020.html	Futura
264	Stimulating demand for sustainable energy skills in the construction sector	Based on results of the BUILD UP Skills initiative, in particular the National Qualification Platforms and Roadmaps, as well as the qualification and training schemes developed in various Member States, the challenge is now to act at market level and to support legislative changes that will stimulate the demand for energy skills.	500.000 EUR a 1.000.000 EUR	24 January 2019	03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-3-2019-2020.html	Futura
265	Sustainable Nano-Fabrication (CSA)	Nanotechnology research has led to a remarkable development of nanoscale materials in bulk form with unique properties. Several of these materials are in the market or are expected to enter the market in the near future. The challenge is to establish industrial scale manufacturing of functional systems based on manufactured nanoparticles with designed properties for use in semiconductors, energy harvesting and storage, waste heat recovery, medicine, etc	2.000.000 EUR	16 October 2018	03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-nmbp-12-2019.html	Futura
266	Solar Energy in Industrial Processes	The potential of applying solar energy for industrial purposes is still largely untapped. Using solar energy to provide the heat or cooling necessary to industrial processes that need high reliability and high quality heat and cooling and continuous operation requires innovative advances in solar energy technology. Also, industrial processes might need to be adapted to the use of the solar resource. Industrial actors expect solutions with limited installation, maintenance and operation requirements and which are easy to operate.	3.000.000 EUR a 5.000.000 EUR	07 May 2019	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-7-2019.html	Futura
267	Development of next generation biofuel and alternative renewable fuel technologies for aviation and shipping	Decarbonising the aviation and shipping transport sectors, which are expanding fast and increasing the overall fossil fuel consumption, relies on biofuel and renewable fuels. The specific challenge is to increase the competitiveness of next generation biofuel and renewable fuel technologies in aviation and shipping, compared to fossil fuel alternatives.	3.000.000 EUR a 5.000.000 EUR	07 May 2019	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-23-2019.html	Futura

268	Development of solutions based on renewable sources that provide flexibility to the energy system	Supporting the balancing of the power grid and increasing the flexibility of the energy system is possible through dispatchable renewable energy sources, such as for example bioenergy and hydropower. The specific challenge is to increase the potential and performance of dispatchable technologies to provide flexibility services to the energy system by improving their technological characteristics.	3.000.000 EUR a 5.000.000 EUR	07 May 2019	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-16-2019.html	Futura
269	Low carbon industrial production using CCUS	CCUS in industrial applications faces significant challenges due to its high cost and the fierce international competition in the sectors concerned. However, these sectors currently account for 20% of global CO2 emissions, and in the 2 degree scenario, should represent half of the stored CO2 by 2050. Relevant sectors with high CO2 emissions are for example steel, iron and cement making, oil refining, gas processing, hydrogen production, biofuel production and waste incineration plants.	10.000.000 EUR a 12.000.000 EUR	07 May 2019	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-nze-5-2019-2020.html	Futura
270	Integrated solutions for flexible operation of fossil fuel power plants through power-to-X-to-power and/or energy storage	With a growing share of energy produced from renewable resources (RES), fossil fuel power plants will have to increasingly shift their role from providing base-load power to providing fluctuating back-up power (i.e. ramping up and down) in order to control and stabilise the grid. These strong fluctuations result not only in increased wear-and-tear, but (more importantly) also in a lower efficiency and hence higher greenhouse gas emissions per unit of produced electricity.	6.000.000 EUR a 10.000.000 EUR	07 May 2019	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-nze-4-2019.html	Futura
271	Joint Programming with EU and African partners for a R&I actions in the area of renewable energy	Providing sustainable and affordable energy to sub-Saharan Africa is critical to the development of a region that accounts for 13% of the world's population, but only 4% of its energy demand. Sub-Saharan Africa's energy resources are more than sufficient to meet its demands, but they are unevenly distributed and under-developed (IEA, 2014).	receive funding	14 November 2018	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ja-5-2019.html	Futura
272	European Pre-Commercial Procurement Programme for Wave Energy Research &Development	The challenge is the design, development and validation of cost-effective Wave energy convertors that can survive in a harsh and unpredictable ocean environment as the ocean through demand-driven Pre-Commercial Procurement. The challenge is open to proposals seeking to steer wave energy research and development in an effective way at a European level establishing convergence of wave energy technologies and to bring these technologies to the market.	15.000.000 a 20.000.000 EUR	14 November 2018	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ja-3-2019.html	Futura
273	Support for the opening of low-carbon energy research databases in Europe	Recent advances in the collection and exploitation of large data sets open the possibility for major industrial and social innovations. The European Open Science Cloud initiative aims to maximise the incentives for sharing data and to increase the capacity to exploit them, to ensure that data can be used as widely as possible.	500.000 EUR a 1.000.000 EUR	14 November 2018	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-cc-3-2019.html	Futura

274	Social Sciences and Humanities (SSH) aspects of the Clean-Energy Transition	The clean-energy transition doesn't just pose technological and scientific challenges; it also requires a better understanding of cross-cutting issues related to socioeconomic, gender, sociocultural, and socio-political issues. Addressing these issues will help to devise more effective ways of involving citizens and to better understand energy-related views and attitudes, ultimately leading to greater social acceptability as well as more durable governance arrangements and socioeconomic benefits.	1.000.000 EUR a 3.000.000 EUR	15 May 2018	06 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-cc-1-2018-2019-2020.html	Activa
275	Social Sciences and Humanities (SSH) aspects of the Clean-Energy Transition. Forthcoming	The clean-energy transition doesn't just pose technological and scientific challenges; it also requires a better understanding of cross-cutting issues related to socioeconomic, gender, sociocultural, and socio-political issues. Addressing these issues will help to devise more effective ways of involving citizens and to better understand energy-related views and attitudes, ultimately leading to greater social acceptability as well as more durable governance arrangements and socioeconomic benefits.	1.000.000 EUR a 3.000.000 EUR	07 May 2019	27 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-cc-1-2018-2019-2020.html	Futura
276	Security for smart and safe cities, including for public spaces	In the cities, public spaces such as malls, open crowded gathering areas and events, and non-restricted areas of transport infrastructures, constitute "soft targets", that is potential, numerous targets spread across the urban area and subject to "low cost" attacks strongly impacting the citizens. The generation, processing and sharing of large quantities of data in smart cities make urban systems and services potentially more responsive, and able to act upon real-time data.	8.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-infra02-2019.html	Futura
277	Technologies to enhance the fight against crime and terrorism	Organized crime and terrorist organisations are often at the forefront of technological innovation in planning, executing and concealing their criminal activities and the revenues stemming from them. Law Enforcement Agencies (LEAs) are often lagging behind when tackling criminal activities supported by advanced technologies.	7.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct02-2018-2019-2020.html	Activa
278	Technologies to enhance the fight against crime and terrorism. Forthcoming	Organized crime and terrorist organisations are often at the forefront of technological innovation in planning, executing and concealing their criminal activities and the revenues stemming from them. Law Enforcement Agencies (LEAs) are often lagging behind when tackling criminal activities supported by advanced technologies.	7.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct02-2018-2019-2020.html	Futura
279	Digital Security and privacy for citizens and Small and Medium Enterprises and Micro Enterprises	Some members of the digital society in the EU are more vulnerable as they are less prepared to confront with cyber-attacks. The scale, value and sensitivity of personal data in the cyberspace are significantly increasing and citizens are typically uncertain about who monitors, accesses and modifies their personal data. Personal data breach may facilitate abuse by third parties, including cyber-threats such as coercion, extortion and corruption.	4.000.000 EUR a 5.000.000 for A - 3.000.000 EUR a 4.000.000 EUR for B	14 March 2019	22 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ds03-2019-2020.html	Futura
280	Demonstration of novel concepts for the management of pandemic crises	Large-scale pandemics constitute an ever growing threat in today's globalized society, given the increasing flows of goods and people among continents. This challenge ought to be addressed internationally, and with the involvement of a large variety of practitioners and stakeholders, from planners in national health systems, to first responders.	10.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs05-2019.html	Futura

281	Chemical, biological, radiological and nuclear (CBRN) cluste	Technologies and innovations in the field of CBRN are developed by companies which often face difficulties in bringing them to markets. At least three reasons may be identified: * they address local, small niche markets; * these companies have neither the capabilities nor the strategic objective to go for foreign markets; * the individual technologies that they develop can make it to the market only if integrated and combined with other tools by other companies	3.500.000 EUR	14 March 2019	22 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs04-2019-2020.html	Futura
282	Human factors, and social, societal, and organisational aspects for disaster-resilient societies	The resilience of societies heavily depends on how their citizens behave individually or collectively, and how governments and civil society organisations design and implement policies for mitigating risks, preparing for, reacting to, overcoming, and learning from disasters. The spread of new technologies and media are inducing dramatic changes in how individuals and communities behave, and they are affecting societies in unpredictable ways	5.000.000 EUR	15 March 2018	23 August 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs01-2018-2019-2020.html	Futura
283	Human factors, and social, societal, and organisational aspects for disaster-resilient societies. Fortcoming	The resilience of societies heavily depends on how their citizens behave individually or collectively, and how governments and civil society organisations design and implement policies for mitigating risks, preparing for, reacting to, overcoming, and learning from disasters. The spread of new technologies and media are inducing dramatic changes in how individuals and communities behave, and they are affecting societies in unpredictable ways	5.000.000 EUR	14 March 2019	22 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs01-2018-2019-2020.html	Futura
284	European Open Innovation network in advanced technologies	Open innovation is a paradigm that assumes that companies can benefit from external ideas/technologies (Outside-In) and valorise internal ideas/technologies with external partners (Inside-Out) to reduce the financial risks associated to innovation, and quickly get a competitive advantage. Open Innovation implies accelerating internal R&D and innovation along value chains through collaboration between the technological supply - and demand - side within networked, multi-collaborative ecosystems.	1.500.000 EUR	05 February 2019	01 August 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/innosup-07-2019.html	Futura
285	Support for the large scale uptake of open service platforms in the Active and Healthy Ageing domain	In the past years several open service platforms for Active and Healthy Ageing domains have been developed, originating from the medical, independent living, and IoT domain. These platforms aim at building a common basis for application development, assuring interoperability at the application and service level, and reducing development cost by re-use of components. As these platforms mature more insight is needed in the way they contribute to the development of a scalable and open market for digital solutions for health and ageing, and which value is actually achieved through them	1.500.000 EUR	16 October 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-hcc-02-2019.html	Futura
286	Large Scale pilots of personalised & outcome based integrated care	Senior people are statistically at greater risk of cognitive impairment, frailty and multiple chronic health conditions with consequences for their independence, their quality of life (and the one of their families) but also for the sustainability of health and social care systems. There is also increasing evidence that interactions with the environment play an important role in the evolution of the patient's health status and condition.	4.000.000 EUR a 6.000.000 EUR	16 October 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-11-2019.html	Futura

287	Scaling up the univocal Identification of Medicinal Products	Across the European Union, medicinal products display differences in names, variations in strength or their package size. The unavailability of a specific product may also necessitate substitution in many instances, if a patient is to be timely served in a pharmacy. Moreover, due to differences in marketing authorisation procedures, not every medicinal product is available in each Member State, and it is not unusual that the same product may have different names across Member States or the same name may identify a different product in another Member State.	5.000.000 EUR a 8.000.000 EUR	16 October 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-09-2019.html	Futura
288	Large scale implementation of digital innovation for health and care in an ageing society	An ageing population is increasing demand-side pressures on public health and social care providers across Europe. These pressures undermine the long-term sustainability of existing models for delivering care services to the ageing population.	2.000.000 EUR a 5.000.000 EUR	16 October 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-05-2019.html	Futura
289	Big data and Artificial Intelligence for monitoring health status and quality of life after the cancer treatment	Currently available methods and strategies for diagnosis and treatment of cancer help clinicians continuously improve quality of care and prevent cancer deaths in the population. Accurate risk assessment, availability of genetic tests, timely diagnosis and effective treatment has created the impression of cancer being a chronic disease that can be cured. However, often rather aggressive treatment, psychological stress (anxiety and depression) can cause physical and psychological problems that may cause long-term after-cure consequences such as similar or other types of cancer, other types of (chronic) diseases and affect the quality of life of a patient.	3.000.000 EUR a 5.000.000 EUR	16 October 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-01-2019.html	Futura
290	Ship emission control scenarios, marine environmental impact and mitigation	Increasingly strict emission standards apply to shipping around the coastlines of many developed countries. Presently these are mainly focussed on SOx, but in future, reflecting health concerns, increasingly strict limits are likely to address NOx and particulate matter. A variety of compliant solutions can meet present, and may be able to meet emerging and future standards. However, some of these solutions may lead to secondary impacts and new waste streams.	8.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-bg-02-2019.html	Futura
291	Supporting Joint Actions on sustainable urban accessibility and connectivity	It is planned to include for 2019 a topic addressing specific challenges of sustainable urban accessibility and connectivity. The topic will be further defined with the update of the work programme 2019. It is planned to implement the action as ERA-NET Cofund action.	receive funding	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-4-6-2019.html	Futura
292	An inclusive digitally interconnected transport system meeting citizens' needs	Merging physical transport assets like infrastructure or vehicles with the digital layer, through the Internet of Things (IoT) and big data applications opens vast possibilities in terms of the development of new transport services, business/operating models and social innovations. This has been exemplified in the rapid development of services such as multimodal travel planners, transportation network companies, Mobility as a Service, public transport on demand, new airline ancillary products, various forms of tracking and tracing and many others.	1.000.000 EUR a 3.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-4-5-2019.html	Futura

