



Rijksdienst voor Ondernemend  
Nederland

# *Wegwijzer* *Horizon 2020*

## *Calls 2020*

*Versie december 2019*



# Voorwoord

## In deze wegwijzer...

Deze wegwijzer leidt u door Horizon 2020, hét programma van de Europese Commissie om onderzoek en innovatie (financieel) te ondersteunen. Het geeft een overzicht van de vele mogelijkheden binnen de verschillende Horizon-onderdelen:

### I Excellence Science

European Research Council (ERC) .....	7
Future and Emerging Technologies (FET) .....	8
Marie Skłodowska-Curie Actions (MSCA) .....	9
Research infrastructures .....	10
Information and Communication Technologies (ICT) .....	11
Nanotechnologies, Advanced materials, Biotechnology, Advanced manufacturing and Processing .....	14
Space .....	16

### II Industrial Leadership

European Innovation Council (EIC) .....	17
Future and Emerging Technologies (FET) .....	17
EIC Accelerator pilot .....	18
Fast Track to Innovation .....	18
Prizes .....	19
Innovation in SMEs .....	20

### III Societal Challenges

Health, demographic change and wellbeing .....	21
Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy .....	23
Secure, Clean and Efficient Energy .....	26
Smart, Green and Integrated Transport .....	29
Climate Action, Environment, Resource Efficiency and Raw materials .....	31
Europe in a changing world – Inclusive, Innovative and Reflective societies .....	34
Secure Societies - Protecting freedom and security of Europe and its citizens .....	36

### Horizontal Actions

Horizontal Actions .....	38
Spreading excellence and widening participation .....	38
Horizontal Actions .....	39
Science with and for Society .....	39
Cross-cutting activities .....	40



## **Horizon 2020**

In de periode 2014-2020 trekt de Europese Commissie circa 80 miljard euro uit voor het stimuleren van onderzoek en innovatie. Dit Europese instrument, Horizon 2020 voor onderzoek en ontwikkeling, heeft als doel economische groei in Europa te bevorderen en de Europese concurrentiepositie te verbeteren. In de eerste plaats wil de Europese Commissie de basis van het innoverend vermogen versterken door het ondersteunen van excellent wetenschappelijk onderzoek op wereldniveau. Ten tweede wil de Europese Commissie de productiviteit en het concurrerend vermogen van de Europese industrie versterken door het stimuleren van industriële innovatie. Ten derde daagt Horizon 2020 de wetenschap en de industrie uit om oplossingen te ontwikkelen voor belangrijke Europese maatschappelijke uitdagingen. Denk daarbij aan vraagstukken als vergrijzing, duurzame voedselvoorziening, milieu, energie en veiligheid.

## **Projectvormen**

Horizon 2020 financiert vooral onderzoeks- en innovatieprojecten, zowel kleinschalige als grootschalige. Soms wordt specifiek gevraagd om deelname van het midden- en kleinbedrijf (MKB). Daarnaast is er financiering voor programma ondersteunende projecten zoals het organiseren van een evenement of het schrijven van een onderzoeksagenda. Tenslotte ondersteunt Horizon 2020 innovatiegericht inkopen en afstemming van nationale onderzoeksprogramma's. De verschillende projectvormen worden als volgt afgekort:

Afkorting	Betekenis	Soort project	Aantal partners	Subsidie
RIA	Research and innovation action	Onderzoeksproject met mogelijk innovatie-elementen	3+	100%
IA	Innovation action	Innovatieproject (demo, pilot, market replication)	3+	70% (non-profit 100%)
SME	SME Instrument	Innovatieproject door het midden- en kleinbedrijf (MKB)	1	70%
CSA	Coordination and support action	Ondersteunende activiteiten	1+	100%
ERA-NET	-	Afstemming nationale onderzoeksprogramma's	3+	33% cofinanciering
FTI	Fast Track to Innovation	Innovatieproject (demo, pilot, market replication)	3-5	70%
EJP	European Joint Programme Cofund	Co-financiering van gecoördineerde nationale onderzoeksprogramma's	5+	50%

## **Vind uw match met Horizon 2020**

Deze wegwijzer leidt u door het omvangrijke Horizon programma en geeft een overzicht van de mogelijkheden binnen Horizon 2020 in 2019 en 2020, gebaseerd op de werkprogramma's van de Europese Commissie. De eerste calls zijn in het najaar van 2017 geopend. De sluitingsdata variëren per onderdeel.

Stap 1: Blader door verschillende Horizon-onderdelen en kijk welke kansen er voor u liggen.

Stap 2: Ziet u een interessant onderwerp (topic)? De complete beschrijving hiervan leest u in het werkprogramma van het betreffende Horizon-onderdeel.

Kijk voor algemene informatie op de Horizon 2020 website van de Europese Commissie, zie [ec.europa.eu/research/horizon2020](http://ec.europa.eu/research/horizon2020). Documenten zoals werkprogramma's kunt u downloaden van <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home> (tabblad "how to participate - reference documents").

Ga bij het indienen van uw projectaanvraag altijd uit van de definitieve, officiële documenten op de participant portal. Deze wegwijzer is met zorg samengesteld uit de diverse werkprogramma's, maar de Europese Commissie kan deze altijd nog wijzigen. Gaat u aan de slag met Horizon 2020? Ga dan altijd uit van de actuele gegevens van de website!

### **Andere Europese programma's**

Naast Horizon 2020 zijn er meer Europese programma's die onderzoeks- en innovatieprojecten financieren. Eurostars is er speciaal voor het high-tech midden- en kleinbedrijf. COST finanziert coördinatie van een onderzoeksgebied. Tenslotte zijn er diverse programma's die projecten financieren op een specifiek gebied, zoals elektronica, luchtvaart, biobased economy en medicijnontwikkeling. Kijkt u voor meer details op [www.rvo.nl](http://www.rvo.nl).

COSME is een programma voor groeiende ondernemingen dat bijdraagt aan een beter ondernemersklimaat en toegang tot financiering en internationale markten, om daarmee bij te dragen aan het concurrentievermogen van de Europese markt. Voor meer informatie over COSME, zie [www.rvo.nl/cosme](http://www.rvo.nl/cosme).

### **Contact**

Meer weten? Behoefte aan persoonlijk advies? De Rijksdienst voor Ondernemend Nederland, het nationaal contactpunt voor Horizon 2020, helpt u graag op weg. Neem contact op met onze adviseurs via 088 042 4210. Of kijk op [www.rvo.nl/horizon2020](http://www.rvo.nl/horizon2020).

# Excellent Science

## European Research Council (ERC)

ERC stimuleert excellente onderzoekers om de wetenschappelijke grenzen binnen hun vakgebied te verleggen (frontier research). Het is niet noodzakelijk dat dit onderzoek in internationaal verband wordt uitgevoerd.

Contact: Esther Verhoeven en Mariëlle Brouwer  
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Het call-budget bedraagt circa 2201 miljoen euro voor 2020.

Calls 2020	Budget (miljoen euro)	Sluiting
<b>ERC Consolidator Grant 2020</b> Max. 2 miljoen Euro per beurs	<b>657</b>	04-02-2020
<b>ERC Advanced Grant 2020</b> Max. 2,5 miljoen Euro per beurs	<b>2020: 492</b>	26-08-2020
<b>ERC Proof of Concept 2020</b> Max. 150.000 Euro per beurs (alleen voor ERC laureaten)	<b>2020: 25</b> 21-01-2020 23-04-2020 17-09-2020	

## Excellent Science

# Future and Emerging Technologies (FET)

FET financiert samenwerkingsprojecten die wetenschappelijke grenzen verleggen en zo de basis leggen voor toekomstige technologieën. Het call-budget bedraagt circa 298 miljoen euro voor 2020. FET Open, FET Proactive en FET Innovation Launchpad maken onderdeel uit van de European Innovation Council (EIC) pilot en zijn daarom ook in het werkprogramma van de European Innovation Council overgenomen.

LET OP: ten tijde van het maken van deze wegwijzer, is de precieze invulling van het FET werkprogramma voor 2020 nog niet vastgesteld. Informeer voor de laatste informatie.

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                  Stijn Greben      [stijn.greben@rvo.nl](mailto:stijn.greben@rvo.nl)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
	<b>FET-Open – novel ideas for radically new technologies</b>		<b>199 (2020)</b>	
				13-05-2020
FETOPEN-03	FET Innovation Launchpad	CSA	3,0 (0,1 / project)	14-10-2020
	<b>FET Proactive – boosting emerging technologies</b>		<b>83 (2020)</b>	
	a. Future technologies for social experience. b. Breakthrough zero-emissions energy generation for full decarbonization c. Digital twins for the life-sciences d. Measuring the unmeasurable – Sub-nanoscale science for Nanometrology		50 (3,5 / project)	
FETPROACT-EIC-08-2020	Environmental Intelligence a. New techniques for modelling and predicting socio/environmental evolution across different time scales b. Radically novel approaches to resilient, reliable and environmentally responsible in-situ monitoring	RIA	18 (4 / project)	<u>23-06-2020</u>
FETPROACT-09-2020	Neuromorphic computing technologies	RIA	15 (4-5 / project)	22-04-2020
	<b>FET-Proactive: High Performance Computing</b>		<b>0.5 (2020)</b>	
FETHPC-04-2020	International Cooperation on HPC	CSA	0.5 (0.5 / project)	22-04-2020
	<b>FET-Flagships - tackling grand interdisciplinary science and technology challenges</b>		<b>15 (2020)</b>	
FETFLAG-04-2020	Quantum Flagship - ERA-NET Cofund	ERA-NET	15 (one project)	07-05-2020

## Excellent Science

# Marie Skłodowska-Curie Actions (MSCA)

Marie Skłodowska-Curie ondersteunt onderzoekers bij het uitbouwen van hun internationale onderzoekscarrière. Zo zijn er bijvoorbeeld mogelijkheden om (met financiële ondersteuning) gedurende een bepaalde periode onderzoek te doen in het buitenland en om buitenlandse onderzoekers tijdelijk in dienst te nemen.

Het call-budget bedraagt circa 1046 miljoen euro voor 2020.

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Calls	Budget (miljoen euro)	Sluiting
<b>Innovative Training Networks 2020 (ITN)</b>	<b>530 (2020)</b>	14-01-2020
European Traning Networks (ETN)	445	
European Industrial Doctorates (EID)	40	
European Joint Doctorates (EJD)	45	
<b>Individual Fellowships 2020 (IF)</b>	<b>328 (2020)</b>	09-09-2020
European Fellowship – Standard (EF-ST), Career Restart (EF-CAR) en Reintegration (EF-RI)	263 (2020)	
European Fellowship Society and Enterprise Panel (EF-SE)	10 (2020)	
Global Fellowship (GF)	55 (2020)	
<b>Research and Innovation Staff Exchange 2020 (RISE)</b>	<b>80 (2020)</b>	28-04-2020
Research and Innnovation Staff Exchange (RISE)		
<b>Co-funding of regional, national and international programmes 2020 (COFUND)</b>	<b>100 (2020)</b>	29-09-2020
Doctoral Programme	40 (2020)	
Fellowship Programme	60 (2020)	
<b>European Researchers' Night 2020 (NIGHT)</b>	<b>8 (2020)</b>	09-01-2020
European Researchers' Night		

# Excellent Science

## Research infrastructures

Het totaal budget bedraagt circa 342 voor 2020.