293	Support for dissemination events in the field of Transport Research	An integral aspect of the Transport part of Horizon 2020 is to organise event(s) of a major strategic nature. The Transport Research Arena (TRA) Conferences and Aerodays are the examples of events organised in different Member States, with a high European dimension. The proposed actions should help promoting and disseminating Transport Research activities in Europe.	400.000 EUR A 700.000	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-4-4-2018-2019.html	Futura
294	Future propulsion and integration: towards a hybrid/electric aircraft (InCo flagship)	This action is part of the Aviation International Cooperation Flagship called "Safer and Greener Aviation in a Smaller World" mentioned in the introduction to this work programme 2018-2020.	3.000.000 EUR a 5.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-7-2019.html	Futura
295	Aviation operations impact on climate change (InCo flagship)	This action is part of the Aviation International Cooperation Flagship called "Safer and Greener Aviation in a Smaller World" mentioned in the introduction to this work programme 2018-2020.	2.000.000 EUR a 3.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-6-2019.html	Futura
296	InCo flagship on "Urban mobility and sustainable electrification in large urban areas in developing and emerging economies"	Climate change, energy security and local air pollution are some of the key questions for the 21st century. Urban areas in developing and emerging countries are major driving factors in growing global energy demand and Greenhouse Gas emissions.	15.000.000 EUR a 18.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-gv-05-2019.html	Futura
297	Low-emissions propulsion for long-distance trucks and coaches	Long-distance transport is a main consumer of energy and contributor to CO2 emissions in Europe, and requires specific attention due to very high demand on efficiency, dependability, reliability and cost. This topic considers heavy-duty trucks and bus-coaches in long-distance operation, and the challenge will be to reduce their energy consumption, CO2, regulated and non-regulated emissions through multi-technology vehicles operated on a mix of alternative and renewable fuels as well as recuperated heat and regenerated and externally supplied electricity.	20.000.000 EUR a 25.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-gv-04-2019.html	Futura
298	User centric charging infrastructure	The market share of full electric vehicles is still low in many European member states. Several reasons have been identified for this. Charging infrastructure is considered as one of the central reasons when the urban model does not allow for widespread garage availability, or when frequent long range travel is involved. Currently most EV owners have their own garage and live in peri-urban areas.	8.000.000 EUR a 15.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-gv-03-2019.html	Futura
299	Developing and testing shared, connected and cooperative automated vehicle fleets in urban areas for the mobility of all	Shared, connected and cooperative automated vehicles may become a game changer for urban mobility. They can provide seamless door to door mobility of people and freight delivery services, which can lead to healthier, more accessible, greener and more sustainable cities, as long as they are integrated in an effective public transport system. Since a few years the development of shared automated vehicle pilots are emerging around the world.	15.000.000 EUR a 30.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-art-04-2019.html	Futura
300	Human centred design for the new driver role in highly automated vehicles	Significant research efforts are addressing driver performance and behaviour in automated driving conditions still requiring the driver to be prepared to assume control (SAE automation level 3 and lower). In highly automated driving conditions (SAE automation level 4) the role of the driver will change dramatically since driver intervention is not required during defined use cases. This means that during a single trip there will be a coexistence of different automated driving functions demanding various degrees of human attention.	4.000.000 EUR a 8.000.000 EUR	04 December 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-art-03-2019.html	Futura

301	Microorganism communities for plastics bio-degradation (RIA)	The global market for plastics continues to grow due to their physical properties and benefits such as light weight, reduction of food waste, durability and cost. After being used, plastics should be separated in order to be subject to the most appropriate waste treatment processes. This is increasingly difficult and inefficient due to, for example, consumers' inaccurate identification of the appropriate types of plastics for recycling	5.000.000 EUR	16 October 2018	24 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-biotec-05-2019.html	Futura
302	Actions in support of the International Consortium for Personalised Medicine	Personalised Medicine is a very broad and multifaceted area where success relies on a well-functioning collaboration between several disciplines and different actors. While great advances have been made in some fields of medicine, in particular in stratification of cancer patients and in addressing rare diseases, most of today's healthcare protocols do not include personalised approaches apart from occasional division into broad age groups (children/adults/elderly), sex or ethnicity.	1.500.000 EUR a 2.000.000 EUR	26 July 2018	16 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-hco-01-2018-2019-2020.html	Futura
303	The Human Exposome Project: a toolbox for assessing and addressing the impact of environment on health	Despite the general acknowledgement by the scientific community that 'Genetics load the gun but environment pulls the trigger when it comes to the causation of major non-communicable diseases (NCDs), there is persistent uncertainty as to the global burden of disease attributable to environmental (including life-style and climatic) factors, including healthcare costs and negative economic impact. Deciphering the human exposome is a novel way of addressing the challenge to improve health and reduce the overall burden of disease.	8.000.000 EUR a 12.000.000 EUR	26 July 2018	16 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-28-2019.html	Futura
304	Mining big data for early detection of infectious disease threats driven by climate change and other factors	A range of factors is responsible for the (re-) emergence of infectious disease threats, including antimicrobial resistance, altering the epidemiology and spread of disease in a changing global environment. These include drivers such as climate change and associated environmental impacts, population growth, unplanned urbanisation and high mobility, as well as animal husbandry or intensive farming practices.	12.000.000 EUR a 15.000.000 EUR	26 July 2018	16 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-13-2019.html	Futura
305	Innovation Procurement: Next generation sequencing (NGS) for routine diagnosis	We observe a progressive shift in routine diagnostics, and more particularly in personalised medicine practice, from a growing number of molecular tests to a next generation sequencing approach (NGS). NGS can provide insights on a person's genetic susceptibility to disease, diagnostic information, and predictive indications about treatment outcome. It also allows to embrace simultaneously different molecular pathways of disease evolution and to identify actionable mutations in a patient for medical decision and further research	9.000.000 EUR a 11.000.000 EUR	26 July 2018	16 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-10-2019.html	Futura
306	Regenerative medicine: from new insights to new applications	Regenerative medicine offers hope for untreatable disease and the ageing population, improved quality of life and reduced medical costs. However, so far, regenerative medicine has not yet proved itself in the clinic beyond rare diseases or conditions of limited public health importance. With recent scientific discoveries opening up new approaches to regenerative medicine, the challenge is to use these to extend the regenerative approach to major diseases and conditions.	6.000.000 EUR a 8.000.000 EUR	26 July 2018	16 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-07-2019.html	Futura

307	Cluster facilitated projects for new industrial value chains	To develop new cross-sectoral industrial value chains across the EU, by building upon the innovation potential of SMEs. The EU needs to support the development of emerging industries, which will provide the growth and employment of the future. The reindustrialisation of the EU's industrial base has to focus on the development of long-term internationally competitive goods and services that require combining different competences and innovative solutions.	2.500.000 EUR a 5.000.000 EUR	06 November 2018	03 April 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/innosup-01-2018-2020.html	Futura
308	Building the SwafS knowledge base	Understanding the evolution of science and society will help proactive and anticipatory policy making. This includes examining how societal actors, including young people, behave, understand, react to and interact with science and scientific developments, and their motives for engaging in science-related activities.	receive funding	11 December 2018	02 April 2019 17:00:00 07 November 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-20-2018-2019.html	Futura
309	Taking stock and re-examining the role of science communication	Science and innovation are undergoing deep and fundamental changes, in particular thanks to digitalisation (e.g. social media and citizen science). Science communication, which is a discipline, an activity conducted by scientists and other R&I stakeholders, and a career path followed by journalists, informs citizens about science and innovation, opens up R&I to society, and empowers citizens to participate in activities and debate.	1.200.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-19-2018-2019.html	Futura
310	Consolidating and expanding the knowledge base on citizen science	Grassroots initiatives related to citizen science are blooming across the world. Citizen science has the potential to bring a wide variety of benefits to researchers, citizens, policy makers and society and across research and innovation (R&I) cycles. It can make science more socially relevant, accelerate and enable production of new scientific knowledge, help policy makers monitor regulatory implementation and compliance, increase public awareness about science and ownership of policy making, and increase prevalence of evidence-based policy making	2.500.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-17-2019.html	Futura
311	Ethics of Innovation: the challenge of new interaction modes	Innovation, from idea to product, and including social innovation[1], is a main driver for change, a pillar of EU growth and globally for socio-economic development. It addresses key challenges in fields such as the environment and health and improving the quality of life and well-being of citizens.	3.000.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-16-2019.html	Futura
312	Exploring and supporting citizen science	Citizen science is blooming across all scientific disciplines and the humanities. It can potentially bring a wide variety of benefits to researchers, citizens, policy makers and society across the research and innovation cycle, e.g; it can accelerate and sometimes even make possible the production of new scientific knowledge; it can help policy makers monitor implementation and compliance with regulations;	2.000.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-15-2018-2019.html	Futura
313	Supporting the development of territorial Responsible Research and Innovation	The Responsible Research and Innovation (RRI) approach supported by the European Commission since 2011 aims to encourage societal actors to work together during the whole research and innovation (R&I) process to better align R&I and its outcomes with the values, needs and expectations of society.	2.000.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-14-2018-2019.html	Futura
314	The gender perspective of science, technology and innovation (STI) in dialogue with third countries	In its Conclusions of 1 December 2015 on advancing gender equality in the European Research Area, the Council invited the Commission and the Member States to consider including, among others, a gender perspective in dialogues with third countries in the area of science, technology and innovation (STI).	2.000.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-12-2019.html	Futura

315	Scenarios for an award/certification system for gender equality in research organisations and universities in Europe	Through the implementation of Gender Equality Plans (GEPs) in the last years in research organisations and universities a substantial knowledge base and a wide set of practices were established which is accessible in particular in the Gender Equality in Academia and Research - GEAR tool.	1.500.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-11-2019.html	Futura
316	Supporting research organisations to implement gender equality plans	Gender equality is a key priority set with the Member States and Associated countries in the European Research Area. Research funding and performing organisations and universities are invited to implement institutional change through Gender Equality Plans (GEPs). The Council conclusions of 1/12/2015 acknowledged the contribution of gender equality to the quality of research and innovation	2.500.000 EUR a 3.000.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-09-2018-2019.html	Futura
317	Research innovation needs & skills training in PhD programmes	Within the New Skills Agenda (adopted in June 2016) and in the Modernisation Agenda (adopted in May 2017) specifications on innovative employment-oriented curricula recommendations are described. The Open Science Agenda incorporates activities which makes it crucial for Higher Education Institutions to integrate new or existing skills courses into PhD programmes and to train data stewards.	750.000 EUR a 1.000.000	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-08-2019.html	Futura
318	EURAXESS TOP V	EURAXESS aims at helping researchers and entrepreneurs to advance their career in Europe and thus make research and innovation more attractive, both for researchers in Europe who are facing career decisions and for those who are currently outside Europe and might consider relocating to Europe to develop their careers. From mainly mobility support, the EURAXESS network shall become the reference tool also for career development of researchers in public or private institutions	3.000.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-07-2019.html	Futura
319	Grounding RRI practices in research and innovation funding and performing organisations	Institutional changes are required to respond to the increased interactions between R&I stakeholders in society. Through institutional changes, research funding and performing organisations become more "porous" and accept inputs from citizens and organisations that used to be considered outsiders to the world of R&I.	1.500.000 EUR	11 December 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-05-2018-2019.html	Futura
320	Open schooling and collaboration on science education	At the moment, Europe faces a shortfall in science-knowledgeable people at all levels of society. This is a good time to expand opportunities for science learning, in formal, non-formal and informal settings. Evidence shows that European citizens, young and old, appreciate the importance of science and want to be more informed, and that citizens want more science education. Over 40% believe science and technological innovation can have a positive impact on the environment, health and medical care, and basic infrastructure in the future	1.500.000	11 December 2018	02 April 2019 17:00:00 07 November 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-01-2018-2019.html	Futura
321	Big data solutions for energy	Tomorrow's energy grids consist of heterogeneous interconnected systems, of an increasing number of small-scale and of dispersed energy generation and consumption devices, generating huge amounts of data. The electricity sector, in particular, needs big data tools and architectures for optimized energy system management under these demanding conditions.	10.000.000 EUR	6 October 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-11-2019.html	Futura

322	Digital Manufacturing Platforms for Connected Smart Factories	Digital manufacturing platforms play an increasing role in dealing with competitive pressures and incorporating new technologies, applications and services. Advances are needed in digital manufacturing platforms that integrate different technologies, make data from the shop floor and the supply network easily accessible, and allow for complementary applications.	1- 2.000.000 EUR 2- 16.000.000 EUR	16 October 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-07-2018-2019.html	Futura
323	Smart Anything Everywhere	"Smart anything everywhere" stands for the next wave of products that integrate digital technology. The challenge is to accelerate the design, development and uptake of advanced digital technologies by European industry - especially SMEs and mid-caps - in products that include innovative electronic components, software and systems, and especially in sectors where digital technologies are underexploited	8.000.000 EUR	16 October 2018	02 April 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-01-2019.html	Futura
324	Pre-Commercial Procurement open	The challenge is to enable public procurers to collectively implement PCPs in order to close the gap between supply and demand for innovative ICTs. The objective is to bring radical improvements to the quality and efficiency of public services by encouraging the development and validation of breakthrough solutions through Pre-Commercial Procurement	6.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-34-2018-2019.html	Futura
325	Startup Europe for Growth and Innovation Radar	The challenge is to scale up innovative businesses across the EU, detect high potential innovations and support innovators in going to market. Actions under this heading reinforce the Startup Europe[1] and Innovation Radar[2] initiatives and link to the activities of the European Innovation Council in a complementary way by targeting exclusively ICT innovators that are not supported by the EIC.	receive funding	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-33-2019.html	Futura
326	EU-US collaboration on NGI	Building upon the EU-US collaboration in previous work programmes in the area of research experimentation, the aim is to reinforce cooperation and strategic partnerships in the area of Next Generation Internet, to establish a continuous dialogue among the key actors in the US and European programmes and to implement focused projects for joint developments. Proposals shall foresee twinning with entities participating in projects funded by the US to exchange knowledge and experience and exploit synergies.	1- 1.000.000 EUR 2- 1.500.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-31-2018-2019.html	Futura
327	An empowering, inclusive Next Generation Internet	Every citizen, from all walks of life, should be able to fully take part in the Digital Single Market. This means that the Next Generation Internet will have to empower users, including its most vulnerable or disabled one, to have access to the same digital learning opportunities, in forms that are accessible, perceivable and understandable by everybody.	A- 7.000.000 EUR B- 1.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-30-2019-2020.html	Futura
328	Next Generation Internet - An Open Internet Initiative	This initiative aims at developing a more human-centric Internet supporting values of openness, cooperation across borders, decentralisation, inclusiveness and protection of privacy; giving the control back to the users in order to increase trust in the Internet. It should provide more transparent services, more intelligence, greater involvement and participation, leading towards an Internet that is more open, robust and dependable, more interoperable and more supportive of social innovation.	A- 7.000.000 EUR B- 3.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-24-2018-2019.html	Futura