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Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
	<b>Development and long-term sustainability of new pan-European research infrastructures</b>		<b>30 (2020)</b>	
INFRADEV-01-2019-2020	Design Studies	RIA	30 (1-3 per project)	12-11-2019
	<b>Implementing the European Open Science Cloud</b>		<b>64,9 (2020)</b>	
INFRAEOSC-03-2020	Integration and consolidation of the existing pan-European access mechanism to public research infrastructures and commercial services through the EOSC Portal	RIA	40,9 (40,9 per project)	22-04-2020
INFRAEOSC-07-2020	Increasing the service offer of the EOSC Portal a1) Distributed and cloud computing resources a2) Data services a3) Services supporting scholarly communication and open access a4) Above the net services a5) Services and resources from non-research public sector data providers a6) Additional research enabling services	RIA	24 8 per project 7 per project 4 per project 2 per project 1 per project 2 per project	22-04-2020
	<b>Integrating and opening research infrastructures of European interest</b>		<b>160 (2020)</b>	
INFRAIA-02-2020	Integrating Activities for Starting Communities	RIA	115 (<5 per project)	17-03-2020
INFRAIA-03-2020	Pilot for a new model of Integrating Activities	RIA	45 (<15 per project)	17-03-2020
	<b>European Data Infrastrucure</b>		<b>20 (2020)</b>	
INFRAEDI-05-2020	Centres of Excellence in exascale computing	RIA	20 (<5 per project)	13-11-2019
	<b>Demonstrating the role of Research Infrastructures in the translation of Open Science into Open Innovation</b>		<b>65 (2020)</b>	
INFRAINNOV-03-2020	Co-Innovation platform for research infrastructure technologies	RIA	35 (<35 per project)	17-03-2020
INFRAINNOV-04-2020	Innovation pilots	RIA	30 (<10 per project)	17-03-2020
	<b>Support to policy and international cooperation</b>		<b>2 (2020)</b>	
INFRASUPP-02-2020	Strengthening the human capital of research infrastructures	CSA	2	17-03-2020

# Industrial Leadership

## Information and Communication Technologies (ICT)

Het totale budget bedraagt 955,3 miljoen euro voor 2020.

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Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Information and Communication Technologies Call</b>		<b>709 (2020)</b>		
<b>Artificial Intelligence and Technologies for Digitising European Industry and Economy</b>				
ICT-36-2020	Disruptive photonics technologies i. 3D light field and holographic displays ii. Packaging and module integration for photonic integrated circuits (PIC) iii. Light to Fuel iv. Next generation biophotonics methods and devices as research tools to understand the cellular origin of diseases	RIA	47,5 (3-6 / project)	22-04-2020
ICT-37-2020	Advancing photonics technologies and application driven hotonics components and the innovation ecosystem a) Research and Innovation Actions (RIA) i. Flexible Farm-to-Fork Sensing ii. Novel Photonics Integrated Circuit (PIC) Technology building blocks b) Innovation Actions (IA) iii. Smart Photonic Sensing for Environmental Pollution Detection c) Coordination and Support Actions iv. An industrial strategy for photonics in Europe	RIA IA CSA	29 (3-5 / project) 15 (4-7 / project) 4 (4 / project)	22-04-2020 22-04-2020 22-04-2020
ICT-46-2020	Robotics in Application Areas and Coordination & Support a) Robotics Core Technology b) Robotics for agri-food, and agile production c) Robotics	RIA IA CSA	86 41,5 (6-7 / project) 41,5 (6-7 / project) 3 (3 / project)	22-04-2020 22-04-2020 22-04-2020
ICT-47-2020	Research and Innovation boosting promising robotics applications	RIA	20 (2-3 / project)	22-04-2020
ICT-49-2020	Artificial Intelligence on demand platform	IA	20 (5 / project)	22-04-2020
ICT-50-2020	Software Technologies a) Research and Innovation Actions (RIA) b) Coordination and Support Actions (CSA)	RIA CSA	29 (3-5 / project) 1 (1 / project)	16-01-2020 16-01-2020
<b>European data infrastructure: HPC, Big Data and Cloud technologies</b>				
ICT-40-2020	Cloud Computing: towards a smart cloud computing continuum a) Research and Innovation Actions (RIA) b) Coordination and Support Action (CSA)	RIA CSA	19,4 (3-5 / project) 0,6 (0,4-0,6 / project)	22-04-2020 22-04-2020

ICT-51-2020	Big Data technologies and extreme-scale analytics		31.5	
	a) Research and Innovation Actions (RIA)	RIA	30 (3-6 / project)	16-01-2020
	b) Coordination and Support Action (CSA)	CSA	1.5 (1.5 / project)	16-01-2020

NB: HPC gerelateerde onderwerpen vallen sinds januari 2019 onder de EuroHPC JU (<https://eurohpc-ju.europa.eu/index.html>).

<b>5G</b>				
ICT-41-2020	5G PPP – 5G innovations for verticals with third party services	IA	49 (4-6 / project)	22-04-2020
ICT-42-2020	5G PPP – 5G core technologies innovation		49	
	a) Innovation Actions (IA)	IA	48 (4-6 / project)	16-01-2020
	b) Coordination and Support Action (CSA)	CSA	1 (1 / project)	16-01-2020
ICT-52-2020	5G PPP – Smart Connectivity beyond 5G	RIA	55 (5-12 / project)	22-04-2020
<b>Next Generation Internet (NGI)</b>				
ICT-44-2020	Next Generation Media			
	a) Innovation Actions (IA)	IA	15.5 (5 / project)	16-01-2020
	b) Coordination and Support Action (CSA)	CSA	2 (2 / project)	16-01-2020
ICT-54-2020	Blockchain for the Next Generation Internet	RIA	20 (8 / project)	16-01-2020
	i. Advancing research on Blockchain and Distributed Ledger Technologies			
	ii. Fostering trust in internet information exchange and content with blockchain			
	iii. Bringing forward the emergence of collective intelligence on the internet:			
ICT-55-2020	Interactive Technologies	IA	17 (2 / project)	16-01-2020
ICT-56-2020	Next Generation Internet of Things		48.5	
	a) Research and Innovation Actions (RIA)	RIA	46.5 (5-8 / project)	16-01-2020
	b) Coordination and Support Action (CSA)	CSA	2 (2 / project)	16-01-2020
ICT-57-2020	An empowering, inclusive Next Generation Internet	RIA	7 (2-4 / project)	22-04-2020
<b>International-cooperation activities</b>				
ICT-58-2020	International partnership building between European and African innovation hubs		11	
	a) Innovation Actions (IA)	IA	10 (1-2 / project)	22-04-2020
	b) Coordination and Support Action (CSA)	CSA	1 (1 / project)	22-04-2020
<b>Digitising and transforming European industry and services: digital innovation hubs and platforms Call</b>				<b>190.5 (2020)</b>
<b>Support to Hubs</b>				
DT-ICT-04-2020	Photonics Innovation Hubs	IA	19 (9.5-19 / project)	22-04-2020
<b>Platforms and Pilots</b>				
DT-ICT-09-2020	Digital service platforms for rural economies	IA	30 (15 / project)	22-04-2020
DT-ICT-12-2020	AI for the smart hospital of the future	IA	40 (7-10 / project)	22-04-2020

	<b>Digitising and transforming European industry and services: digital innovation hubs and platforms Call</b>		<b>190.5 (2020)</b>
<b>Support to Hubs</b>			
DT-ICT-03-2020	I4MS (phase 4) - uptake of digital game changers		
	a) Innovation Actions (IA)	IA	70 (8 / project)
	b) Coordination and Support Action (CSA)	CSA	1 (1 / project)
DT-ICT-04-2020	Photonics Innovation Hubs	IA	19 (10 / project)
DT-ICT-05-2020	Big data Innovation hubs	IA	30.5 (5-13 / project)
<b>Platforms and Pilots</b>			
DT-ICT-09-2020	Digital service platforms for rural economies	IA	30 (15 / project)
DT-ICT-12-2020	AI for the smart hospital of the future	IA	40 (7-10 / project)
<b>Cybersecurity Call</b>			
SU-ICT-02-2020	Building blocks for resilience in evolving ICT systems	IA	47 (4-5 / project)

## Industrial Leadership

# Nanotechnologies, Advanced materials, Biotechnology, Advanced manufacturing and Processing

Het call-budget bedraagt 601 miljoen euro voor 2020.

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Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Foundations for tomorrow's industry</b>				<b>164 (2020)</b>
<b>Open Innovation test beds</b>				<b>112 (2020)</b>
DT-NMBP-04-2020	Open Innovation Test beds for bio-based nano-materials and solutions	IA	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)	
DT-NMBP-05-2020	Open Innovation Test beds for functional materials for building envelopes	IA	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)	
DT-NMBP-06-2020	Open Innovation Test beds for nano-pharmaceuticals production	IA	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)	
<b>Materials characterisation and computational modelling</b>				<b>24 (2020)</b>
DT-NMBP-11-2020	Open Innovation Test beds for Materials Modelling	RIA	12	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
NMBP-35-2020	Towards harmonised characterisation protocols in NMBP	RIA	12	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
<b>Governance, science-based risk assessment and regulatory aspects</b>				<b>20 (2020)</b>
NMBP-16-2020	Safe by design, from science to regulation: behaviour of multi-component nanomaterials	RIA	13	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
NMBP-36-2020	Monitoring and safety of transport infrastructures	CSA	2	05-02-2020
NMBP-37-2020	Incentivising newcomers	CSA	1,5	05-02-2020
NMBP-38-2020	Citizens and industrial technologies	CSA	1,5	05-02-2020
<b>Industry commons</b>				<b>8 (2020)</b>
DT-NMBP-39-2020	Towards Standardised Documentation of Data through taxonomies and ontologies	CSA	4	05-02-2020
DT-NMBP-40-2020	Creating an open market place for industrial data	RIA	4	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)