329	5G Long Term Evolution	The challenge is to transform the network into a low energy distributed computer, where processes and applications are dynamically created, moved and suppressed, depending on the information flows, customer needs, and where new terminal types in cars, objects, appliances, and new interfaces based on gestures, facial expressions, sound and haptics may be the basis of the interaction between humans and the infosystems.	4.000.000 EUR a 6.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-20-2019-2020.html	Futura
330	Cloud Computing	Develop competitive cloud solutions based on advanced cloud platforms and services and cloud-based software and data applications, as well as the opportunities brought by considering the edge devices capacities. Such solutions should also address stringent security, data protection, performance, resilience and energy-efficiency requirements to respond to the future digitisation needs of industry and the public sector	3.000.000 EUR a 5.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-15-2019-2020.html	Futura
331	Supporting the emergence of data markets and the data economy	The lack of trusted and secure platforms and privacy-aware analytics methods for secure sharing of personal data and proprietary/commercial/industrial data hampers the creation of a data market and data economy by limiting data sharing mostly to open data. This need strongly emerges from recent evidence from stakeholders, both for personal data platforms[1] and for industrial data platforms.[2],[3],[4] The lack of ICT and Data skills seriously limits the capacity of Europe to respond to the digitisation challenge of industry. Specific attention needs to be put in involving SMEs and give them access to data and technology.	4.000.000 EUR a 6.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-13-2018-2019.html	Futura
332	Robotics Core Technology	Proposals should address one of the four core technologies and target the development of core technology modules (modular, open and non-proprietary) and tool kits for use in deployable system platforms that meet the requirements of applications in the following four prioritised application areas: Healthcare, Infrastructure Inspection and Maintenance, Agri-Food and Agile Production.	5.000.000 EUR a 10.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-10-2019-2020.html	Futura
333	Robotics in Application Areas	While robots originated in large-scale mass manufacturing, they are now spreading to more and more application areas. In these new settings, robots are often faced with new technical and non-technical challenges. The purpose of this topic is to address such issues in a modular and open way, and reduce the barriers that prevent a more widespread adoption of robots.	A- 3.000.000 EUR B- 5.000.000 EUR a 7.000.000 EUR a 9.000.000	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-09-2019-2020.html	Futura
334	Security and resilience for collaborative manufacturing environments	As addressed in the multi-annual roadmap of the FoF cPPP, physically-entangled systems used in manufacturing environments have some specific requirements in terms of reliability and security, which are now challenged by the need for manufacturing facilities to be digitally connected with external partners in the value chain.	4.000.000 EUR a 6.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-08-2019.html	Futura
335	Unconventional Nanoelectronics	The challenge is to maintain Europe's position at the forefront of advanced nanoelectronic technologies developments. This is essential to ensure strategic electronic design and manufacturing capability in Europe avoiding critical dependencies from other regions. Advanced nanoelectronics technologies enable innovative solutions to industrial and societal challenges.	2.000.000 EUR a 4.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-06-2019.html	Futura

336	Application driven Photonics components	Photonic technologies for health applications is a very promising field, where the EU has produced significant results during the past decades; however, industrialization is still lagging behind. The challenges are to develop methods that provide the clinicians with photonics enabled tools to improve or to assess the successes of therapies and to transform low TRL technologies into robust medical devices answering to clinician needs.	Innovation Actions and Research and Innovation Actions: 3.000.000 EUR a 6.000.000 Coordination and Support Actions: 1.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-05-2019.html	Futura
337	Photonics Manufacturing Pilot Lines for Photonic Components and Devices	Photonics is driving innovation in many different application areas. The challenge is to help European companies become more competitive by improving their business/production processes as well as products and services by means of photonics technology. The aim is to accelerate the design, development and uptake of photonics technology, by a wide range of industrial players, in particular SMEs by providing low-barrier access to volume production of advanced photonics components available to a wide range of industrial players, in particular SMEs which would otherwise not have easy access	8.000.000 EUR a 15.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-03-2018-2019.html	Futura
338	Computing technologies and engineering methods for cyber-physical systems of systems	Cyber-physical Systems of Systems (CPSoS), like transport networks or large manufacturing facilities, interact with and are controlled by a considerable number of distributed and networked computing elements and human users. These complex and physically-entangled systems of systems are of crucial importance for the quality of life of the citizens and for the European economy.	3.000.000 EUR a 5.000.000 EUR	16 October 2018	28 March 2019 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-01-2019.html	Futura
339	Policy and international cooperation measures for research infrastructures	High-quality, accessible research infrastructures are at the heart of the knowledge triangle of research, education and innovation. They enable tens of thousands of researchers in academia and industry to develop innovative ideas, products and services that foster European competitiveness and help tackle societal challenges facing our continent. However, ensuring the availability of state-of-the-art facilities requires multi-billion Euro long-term investments across the European Research Area.	A- 6.000.000 EUR B5- 1.500.000 EUR C- 25.000.000 EUR D- 1.500.000 EUR	14 November 2018	20 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infra-sup-01-2018-2019.html	Futura
340	Network of research infrastructure Industrial Liaison and Contact Officers	The concept of industry as a full partner of Research Infrastructures (both as supplier and as user) should be proactively put in practice; this implies to promote a more extensive partnerships on joint research and development projects, addressing the development of advanced technologies, as well as specific activities fostering collaboration such as innovation, training and exchange programmes.	1.500.000 EUR	14 November 2018	20 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infra-innov-02-2019.html	Futura
341	Integrating Activities for Advanced Communities	European researchers need effective and convenient access to the best research infrastructures in order to conduct research for the advancement of knowledge and technology. The aim of this action is to bring together, integrate on European scale, and open up key national and regional research infrastructures to all European researchers, from both academia and industry, ensuring their optimal use and joint development.	up to 10.000.000 EUR	14 November 2018	20 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infra-01-2018-2019.html	Futura

342	Enhancing the EOSC portal and connecting thematic clouds	The aim of this topic is to facilitate wide, user-friendly and cross-disciplinary access to the data and services of the EOSC through the development of the necessary interfaces. The EOSC aims to offer a trusted and open environment for research users of all scientific disciplines across the whole lifecycle of scientific data. This requires concrete solutions to address the current fragmentation of entry points, to avoid duplication of efforts across thematic initiatives and from different scientific disciplines (e.g. multiple portals, web-platforms, websites, etc.)	up to 2.000.000 EUR	14 November 2018	20 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infraeosc-06-2019-2020.html	Futura
343	Individual support to ESFRI and other world-class research infrastructures	The implementation phase of new pan-European research infrastructures, such as those identified in the ESFRI roadmap, is the most delicate and difficult as financial sustainability must be proved and the trust and awareness of users must be earned.	2.000.000 EUR a 5.000.000 EUR	14 November 2018	20 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infra-dev-03-2018-2019.html	Futura
344	Using big data approaches in research and innovation policy making	To exploit the potential of big data approaches for research and innovation policy making by providing more timely and in depth information on the performance of the research and innovation system and its links to productivity growth.	1.900.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-13-2019.html	Futura
345	The societal value of culture and the impact of cultural policies in Europe	Culture has been an important element of public policy for social, cultural and political cohesion and inclusion throughout European history, and its potential could be significantly enhanced. Although it is often seen today from the angle of economic value added, culture generates additional societal value in terms of well-being and by promoting identity and belonging, inclusiveness, tolerance and cohesion. Culture is also a source of creativity and innovation.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-08-2019.html	Futura
346	Innovative approaches to urban and regional development through cultural tourism	The various forms of cultural tourism in Europe are important drivers of growth, jobs and economic development of European regions and urban areas. They also contribute, by driving intercultural understanding and social development in Europe through discovering various types of cultural heritage, to the understanding of other peoples' identities and values. However, although cultural tourism by its nature invites cross border regional and local cooperation, its full innovation potential in this respect is not yet fully explored and exploited.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-04-2019-2020.html	Futura
347	Innovative solutions for inclusive and sustainable urban environments	The increasing percentage of people living in urban areas and the impact of digital technologies on public services make good governance, inclusive policies, smart planning and social and environmental sustainability ever more important for ensuring the quality of human life. Urban environments and agglomeration effects provide an ecosystem for economic growth and innovation.	A- 1.500.000 EUR B- 3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-03-2018-2019.html	Futura
348	Drivers and contexts of violent extremism in the broader MENA region and the Balkans	Parts of the broader Middle East and North Africa (MENA) region and of the Balkans have been experiencing ethnic, religious and territorial conflicts and civil wars as well as a rise in violent extremism fuelled or justified also by religious interpretations. More empirical and interdisciplinary research is needed to understand the various historical, geopolitical, socioeconomic, ideological, cultural, psychological, and demographic factors that drive these conflicts and violent extremism in these regions.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-governance-10-2019.html	Futura

349	International protection of refugees in a comparative perspective	While policy areas such as development or trade benefit from global governance structures, a global refugee governance regime is still in its infancy. The challenge is to safeguard international law standards on the treatment of asylum seekers and internally displaced persons, address imbalances in sharing responsibilities, and ensure the EU plays a key role globally while also aligning the reform of its common asylum system to feed into the emerging regime of global asylum governance.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-07-2019.html	Futura
350	Social and economic effects of migration in Europe and integration policies	A greater understanding of the social and economic effects and impacts of migration in Europe is needed in order to obtain an objective overview of developments and to address misperceptions. In light of recent and current migratory flows, an assessment of integration policies and efforts is equally important for ensuring their effectiveness in promoting the integration and inclusion of migrants in host societies. Global migration is growing in scope, complexity and diversity, which requires better preparedness and responses. A deeper understanding of the drivers of migration and of their interrelation with people's propensity to migrate is needed as well as projections and scenarios that are essential for appropriate planning and effective policymaking.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-03-2019.html	Futura
351	Understanding migration mobility patterns: elaborating mid and long-term migration scenarios	Boosting social rights can help address divergence in social trends among Member States and reduce the risk of socio-economic shocks. At the same time, social rights are essential for the full realisation of EU citizenship and reaching the EU's targets in reducing poverty and social exclusion. By mitigating social risks and by assisting people with transitions and vulnerabilities, social rights can boost trust to public governance.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-01-2019.html	Futura
352	Enhancing social rights and EU citizenship	Recent challenges faced by the EU raise the question of whether Member States will continue on the same integrationist track. Differentiation, which has been core to the constitutional architecture of the EU, has gained prominence in the light of recent manifestations of centrifugal forces. The challenge is to ascertain whether and how much differentiation is necessary, conducive, sustainable and acceptable as well as how future approaches towards differentiation fare in the light of these findings.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-04-2019.html	Futura
353	Past, present and future of differentiation in European governance	Trust is a fundamental condition for a fair and cooperative society. It also plays an important part in contributing to social capital. While a degree of distrust may be required for a well-functioning democracy, waning trust in governments and other institutions and in the EU can impact European governance in multiple ways. The challenge is to restore and improve trust as a basis for sustainable and legitimate governance.	3.000.000 EUR 3- 1.500.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-02-2018-2019.html	Futura
354	Trust in governance	While a key mission of the cultural heritage sector is to provide inclusive access, some socio-cultural groups are still not sufficiently integrated in cultural heritage experiences. The challenge is to improve the design of cultural experiences by enhancing participatory and collaborative approaches and by fostering mutual cultural understanding and resilient strategies.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-01-2019.html	Futura
355	Collaborative approaches to cultural heritage for social cohesion		3.000.000 EUR a 4.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-transformations-11-2019.html	Futura