Transforming European industry				<b>221 (2020)</b>
<b>Factories of the Future (FOF)</b>				<b>100 (2020)</b>
DT-FoF-07-2020	Assembly of microparts	RIA		05-02-2020
DT-FoF-09-2020	Energy-efficient manufacturing system management	IA		05-02-2020
DT-FoF-10-2020	Pilot lines for large-part high-precision manufacturing	IA		05-02-2020
DT-FoF-11-2020	Quality control in smart manufacturing	IA		05-02-2020
<b>Biotechnology</b>				<b>86 (2020)</b>
BIOTEC-06-2020	Reprogrammed microorganisms for biological sensors	IA		12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
BIOTEC-07-2020	Multi-omics for the optimisation of genotype-phenotype associations	RIA		12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
CE-BIOTEC-08-2020	New biotechnologies to remediate harmful contaminants	RIA	10	15-04-2020
CE-BIOTEC-09-2020	Upcycling Bio Plastics for packing food and drinks	RIA	20	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
<b>Medical technology innovations</b>				<b>35 (2020)</b>
NMBP-21-2020	Biological scaffolds for tissue regeneration and repair	RIA	17	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
DT-NMBP-23-2020	Next generation organ-on-chip	RIA-LS	18	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
Industrial sustainability				<b>106 (2020)</b>
<b>Sustainable process industry (SPIRE)</b>				<b>33 (2020)</b>
LC-SPIRE-08-2020	Novel high performance materials and components	RIA	31,9	05-02-2020
DT-SPIRE-11-2020	Artificial Intelligence and Big Data Technologies for Process Industries	CSA	0,6	05-02-2020
<b>Clean energy through innovative materials</b>				
LC-NMBP-28-2020	Next generation of thin-film photovoltaic technologies: see LC-SC3-RES-9-2020	IA	-	-
LC-NMBP-31-2020	Materials for off shore energy	RIA	20	12-12-2019 (1 <sup>st</sup> stage) 14-05-2020 (2 <sup>nd</sup> stage)
<b>Energy-efficient buildings (EEB)</b>				<b>52,5 (2020)</b>
LC-EEB-04-2020	Industrialisation of building envelope kits for the renovation market	IA		05-02-2020
LC-EEB-07-2020	Smart Operation of Proactive Residential Buildings	IA		05-02-2020
LC-EEB-08-2020	Digital Building Twins	RIA		05-02-2020

# Industrial Leadership Space

Het totaal budget bedraagt 207 miljoen euro voor 2019 en 222 voor 2020.

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Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
	<b>Earth observation</b>		<b>22 (2018) 31 (2019) 35 (2020)</b>	
LC-SPACE-18-EO-2020	Copernicus evolution: Research activities in support of the evolution of the Copernicus services	RIA	10 (1-1,5 per project)	05-03-2020
LC-SPACE-19-EO-2020	Copernicus evolution: new concept for an innovative and holistic solution for Sentinels calibration & validation	CSA	3 (3 per project)	05-03-2020
LC-SPACE-24-EO-2020	Copernicus evolution: Mission exploitation concept for WATER	CSA	3 (3 per project)	05-03-2020
DT-SPACE-25-EO-2020	Big data technologies and Artificial Intelligence for Copernicus	RIA	10 (2-4 per project)	05-03-2020
	<b>Space business, entrepreneurship, outreach and education</b>		<b>4 (2018) 2 (2019) 2 (2020)</b>	
DT-SPACE-26-BIZ-2020	Space hubs (support to start-ups)	CSA	2 (1 pwe project)	05-03-2020
	<b>Space technologies, science and exploration</b>		<b>68 (2018) 59 (2019) 81 (2020)</b>	
SPACE-28-TEC-2020	SRC – In space electrical propulsion and station keeping – Incremental Technologies	IA	24 (4-4,5 per project)	05-03-2020
SPACE-29-TEC-2020	Satellite communication technologies	RIA	9 (2-3 per project)	05-03-2020
SPACE-30-SCI-2020	Scientific data exploitation	RIA	9 (1-2 per project)	05-03-2020
	<b>Secure and safe space environment</b>		<b>9 (2019) 6 (2020)</b>	
SU-SPACE-21-SEC-2020	Roadmapping for space traffic management	CSA	2 (2 per project)	05-03-2020
	<b>EGNSS market uptake 2019-2020</b>		<b>20 (2019) 20 (2020)</b>	
SPACE-EGNSS-5-2020	EGNSS applications for public authorities' pilot	PCP	(0,5-3 per project)	05-03-2020

# Industrial Leadership

## European Innovation Council (EIC)

De European Innovation Council ondersteunt doorbraak innovaties met de potentie om nieuwe markten te creeren en daarmee werkgelegenheid en groei. De EIC heeft instrumenten om zowel 'early stage' als 'close-to-the-market' projecten te ondersteunen. Het callbudget voor de EIC is 1221,44 miljoen in 2020.

## Future and Emerging Technologies (FET)

FET financiert samenwerkingsprojecten die wetenschappelijke grenzen verleggen en zo de basis leggen voor toekomstige technologieën. Het call-budget bedraagt circa 298 miljoen euro voor 2020. FET Open, FET Proactive en FET Innovation Launchpad maken onderdeel uit van de European Innovation Council (EIC) pilot en zijn daarom ook in het werkprogramma van de European Innovation Council overgenomen.

LET OP: ten tijde van het maken van deze wegwijzer, is de precieze invulling van het FET werkprogramma voor 2020 nog niet vastgesteld. Informeer voor de laatste informatie.

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                  Okke Scholten      [okke.scholten@rvo.nl](mailto:okke.scholten@rvo.nl)  
                  Stijn Greben      [stijn.greben@rvo.nl](mailto:stijn.greben@rvo.nl)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>FET-Open – novel ideas for radically new technologies</b>			<b>357,2 (2020)</b>	
FETOPEN-01	FET-Open	RIA	196,2 (3 / project)	13-05-2020
FETOPEN-03	FET Innovation Launchpad	CSA	3,0 (0,1 / project)	14-10-2020
<b>FET Proactive – boosting emerging technologies</b>			<b>FET - 83 (2020) EIC - 68 (2019)</b>	
FETPROACT-EIC-07-2020	FET Proactive: emerging paradigms and communities e. Future technologies for social experience. f. <u>Measuring the unmeasurable — Sub-nanoscale science for Nanometrology, and/or Breakthrough zero-emissions energy generation for full decarbonization</u> g. Digital twins for the life-sciences	RIA	50 (4-5 / project)	<u>23-06-2020</u>
FETPROACT-EIC-08-2020	Environmental Intelligence c. New techniques for modelling and predicting socio/environmental evolution across different time scales d. Radically novel approaches to resilient, reliable and environmentally responsible in-situ monitoring	RIA	18 (4 / project)	<u>23-06-2020</u>
FETPROACT-09-2020	Neuromorphic computing technologies	RIA	15 (4-5 / project)	22-04-2020

# EIC Accelerator pilot

De EIC Accelerator pilot (voorheen het SME Instrument phase 2) is bedoeld voor internationaal georiënteerde innovatieve MKB die een nieuw product, dienst of proces naar de markt willen brengen (high-risk en high-potential). Geselecteerde bedrijven ontvangen een subsidie (grant: 0,5-2,5 miljoen euro, 70% subsidie) en optioneel equity (blended finance: tot maximaal 15 miljoen euro). Tevens krijgen zij business coaching en menotring aangeboden om hun innovatieve idee op te schalen. Er zijn geen voorgeschreven topics. Projectaanvragen kunnen continu worden ingediend maar wel zijn er tussentijds sluitingsdata.

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Omschrijving		Budget (miljoen euro) en sluiting		
<b>EIC Accelerator pilot (SME Instrument 2b)</b>		<b>654</b> (2020)		
Grant	Rolling out marketable innovation solutions	582	08-01-2020 18-03-2020 19-05-2020 07-10-2020	
Equity		53		

# Fast Track to Innovation

Met Fast Track to Innovation (FTI) wil de Europese Commissie bedrijven met een innovatief product, proces of dienst het laatste zetje naar de Europese markt. De maximum duur van het project is 3 jaar; binnen die periode moet marktintroductie plaatsvinden. Europese samenwerking is een vereiste en het consortium moet minimaal 3 en maximaal 5 partners uit de EU-lidstaten of de geassocieerde landen bevatten. In dat consortium moet bedrijfsleven de meerderheid vormen, maar kennisinstellingen en publieke organisaties mogen wel meedoen.

Omschrijving		Budget (miljoen euro) en sluiting		
<b>Fast Track to Innovation</b>		<b>100</b> (2012)		
FTI	Fast Track to Innovation	<3 per project	19-02-2020 09-06-2020 27-10-2020	

## Prizes

Het doel van de prijzen is om oplossingen te realiseren voor uitdagende maatschappelijke problemen zonder daarbij een oplossingsrichting te beschrijven. Een consortium kan een prijs alleen in de wacht slepen als het beschreven resultaat daadwerkelijk is bereikt op de einddatum. Per prijs zijn de spelregels beschreven. De hoogte van de prijs heeft geen relatie met de gemaakte kosten.

40 mln			
Innovative Batteries for eVehicles	10	Q4 2020	Q4 2021
Fuel from the Sun: Artificial Photosynthesis	5	Q1 2021	Q4 2021
Early warning for epidemics	5	Q3 2020	Q1 2021
Low-Cost Space Launch	10	Q4 2020	Q4 2021
Affordable High-Tech for Humanitarian Aid	5	Q1 2020	Q4 2020

Kijk voor algemene informatie op de Horizon 2020 website van de Europese Commissie, zie [ec.europa.eu/research/horizon2020](https://ec.europa.eu/research/horizon2020). Documenten zoals werkprogramma's kunt u downloaden van <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home> (tabblad "how to participate - reference documents").

Ga bij het indienen van uw projectaanvraag altijd uit van de definitieve, officiële documenten op de participant portal. Deze wegwijzer is met zorg samengesteld uit de diverse werkprogramma's, maar de Europese Commissie kan deze altijd nog wijzigen. Gaat u aan de slag met Horizon 2020? Ga dan altijd uit van de actuele gegevens van de website!

# Innovation in SMEs

Onder dit thema vallen ondersteunende activiteiten om groei en innovatie bij het MKB te stimuleren. Het call budget bedraagt 30,35 miljoen euro voor 2019 en 35,85 miljoen euro voor 2020.

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Call – For a better innovation support to SMEs</b>				<b>35,85 (2020)</b>
INNOSUP-01-2018-2020	Cluster facilitated projects for new industrial value chains	IA	25,15	02-04-2020 (1 <sup>st</sup> stage) 08-09-2020 (2 <sup>nd</sup> stage)
INNOSUP-05-2018-2020	Peer learning of innovation agencies	CSA	4,5	15-01-2020
INNOSUP-08-2020	Pan-European advanced manufacturing assistance and training for SMEs	CSA-LS	0,5	18-03-2020
		CSA-LS	5,7	14-10-2020
		CSA-LS	5,7	01-12-2020

## Societal Challenge 1

# Health, demographic change and wellbeing

Het call-budget bedraagt circa 581 miljoen euro voor 2018, circa 671,5 miljoen euro voor 2019 en circa 645 miljoen voor 2020.

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Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Better Health and care, economic growth and sustainable health systems</b>			<b>442 (2018) 507 (2019) 490 (2020)</b>	
<b>1.1 Personalised medicine</b>				
SC1-BHC-06-2020	Digital diagnostics – developing tools for supporting clinical decisions by integrating various diagnostic data	RIA	40 (8-15 per project)	Single stage 7-04-2020
SC1-HCO-01-2018-2019-2020	Actions in support of the International Consortium for Personalised Medicine 2020: focus on countries in Africa, or 2020: ICPerMed secretariat	CSA	4 (1,5-2 per project)	Single stage 7-04-2020
SC1-HCO-03-2020	Bridging the divide in health research and innovation – boosting return on investment	CSA	2 (1,5-2 per project)	Single stage 7-04-2020
SC1-HCO-14-2020	ERA-NET: Sustained collaboration of national and regional programmes in cancer research	ERA-NET Cofund	5 (5 per project)	Single stage 7-04-2020
SC1-HCO-16-2020	ERA-NET: Sustained collaboration of national and regional programmes in research on brain-related diseases and disorders of the nervous system	ERA-NET Cofund	5 (5 per project)	Single stage 7-04-2020
SC1-HCO-17-2020	Coordinating and supporting research on the human microbiome in Europe and beyond	CSA	2 (1,5-2 per project)	Single stage 7-04-2020
<b>1.2 Innovative health and care industry</b>				
SC1-BHC-08-2020	New interventions for Non-Communicable Diseases	RIA	80 (4-6 per project)	2 <sup>nd</sup> stage 7-04-2020
SC1-BHC-11-2020	Advancing the safety assessment of chemicals without the use of animal testing	RIA	60 (10-20 per project)	Single stage 7-04-2020
SC1-HCO-18-2020	Developing methodological approaches for improved clinical investigation and evaluation of high-risk medical devices	CSA	2 (1-2 per project)	Single stage 7-04-2020
SC1-HCO-19-2020	Reliable and accessible information on cell and gene-based therapies	CSA	2 (1,5-2 per project)	Single stage 7-04-2020
<b>1.3 Infectious diseases and improving global health</b>				
SC1-BHC-17-2020	Global Alliance for Chronic Diseases (GACD) – Prevention and/or early diagnosis of cancer	RIA	20 (1-3 per project)	Single stage 7-04-2020
SC1-BHC-20A-2020	Pre-commercial procurement (PCP) for integrated care solutions	PCP	25 (A & B) (5-6 per project)	Single stage 7-04-2020
SC1-BHC-20B-2020	Public procurement of innovative solutions (PPI) for diagnostics for infectious diseases	PPI	25 (A & B) (3-5 per project)	Single stage 7-04-2020
SC1-BHC-33-2020	Addressing low vaccine uptake	RIA	9 (2-3 per project)	Single stage 7-04-2020
SC1-BHC-34-2020	New approaches for clinical management and prevention of resistant bacterial infections in high prevalence settings	RIA	25 (10-15 per project)	Single stage 7-04-2020

SC1-BHC-35-2020	Creation of a European wide sustainable network for harmonised large-scale clinical research studies for infectious diseases	RIA	30 (25-30 per project)	Single stage 7-04-2020
SC1-HCO-07-2020	ERA-NET to support the Joint Programming Initiative on Antimicrobial resistance (JPIAMR)	ERA-NET Ccofund	5 (5 per project)	Single stage 7-04-2020
<b>1.4. Innovative health and care systems - Integration of care</b>				
SC1-BHC-24-2020	Healthcare interventions for the management of the elderly multimorbid patient	RIA	50 (4-6 per project)	2 <sup>nd</sup> stage 7-04-2020
SC1-BHC-37-2020	Towards the new generation of clinical trial-trials methodology research	RIA lump sum	6 (4-6 per project)	Single stage 7-04-2020
SC1-HCO-20-2020	Coordination of clinical research activities of the European Reference Networks	CSA	2 (1,5-2 per project)	Single stage 7-04-2020
<b>1.5 Decoding the role of the environment, including climate change, for health and well-being</b>				
SC1-BHC-29-2020	Innovative actions for improving urban health and wellbeing – addressing environment, climate and socioeconomic factors	RIA	35 (4-5 per project)	2 <sup>nd</sup> stage 7-04-2020
SC1-BHC-36-2020	Micro- and nano-plastics in our environment: Understanding exposures and impacts on human health	RIA	25 (4-6 per project)	Single stage 7-04-2020
<b>1.6 Supporting the digital transformation in health and care</b>				
SC1-DTH-12-2020	Use of Real-World Data to advance research on the management of complex chronic conditions	RIA	41 (4-6 per project)	Single stage 7-04-2020
SC1-DTH-13-2020	Implementation research for scaling up and transfer of innovative solutions involving digital tools for people-centered care	RIA	20 (3-4 per project)	2 <sup>nd</sup> stage 7-04-2020
SC1-HCC-10-2020	Towards a Health research and innovation Cloud: Capitalising on data sharing initiatives in health research	CSA	3 (2-3 per project)	Single stage 7-04-2020
<b>Digital transformation in Health and Care</b>				
SC1-DTH-02-2020	Personalised early risk prediction, prevention and intervention based on Artificial Intelligence and Big Data technologies	RIA	32 4-6 per project)	Single stage 22-04-2020
SC1-DTH-04-2020	International cooperation in smart living environments for ageing people Cooperation with Japan, or Collaboration with Canada	RIA	4 per country (2-4 per project)	Single stage 22-04-2020
SC1-DTH-06-2020	Accelerating the uptake of computer simulations for testing medicines and medical devices	RIA	32 (6-8 per project)	Single stage 22-04-2020
SC1-DTH-14-2020	Precommercial procurement for Digital health and care solutions	PCP	9 (4-5 per project)	Single stage 22-04-2020
SC1-HCC-08-2020	Scaling up innovation for active and healthy ageing	CSA	2 (1,5-2 per project)	Single stage 22-04-2020
SC1-HCC-09-2020	Supporting deployment of eHealth in low and lower middle income countries in Africa for better health outcomes	CSA	2 (1,5-2 per project)	Single stage 22-04-2020
<b>Trusted digital solutions and Cybersecurity in Health and Care</b>				
<b>Focus Area on Digitising and transforming European industry and services</b>				
DT-TDS-04-2020	AI for Genomics and Personalised Medicine	RIA	35 (<10 per project)	Single stage 22-04-2020

## Societal Challenge 2

# Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

Het call-budget bedraagt circa 522 miljoen euro voor 2020.

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Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Sustainable Food Security</b>				<b>173 (2020)</b>
<b>From functional ecosystems to healthy food</b>				
SFS-01-2018-2019-2020	Biodiversity in action: across farmland and the value chain C) From agrobiodiversity to dynamic value chains	RIA	18 (6 per project)	22-01-2020 (1 <sup>st</sup> stage)
SFS-02-2020	Healthy terrestrial livestock microbial ecosystems for sustainable production	RIA	20 (<10 per project)	22-01-2020 (1 <sup>st</sup> stage)
SFS-04-2019-2020	Integrated health approaches and alternatives to pesticide use B) Alternative to contentious pesticides	IA	20 (<5 per project)	22-01-2020
SFS-05-2018-2019-2020	New and emerging risks in plant health	RIA	7 (<7 per project)	22-01-2020 (1 <sup>st</sup> stage)
SFS-06-2018-2020	Stepping up integrated pest management B) European-wide demonstration farm network	CSA	6 (<6 per project)	22-01-2020
SFS-10-2020	Epidemiology of non-EU-regulated contagious animal diseases: from integrated data collection to prioritisation	RIA	10 (<10 per project)	22-01-2020 (1 <sup>st</sup> stage)
SFS-13-2020	Genome and epigenome enabled breeding in terrestrial livestock	RIA	14 (<7 per project)	22-01-2020 (1 <sup>st</sup> stage)
<b>Environment and climate-smart food production and consumption</b>				
SFS-21-2020	Emerging challenges for soil management A) Soil biodiversity assessment	RIA	14 <7 per project	22-01-2020 (1 <sup>st</sup> stage)
	B) Use of plastic in agriculture	RIA	<7 per project	22-01-2020 (1 <sup>st</sup> stage)
LC-SFS-22-2020	Forest soils	RIA	10 (10 per project)	22-01-2020 (1 <sup>st</sup> stage)
<b>Building capacities</b>				
SFS-28-2018-2019-2020	Genetic resources and pre-breeding communities C) The GenRes-user interface and pre-breeding activities	IA	14 (<7 per project)	22-01-2020
SFS-30-2018-2019-2020	Agri-Aqua Labs C) Plant energy biology	RIA	5 (<5 per project)	22-01-2020 (1 <sup>st</sup> stage)
<b>Targeted international cooperation</b>				
SFS-35-2019-2020	Sustainable Intensification in Africa C) Vector-borne diseases in Africa	RIA	12 (<6 per project)	22-01-2020 (1 <sup>st</sup> stage)
CE-SFS-36-2020	Diversifying revenue in rural Africa through bio-based solutions	RIA	18 (<9 per project)	22-01-2020 (1 <sup>st</sup> stage)
SFS-40-2020	Healthy soils for healthy food production	RIA	5 (<5 per project)	22-01-2020 (1 <sup>st</sup> stage)