356	The impact of technological transformations on children and youth	The ICT are generally valued in terms of skill development, learning and future employability of young generations. Educational and training institutions are getting equipped with ICT tools and educators are trained for designing activities aimed at digital literacy and for making use of media for educational purposes. The time children and young people spend on ICT has been increasing in school, at home and for leisure.	- 3.000.000 EUR 3- 1.500.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-transformations-07-2019.html	Futura
357	Transformative impact of disruptive technologies in public services	The challenge is to assess the potential benefits and risks of using disruptive technologies in public administrations as well as the social impact, including the impact on public servants, of using them for government processes and governance (e.g. for registers, for archiving, for decision-making processes, etc.). In addition, the political, socio-economic, legal and cultural implications of disruptive technologies and their acceptance are important not only for public administrations, but also for citizens.	3.000.000 EUR a 4.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-transformations-02-2018-2019-2020.html	Futura
358	Addressing the challenge of migrant integration through ICT-enabled solutions	The integration of migrants, including refugees, in many Member States of the European Union and Associated Countries remains a challenge for both public authorities and local communities. ICT-enabled solutions and toolkits for the implementation of inclusion policies by public administrations may facilitate the management of the integration of migrants, improve autonomy and inclusion and therefore the lives of migrants.	3.000.000 EUR a 4.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-migration-06-2018-2019.html	Futura
359	Digitisation, Digital Single Market and European culture: new challenges for creativity, intellectual property rights and copyright	The consequences of digitisation and of the implementation of the Digital Single Market on cultural diversity, on access to culture and on the creation of cultural value need to be better monitored and understood, also through joint efforts by researchers, practitioners and policy-makers. Beyond the issue of portability of cultural content, coping strategies related to legislation on intellectual property rights (IPR) and copyright at European and national levels are at the heart of current creative practices and business opportunities in the cultural and creative sectors and, as such, deserve in-depth scrutiny.	3.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-governance-13-2019.html	Futura
360	Pilot on using the European cloud infrastructure for public administrations	Given the complexity of our societies, public authorities need innovative means and tools that can enable them to develop better evidence-based policies. The development of such policies needs to involve local actors such as citizens and businesses, in order to better inform policy-making while ensuring higher levels of acceptance for policies and of trust in the authorities. Data analytics and usage of cloud infrastructure to gain access to shared data can help improving policy making at all levels, national but also local.	3.000.000 EUR a 4.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-governance-12-2019-2020.html	Futura

361	New forms of delivering public goods and inclusive public services	Governance is being transformed by new approaches to delivering public services which allow for the involvement of citizens and various other actors. The challenge is to critically assess and support as needed this transformation based on an open collaboration and innovation platform supported by ICT ('government as a platform') and on an open environment and ecosystem with clear frameworks and guidelines for modular services quality in accordance with the EU eGovernment Action Plan 2016-2020 and the European Interoperability Framework Implementation Strategy	A- 3.000.000 EUR a 4.000.000 B- 1.000.000 EUR a 2.000.000 EUR	06 November 2018	14 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-governance-05-2018-2019-2020.html	Futura
362	Space Weather	Commonly occurring space weather events have the potential to impact the performance of critical space and ground infrastructure disrupting operations and communications in multiple sectors of society. Extreme events could have devastating societal and economic consequences with potential costs for disruptions and damages estimated in tens or even hundreds of billions of Euros.	2.000.000 EUR a 3.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-space-22-sec-2019.html	Futura
363	In-orbit validation/demonstration – Mission design, integration and implementation	One of the main objectives of the Space strategy for Europe is to foster a globally competitive and innovative European space sector in particular by improving support to technological maturity, for sub-systems, equipment and technologies, including in-orbit demonstration and validation activities, to reduce time to market.	20.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/space-18-tec-2019-2020.html	Futura
364	Access to space	Access to space is an indispensable element of the entire value chain of space and has been recognised as an area of strategic importance towards the direction of Europe's non-dependence. Access to space is a matter of security of supply, industry capability and technology readiness and a sine qua non condition of the modern space knowledge-based economies.	2.000.000 EUR a 3.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/space-17-tec-2019.html	Futura
365	SRC – In-Space electrical propulsion and station keeping	The challenge of this strategic research cluster (SRC) is to enable major advances in Electric Propulsion (EP) for in-space operations and transportation, in order to contribute to guarantee the leadership through competitiveness and non-dependence of European capabilities in electric propulsion at world level within the 2020-2030 timeframe, always in coherence with the existing and planned developments at national, commercial and ESA level.	With TRL < 4 - 1.000.000 EUR With TRL ≥ 4 - 1.000.000 a 2.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/space-13-tec-2019.html	Futura
366	Technologies for European non-dependence and competitiveness	The space sector is a strategic asset contributing to the independence, security and prosperity of Europe and its role in the world. Europe needs non-dependent access to critical space technologies, which is a sine qua non condition for achieving Europe's strategic objectives. "Non-dependence" refers to the possibility for Europe to have free, unrestricted access to any required space technology.	1.000.000 EUR a 3.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/space-10-tec-2018-2020.html	Futura
367	Earth observation technologies	The challenge is to mature application-oriented technologies in the domains of Earth Observation (EO) which are expected to underpin competitiveness and contribute to the integration of space in society and economy. The overarching objective is to improve the performance of EO systems, building on previous activities supported by the Union, Member States and ESA.	2.000.000 EUR a 3.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-space-14-tec-2018-2019.html	Futura

368	Copernicus evolution – Research activities in support to a European operational monitoring system for fossil CO2 emissions	A recent expert report assessing the need and opportunity for an independent European capacity for CO2 anthropogenic emissions has motivated an inter-institutional large scale activity to address the global monitoring of the fossil fuel emissions. The specific challenge is that while benefiting from advanced space infrastructures, there should be an operational capacity addressing a variety of scientific needs, such as reducing uncertainties on currently reported emission estimates, and policy issues related to the CO2 anthropogenic emissions, and assessing the effectiveness of CO2 emission reduction strategies should be developed	up to 9.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-space-05-eo-2019.html	Futura
369	Copernicus evolution – Research activities in support of cross-cutting applications between Copernicus services	Copernicus produces a wealth of data and information regarding the Earth sub-systems (land, atmosphere, oceans) and cross-cutting processes (climate change, emergency and security). The wealth of information delivered by the Copernicus operational programme is not fixed but needs to evolve further with recognised and emerging user requirements and state of the art methodologies. The potential for new products and applications needs to be exploited, especially as regards cross-cutting cases not yet realised.	2.000.000 EUR a 3.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-space-04-eo-2019-2020.html	Futura
370	Space hubs (support to start-ups)	The challenge is to increase the number of initiatives for start-ups, scale-ups and entrepreneurs in the space downstream and upstream sectors (such as Incubators, Accelerators, Hackathons or AppCamps), provide solutions to accelerate the growth of space scale-ups and the commercialisation of their products, engage small and medium enterprises in space innovation, especially those not traditionally involved in it, and reduce as much as possible the entry barriers to SMEs for Horizon 2020 to develop space-enabled solutions.	1.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-space-09-biz-2019.html	Futura
371	International Cooperation Copernicus – Designing EO downstream applications with international partners	Copernicus, the Union's Earth observation and monitoring programme produces a wealth of data and information regarding the Earth sub-systems (land, atmosphere, oceans) and cross-cutting processes (climate change, emergency and security). Cooperation with international partners is key to promoting the uptake of Copernicus globally, exploiting possibilities for integrating in-situ, space data and information technologies.	1.000.000 EUR a 2.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-space-06-eo-2019.html	Futura
372	Copernicus market uptake	Copernicus, the Union's Earth observation and monitoring programme entered into force in 2014 and produces a wealth of data and information regarding the Earth sub-systems (land, atmosphere, oceans and inland waters) and cross-cutting processes (climate change, disaster management and security). Copernicus data and information are mainly made available on a free, open and full basis.	1.000.000 EUR a 2.000.000 EUR	16 October 2018	12 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-space-01-eo-2018-2020.html	Futura
373	EGNSS applications fostering societal resilience and protecting the environment	The aim of this topic is to develop innovative EGNSS applications to support societal resilience, safeguard the wellbeing of EU citizens, improve emergency and disaster management as a response to climate related, natural and man-made disasters and ensure green growth that protect the environment while generating economic growth.	1.000.000 EUR a 3.000.000 EUR	16 October 2018	05 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-space-egnss-3-2019-2020.html	Futura

374	Awareness Raising and capacity building	Extensive GNSS applications combined with other technologies require innovation as well as the establishment of standards and rules. The challenge is to build a mechanism to leverage EGNSS excellence in particular of SMEs and universities, facilitate EGNSS investments and to foster market uptake.	500.000 EUR a 1.000.000 EUR	16 October 2018	05 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/space-egnss-4-2019.html	Futura
375	EGNSS applications fostering green, safe and smart mobility	The specific challenge of this topic is to develop innovative EGNSS based applications. These should lead to low emission (CO2 and air pollutants), safer, more secure, lower cost and higher performance mobility, and transport solutions that respond to the increased mobility needs of people and goods whilst improving transport service continuity.	1.000.000 EUR a 3.000.000 EUR	16 October 2018	05 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-space-egnss-1-2019-2020.html	Futura
376	EGNSS applications fostering digitisation	As stated in the Digital Single Market Strategy, the combination of digital technologies (big data, Internet of Things, 5G, high performance computing etc.) with other advanced technologies and service innovation offers huge opportunities for increasing industrial competitiveness, growth and jobs.	1.000.000 EUR a 3.000.000 EUR	16 October 2018	05 March 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-space-egnss-2-2019-2020.html	Futura
377	Integrated storage systems for residential buildings (IA)	Optimised storage solutions for thermal and electric energy are needed in order to better synchronise the overall supply and demand, at residential, district and urban level. Efficient management of the peak loads would reduce the overall operational costs of the installations.	6.000.000 EUR a 8.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-eeb-05-2019-20.html	Futura
378	New developments in plus energy houses (IA)	Energy Efficiency targets set at EU level by legislation are currently being reviewed. The related SET-Plan rolls out concrete steps how research and innovation could further reach these targets by 2025. However, the current practice to construct nearly zero-energy houses will be insufficient to reach the CO2 emission reduction targets for 2050. Therefore, it is necessary to develop further the concept of "Plus Energy Houses", producing more energy than they use. Buildings have long life cycles until they are replaced.	6.000.000 EUR a 8.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-eeb-03-2019.html	Futura
379	Integration of energy smart materials in non-residential buildings (IA)	Europe is leader in the development of components for buildings retrofitting. Its leadership is based on the use of high-efficient insulation materials including concrete, steel, glass, composites, wood and hybrids, which should lead to achieving recyclable, nearly zero-energy building envelopes (roofs, façades) when applied to new buildings. However, these components do still not allow for the integration of smart energy storage and for an equal performance in existing buildings.	4.000.000 EUR a 6.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-eeb-01-2019.html	Futura
380	Digital technologies for improved performance in cognitive production plants (IA)	Shortage in raw materials, increased energy prices and environmental constraints require the European process industry to improve its performance and flexibility and there are unexploited opportunities for digitising a large range of enterprises of very different size in the process industry.	6.000.000 EUR a 8.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-spire-06-2019.html	Futura
381	Handling systems for flexible materials (RIA)	The handling of soft materials with the involvement of robots remains limited. The control systems of the robot need to be very sensitive, accurate and fast to prevent unwanted irreversible deformations and damages. Further research is needed in order to develop handling devices which are not pre-programmed for one specific task, but are intelligent and universally dexterous.	6.000.000 EUR a 8.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-fof-12-2019.html	Futura

382	Pilot lines for modular factories (IA 50%)	Rapid changes in a production line require a significant flexibility of reconfiguration. Modular production equipment can create highly adaptable production lines to enable efficient production of small series tailored to customer demands. Previous research has shown that the modularity can be at two levels, either as complete machines with their own interface and material handling system or as interchangeable tool heads. In both cases, the advantage of modularity should be demonstrated by the ease of use and plug-and-produce features allowing for rapid modification.	12.000.000 EUR a 15.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-fof-08-2019.html	Futura
383	Refurbishment and re-manufacturing of large industrial equipment (IA)	In line with the circular economy, lifetime extension can limit high replacement costs of major industrial infrastructures. This can be achieved through refurbishment, re-manufacturing, re-use, upgrading, in-situ repair, improved maintenance and more conservative utilisation of large industrial equipment of the kind used in manufacturing. These actions can significantly extend the useful life of heavy machinery, and improve the return on investment from major capital items.	12.000.000 EUR a 15.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-fof-06-2019.html	Futura
384	Open Innovation for collaborative production engineering (IA)	The transfer to industrial companies of the Do It Yourself (DIY), fablabs, micro-factories and makers approaches can pioneer ways towards engineering solutions throughout the whole value chain. These innovative methods can lead to new processes, machines and products with new functionalities and shorter time to market.	4.000.000 EUR a 6.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-fof-05-2019.html	Futura
385	Adaptation to variable feedstock through retrofitting (IA 50%)	Process industry plants have to be operated for a long time to make their operations viable. They include equipment such as furnaces, reactors, raw materials handling and storage systems which sometimes have a lifetime beyond 30 years. Keeping these facilities up to date from a technological and from regulatory point of view (for instance related to zero waste regulations and to the circular economy) is a major challenge.	8.000.000 EUR a 12.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-spire-05-2019.html	Futura
386	Efficient integrated downstream processes (IA)	Today, process industry operations for downstream processing represent on average 50-60% of the total capital (CAPEX) and operating costs (OPEX) and they account for up to 45% of the process energy in industrial operations. These high costs for downstream processing are often linked to the inefficiencies in the upstream process, due to low conversion and formation of co-products, by-products and/or impurities. Hybrid processing technologies (including chemical and biochemical steps) can provide major advantages in terms of primary process selectivity and sustainability.	10.000.000 EUR a 14.000.000 EUR	16 October 2018	21 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-spire-04-2019.html	Futura
387	ERA-NET Cofund action(s) for climate action, environment, resource efficiency and raw materials	While Europe is making progress in reducing environmental pressures and addressing climate change challenges, current environmental policies and technology efficiency gains are not likely to be sufficient to address the substantial challenges it faces in protecting its natural capital, stimulating resource-efficient, low-carbon and climate-resilient economic and social development and safeguarding its population from environmental health risks	receive funding	14 November 2018	19 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-21-2019-2020.html	Futura