Blue Growth			52 (2020)		
BG-07-2019-2020	The Future of Seas and Oceans Flagship Initiative C) Technologies for observations	IA	18 (9 per project)	22-01-2020	
BG-10-2020	Fisheries in full ecosystem context	RIA	16 (8 per project)	22-01-2020	
BG-11-2020	Towards a productive, healthy, resilient, sustainable and highly-valued Black Sea	RIA	18 (9 per project)	22-01-2020	(1 <sup>st</sup> stage)
Rural Renaissance			88 (2020)		
<b>From farm to society: understanding dynamics and modernising policies</b>					
RUR-21-2020	Agricultural markets and international trade in the context of sustainability objectives	RIA	4 (4 per project)	22-01-2020	(1 <sup>st</sup> stage)
<b>Organising sustainable food and non-food value chains under changing conditions</b>					
RUR-05-2020	Connecting consumers and producers in innovative agri-food supply chains	CSA	9 (<3 per project)	22-01-2020	
RUR-06-2020	Innovative agri-food value chains: boosting sustainability-oriented competitiveness	IA	21 (<7 per project)	22-01-2020	
RUR-07-2020	Reducing food losses and waste along the agri-food value chain	IA	12 (<6 per project)	22-01-2020	
CE-RUR-08-2018-2019-2020	Closing nutrient cycles C) Bio-based fertilisers from by-products of the agri-food, fisheries, aquaculture or forestry sectors D) Bio-based fertilisers from waste water and sewage sludge	IA RIA	16 (8 per project) 6 (6 per project)	22-01-2020 22-01-2020	
LC-RUR-11-2019-2020	Sustainable wood value chains B) Resilient forest systems	RIA	10 (5 per project)	22-01-2020	(1 <sup>st</sup> stage)
<b>Boosting innovation and enhancing the human and social capital in rural areas</b>					
RUR-15-2018-2019-2020	Thematic networks compiling knowledge ready for practice	CSA	10 (<2 per project)	22-01-2020	
Food and Natural Resources			208,7 (2020)		
FNR-01-2020	Strengthening the European agro-ecological research and innovation ecosystem	CSA	2 (<2 per project)	22-01-2020	
FNR-02-2020	Developing long-term monitoring and evaluation frameworks for the Common Agricultural Policy	CSA	2 (<2 per project)	22-01-2020	
FNR-03-2020	A comprehensive vision for urban agriculture	CSA	2 (<2 per project)	22-01-2020	
FNR-04-2020	Towards a European research and innovation roadmap on soils and land management	CSA	1 (<1 per project)	22-01-2020	
FNR-05-2020	Husbandry for quality and sustainability A) Husbandry for sustainability	RIA	21 <9 per project	22-01-2020 (1 <sup>st</sup> stage)	
	B) Husbandry for quality	RIA	<6 per project	22-01-2020	(1 <sup>st</sup> stage)
LC-FNR-06-2020	Defossilising agriculture – solutions and pathways for fossil-energy-free farming A) Pathways for a fossil-energy-free agriculture	CSA	12 <2 per project	22-01-2020	
	B) Close-to-market solutions for fossil-energy-free farming	IA	<5 per project	22-01-2020	
FNR-07-2020	FOOD 2030 - Empowering cities as agents of food system transformation	IA	38 (12 per project)	22-01-2020	
FNR-08-2020	Supporting the food safety systems of the future	CSA	3 (3 per project)	22-01-2020	
CE-FNR-09-2020	Pilot action for the removal of marine plastics and litter	IA	13,2 (6 per project)	22-01-2020	

FNR-10- 2020	Public engagement for the Bioeconomy	CSA	1 (1 per project)	22-01-2020
FNR-11- 2020	Prospecting aquatic and terrestrial biological resources for biologically active compounds A) Prospecting terrestrial natural biological resources for biologically active compounds B) Prospecting aquatic natural biological resources for biologically active compounds	RIA	30 7,5 per project 7,5 per project	22-01-2020 (1 <sup>st</sup> stage) 22-01-2020 (1 <sup>st</sup> stage)
FNR-12- 2020	Industrial microbiomes: learning from nature	RIA	12 (6 per project)	22-01-2020 (1 <sup>st</sup> stage)
LC-FNR-13- 2020	Bio-based industries leading the way in turning carbon dioxide emissions into chemicals	RIA	21 (7 per project)	22-01-2020 (1 <sup>st</sup> stage)
CE-FNR-14- 2020	Innovative textiles: reinventing fashion	IA	21 (7 per project)	22-01-2020
CE-FNR-15- 2020	A network of European bioeconomy clusters to advance bio-based solutions in the primary production sector	CSA	2 (2 per project)	22-01-2020
FNR-16- 2020	Enzymes for more environment-friendly consumer products	RIA	18 (6 per project)	22-01-2020 (1 <sup>st</sup> stage)
CE-FNR-17- 2020	Pilot circular bio-based cities: sustainable production of bio-based products from urban biowaste and wastewater	IA	8 (<8 per project)	22-01-2020
FNR-18- 2020	Sustainability of bio-based products: international governance aspects and market update	CSA	1,5 (<1,5 per project)	22-01-2020

## Societal Challenge 3

# Secure, Clean and Efficient Energy

Het call-budget bedraagt circa 601,5 miljoen euro voor 2020.

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Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Energy Efficiency</b>				
<b>Buildings in energy transition (B4E)</b>				
LC-SC3-B4E-1-2020	Towards highly energy efficient and decarbonised buildings	CSA	7	15-01-2020
LC-SC3-B4E-2-2020	Stimulating demand for sustainable energy skills in the building sector	CSA	4	10-09-2020
LC-SC3-B4E-3-2020	Upgrading smartness of existing buildings through innovations for legacy equipment	IA	8	10-09-2020
LC-SC3-B4E-4-2020	Next-generation of Energy Performance Assessment and Certification	CSA	6	10-09-2020
LC-SC3-B4E-5-2020	Integrated design concepts for energy-efficient ICT in buildings	IA	3	15-01-2020
LC-SC3-B4E-6-2020	Big data for buildings	IA	12	15-01-2020
LC-SC3-B4E-7-2020	EU building stock data 4.0	CSA	4	15-01-2020
LC-SC3-B4E-8-2020	Renewable and energy efficient solutions for heating and/or cooling, and domestic hot water production in multi-apartment residential buildings	IA	7	15-01-2020
LC-SC3-B4E-9-2020	Support to the coordination of EU smart buildings innovation community	CSA	1,5	15-01-2020
LC-SC3-B4E-10-2020:	Self-assessment and self-optimisation of buildings and appliances for a better energy performance	IA	6	15-01-2020
LC-SC3-B4E-11-2020	Financing for energy efficiency investments - Smart Finance for Smart Buildings	CSA	16 (total voor 11-13)	10-09-2020
LC-SC3-B4E-13-2020	Aggregation - Project Development Assistance	CSA		10-09-2020
LC-SC3-B4E-12-2020	National roundtables to implement the Smart Finance for Smart Buildings initiative	CSA	3	10-09-2020
LC-SC3-B4E-14-2020	Enabling next-generation of smart energy services valorising energy efficiency and flexibility at demand-side	CSA	6	10-09-2020
<b>Global leadership in renewables</b>				
<b>Next Renewable energy solutions</b>				
LC-SC3-RES-1-2019-2020	Developing the next generation of renewable energy technologies	RIA	45	21-04-2020
LC-SC3-RES-3-2020	International Cooperation with USA on alternative renewable fuels from sunlight for energy, transport and chemical storage	RIA	10	01-09-2020
<b>Renewable energy solutions for implementation at consumer scale</b>				
LC-SC3-RES-10-2020	Pre-Commercial Procurement for a 100% Renewable Energy Supply	PCP	15	26-03-2020
<b>Renewable energy solutions for energy system level implementation</b>				

LC-SC3-RES-31-2020	Basic science technology development for offshore wind	RIA	8	21-04-2020
LC-SC3-RES-32-2020	New test rig devices for accelerating ocean energy technology development	RIA	8	21-04-2020
LC-SC3-RES-18-2020	Advanced drilling aid well completion techniques for cost reduction in geothermal energy	RIA	8	21-04-2020
LC-SC3-RES-20-2020	Efficient combination of concentrated solar power (CSP) and desalination (with particular focus on the Gulf Cooperation Council (GCC) region)	RIA	10	01-09-2020
LC-SC3-RES-34-2020	Demonstration of innovative and sustainable hydropower solutions targeting unexplored small-scale hydropower potential in Central Asia	RIA	10	01-09-2020

#### Renewable Fuels for transport

LC-SC3-RES-25-2020	International cooperation for Research and Innovation on advanced biofuels and alternative renewable fuels	RIA	5	01-09-2020
LC-SC3-RES-26-2020	Development of next generation biofuel and alternative renewable fuel technologies from CO <sub>2</sub> and renewable energy (Power and Energy to Fuels)	RIA	8	21-04-2020
LC-SC3-RES-36-2020	International cooperation with Canada on advanced biofuels and bioenergy	RIA	5	01-09-2020
LC-SC3-RES-37-2020	Combined clean biofuel production and phytoremediation solutions from contaminated lands worldwide	RIA	6	21-04-2020

#### Smart and clean energy for consumers

LC-SC3-EC-1-2018-2019-2020	The role of consumers in changing the market with informed decision or collective actions	CSA	6	10-09-2020
LC-SC3-EC-2-2018-2019-2020	Mitigating household energy poverty	CSA	6	10-09-2020
LC-SC3-EC-3-2020	Consumer engagement and demand response	IA	16	29-01-2020
LC-SC3-EC-4-2020	Socio-economic research: non-energy impacts and behavioural insights on energy efficiency interventions	RIA	10	15-01-2020
LC-SC3-EC-5-2020	Supporting public authorities in driving the energy transition	CSA	9	10-09-2020

#### Smart citizen-centred energy system

LC-SC3-ES-3-2018-2020	Integrated local energy systems (Energy islands)	IA	15	29-01-2020
LC-SC3-ES-4-2018-2020	Decarbonising energy systems of geographical Islands	IA	40	29-01-2020
LC-SC3-ES-5-2018-2020	TSO – DSO – Consumer: Large-scale demonstrations of innovative grid services through demand response, storage and small-scale (RES) generation	IA	22	29-01-2020
LC-SC3-ES-10-2020	DC-AC/DC hybrid grid for a modular, resilient and high RES share grid development	RIA	14	29-01-2020
LC-SC3-ES-11-2020	Rapid Relief through Transitions on Islands	IA	4	29-01-2020
LC-SC3-ES-12-2020	Integrated local energy systems (Energy Islands): international cooperation with India	IA	9	29-01-2020

#### Smart cities and communities

LC-SC3-SCC-1-2018-2019-2020	Smart Cities and Communities	IA	55	29-01-2020
LC-SC3-SCC-2-2020	Positive Energy Districts and Neighbourhoods for urban energy transitions	IA	5	01-09-2020

<b>Smart Airports</b>					
LC-SC3-SA-1-2020	Smart Airports	IA	12	29-01-2020	
<b>Enabling near-zero co2 emissions from fossil fuel power plants and carbon intensive industries</b>					
LC-SC3-NZE-6-2020	Geological Storage Pilots	RIA	14	01-09-2020	
<b>Joint Actions</b>					
LC-SC3-JA-5-2020	Joint Programming with EU and African partners for a R&I actions in the area of renewable energy	RIA	15	26-03-2020	
<b>Cross-cutting issues</b>					
LC-SC3-CC-1-2018-2019-2020	Social Sciences and Humanities (SSH) aspects of the Clean-Energy Transition	RIA	10	01-09-2020	
LC-SC3-CC-7-2020	European Energy and Climate Modelling Forum (2020-2024)	RIA	5	01-09-2020	
<b>Next-generation Batteries</b>					
LC-BAT-8-2020	Next-generation batteries for stationary energy storage	Cross-cutting activities			
LC-BAT-9-2020	Hybridisation of battery systems for stationary energy storage	Cross-cutting activities			
LC-BAT-10-2020	Next generation and realisation of battery packs for BEV and PHEV	Cross-cutting activities			
LC-BAT-11-2020	Reducing the cost of large batteries for waterborne transport	Cross-cutting activities			
LC-BAT-12-2020	Novel methodologies for autonomous discovery of advanced battery chemistries	Cross-cutting activities			
LC-BAT-13-2020	Sensing functionalities for smart battery cell chemistries	Cross-cutting activities			
LC-BAT-14-2020	Self-healing functionalities for long lasting battery cell chemistries	Cross-cutting activities			
LC-BAT-15-2020	Coordinate and support the large scale research initiative on Future Battery Technologies	Cross-cutting activities			

## Societal Challenge 4

# Smart, Green and Integrated Transport

Het call-budget bedraagt 296 miljoen euro voor 2020.