388	Transforming historic urban areas and/or cultural landscapes into hubs of entrepreneurship and social and cultural integration	Over the past decades, abandonment and decay of urban, industrial and rural heritage has occurred in many historic urban areas and cultural landscapes due to reduction of economic activities and closing down of industries. This has led to unemployment, disengagement and economic stagnation. Other areas, in contrast, have implemented regeneration processes, yet these have not always been successful as they were based on top-down decision making and implementation without engaging the local population.	7.000.000 EUR a 8.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-20-2019.html	Futura
389	Development of commercial activities and services through the use of GEOSS and Copernicus data	Both GEOSS (Global Earth Observation System of Systems) and its key European contributor, Copernicus, offer a tremendous innovation opportunity for the EU in the domain of Earth Observation (EO) as these initiatives enable long term access to a broad range of EO datasets, opening new avenues for the delivery of innovative environmental products and services. These data sources provide new opportunities for business sectors in Europe to deliver information and products that are vital inputs to help decision makers, industry and citizens adapt to changes occurring at different paces and affecting the Earth systems.	A- 1.000.000 Eur B- 2.000.000 EUR a 3.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-16-2019.html	Futura
390	Visionary and integrated solutions to improve well-being and health in cities	Actions should deliver visionary and integrated solutions (e.g. therapy gardens, urban living rooms, creative streets, city farms) at the intersection of social, cultural, digital and nature-based innovation to increase citizens' health and well-being in cities. These solutions should address social, cultural, economic and environmental determinants of health and well-being and support urban communities in reducing their exposure to climate-related risks, pollution (including noise), environmental stress and social tensions, including the negative effects of gentrification.	10.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-14-2019.html	Futura
391	Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems	Unsustainable, non-resilient urbanisation patterns, the expansion or neglect of urban areas have caused the fragmentation, depletion and destruction of habitats, biodiversity loss and the degradation of ecosystems and their services. Increasing connectivity between existing, modified and new ecosystems and restoring and rehabilitating them within cities and at the urban-rural interface through nature-based solutions	5.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-13-2018-2019.html#fn1	Futura
392	Raw materials innovation actions: exploration and Earth observation in support of sustainable mining	The challenge for industry is to scale up promising raw materials production technologies, including for exploration, and to demonstrate that raw materials can be produced in an innovative and sustainable way in order to ensure that research and innovation end up on the market, to strengthen the competitiveness of the European raw materials industries, to meet the ambitious energy and climate targets for 2030, to minimise environmental impacts and risks and to gain the trust of EU citizens in the raw materials sector.	8.000.000 EUR a 13.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-10-2019-2020.html	Futura

393	New solutions for the sustainable production of raw materials	Securing sustainable access to raw materials, including metals, industrial minerals and construction raw materials, and particularly Critical Raw Materials (CRM), is of high importance for the EU economy. However, the EU is confronted with a number of technological and environmental challenges along the entire production value chain of primary and secondary raw materials. There is also a need for very innovative and sustainable raw materials production solutions at lower TRLs to bring the next 'digital generation' to the raw materials field.	3.000.000 EUR a 7.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-09-2018-2019.html	Futura
394	The changing cryosphere: uncertainties, risks and opportunities	Globally, glaciers and the large ice sheets of Antarctica and Greenland are particularly vulnerable to climate change, risking a significant future contribution to changes in sea levels. At present, there are significant uncertainties, e.g. relating to their stability, which prevent an accurate assessment of their vulnerability. The 'Arctic amplification' of global warming is putting pressure on the ecosystems and communities of the region and having an impact at global level as well.	A- 8.000.000 Eur a 10.000.000 EUR B,C- 5.000.000 EUR 6.000.000 EUR D- 2.000.000	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-07-2019.html	Futura
395	Inter-relations between climate change, biodiversity and ecosystem services	The Paris Agreement notes the importance of taking action to ensure the integrity of all ecosystems and the protection of biodiversity in the context of combatting climate change and adapting to its impacts. An improved understanding of the interactions and feedbacks between ecological processes and climate change, together with evidence-based guidance, is crucial for the development of appropriate solution-oriented strategies and measures for biodiversity conservation and cost-effective ecosystems-based climate change adaptation and mitigation.	5.000.000 EUR a 7.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-06-2019.html	Futura
396	Human dynamics of climate change	As climatic changes increasingly place populations under pressure, human beings are already adapting. However, less developed countries – particularly in Africa – are often less resilient to climate change and require the deployment of appropriate support to adaptation, including in the form of bespoke climate services tailored to users' needs. There is some evidence that climate change may already be playing a role in shaping population migration patterns around the world (e.g. Africa to Europe). It is important to make use of the wealth of available socio-economic and geophysical data to better understand these patterns in order to develop appropriate policy responses.	5.000.000 EUR a 7.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-05-2019.html	Futura
397	Negative emissions and land-use based mitigation assessment	Most low-carbon pathways leading to well below 2°C (or 1.5°C) stabilisation of the global temperature – in line with the Paris Agreement goals – include negative emissions to compensate for residual emissions and/or temperature overshoot and highlight the critical role of land-use based mitigation. There is therefore a need to quantitatively assess the potential, effectiveness and impacts of negative emission technologies/practices and of land-use mitigation options, in achieving the long-term goals of the Paris Agreement, as well as linking these to what it would mean for concrete policy challenges.	5.000.000 EUR a 7.000.000 EUR	14 November 2018	19 February 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-02-2019.html	Futura

398	Raw materials policy support actions for the circular economy	In order to secure the sustainable access to primary and secondary raw materials, including metals, industrial minerals, construction raw materials, wood, and particularly Critical Raw Materials (CRMs) for the EU economy, there is a need to tackle a number of specific non-technological challenges at local, regional, national, EU and global levels.	A- 2.000.000 EUR B,C- 3.000.000 EUR	14 November 2018	19 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sc5-08-2018-2019-2020.html	Futura
399	Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes	Securing the sustainable access to raw materials, including metals, industrial minerals, wood- and rubber-based, construction and forest-based raw materials, and particularly Critical Raw Materials (CRM), is of high importance for the EU economy. Complex primary and secondary resources contain many different raw materials. Their processing, reuse, recycling and recovery schemes are complex and imply different steps, ranging from collection, logistics, sorting and separation to cleaning, refining and purification of materials.	8.000.000 EUR a 13.000.000 EUR	14 November 2018	19 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sc5-07-2018-2019-2020.html	Futura
400	Building a water-smart economy and society	There is a growing demand for water from various economic activities and increasing stress on natural water sources. To secure water for our society, there is therefore a need to make available alternative water resources of various qualities and which are appropriate for different functions and multiple users, and to better exploit water resources and all the valuable substances that could be obtained through the wastewater treatment and reuse process.	10.000.000 EUR a 13.000.000 EUR	14 November 2018	19 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sc5-04-2019.html	Futura
401	Smart Cities and Communities	The COP21 Paris Agreement recognises the role of cities and calls on them to rapidly reduce greenhouse gas emissions and adapting to climate change. The EU is committed to implementing the 2030 Agenda for Sustainable Development, including Sustainable Development Goal 11 ("Make cities inclusive, safe, resilient and sustainable"). Many forward-looking cities have set themselves climate goals whose achievement rests on wide scale roll out of highly integrated and highly efficient energy systems.	15.000.000 EUR a 20.000.000 EUR	05 September 2018	05 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-scc-1-2018-2019-2020.html	Futura
402	European Islands Facility - Unlock financing for energy transitions and supporting islands to develop investment concepts	Mobilising investment in energy efficiency and renewables is key for Europe's energy transition. In 2017 the European Commission and 14 EU Member States signed a political declaration to launch the new 'Clean Energy for EU Islands' initiative. Its aim is to help islands reduce their dependency on energy imports by making better use of their own renewable energy sources and embracing more modern, socially inclusive and innovative energy systems.	10.000.000 EUR	05 September 2018	05 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-8-2019.html	Futura
403	Research on advanced tools and technological development	A number of tools and future technologies need to be developed, matured and tested to cover gaps and/or to prepare the energy system of 2030 and beyond.	2.000.000 EUR a 4.000.000 EUR	05 September 2018	05 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-6-2019.html	Futura
404	Solutions for increased regional cross-border cooperation in the transmission grid	Today wholesale prices may vary significantly across the different market zones in Europe showing that the wholesale market is not operating under optimal conditions while some interconnectors are underutilised. More cooperation between TSOs and between TSOs and energy producers who are providing cross-border services, in particular at regional level (i.e. involving a group of countries), is an element that is promoted in the future market design to contribute to improving this situation.	8.000.000 EUR a 10.000.000 EUR	05 September 2018	05 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-2-2019.html	Futura

405	Flexibility and retail market options for the distribution grid	Today, a large share of variable generation electricity sources are connected to distribution grids that were originally designed to distribute electricity supplied by large centralised power generation plants through the transmission grid. In view of the expected growth of variable electricity production, and a shift towards more electrified heating, cooling and transport sectors, new approaches have to be found for managing electricity distribution grids in order to ensure affordability of energy, security and stability of supply, while avoiding massive investments in infrastructures.	6.000.000 EUR a 8.000.000 EUR	05 September 2018	05 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-1-2019.html	Futura
406	European City facility - European Cities as key innovation hubs to unlock finance for energy efficiency	Mobilising investment in energy efficiency and renewables is key for Europe's energy transition. The European Commission proposed the Smart Finance for Smart Building (SFSB) initiative in the recently published Clean Energy for All Europeans winter package.	10.000.000 EUR	01 August 2018	05 February 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-17-2019.html	Futura
407	Stimulate the innovation potential of SMEs	Providing an effective mechanism for inclusion of innovative, agile SMEs in a landscape characterised by strong presence of public pan-European e-infrastructures (in particular the European Data Infrastructure - EDI) that make it difficult for small actors to enter the market and exploit new business opportunities.	7.000.000 EUR a 8.000.000 EUR	16 October 2018	29 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infrainnov-01-2019.html	Futura
408	Prototyping new innovative services	Develop an agile, fit-for-purpose and sustainable service offering accessible through the EOSC hub that can satisfy the evolving needs of the scientific community by stimulating the design and prototyping of novel innovative digital services. Innovative models of collaboration that genuinely include incentive mechanisms for a user oriented open science approach should be considered.	5.000.000 EUR a 6.000.000 EUR	16 October 2018	29 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infraeosc-02-2019.html	Futura
409	Preparatory Phase of new ESFRI projects	The ESFRI roadmap, updated periodically, identifies the needs of the European scientific community in terms of research infrastructures. However, inclusion in the ESFRI roadmap does not guarantee that these needed infrastructures will be built. Before proceeding with the construction and/or implementation of the identified infrastructures, many preliminary decisions need to be taken with respect to issues such as the identification of funders, the financial plan for sustainability, the governance by involved stakeholders, the site and legal form of the managing organisation (and of the research infrastructure, if different), the architecture and the service policies	4.000.000 EUR	16 October 2018	29 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infradev-02-2019-2020.html	Futura
410	Integrated approaches to food safety controls across the food chain	Food safety in the food chain is a basis for effective functioning of national and international markets with trust and transparency. Food safety risks occur along the food chain from a number of biological and chemical contaminants. In addition, malpractices or fraudulent practices could also lead to increased food safety risks. Improving risk assessment and monitoring, including the use of big data, is of major importance. Developing integrated approaches along the entire food chain for detecting, assessing, and mitigating relevant pathogens and contaminant hazards is essential.	4.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-37-2019.html	Futura

411	Sustainable Intensification in Africa	African and European agriculture share the common challenge of moving towards more sustainable ways of agricultural production. Both regions aim to ensure food production and reduce the environmental impact of agricultural activities in the face of climate change, more unpredictable water supply and increased degradation of (land) resources.	7.500.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-35-2019-2020.html	Futura
412	ERANETs in agri-food	The agri-food sector is subject to multiple external pressures, such as rising demand for food, competition for land and other natural resources with other biomass uses, globalisation, threats from animal or plant diseases, environmental changes and public health considerations. This implies the need to become more efficient and sustainable; improve its impact on consumer health; take advantage of new technological developments; and become more transparent and responsive to consumer demands, within a food-system approach.	A- 6.000.000 EUR B,C- 5.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-31-2019.html	Futura
413	Agri-Aqua Labs	Agriculture and aquaculture are increasingly knowledge-intensive sectors that need to be supported by advances in basic science domains in tandem with translational research. This nexus between basic and applied research requires specific openings for testing ideas and their potential application in plant and animal production, both terrestrial and aquatic.	A- 6.000.000 EUR B- 5.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-30-2018-2019-2020.html	Activa
414	Agri-Aqua Labs. Forthcoming	Agriculture and aquaculture are increasingly knowledge-intensive sectors that need to be supported by advances in basic science domains in tandem with translational research. This nexus between basic and applied research requires specific openings for testing ideas and their potential application in plant and animal production, both terrestrial and aquatic.	A- 6.000.000 EUR B- 5.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-30-2018-2019-2020.html	Futura
415	Genetic resources and pre-breeding communities	Genetic resources (GenRes) play a crucial role in agricultural activities and sustainable forest management in Europe. They hold the key to the adaptation of plants and animals to a changing and more variable climate, yet their diversity remains largely underused in current breeding, farming and forest management. Conservation efforts (in-situ, ex-situ) aim to capture, preserve and make available a substantial share of these global assets. However, access to resources is often limited by the quality of the material and the information provided by the various conservation sites.	A- 3.000.000 EUR B- 7.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-28-2018-2019-2020.html	Futura
416	Integrated water management in small agricultural catchments	Tackling both quantity and quality of water in small agricultural catchments provides a number of advantages. The number of hydrological processes and interactions can be analysed in detail which is not the case for large scale hydrological analyses. Usually issues of natural/small water retention[1] can be properly tackled at the smaller scale of an agricultural catchment. Equally, the local impact of climate change or/and changes in local micro-climate can also be analysed in an integrated way with other challenges of small scale catchments.	7.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-23-2019.html	Futura

417	A vaccine against African swine fever	African swine fever (ASF) is a devastating viral disease of swine which is endemic in Africa and has been present in Europe for several years, after its introduction from Trans-Caucasian countries. It is a transmissible disease that has the potential for very serious and rapid spread, irrespective of national borders. It has a serious socio-economic impact on farming sector and is of major importance in the international trade of animals and animal products.	10.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-12-2019.html	Futura
418	Anti-microbials and animal production	Since their discovery, anti-microbials have played an essential role in the treatment of infectious diseases in humans and farmed animals, whether terrestrial or aquatic, and have enormously improved population health as well as food security and safety. However, with the widespread use of anti-microbials for human and animal health in recent decades, the world is increasingly confronted with the emergence and spread of microbes that resist anti-microbial treatment. Discoveries of new anti-microbials are not keeping up with pace anti-microbial resistance (AMR).	6.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-11-2018-2019.html	Activa
419	Anti-microbials and animal production. Forthcoming	Since their discovery, anti-microbials have played an essential role in the treatment of infectious diseases in humans and farmed animals, whether terrestrial or aquatic, and have enormously improved population health as well as food security and safety. However, with the widespread use of anti-microbials for human and animal health in recent decades, the world is increasingly confronted with the emergence and spread of microbes that resist anti-microbial treatment. Discoveries of new anti-microbials are not keeping up with pace anti-microbial resistance (AMR).	6.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-11-2018-2019.html	Futura
420	Improving animal welfare	EU animal welfare legislation has evolved on the basis of scientific knowledge, improving the quality of animals' lives taking into account citizens' expectations and market demands. Nevertheless, a number of problems remain unsolved and the sector faces challenges to cope with them. Research is needed to further improve the management of animal welfare, by looking into new opportunities offered by technological developments, development of appropriate business models and linking animal welfare with other production parameters, including animal health and environmental performance.	A- 10.000.000 EUR B- 6.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-08-2018-2019.html	Activa
421	Improving animal welfare	EU animal welfare legislation has evolved on the basis of scientific knowledge, improving the quality of animals' lives taking into account citizens' expectations and market demands. Nevertheless, a number of problems remain unsolved and the sector faces challenges to cope with them. Research is needed to further improve the management of animal welfare, by looking into new opportunities offered by technological developments, development of appropriate business models and linking animal welfare with other production parameters, including animal health and environmental performance.	A- 10.000.000 EUR B- 6.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-08-2018-2019.html	Futura

422	New and emerging risks to plant health	Trade and the movement of goods and people have facilitated the introduction, spread and establishment of plant pests and diseases. While new pests and diseases are likely to arise, existing ones might become more severe as a result of intensification, climatic variations and changes in agricultural and forest management practices. They can have a significant impact on agricultural and forest productivity.	7.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-05-2018-2019-2020.html	Activa
423	New and emerging risks to plant health. Forthcoming	Trade and the movement of goods and people have facilitated the introduction, spread and establishment of plant pests and diseases. While new pests and diseases are likely to arise, existing ones might become more severe as a result of intensification, climatic variations and changes in agricultural and forest management practices. They can have a significant impact on agricultural and forest productivity.	7.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-05-2018-2019-2020.html	Futura
424	Integrated health approaches and alternatives to pesticide use	Plant protection and biocidal products (both covered under the term "pesticides") are used in agriculture in order to secure yield and food safety in plant production and animal husbandry. At the same time, pesticides may have effects on the environment, non-target organisms, animal and human health. In the EU they are regulated and assessed for pre-market approval but tools and methods need to be further developed to better understand the overall risks and impacts associated with their individual and combined use and possible side effects	15.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-04-2019-2020.html	Futura
425	Biodiversity in action: across farmland and the value chain	Agricultural biodiversity is understood to comprise all components of biological diversity that (i) are of relevance for food and agriculture and all components of biological diversity that (ii) constitute agro-ecosystems. It is the result of highly dynamic interactions between the environment, genetic resources, agricultural practices and historical land management. The various dimensions of agricultural biodiversity play a significant role in conferring stability, resilience and adaptability to farming systems.	A- 7.000.000 EUR B- 8.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-01-2018-2019-2020.html	Activa
426	Biodiversity in action: across farmland and the value chain	Agricultural biodiversity is understood to comprise all components of biological diversity that (i) are of relevance for food and agriculture and all components of biological diversity that (ii) constitute agro-ecosystems. It is the result of highly dynamic interactions between the environment, genetic resources, agricultural practices and historical land management. The various dimensions of agricultural biodiversity play a significant role in conferring stability, resilience and adaptability to farming systems.	A- 7.000.000 EUR B- 8.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-01-2018-2019-2020.html	Futura
427	Fuelling the potential of advisors for innovation	Despite the continued generation of scientific knowledge, its impact and application in practical farming and forestry is disappointing and its innovative impact poor. Although there are some good examples, the EIP-AGRI evaluation study recommends that more advisors need to be involved in interactive innovation projects to fuel cross-fertilisation and implementation of results. Advisors indeed have clear impact on farmers' and foresters' decisions and should play a key role in linking science and practice.	5.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-16-2019.html	Futura

428	Thematic networks compiling knowledge ready for practice	Despite the continued funding of scientific projects, innovative ideas and methods from practice are not captured and spread, while also research findings are often not integrated into agricultural and forestry practice. It is essential to close the research and innovation divide and to act at EU level. National and sectoral agricultural knowledge and innovation systems (AKISs) are insufficiently connected to fully meet this challenge.	2.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-15-2018-2019-2020.html	Futura
429	Analytical tools and models to support policies related to agriculture and food	Society assigns an increasing number of objectives to the policies influencing the agricultural sector and rural areas that it expects to see fulfilled. Therefore, justifications for policies extend well beyond mere food production. Evidence-based policy making implies the development and maintenance of appropriate instruments for use in the design of these policies and for the monitoring of their effects, taking advantage of new socio-economic approaches and increased possibilities opened up by progress in the ICT area.	A- 4.000.000 EUR B- 5.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-04-2018-2019.html	Activa
430	Analytical tools and models to support policies related to agriculture and food. Forthcoming	Society assigns an increasing number of objectives to the policies influencing the agricultural sector and rural areas that it expects to see fulfilled. Therefore, justifications for policies extend well beyond mere food production. Evidence-based policy making implies the development and maintenance of appropriate instruments for use in the design of these policies and for the monitoring of their effects, taking advantage of new socio-economic approaches and increased possibilities opened up by progress in the ICT area.	A- 4.000.000 EUR B- 5.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-04-2018-2019.html	Futura
431	Building modern rural policies on long-term visions and societal engagement	The design of modern rural policies requires capturing and anticipating the long-term trends affecting European rural areas. The EU has already invested in rural research on a variety of issues, although the impact on policies has been insufficient due to the diversity of rural areas, the complexity of the problems at stake and the multiplicity of policy makers involved.	A- 5.000.000 EUR B,C- 6.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-01-2018-2019.html	Activa
432	Building modern rural policies on long-term visions and societal engagement. Forthcoming	The design of modern rural policies requires capturing and anticipating the long-term trends affecting European rural areas. The EU has already invested in rural research on a variety of issues, although the impact on policies has been insufficient due to the diversity of rural areas, the complexity of the problems at stake and the multiplicity of policy makers involved.	A- 5.000.000 EUR B,C- 6.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-01-2018-2019.html	Futura
433	Food Systems Africa	Nutritional imbalances in both Europe and Africa are increasing, characterised by growing diet-related, non-communicable diseases and persistent under-nutrition. The UN projects that the global population will increase from 7 billion to more than 9 billion by 2050, of which the majority is expected to occur in Africa. To anticipate such population growth and challenges associated with enhanced climate change, agricultural systems need to become more sustainable and better linked to nutrition performance by strengthening the agro-biodiversity of resilient cropping systems, thereby increasing the range of food products for a balanced, healthy diet	7.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-34-2019.html	Futura

434	European Joint Programme on agricultural soil management	Good agriculture soil management contributes to food security, climate change mitigation/adaptation and ecosystem services. Preserving and increasing fertility of soils, not least through their organic content and water retaining capacity, increases agricultural production. Soils and their carbon content are also important for climate change mitigation. A number of good soil management practices have been developed to deal with some of the challenges; however serious knowledge gaps exist, e.g. on the characteristics of soils in various regions of Europe, the factors influencing their fertility or their capacity to store carbon, depending on different climate and environment conditions.	up to 40.000.000	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-20-2019.html	Futura
435	Climate-smart and resilient farming	Evidence on climate change is solid and reveals that it will affect the EU with European farming first in line through changes to rainfall regimes, rising temperatures, the variability and seasonality of the climate and the occurrence of more frequent extreme events (heatwaves, droughts, storms and floods). In addition to finding effective solutions for greenhouse gas (GHG) mitigation such as reducing GHG emissions and sequestering carbon below and above ground, farmers will need to adapt to climate change and develop farming systems resilient to fluctuating environmental and socio-economic conditions.	7.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-19-2018-2019.html	Activa
436	Climate-smart and resilient farming. Forthcoming	Evidence on climate change is solid and reveals that it will affect the EU with European farming first in line through changes to rainfall regimes, rising temperatures, the variability and seasonality of the climate and the occurrence of more frequent extreme events (heatwaves, droughts, storms and floods). In addition to finding effective solutions for greenhouse gas (GHG) mitigation such as reducing GHG emissions and sequestering carbon below and above ground, farmers will need to adapt to climate change and develop farming systems resilient to fluctuating environmental and socio-economic conditions.	7.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-19-2018-2019.html	Futura
437	Alternative proteins for food and feed	While facing climate change and natural resource scarcity, ensuring sufficient, nutritious, safe and affordable food to a fast growing world population with changing dietary habits becomes increasingly challenging. The protein supply is in this respect most critical, both for human consumption and animal feed. Integration of a variety of new or alternative protein sources from both terrestrial and aquatic origin into new and/or existing processes or products needs to be explored, in order to develop and ensure more sustainable, resilient supply chains, featuring high consumer acceptability by a clean labelling approach and attractive market opportunities.	8.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-17-2019.html	Futura

438	Sustainable wood value chains	Forests play a vital role in Europe's economy, society and environment. Scenarios likely to keep the global warming below 2oC (Paris Agreement goal) would entail a substantial reduction of anthropogenic GHG emissions, through far-reaching changes to energy systems, land use and associated value chains. The second consumer-driven factor of GHG emissions is the construction sector (ca. 15%), implying a significant role for forest-based products. The forest-based sector can contribute to climate change mitigation through increasing sinks in and reducing emissions from living biomass, soils and wood products, and the substitution of fossil fuels through the material and energy use of wood-based materials.	A- 10.000.000 EUR B- 5.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-rur-11-2019-2020.html	Futura
439	Coordination of marine and maritime research and innovation in the Black Sea	The Black Sea is going through rapid changes in response to closely interlinked natural and anthropogenic pressures. Climate change is influencing the physical dynamics and hydrological structure of the Black Sea, while nutrient and pollutant loads are flowing from growing urban areas, inland and coastal activities. Increasing maritime traffic is also leading to safety concerns, water and air pollution and the introduction of invasive alien species. Fishing activities in the Black Sea are unsustainable. The area's marine heritage and its ecosystem services are also at risk	2.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-bg-09-2019.html	Futura
440	Food Cloud demonstrators	The European Open Science Cloud (EOSC) will federate existing and emerging research data infrastructures, and provide researchers with services for Open Research Data (ORD) storage, management, analysis and re-use across disciplines. The move towards a thematic EOSC section for food and nutrition security (FNS) - or Food Cloud - would accelerate and support the ongoing transition to a more Open Science and Open Innovation model for food and nutrition systems, stimulate intra- and interdisciplinary research, and increase the impact and efficiency of research investments and infrastructures	10.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-sfs-26-2019.html	Futura
441	Sustainable European aquaculture 4.0: nutrition and breeding	European aquaculture provides 1.25 million tonnes of seafood annually, valued at over 4 billion euro. However, Europe heavily depends on external markets to ensure consumer demands for seafood (including from fresh water) is met. EU aquaculture needs to increase the competitiveness of its food products and to respond to consumer demands for high-quality and safe food, in a challenging context of climate change, greater competition for natural resources, and conflicting interests for space and markets.	6.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-bg-04-2018-2019.html	Futura
442	High-quality organic fertilisers from biogas digestate	Public policies in China and in several EU Member States have promoted the use of anaerobic digestion to treat organic wastes and to generate renewable energy. This has resulted in the production of considerable volumes of digestate as by-product, which could raise an environmental concern, prove costly and represent an inefficient use of biomass. The most straight-forward option for placing a value on digestate is to use it as an organic fertiliser and soil amender.	5.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sfs-39-2019.html	Futura