Contact: Fatma Saçlı [fatma.sacli@rvo.nl](mailto:fatma.sacli@rvo.nl)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Mobility for growth</b>				<b>191 (2020)</b>
<b>Building a low-carbon, climate resilient future: low-carbon and sustainable transport</b>				
LC-MG-1-12-2020	Cities as climate-resilient, connected multimodal nodes for smart and clean mobility: new approaches towards demonstrating and testing innovative solutions	IA	18 (7-9 per project)	09-01-2020 (1 <sup>st</sup> stage) 08-09-2020 (2 <sup>nd</sup> stage)
		CSA	4 (1-1,5 per project)	21-04-2020
LC-MG-1-13-2020	Decarbonising long distance shipping	RIA	20 (5-10 per project)	09-01-2020 (1 <sup>st</sup> stage) 08-09-2020 (2 <sup>nd</sup> stage)
LC-MG-1-14-2020	Understanding and mitigating the effects on public health of emerging non-regulated nanoparticle emissions issues and noise	RIA	10 (3-4 per project)	09-01-2020 (1 <sup>st</sup> stage) 08-09-2020 (2 <sup>nd</sup> stage)
LC-MG-1-15-2020	Towards global environmental regulation of supersonic aviation	RIA	13 (3-5 per project)	21-04-2020
<b>Safe, integrated and resilient transport systems</b>				
MG-2-10-2020	Enhancing coordination between Member States' actions in the area of infrastructure research with a particular focus on biodiversity and ameliorating environmental impacts and full automated infrastructure upgrade and maintenance	RIA	17 (4-5 per project)	09-01-2020 (1 <sup>st</sup> stage) 08-09-2020 (2 <sup>nd</sup> stage)
MG-2-11-2020	Network and traffic management for future multimodal mobility	CSA RIA	3 20 (4-5 per project)	21-04-2020 09-01-2020 (1 <sup>st</sup> stage) 08-09-2020 (2 <sup>nd</sup> stage)
MG-2-12-2020	Improving road safety by effectively monitoring working patterns and overall fitness of drivers	RIA	7 (3-3,5 per project)	09-01-2020 (1 <sup>st</sup> stage) 08-09-2020 (2 <sup>nd</sup> stage)
MG-2-13-2020	Coordination and support for an integrated freight transport and logistics system	CSA	1	21-04-2020
MG-2-14-2020	The effects of automation on the transport labour force, future working conditions and skills requirements	CSA	2,5	21-04-2020
<b>Global leadership and competitiveness</b>				
MG-3-4-2020	Innovative electric network architectures and systems, optimising global energy, electrical power, data and communication for aviation	RIA	10 (2-4 per project)	21-04-2020
MG-3-5-2020	Next generation multifunctional and intelligent airframe and engine parts, with emphasis on manufacturing, maintenance and recycling	RIA	15 (3-5 per project)	21-04-2020

MG-3-6-2020	Towards sustainable urban air mobility	RIA	15 (4-6 per project)	21-04-2020
MG-3-7-2020	Improved Production and Maintenance Processes in Ship building	IA	15 (4-6 per project)	21-04-2020
MG-3-8-2020	'First of a Kind' solutions for sustainable transport and mobility: EU initiative for accelerating EU-wide market access, scale up and derisking	CSA	1,5	21-04-2020

<b>Accounting for the people</b>				
MG-4-7-2020	Digitalisation of the transport system: data sharing	RIA	3	21-04-2020
MG-4-8-2020	Advanced research methods and tools in support of transport/mobility researchers, planners and policy makers	RIA	3 (1-2 per project)	21-04-2020
MG-4-9-2020	The European mobility culture of tomorrow: Reinventing the wheel?	RIA/LS	1	21-04-2020
MG-4-10-2020	Improving impact and broadening stakeholder engagement in support of transport research and innovation	CSA	4 (0,7 – 2 per project)	21-04-2020

<b>Blue Growth</b>				
MG-BG-3-2020	Under water noise mitigation and environmental impact	RIA	8	21-04-2020

<b>Digitising and Transforming European Industry and Services: Automated Road Transport</b>				
DT-ART-05-2020	Efficient and safe connected and automated heavy-duty vehicles in real logistics operations	IA	20	21-04-2020
DT-ART-06-2020	Large-scale, cross-border demonstration of connected and highly automated driving functions for passenger cars	IA	30 (15 – 30 per project)	21-04-2020

<b>Building a low-carbon, climate resilient future: Green Vehicles</b>				
LC-GV-06-2020	Advanced light materials and their production processes for automotive applications	IA	24 (3-5 per project)	21-04-2020
LC-GV-07-2020	Reducing the environmental impact of hybrid light duty vehicles	IA	5	21-04-2020
LC-GV-08-2020	Next generation electrified vehicles for urban and suburban use	IA	25 (1-6 per project)	21-04-2020
LC-GV-09-2020	Setting up a common European research and innovation strategy for the future of road transport	CSA	1	21-04-2020

## Societal Challenge 5

# Climate Action, Environment, Resource Efficiency and Raw materials

Het budget bedraagt circa 372,1 miljoen euro voor 2019 en circa 377 miljoen euro voor 2020.

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Corinne van Voorden [Corinne.vanvoorden@rvo.nl](mailto:Corinne.vanvoorden@rvo.nl)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
	<b>Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement</b>		123 (2018) 116 (2019) 189 (2020)	
	<b>Decarbonisation</b>			
LC-CLA-10-2020	Scientific support to designing mitigation pathways and policies a) Assessing and designing climate policies for the coming decade b) Decarbonisation and lifestyle changes c) Science underpinning the preparations of NDCs after the 2023 Global Stocktake at a global scale	RIA	25 (3-5 per project).	13-02-2020 (1 <sup>st</sup> stage)
LC-CLA-11-2020	Innovative nature-based solutions for carbon neutral cities and improved air quality	IA	30 (10 per project).	13-02-2020 (1 <sup>st</sup> stage)
	<b>Climate adaptation, impacts and services</b>			
LC-CLA-12-2020	Advancing climate services a) Mapping European coastal infrastructure at risk from sea-level rise b) Detection and attribution of extreme events using Artificial Intelligence c) Impacts of overshooting	RIA	22 (4-6 per project)	13-02-2020 (1 <sup>st</sup> stage).
LC-CLA-13-2020	Climate resilience of coastal cities and settlements	RIA.	15 (10 per project).	13-02-2020 (1 <sup>st</sup> stage)
LC-CLA-23-2020	European mountain regions research policy supporting action	CSA	1.5 (1,5 per project)	13-02-2020
	<b>Inter-relations between climate change, biodiversity and ecosystem services</b>			
LC-CLA-14-2020	Understanding water-energy-food nexus and streamlining water-related policies	RIA.	13(4-5 per project)	13-02-2020 (1 <sup>st</sup> stage)
LC-CLA-15-2020	Forest Fires risk reduction: towards an integrated fire management approach in the E.U	RIA.	10(10 per project).	13-02-2020 (1 <sup>st</sup> stage).
LC-CLA-16-2020	Multi-hazard risk management for risk-informed decision-making in the E.U.	RIA	5 (3-5 per project)	13-02-2020 (1 <sup>st</sup> stage).
	<b>The Cryosphere</b>			
LC-CLA-17-2020	Polar climate: understanding the polar processes in a global context	RIA	15 (7-8 per project)	13-02-2020 (1 <sup>st</sup> stage).
LC-CLA-21-2020	Coordination of European Polar research	CSA	3 (3 per project)	13-02-2020
	<b>Knowledge gaps</b>			
LC-CLA-18-2020	Developing the next generation of Earth System Models	RIA	22 (10-12 per project)	13-02-2020 (1 <sup>st</sup> stage)..
LC-CLA-22-2020	Enhancing the Belmont Forum Collaborative Research Action on Climate, Environment and Health	CSA	3 (3 per project)	13-02-2020

<b>Earth Observation</b>					
LC-CLA-19-2020	Integrated GEOSS climate applications to support adaptation and mitigation measures of the Paris Agreement	RIA	10 (4-5 per project)	13-02-2020 (1 <sup>st</sup> stage)...	
LC-CLA-20-2020	Supporting the implementation of GEOSS in the Arctic in collaboration with Copernicus	RIA.	15 (15 per project)	13-02-2020 (1 <sup>st</sup> stage)	
<b>Greening the economy in line with the Sustainable Development Goals (SDGs)</b>				<b>219,7 (2018)</b>	
<b>Connecting economic and environmental gains - the circular economy</b>				<b>256,1 (2019)</b>	
				<b>187 (2020)</b>	
CE-SC5-24-2020	Improving the recovery and recycling of materials from composite and multi-layer products	RIA	20 (4-5 per project)	13-02-2020 (1 <sup>st</sup> stage)	
CE-SC5-25-2020	Understanding the transition to a circular economy and its implications on the environment, economy and society	RIA	10 (3-4 per project)	13-02-2020 (1 <sup>st</sup> stage)	
CE-SC5-28-2020	Develop and pilot circular systems in plastics, textiles and furniture sectors	RIA	15 (7-8 per project)	13-02-2020 (1 <sup>st</sup> stage)	
CE-SC5-29-2020	A common European framework to harmonise procedures for plastics pollution monitoring and assessments	CSA	2 (2 per project)	13-02-2020	
CE-SC5-30-2020	Plastics in the environment: understanding the sources, transport and distribution of plastics pollution	RIA	5 (2-3 per project)	13-02-2020 (1 <sup>st</sup> stage)	
CE-SC5-31-2020	Develop, implement and assess a circular economy oriented product information management system for complex products from cradle to cradle	IA	15 (7-8 per project)	05-02-2020 (1 <sup>st</sup> stage)	
<b>Raw materials</b>					
CE-SC5-07-2018-2019-2020	Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes a) Sustainable processing and refining of primary and/or secondary raw materials b) Recycling of raw materials from end-of-life products c) Recycling of raw materials from buildings and infrastructures d) Advanced sorting systems for high-performance recycling of complex end-of-life products e) Sustainable metallurgical processes	IA	40 (8-13 per project) (8-13 per project) (8-13 per project) (8-13 per project) (8-13 per project)	05-02-2020 (1 <sup>st</sup> stage)	
CE-SC5-08-2018-2019-2020	Raw materials policy support actions for the circular economy d) Expert network on Critical Raw Materials (2020)	CSA	3 (<3 per project)	05-02-2020	
SC5-10-2019-2020	Raw materials innovation actions: exploration and Earth observation in support of sustainable mining c) Mining pilots d) Pilots on substitution of critical and scarce raw materials (2020)	IA	40 (8-13 per project) (8-13 per project)	13-02-2020 (1 <sup>st</sup> stage) 13-02-2020 (1 <sup>st</sup> stage)	
SC5-26-2020	Sustainable management in extractive industries	CSA	4 (<4 per project)	13-02-2020	
<b>Water for our environment, economy and society</b>					
Geen calls in 2019 en 2020					
<b>Innovating cities for sustainability and resilience</b>					
SC5-27-2020	Strengthening international collaboration: Enhanced natural treatment solutions for water security and ecological quality in cities	RIA	5 (10 per project)	13-02-2020 (1 <sup>st</sup> stage)	

	<b>Protecting and leveraging the value of our natural and cultural assets: Earth observation</b>			
	Geen calls in 2020			
<b>Protecting and leveraging the value of our natural and cultural assets: Nature-based solutions, disaster risk reduction and natural capital accounting</b>				
SC5-23-2019	Multi-stakeholder dialogue platform to promote nature-based solutions to societal challenges: follow-up project	CSA	2 (2 per project)	<b>04-09-2019</b>
SC5-32-2020	Addressing wild pollinators decline and its effects on biodiversity and ecosystem services	RIA	2 (2 per project)	13-02-2020 (1 <sup>st</sup> stage)
SC5-33-2020	Monitoring ecosystems through research, innovation and technology	CSA	2 (2 per project)	13-02-2020
<b>ERA-Net Cofunds</b>				
SC5-34-2020	ERA-NET Cofund action on conservation and restoration of degraded ecosystems and their biodiversity, including a focus on aquatic systems	ERA-NET	5 (5 per project)	13-02-2020
SC5-35-2020	ERA-NET Cofund action on enhancing urban transformation capacities	ERA-NET	5 (5 per project)	13-02-2020
SC5-36-2020	ERA-NET Cofund action on raw materials	ERA-NET	5 (5 per project)	13-02-2020

## Societal Challenge 6

# Europe in a changing world – Inclusive, Innovative and Reflective societies

Het call-budget bedraagt circa 178 miljoen euro voor 2020.

Contact: Lieke Michiels van Kessenich [Lieke.MichielsvanKessenich@rvo.nl](mailto:Lieke.MichielsvanKessenich@rvo.nl)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Migration</b>				<b>29 (2020)</b>
MIGRATION-04-2020	Inclusive and innovative practices for the integration of recently arrived migrants in local communities	RIA/IA-LS	9 (3 per project)	12-03-2020
MIGRATION-05-2018-2020	Mapping and overcoming integration challenges for migrant children	IA	9 (3 per project)	12-03-2020
MIGRATION-09-2020	Narratives on migration and its impact: past and present	RIA	9 (3 per project)	12-03-2020
MIGRATION-10-2020	Sustainable practices for the integration of newly arrived migrants into societies	CSA	2 (2 per project)	12-03-2020
<b>Socioeconomic and cultural transformations in the context of the fourth industrial revolution</b>				<b>83 (2020)</b>
DT-TRANSFORMATIONS-02-2018-2019-2020	Transformative impact of disruptive technologies in public services	RIA	11 (3-4 per project)	12-03-2020
TRANSFORMATI ONS-04-2019-2020	Innovative approaches to urban and regional development through cultural tourism	IA	8 (4 per project)	12-03-2020
TRANSFORMATI ONS-10-2020	Evolving European media landscapes and Europeanisation	RIA	9 (3 per project)	12-03-2020
DT-TRANSFOR MATIONS-12-2018-2020	Curation of digital assets and advanced digitisation	RIA	13,5 (3 per project)	12-03-2020
TRANSFORMATI ONS-15-2020	Society and innovations: understanding the contexts, processes and consequences (ERA-net COFUND)	ERA-Net	10	12-03-2020
TRANSFORMATI ONS-18-2020	Technological transformations, skills and globalization - future challenges for shared prosperity	RIA	9 (3 per project)	12-03-2020
TRANSFORMATI ONS-19-2020	Culture beyond borders-Facilitating innovation and research cooperation between European museums and heritage sites	CSA	6 (3 per project)	12-03-2020
DT-TRANSFOR MATIONS-20-2020	European Competence Centre for the preservation and conservation of Monuments and Site	CSA	3 (3 per project)	12-03-2020
DT-TRANSFOR MATIONS-21-2020	Mentoring scheme for schools: mainstreaming innovation by spreading the advanced ICT-based teaching practices to a wide circle of schools	CSA	2 (1 per project)	12-03-2020
TRANSFORMATI ONS-22-2020	Enhancing access and uptake of education to reverse inequalities	RIA	10 total (3,5 per project)	12-03-2020
		CSA	(3 per project)	12-03-2020
DT-TRANSFOR MATIONS-23-2020	To set up a digital accessibility observatory as a forum to take stock of market and technological developments, monitor progress in digital accessibility and provide opportunities for exchange of best practices	CSA	1,5 (1,5 per project)	12-03-2020

Governance for the future			66 (2020)		
DT-GOVERNANCE-05-2018-2019-2020	New forms of delivering public goods and inclusive public services	RIA	20 (3-4 per project)	12-03-2020	
GOVERNANCE-07-2020	The Common Foreign and Security Policy and the expanding scope of the EU's external engagement	RIA	9 (3 per project)	12-03-2020	
GOVERNANCE-09-2020	Addressing radicalisation through social inclusion	RIA	9 (3 per project)	12-03-2020	
DT-GOVERNANCE-12-2019-2020	Pilot on using the European cloud infrastructure for public administrations	IA	10 (3-4 per project)	12-03-2020	
GOVERNANCE-20-2020	Centres/Networks of European research and innovation	CSA	7 (2-3 per project)	12-03-2020	
GOVERNANCE-21-2020	Developing deliberative and participatory democracies through experimentation	RIA	9 (3 per project)	12-03-2020	
DT-GOVERNANCE-22-2020	Citizen-centric public services in local and regional administrations	CSA	1,5 (1,5 per project)	12-03-2020	
GOVERNANCE-23-2020	Support to the networking of national R&I Think Tanks for helping co-shape and share a common perspective on R&I policy across Europe	CSA	0,5 (0,5 per project)	12-03-2020	

## Societal Challenge 7

# Secure Societies - Protecting freedom and security of Europe and its citizens

Het call-budget bedraagt 224 miljoen euro voor 2019 en 242 miljoen euro voor 2020.

Contact: Paul Kruis [Paul.Kruis@rvo.nl](mailto:Paul.Kruis@rvo.nl)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Protecting the infrastructure of Europe and the people in the European smart cities</b>			<b>20.7 (2020)</b>	
SU-INFRA01-2018-2019-2020	Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe	IA	20.7 (7-8 per project)	27-08-2020
<b>Artificial Intelligence and security: providing a balanced assessment of opportunities and challenges for Law Enforcement in Europe</b>			<b>20 (2020)</b>	
SU-AI01-2020	Developing a research roadmap regarding Artificial Intelligence in support of Law Enforcement	CSA	1.5	27-08-2020
SU-AI02-2020	Secure and resilient Artificial Intelligence technologies, tools and solutions in support of Law Enforcement and citizen protection, cybersecurity operations and prevention and protection against adversarial Artificial Intelligence	IA	17	27-08-2020
SU-AI03-2020	Human factors, and ethical, societal, legal and organisational aspects of using Artificial Intelligence in support of Law Enforcement	CSA	1.5	27-08-2020
<b>Security</b>			<b>165.5 (2020)</b>	
<b>Disaster-Resilient Societies</b>				
SU-DRS01-2018-2019-2020	Human factors, and social, societal, and organisational aspects for disaster-resilient societies	RIA	5 (5 per project) n.t.b.	27-08-2020
SU-DRS02-2018-2019-2020	Technologies for first responders <i>Sub-topic 3: [2020] Methods and guidelines for pre-hospital life support and triage</i>	RIA	21 (7 per project)	27-08-2020
SU-DRS03-2018-2019-2020	<i>Sub-topic: [2018-2019-2020] Open</i> Pre-normative research and demonstration for disasterresilient societies	RIA		
SU-DRS04-2019-2020	<i>Sub-topic 3: [2020] First aids vehicles deployment, training, maintenance, logistic and remote centralized coordination means</i> Chemical, biological, radiological and nuclear (CBRN) cluster	IA RIA	6 (6 per project) 10,5 (3,5 per project)	27-08-2020

<b>Fight Against Crime and Terrorism</b>						
SU-FCT01-2018-2019-2020	Human factors, and social, societal, and organisational aspects to solve issues in fighting against crime and terrorism <i>Sub-topic 1</i> [2020]: New methods to prevent, investigate and mitigate trafficking of human beings and child sexual exploitation – and on the protection of victims <i>Sub-topic 3</i> : [2020] Developing comprehensive multi-disciplinary and multi-agency approaches to prevent and counter violent radicalisation and terrorism in the EU	RIA RIA	10 (5 per project)	27-08-2020		
SU-FCT02-2018-2019-2020	Technologies to enhance the fight against crime and terrorism <i>Sub-topic 3</i> : [2020] Money flows tracking <i>Sub-topic</i> : [2018-2019-2020] Open	RIA RIA	28 (7 per project)	27-08-2020		
SU-FCT03-2018-2019-2020	Information and data stream management to fight against (cyber)crime and terrorism	IA	8	27-08-2020		
SU-FCT04-2020	Chemicals: intelligence, detection, forensics	IA	10 (5 per project)	27-08-2020		
<b>Border and External Security</b>						
SU-BES01-2018-2019-2020	Human factors, and social, societal, and organisational aspects of border and external security <i>Sub-topic 3</i> : [2020] Developing indicators of threats at the EU external borders on the basis of sound risk and vulnerability assessment methodologies	RIA	5	27-08-2020		
SU-BES02-2018-2019-2020	Technologies to enhance border and external security <i>Sub-topic 5</i> : [2020] Disruptive sensor technologies for border surveillance <i>Sub-topic</i> : [2018-2019-2020] Open	RIA RIA	21 (7 per project)	27-08-2020		
SU-BES03--2018-2019-2020	Demonstration of applied solutions to enhance border and external security <i>Sub-topic 3</i> : [2020] Improved systems for the detection, identification and tracking of small boats <i>Sub-topic</i> : [2018-2019-2020] Open	IA IA	10 (5 per project)	27-08-2020		
<b>Sub Call - General Matters</b>						
SU-GM01-2018-2019-2020	Pan-European networks of practitioners and other actors in the field of security <i>a.</i> [2019-2020] Practitioners (end-users) in the same discipline and from across Europe	CSA	7 (3,5 per project)	27-08-2020		
SU-GM02-2018-2020	Strategic pre-commercial procurements of innovative, advanced systems to support security <i>Sub-topic 2</i> : [2020] Procurement of prototype systems among those specified as a result of Sub-topic 1	CSA	24 (2-12 per project)	27-08-2020		
<b>Digital Security</b>						
<b>Cybersecurity and Digital Privacy</b>						
SU-DS02-2020	Intelligent security and privacy management (a): Dynamic governance, risk management and compliance (b): Cyber-threat information sharing and analytics (c): Advanced security and privacy solutions for end users or software developers (d): Distributed trust management and digital identity solutions	IA IA RIA RIA	38 totaal, 2-5 2-5 2-5 3-6	27-08-2020		
SU-DS03-2019-2020	Digital Security and privacy for citizens and Small and Medium Enterprises and Micro Enterprises <i>Sub-topic 1</i> : Protecting citizens' security, privacy and personal data <i>Sub-topic 2</i> : Small and Medium-sized Enterprises and Micro Enterprises (SMEs&MEs): defenders of security, privacy and personal data protection	IA IA	10.8 totaal 4-5 3-4	27-08-2020		
SU-DS04-2018-2020	Cybersecurity in the Electrical Power and Energy System (EPES): an armour against cyber and privacy attacks and data breaches	IA	20 (6-8 per project)	27-08-2020		