443	Innovative and citizen-driven food system approaches in cities	The challenge of providing the inhabitants of European cities with affordable, safe, and nutritious food is both urgent and complex. Moreover, the health and wellbeing of EU citizens and consumers are directly affected by the way cities and regions themselves are shaping a sustainable food environment. Research and (open) innovation co-created with citizens are part of broader city-region food system approaches. Such initiatives stimulate the development of cities as innovative food hubs	6.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sfs-24-2019.html	Futura
444	Circular bio-based business models for rural communities	To boost the development of a bio-based economy in Europe, there is a need for business models that can be replicated easily in a variety of locations and contexts, with relatively low levels of investment, risk and technical sophistication. A wider range of rural entrepreneurs needs to get involved in the emerging bio-based business sector, including farmers, forest owners, their associations, and small rural business	10.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-rur-10-2019.html	Futura
445	Closing nutrient cycles	The EU depends strongly on external sources for the supply of key fertilisers used in agriculture. Resource depletion and an increasing global demand for mineral fertilisers may, in the long term, lead to price tensions with an impact on food security. Mineral-based fertilisation also poses significant environmental problems, linked e.g. to the amounts of fossil energy needed to produce and transport these fertilisers.	A- 6.000.000 EUR B,C- 8.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-rur-08-2018-2019-2020.html	Activa
446	Closing nutrient cycles. Forthcoming	The EU depends strongly on external sources for the supply of key fertilisers used in agriculture. Resource depletion and an increasing global demand for mineral fertilisers may, in the long term, lead to price tensions with an impact on food security. Mineral-based fertilisation also poses significant environmental problems, linked e.g. to the amounts of fossil energy needed to produce and transport these fertilisers.	A- 6.000.000 EUR B,C- 8.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-rur-08-2018-2019-2020.html	Futura
447	Sustainable solutions for bio-based plastics on land and sea	Decoupling of plastics production from fossil feedstock is necessary. In addition to the recycled plastics waste, alternative feedstock such as biomass is part of a more resource-efficient, greenhouse gas emission (GHG) neutral solution. The shift towards biomass-sourced plastics will only make sense in the framework of a circular plastics economy where plastics reuse and recycling are maximised. Reuse and recycling of plastics, particularly for some applications such as packaging, remain very low.	9.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-bg-06-2019.html	Futura
448	All Atlantic Ocean Research Alliance Flagship	The Atlantic Ocean is an invaluable shared resource. The societal value of its blue economy is enormous for countries located on its shores. There are however, still considerable gaps in our knowledge and understanding of processes related to this ocean especially with regard to its chemistry, ecology, biodiversity, impacts of climate and the potential for the sustainable exploitation of its natural resources including aquaculture	A- 4.000.000 EUR B- 9.000.000 EUR C- 8.000.000 EUR	31 October 2017	11 September 2018 17:00:00 Brussels time	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bg-08-2018-2019.html	Activa
449	All Atlantic Ocean Research Alliance Flagship	The Atlantic Ocean is an invaluable shared resource. The societal value of its blue economy is enormous for countries located on its shores. There are however, still considerable gaps in our knowledge and understanding of processes related to this ocean especially with regard to its chemistry, ecology, biodiversity, impacts of climate and the potential for the sustainable exploitation of its natural resources including aquaculture	A- 4.000.000 EUR B- 9.000.000 EUR C- 8.000.000 EUR	16 October 2018	23 January 2019 17:00:00 04 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bg-08-2018-2019.html	Futura

450	The Future of Seas and Oceans Flagship Initiative	Our future is intimately linked to the future of the seas, oceans and coasts. The seas, oceans and coasts provide multiple ecosystem services and a wealth of resources, influence climate and provide many economic opportunities. To fully profit from the seas and oceans also in the future, we have to preserve those valuable resources and ensure that their exploitation is sustainable.	A- 6.000.000 EUR B- 12.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bg-07-2019-2020.html	Futura
451	Multi-use of the marine space, offshore and near-shore: pilot demonstrators	Combining several activities such as renewable energy, aquaculture, marine bio-resources and biotechnologies, maritime transport and related services, in the same marine space, including in multi-use platforms, can serve to divide and reduce the costs of offshore operations and the demand on the space needed for different activities. Research on multi-use platforms funded under the FP7 call 'The Oceans of Tomorrow' has provided promising designs, technological proposals and models for combining activities in terms of economic potential and environmental impact.	9.000.000 EUR	16 October 2018	23 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bg-05-2019.html	Futura
452	Safe by design, from science to regulation: metrics and main sectors (RIA)	Risk management involves quantifying hazard (toxicity) and exposure, and taking the necessary steps to reduce both to acceptable levels, ideally at an early stage of the nanomaterial development process (Safe-by-Design). Various industrial sectors, and in particular structural or functional materials, coatings and cosmetics, as well as pharma and health technology are currently searching for ways to mitigate possible risks from nanomaterials and nano-containing products.	5.000.000 EUR a 6.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/nmbp-15-2019.html	Futura
453	Smart materials, systems and structures for energy harvesting (RIA)	The realisation of the European goals of increased energy efficiency, reduction in CO2 emissions and the circular economy require novel ways of using, harvesting and storing energy. Smart materials and material systems/structures have already demonstrated the potential to reduce energy consumption as well as harvest, generate and store energy. However, implementation has been limited due to the materials' operational reliability as well as issues of recyclability and dependence on rare elements.	5.000.000 EUR a 7.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-nmbp-32-2019.html	Futura
454	Materials for non-battery based energy storage (RIA)	Sustainable energy production can only work well when the specific different energy storage challenges are solved. So, solar panels and wind generators do not deliver energy when no sun is shining or no wind is blowing. Batteries may not be the best solution to face all energy storage needs, due to cost, safety and environmental issues.	4.000.000 EUR a 6.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-nmbp-29-2019.html	Futura
455	Strengthening EU materials technologies for non-automotive battery storage (RIA)	Driven by the needs for a cleaner environment and the transition towards a low-carbon competitive economy, deployment of solar and wind energy increases. The respective energy supply will be much more decentralised, resulting in enhanced needs for deployment of large to small scale industrial electricity grids, and in an increased share of electricity produced in private households.	6.000.000 EUR a 8.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-nmbp-27-2019.html	Futura

456	Advanced materials for additive manufacturing (IA)	Additive manufacturing (AM) is now applied in the processing of most industrial metals, ceramics, polymers and composites, albeit at quite different levels of industrial readiness. The challenge is to develop equipment that allows the additive layer manufacturing of multi-materials items and multi-functional materials (for research, transport including aeronautic, consumer customised goods, communications, biomaterials and energy).	6.000.000 EUR a 8.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-nmbp-19-2019.html	Futura
457	Materials, manufacturing processes and devices for organic and large area electronics (IA)	Europe is a leader in the development of materials for organic and large area electronics (OLAE) but the materials still need to be improved to maintain this position. In addition, there have been attempts to combine dissimilar manufacturing technologies in order to achieve seamless integration of the new technology into traditional products at constant/lower production cost and in a new generation of smart devices.	4.000.000 EUR a 5.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-nmbp-18-2019.html	Futura
458	Adopting materials modelling to challenges in manufacturing processes (RIA)	Improved decision making for materials producers and product manufacturers needs an environment that gives fast access to information and thereby allows reacting to changing feedstock, markets and regulatory demands. This would need an open translation environment that translates a specific manufacturing challenge into a materials modelling workflow that provides knowledge to support optimal material and process design.	5.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-nmbp-10-2019.html	Futura
459	Real-time nano-characterisation technologies (RIA)	Enterprises using and producing nanomaterials face a constant increase of requirements in regard to fast process and product quality control, regulatory compliance and quicker market introduction of high quality products.	4.000.000 EUR 5.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-nmbp-08-2019.html	Futura
460	Open Innovation Test Beds for nano-enabled surfaces and membranes (IA)	Nano-enabled surfaces and membranes have a vast range of applications in final products across many industry sectors. The challenge is to enable a cost effective and sustainable industrial upscaling and deployment of nano-enabled surface and membrane technologies, including thin film architecture, coating, surface structuration for improved properties (optical, surface energy, durability, reduced friction, etc.), and nanostructured membrane's functionalities.	7.000.000 EUR a 15.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-nmbp-03-2019.html	Futura
461	Photocatalytic synthesis (RIA)	The efficient storage and utilisation of solar energy in the form of chemicals or chemical energy will play a key role to transform the European industry into a low-carbon economy. In the long term, there will be a need for highly integrated solutions enabling the carbon-neutral production of high-value chemicals or energy, which is crucial to reduce CO2 emissions.	5.000.000 EUR a 7.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-nmbp-25-2019.html	Futura
462	Boosting the efficiency of photosynthesis (RIA)	Agricultural productivity that does not keep up with the current population increase, the growing demand for biomass production (as feedstock for biofuels) and the nonstop rise of global CO2 emissions with its consequences for climate change, are all circumstances that make it urgent to increase the yield of biomass. Indeed, increased agricultural yield efficiency can have huge impacts in a society driven by the bio-economy.	6.000.000 EUR a 8.000.000 EUR	16 October 2018	22 January 2019 17:00:00 03 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/biotec-02-2019.html	Futura

463	Workplace innovation uptake by SMEs	Workplace innovations are non-technological innovations related to business structure and organisation, employee engagement and Human Resources management, managing internal process and decision making, development and planning of organisational strategies and methods, relationships with clients and suppliers, the work environment itself.	300.000 EUR	16 October 2018	17 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/innosup-04-2019.html	Futura
464	European SME innovation Associate - pilot	The lack of access to skills, to latest knowledge and capacity to manage innovation processes effectively, have been identified as major barriers for innovation in SMEs. Individual SMEs are at a disadvantage to recruit specialised knowledge as they often lack Europe-wide networking connections and do not tend to have established brands as large enterprises.	receive funding	16 October 2018	17 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/innosup-02-2019-2020.html	Futura
465	InCo Flagship on Integrated multimodal, low-emission freight transport systems and logistics	Global as well as regional and local freight transport is massively changing due to accelerating technological changes, the establishment of new players in global trade, the rise of protectionism, and the slowing down of economic growth of important partners such as China.	3.000.000 EUR a 7.000.000 EUR	05 September 2018	16 January 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-2-9-2019.html	Futura
466	Innovative applications of drones for ensuring safety in transport	The drone market is the fastest growing in aerospace, generating high-skilled jobs and enabling innovative services, both in the public sector at large (safety, security, environment monitoring, ...) and in the private sector (farming, infrastructure, delivery, inspection, broadcasting, leisure, ...), not only by large companies but also by many SMEs including start-ups. More services with drones and other emerging technologies can underpin safety and security in different transport modes: waterborne, railways, road transport and air transport.	3.000.000 EUR a 5.000.000 EUR	05 September 2018	16 January 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-2-8-2019.html	Futura
467	Safety in an evolving road mobility environment	The road mobility environment – the area which covers both road transport users and those affected by them – is evolving. Vehicle types are beginning to change as a result of increasing levels of automation. New vehicle types and new types of road user will operate with conventional vehicles and road users as part of an evolving mixed traffic environment.	4.000.000 EUR a 8.000.000 EUR	05 September 2018	16 January 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-2-7-2019.html	Futura
468	Moving freight by Water: Sustainable Infrastructure and Innovative Vessels	Although it is a means of transport that can reduce transport CO2 and air polluting emissions and significantly contribute to reducing congestion on European roads waterborne transport around European coasts and on its inland waterways remains under-utilised and is not fully integrated in the multimodal European Transport system. Both technical and administrative requirements hinder the take up of Intra-European waterborne transport.	5.000.000 EUR a 10.000.000 EUR	05 September 2018	16 January 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-2-6-2019.html	Futura
469	Upgrading transport infrastructure in order to monitor noise and emissions	Noise and emissions from transport affect seriously people's health and environmental ecosystems requiring the implementation of mitigation measures to achieve a higher reduction in all transport modes. The fast development of technologies that facilitate connectivity of innovative sensors, -both on-board and on the side of the infrastructure- could allow real-time monitoring and control of transport noise and emissions. Current applications of different mobile systems and measurement methodologies make comparison of data rather difficult.	4.000.000 EUR a 7.000.000 EUR	05 September 2018	16 January 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-9-2019.html	Futura

470	Retrofit Solutions and Next Generation Propulsion for Waterborne Transport	Emissions from waterborne transport remain a challenge particularly concerning the water and air quality around coasts, ports and urban areas. For shipping and inland waterway transport retrofit technology including for example engine modifications, engine replacement, exhaust gas cleaning systems, PM filters, hybrid batteries, fuel changes, efficient emissions capture and storage system can potentially improve the environmental performance (CO ₂ , NO _x , SO _x , PM) of existing fleets within the next five to ten years.	A- 3.000.000 a i.000.000 EUR B- 4.000.000 a 6.000.000 EUR	05 September 2018	16 January 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-8-2019.html	Futura
471	Advancements in aerodynamics and innovative propulsion systems for quieter and greener aircrafts	Significant progress has been done recently in terms of environmental emission (including noise) by the development of Ultra High Pressure Ratio and Ultra High By-Pass Ratio engines. Technology assessments based on the turbofan engine configuration are indicating that there is still remarkable potential inherent in the turbofan engine configuration to be realised to further reduce gaseous and noise emissions.	3.000.000 a 5.000.000 EUR	05 September 2018	16 January 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-5-2019.html	Futura
472	Logistics solutions that deal with requirements of the 'on demand economy' and for shared-connected and low-emission logistics operations	Urban, metropolitan and peri-urban areas are experiencing a huge increase in demand for new logistics solutions that deal with the requirements of the 'on demand economy' and incorporate opportunities for shared, connected and low-emission logistics operations. Research is needed on how to prioritize and combine a number of competing interests from the private side and public (policy) side.	2.000.000 a 4.000.000 EUR	05 September 2018	16 January 2019 17:00:00 12 September 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-10-2019.html	Futura
473	Innovative Training Networks	The Innovative Training Networks (ITN) aim to train a new generation of creative, entrepreneurial and innovative early-stage researchers, able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit.	receive funding	13 September 2018	15 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/msca-itn-2019.html	Futura
474	EU-Taiwan 5G collaboration	This activity, integrated end-to-end network for 5G trials, is to test 5G systems for specific applications and it follows up on the first targeted opening call with Taiwan in which 5G research and demonstration facilities offered by Taiwan towards collaborative 5G research with the EU.	2.000.000 EUR	05 September 2018	15 January 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-23-2019.html	Futura
475	FET ERA-NET Cofund	to advance the construction of the European Research Area in the FET domain by sharing a common vision of the various relevant efforts in Europe and fostering cooperation towards the coordinated development of radically new future technologies.	receive funding	05 June 2018	18 December 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/fetproact-03-2018.html	Futura
476	Combining Renewable Technologies for a Renewable District Heating and/or Cooling System	There is a large potential to integrate substantial shares of renewable energy generation in district heating and/or cooling systems. Innovative approaches are needed to exploit this potential in the different geographical regions of Europe, also considering the options of combining two or more renewable energy technologies and integrating excess heat.	8.000.000 a 15.000.000 EUR	05 September 2018	11 December 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-8-2019.html	Futura