## Horizontal Actions

# Spreading excellence and widening participation

Het call-budget voor 2020 bedraagt circa 126 miljoen euro voor 2020 (Widespread + Widening Fellowships). Echter de deadline voor de Widespread calls was al in 2019.

Contact: Lieke Michiels van Kessenich [Lieke.MichielsvanKessenich@rvo.nl](mailto:Lieke.MichielsvanKessenich@rvo.nl)

Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Widespread</b>				<b>119 (2020)</b>
WIDESPREAD-05-2020	Twinning	CSA	69 (0,9 per project)	14-11-2019
WIDESPREAD-06-2020	ERA Chairs	CSA	50 (2,5 per project)	14-11-2019
<b>Widening Fellowships</b>				<b>7 (2020)</b>
WF-03-2020	Widening Fellowships	MSCA-IF	7	09-09-2020

## Horizontal Actions

# Science with and for Society

Het call-budget bedraagt circa 63,2 miljoen euro voor 2020.

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Topic	Omschrijving	Type project	Budget (miljoen euro)	Sluiting
<b>Science with and for Society</b>			<b>63,2 (2020)</b>	
<b>1. Accelerating and catalysing processes of institutional change</b>				
SwafS-01-2018-2019-2020	Open schooling and collaboration on science education	CSA	4,5 (1,5 per project)	15-04-2020 (1 <sup>st</sup> stage)
SwafS-08-2019-2020	Research innovation needs & skills training in PhD programmes	CSA	3,2 (0,2-0,3 per project)	15-04-2020
SwafS-23-2020	Grounding RRI in society with a focus on citizen science	CSA	6 (1,5 per project)	15-04-2020
SwafS-24-2020	Science education outside the classroom	RIA	3 (1,3-1,7/ project)	15-04-2020 (1 <sup>st</sup> stage)
<b>2. Stepping up the support to Gender Equality in Research &amp; Innovation policy</b>				
SwafS-09-2018-2019-2020	Supporting research organisations to implement gender equality plans	CSA	9 (2,5-3 per project)	15-04-2020
SwafS-25-2020	Gender-based violence including sexual harassment in research organisations and universities	RIA	3 (2,8-3,2 per project)	15-04-2020
SwafS-26-2020	Innovators of the future: bridging the gender gap	CSA	1,5 (1,5 per project)	15-04-2020
<b>3. Building the territorial dimension of SwafS partnerships</b>				
SwafS-14-2018-2019-2020	Supporting the development of territorial Responsible Research and Innovation	CSA	6 (2 per project)	15-04-2020
<b>4. Exploring and supporting citizen science</b>				
SwafS-27-2020	Hands-on citizen science and frugal innovation: Sub-topic A, Citizen science Research and Innovation Actions Sub-topic B, Frugal innovation Research and Innovation Actions	RIA RIA	8 (1,8-2,2 per project)	15-04-2020
SwafS-28-2020	The ethics of organoïds	CSA	3 (3 per project)	15-04-2020
SwafS-29-2020	The ethics of technologies with high socio-economic impact	CSA	4 (4 per project)	15-04-2020
SwafS-30-2020	Responsible Open Science: an ethics and integrity perspective	CSA	2,5 (2,5 / project)	15-04-2020
<b>5. Building the knowledge base for SwafS</b>				
SwafS-19-2018-2019-2020	Taking stock and re-examining the role of science communication	RIA	3,5 (1,2 per project)	15-04-2020
SwafS-31-2020	Bottom-up approach to build SwafS knowledge base	RIA	6 (0,9-1,1 per project)	15-04-2020

# Cross-cutting activities

Het totaalbudget circa 205,5 miljoen euro voor 2020.

Contact LC-BAT

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<b>Building a Low-Carbon, Climate Resilient Future: Next-Generation Batteries</b>					<b>132 (2020)</b>
LC-BAT-8-2020	Next-generation batteries for stationary energy storage	RIA	20	21-04-2020	
LC-BAT-9-2020	Hybridisation of battery systems for stationary energy storage	RIA	10	21-04-2020	
LC-BAT-10-2020	Next generation and realisation of battery packs for BEV and PHEV	IA	40	21-04-2020	
LC-BAT-11-2020	Reducing the cost of large batteries for waterborne transport	RIA	20	21-04-2020	
LC-BAT-12-2020	Novel methodologies for autonomous discovery of advanced battery chemistries	RIA	20	16-01-2020	
LC-BAT-13-2020	Sensing functionalities for smart battery cell chemistries	RIA	10	16-01-2020	
LC-BAT-14-2020	Self-healing functionalities for long lasting battery cell chemistries	RIA	10	16-01-2020	
LC-BAT-15-2020	Coordinate and support the large scale research initiative on Future Battery Technologies	CSA	2	16-01-2020	
<b>Competitive, low carbon and circular industries</b>					<b>205.5 (2020)</b>
CE-NMBP-41-2020	ERA-NET on materials, supporting the circular economy and sustainable-development-goals	ERA-NET	15	05-02-2020	
CE-NMBP-42-2020	Materials life cycle sustainability analysis	RIA	6	05-02-2020	
CE-SPIRE-01-2020	Tapping into the potential of Industrial Symbiosis	IA	97.5 (total SPIRE)	05-02-2020	
CE-SPIRE-07-2020	Preserving fresh water: recycling industrial waters industry	IA		05-02-2020	
CE-SPIRE-09-2020	Alternative mineral resources for high volume production	IA		05-02-2020	
CE-SC5-07-2018-2019-2020	Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes a) Sustainable processing and refining of primary and/or secondary raw materials b) Recycling of raw materials from end-of-life products c) Recycling of raw materials from buildings and infrastructures d) Advanced sorting systems for high-performance recycling of complex end-of-life products e) Sustainable metallurgical processes	IA	40 (8-13 per project) (8-13 per project) (8-13 per project) (8-13 per project) (8-13 per project)	05-02-2020 (1 <sup>st</sup> stage) 03-09-2020 (2 <sup>nd</sup> stage)	
CE-SC5-08-2018-2019-2020	Raw materials policy support actions for the circular economy d) Expert network on Critical Raw Materials (2020)	CSA	3 (<3 per project)	05-02-2020	
CE-SC5-31-2020	Develop, implement and assess a circular economy oriented product information management system for complex products from cradle to cradle	IA	15 (7-8 per project)	05-02-2020 (1 <sup>st</sup> stage) 03-09-2020 (2 <sup>nd</sup> stage)	
LC-SC3-CC-9-2020	Industrial (Waste) Heat-to-Power conversion	IA	14	01-09-2020	
LC-SC3-NZE-5-	Low carbon industrial production using CCUS	IA	15	01-09-2020	

# National Contact Points Horizon 2020

De Rijksdienst van Ondernemend Nederland is nationaal contactpunt voor Horizon 2020. Binnen Team IRIS is er voor ieder onderdeel een adviseur die u verder kunt helpen. U vindt ze in onderstaand overzicht:

## Excellence Science

### European Research Council (ERC)

Esther Verhoeven  
Mariëlle Brouwer

### Marie Skłodowska-Curie Actions (MSCA)

Anna Goedhart  
Mariëlle Brouwer

### Research Infrastructures

Saske Hoving

## Industrial Leadership

### Information and Communication Technologies (ICT)

Ruben Wassink  
Stijn Greben  
Okke Scholten

### Nanotechnologies, Advanced Materials, Biotechnology, Advanced manufacturing and Processing

Hans Bosch  
Ahmet Polat

### Space

Frank Winters

### European Innovation Council (EIC)

### Future and Emerging Technologies (FET)

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Okke Scholten

### SME

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Alexandra de Vogel  
Marc Berntsen  
Jonneke Leijsten

### FTI

Jean-Luc Eggen  
Elke van de Graaf  
Gwendolynn Grootaers  
Marc Berntsen  
Jonneke Leijsten

### Horizon prijzen

Elke van de Graaf

## Societal Challenges

### **Health, demographic change and wellbeing**

Tonnie Rijkers  
Andrée Schram

### **Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy**

Saske Hoving  
Ben Kubbinga  
Bert van der Heide

### **Secure, Clean and Efficient Energy**

Achim Eberspächer

### **Smart Green and Intergrated Transport**

Fatma Saçlı

### **Climate Action, Environment, Resource Efficiency and Raw materials**

John Heynen  
Corinne van Voorden

### **Europe in a changing world - Inclusive, Innovative and Reflective societies**

Lieke Michiels van Kessenich

### **Secure Societies**

Paul Kruis

## Horizontal actions

### **Spreading excellence and widening participation**

Lieke Michiels van Kessenich

### **Science with and for Society**

Lieke Michiels van Kessenich

Kijk voor algemene informatie op de Horizon 2020 website van de Europese Commissie, zie [ec.europa.eu/research/horizon2020](http://ec.europa.eu/research/horizon2020). Documenten zoals werkprogramma's kunt u downloaden van <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home> (tabblad "how to participate - reference documents").

Ga bij het indienen van uw projectaanvraag altijd uit van de definitieve, officiële documenten op de participant portal. Deze wegwijzer is met zorg samengesteld uit de diverse werkprogramma's, maar de Europese Commissie kan deze altijd nog wijzigen. Gaat u aan de slag met Horizon 2020? Ga dan altijd uit van de actuele gegevens van de website!

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Deze publicatie is tot stand gekomen in opdracht van het ministerie van Economische Zaken en Klimaat.  
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