477	Market Uptake support	Since the adoption of RES Directive in 2009, most Member States have experienced significant growth in renewable energy production and consumption, and both the EU and a large majority of Member States are on track towards the 2020 RES targets. The "Clean Energy for all Europeans" package adopted at the end of 2016 introduces further targets towards 2030 and introduces modifications in the energy market design that will empower individuals or communities to participate actively to the energy system transformation.	1.000.000 a 3.000.000 EUR	05 September 2018	11 December 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-28-2018-2019-2020.html	Futura
478	Boosting pre-commercial production of advanced aviation biofuels	The aviation transport sector is growing fast and is expected to be responsible for more than 10% of the global greenhouse gas emissions by 2050. Advanced biofuels achieve direct emission reductions and, as drop-in fuels, are the most attractive alternatives for reducing the carbon foot-print of aviation in the long-term. Due to the absence of a market, the specific challenge is to boost commercial availability of advanced biofuels for aviation	15.000.000 a 20.000.000 EUR	05 September 2018	11 December 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-24-2019.html	Futura
479	Demonstration of solutions based on renewable sources that provide flexibility to the energy system	Supporting the power grid balancing and increasing the flexibility of the energy system is possible by means of dispatchable renewable energy sources. The specific challenge is to increase the potential of renewable dispatchable technologies in providing flexibility to the energy system. Different technologies are suitable to address this challenge.	12.000.000 a 15.000.000 EUR	05 September 2018	11 December 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-17-2019.html	Futura
480	Increase the competitiveness of the EU PV manufacturing industry	The EU PV manufacturing industry has faced strong foreign competition in the last years, which has led to a dramatic reduction of its production capacity. The challenge is to develop innovative manufacturing solutions, spanning the entire production chain, that substantially improve competitiveness of the EU PV manufacturing industry and help regain a part of the potentially increasing worldwide PV market, while creating more secure and sustainable supply chains for the EU PV market.	10.000.000 a 13.000.000 EUR	05 September 2018	11 December 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-15-2019.html	Futura
481	Support to the EOSC Governance	The main objective of this topic is to set up an operational framework for supporting the overall governance of the EOSC, including the coordination between relevant national initiatives.	10.000.000 B- 5.000.000 a 6.000.000	08 February 2018	19 June 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infraeosc-05-2018-2019.html	Futura
482	Support to the EOSC Governance. Forthcoming	The main objective of this topic is to set up an operational framework for supporting the overall governance of the EOSC, including the coordination between relevant national initiatives.	10.000.000 B- 5.000.000 a 6.000.000	26 July 2018	21 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infraeosc-05-2018-2019.html	Futura
483	ERA Chairs	With adequate institutional support outstanding researchers can have a decisive and positive impact on the culture and performance of research institutions. Yet issues such as the availability of research funding, institutional rigidities and access to resources can hamper their mobility to promising institutions, particularly in low R&I performing countries.	2.500.000 EUR	26 July 2018	15 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/widespread-04-2019.html	Futura
484	Quantum Key Distribution testbed	Europe's economic activities and Europe's single market is dependent on well-functioning underlying digital infrastructures, services and data integrity, not the least for critical infrastructures like energy, transport, health, finance, etc. Current security of the digital infrastructures and services will soon be under threat of no longer providing long-term security.	15.000.000 EUR	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ict-04-2019.html	Futura

485	Digital health and care services	Digital solutions supporting a continuum of care across a range of health and care services can relieve the pressure on governments to provide more cost-effective health and care systems by improving utilisation of healthcare and health outcomes. In this context the challenges are to network, lead and facilitate health systems research, innovation and digitisation in view of addressing key areas of interventions in health and care services including health promotion and disease prevention.	5.000.000 a 6.000.000 EUR	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-10-2019-2020.html	Futura
486	Interactive Technologies	Interactive technologies such as Augmented (AR) and Virtual Reality (VR) are set to transform the ways in which people communicate, interact and share information on the internet and beyond. This will directly impact a larger number of European industries ranging from the cultural and creative industries, manufacturing, robotic and healthcare to education, entertainment and media, enabling new business opportunities.	A- 3.000.000 EUR B- 2.000.000 EUR a 4.000.000 EUR	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-25-2018-2020.html	Futura
487	Advanced 5G validation trials across multiple vertical industries	The challenge is to get the European 5G Vision of "5G empowering vertical industries[1]" closer to deployment with innovative digital use cases involving cross industry partnerships. It requires technological and business validation of 5G end to end connectivity and associated management from two perspectives: i) within the set of requirements specific from one application domain; ii) across all sets of heterogeneous requirements stemming from concurrent usages of network resources by different vertical domains.	A- 10.000.000 EUR B- 15.000.000 EUR C- 2.000.000 EUR	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-19-2019.html	Futura
488	Co-designing Extreme Scale Demonstrators (EsD)	To demonstrate in operational environments the successful integration of technology building blocks developed in previous R&I actions into world-class Extreme Scale Demonstrators. The challenges of power efficiency, resiliency and scalability of these systems require a strong co-design approach driven by ambitious applications involving technology suppliers, system integrators, supercomputing infrastructure providers and user communities, as well as ambitious HPC and extreme-data application owners or providers.	20.000.000 a 40.000.000 EUR	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-14-2019.html	Futura
489	HPC and Big Data enabled Large-scale Test-beds and Applications	The Internet of Things and the convergence of HPC, Big Data and Cloud computing technologies are enabling the emergence of a wide range of innovations. Building industrial large-scale application test-beds that integrate such technologies and that make best use of currently available HPC and data infrastructures will accelerate the pace of digitization and the innovation potential in Europe's key industry sectors	A- 12.000.000 a 13.000.000 B- 15.000.000 18.000.000	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-11-2018-2019.html	Futura
490	Smart and healthy living at home	Citizens in a rapidly ageing European population are at greater risk of cognitive impairment, frailty and multiple chronic health conditions with considerable negative consequences for their independence, quality of life and for the sustainability of health and care systems. The challenge is to foster large-scale deployment of integrated digital solutions which will bring improved quality of life to citizens while demonstrating significant efficiency gains in health and care delivery across Europe.	15.000.000 a 20.000.000	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-tds-01-2019.html	Futura

491	Digital Platforms/Pilots Horizontal Activities	Coordination and Support activities are needed to support the operation of the pilot projects under the Platforms and Pilots topics in this Focus Area, and to support exploitation of the outcomes of these projects. These activities are expected to identify synergies among the pilot projects of the Focus Area, to promote cross-fertilisation, and to exchange best-practices and lessons learned.	A- 2.000.000 EUR B,C- 1.000.000 EUR	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-13-2019.html	Futura
492	Interoperable and smart homes and grids	When energy production is becoming decentralised and ICT is increasingly present in homes, the integration of renewable energy sources (RES) and promotion of energy efficiency should benefit from smarter homes, buildings and appliances, as well as (the batteries in) electric vehicles. Smart homes and buildings are one crucial element because system integration and optimisation of distributed generation, storage and flexible consumption will require interoperable smart technologies installed at building level.	Hasta 30.000.000 EUR	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-10-2018-19.html	Futura
493	Agricultural digital integration platforms	Agricultural research and innovation supports the sector in coping with a complex mix of challenges it is facing, including for example the pressures on natural resources and farm revenues. Knowledge creation and accessible information systems and tools to monitor, gather, transform and above all share vital information between key stakeholders can help the sector to become more sustainable. However, as well as the potential for new knowledge, a substantial part of the existing knowledge and its underpinning information flows, has yet to be exploited to its full potential.	hasta 15.000.000 EUR	26 July 2018	14 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-08-2019.html	Futura
494	Restricted call for proposals to support National Roma platforms	This call will fund activities supporting active partnership between stakeholders in the development, implementation and monitoring of the National Roma Integration Strategies or integrated sets of policy measures in the Member States.	1.000.000 EUR	26 July 2018	08 November 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/rec/topics/rec-rdis-nrcp-ag-2018.html	Futura
495	Action grants to support transnational projects on judicial training covering civil law, criminal law or fundamental rights	Projects must be transnational and involve organisations from at least two participating countries. In addition the training activities implemented by each project must include participants (trainees) from different participating countries.	5.350.000 EUR	14 June 2018	25 October 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/just/topics/just-jtra-ejtr-ag-2018.html	Futura
496	Optimising manufacturing and system operation	Renewable electricity technologies still require optimisation in several key processes of the respective value chains in order to achieve a more efficient conversion of their primary energy source into electricity, as agreed with the sectorial stakeholders in the context of the SET-Plan and stated in the respective Declarations of Intent.	3.000.000 a 5.000.000 EUR	01 August 2018	16 October 2018 17:00:00 25 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-14-2019.html	Futura
497	Developing the next generation of renewable energy technologies	The renewable energy technologies that will form the backbone of the energy system by 2030 and 2050 are still at an early stage of development today. Bringing these new energy conversion solutions, new renewable energy concepts and innovative renewable energy uses faster to commercialisation, taking into account social acceptance and secure and affordable energy supply, is challenging.	2.000.000 a 5.000.000 EUR	01 August 2018	16 October 2018 17:00:00 25 April 2019 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-1-2019-2020.html	Futura
498	Action grants to support national or transnational e-Justice projects	The objective is to contribute to achieving the objectives of the European e-Justice Strategy 2014-2018. It will support the implementation of e-Justice projects within the European e-Justice Portal and at national level, in as far as they have a European dimension.	Hasta 2.200.000 EUR	05 June 2018	16 October 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/just/topics/just-jacc-eju-ag-2018.html	Futura

499	Demonstration pilots for implementation of personalised medicine in healthcare	Personalised medicine (PM) has the potential to respond to, among others, the increasing burden of co-morbidities and thus enhance the sustainability of healthcare systems. With the increasing number of scientific approaches available, it is crucial to demonstrate the benefit of large scale deployment of personalised medicine to citizens and healthcare systems.	18.000.000 a 20.000.000 EUR	26 July 2018	02 October 2018 17:00:00 16 April 2019 17: 00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-25-2019.html	Futura
500	Mental health in the workplace	In most European countries, absences from work and early retirement due to mental illness have increased in recent years[1]. Mental health conditions such as depression, anxiety and stress represent substantial financial costs for employers and employees, as well as a significant loss for society at large. An EU-level estimate of the overall costs, direct health costs and lost productivity is more than 450 billion EUR per year	2.000.000 a 4.000.000 EUR	26 July 2018	02 October 2018 17:00:00 16 April 2019 17: 00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-22-2019.html	Futura
501	Implementation research for maternal and child health	Each year, an estimated 213 million women become pregnant and 140 million newborn babies are delivered. However, many of the women and infants receive no appropriate care or care that is below evidence-based standards; others suffer from over-medicalisation. Access to quality care, during and after pregnancy, is essential to ensure good maternal health and the favourable early development of the child.	2.000.000 a 4.000.000 EUR	26 July 2018	02 October 2018 17:00:00 16 April 2019 17: 00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-19-2019.html	Futura
502	Stratified host-directed approaches to improve prevention, treatment and/or cure of infectious diseases	Despite major advances in development of new drugs and vaccines against infectious diseases, many of the therapies and preventive measures do not result in the expected favourable health outcomes for various reasons. The pathogen might be resistant to the treatment, or a required immune response might not be provoked to contain the infection; the used drug might not reach the pathogen, or the pathogen might escape the host defence mechanisms. In addition, each individual might be responding differently to the intervention, making it difficult to make one intervention fit all patients.	6.000.000 a 10.000.000 EUR	26 July 2018	02 October 2018 17:00:00 16 April 2019 17: 00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-14-2019.html	Futura
503	Systems approaches for the discovery of combinatorial therapies for complex disorders	Many complex disorders pose a challenge to identify the most effective therapeutic interventions because current therapies often target specific aspects of a disease, without achieving complete control or the best possible results for patients. Due to the multiple causes of such diseases and the heterogeneity between patients, approaches directed at single targets have had limited efficacy, overlooking important factors involved in disease pathophysiology. Hence, a promising therapeutic approach to meet this challenge is to combine different therapies, while increasing therapeutic efficacy in a cost-effective manner.	4.000.000 a 6.000.000 EUR	26 July 2018	02 October 2018 17:00:00 16 April 2019 17: 00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-02-2019.html	Futura
504	Understanding causative mechanisms in co- and multimorbidities	The increasing number of individuals with co- and multimorbidities poses an urgent need to improve management of patients with multiple co-existing diseases. A better understanding of their causative mechanisms is needed to develop early diagnosis, efficient prevention and monitoring, and better treatments adapted to co- and multimorbid patients throughout their life course. Furthermore, there are many different etiological models of comorbid conditions (e.g., direct causation model or a consequence of treatment).	4.000.000 a 6.000.000 EUR	26 July 2018	02 October 2018 17:00:00 16 April 2019 17: 00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-01-2019.html	Futura

505	ERC Advanced Grant	Advanced Grants are designed to support excellent Principal Investigators at the career stage at which they are already established research leaders with a recognised track record of research achievements. Applicant Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their scientific proposal.	2.500.000 EUR	17 May 2018	30 August 2018 17:00:00 Time Zone : (Brussels time)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/erc-2018-adg.html	Activa
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