



# Research Infrastructures activities in Horizon 2020

## Work Programme 2018-2020

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## For British applicants

*Please note that until the UK leaves the EU, EU law continues to apply to and within the UK, when it comes to rights and obligations; this includes the eligibility of UK legal entities to fully participate and receive funding in Horizon 2020 actions.*

*Please be aware however that **the eligibility criteria must be complied with for the entire duration of the grant.** If the UK withdraws from the EU during the grant period without concluding an agreement with the EU ensuring in particular that British applicants continue to be eligible, you will cease to be eligible to receive EU funding (while continuing, where possible, to participate) or be required to leave the project on the basis of Article 50 of the grant agreement.*



# Calls in the RI 2018-2020 WP

1. Development and long term sustainability of new pan-European RIs
2. **Implementing the EOSC**
3. Integrating and Opening RIs of European Interest
4. **European Data Infrastructure**
5. **Demonstrating the role of RIs in the translation of Open Science into Open Innovation**
6. **Support to policy and International cooperation**

*Other Actions: **GÉANT Partnership projects**, Support to NCP*

*Around €1,1 billion to be awarded over 3 years*

# 2018-2020 Work Programme

- **Defining in full only 2018 and 2019 topics**
- **2020 topics**
  - ✓ **Only titles are provided in WP**
  - ✓ **Calls with 2020 topics are duplicated in the WP with a second instance indicating "continued in 2020"**
  - ✓ **Indicative budget for all the 2020 calls (including the continued ones) is provided in the WP**
  - ✓ **2020 Topics will be defined and discussed at the time of future WP amendments**



# Call 1

## Development & LTS of new pan-European RIs

To facilitate and support preparation & implementation of the ESFRI and other world-class RIs, which will help Europe to respond to grand challenges in science, industry and society.

*Emphasis on long-term sustainability, on fostering the innovation potential, on data management and the connection to the EOSC*

1. Design studies
2. Preparatory Phase of new ESFRI projects
3. Individual support to ESFRI & OWC RIs

## INFRADEV-01-2019-2020 - *Design studies*

Support the **conceptual and technical design** of new research infrastructures, which are leading-edge user facilities of a clear European dimension and interest:

- *Conceptual and technical feasibility of new or upgraded **research user facilities**, leading to a 'conceptual or technical design report'*
- *Need to demonstrate relevance and **advancement** wrt the state-of-art as well as the addressing of **research challenges** and **RI landscape gaps***
- ***Bottom-up process, only one deadline in 2019** but budget over 2 years*
- *50% budget increase for the 2019 topic with respect to the 2017 corresponding topic.*
- *Indicative budget **30 M€** - EU contribution per proposal between 1-3 M€*
- *Research and Innovation Action (RIA)*
- *Very competitive topic as aimed at identifying the RIs that really have the potential to become the next generation of European world-class RI*

## INFRADEV-02-2019-2020 - *Preparatory Phases*

- Support the **preparatory phase** of ESFRI projects:
  - *Targeting the new projects in the **2018** and **2020 updates** of the ESFRI roadmap*
  - ***Two deadlines**: beginning of 2019 and end 2020*
  - *Indicative budget **48 M€** - EU contribution per proposal up to 4 M€*
  - *Scope of the topic could be fine-tuned through WP amendments to adapt the text to the outcomes of the roadmap updating processes*
  - *Coordination & Support Action (CSA)*



# INFRADEV-03-2018-2019

## *Individual support to ESFRI & OWC RI*

To facilitate and support **long-term sustainability** and efficient operation of the ESFRI & Other World-Class RI (OWC RI) :

- *Targeting individual ESFRI RI and OWC RI with **established legal structure and governance at EU or international level**, such as ERIC. RI having submitted a first step ERIC application can apply too.*
- *Addressing issues highlighted in the **Sustainable European RIs** document*
- *Covering: **membership enlargement**, international cooperation, **testing and improvement of access provision to users** to increase reliability and create trust, definition of business model & service model agreements, **innovation** fostering, and the development & integration in the RI landscape of **RPF**.*
- ***Two deadlines:** in 2018 and in 2019*
- *Total indicative budget **60 M€** - EU contribution per proposal (**RIA**) 2 - 5 M€*
- ***On a competitive basis:** proposals must demonstrate their crucial need for the requested support and how this will ensure their sustainability*
- *Proposals must also explain complementarities with previous or current EU grants.*



# Call INFRADEV Summary

Research Infrastructures	2018	2019	2020	Total	Single grant	Deadlines
<b>CALL H2020-INFRADEV-2018-2020</b>	<b>15</b>	<b>85</b>	<b>38</b>	<b>138</b>		
<b>INFRADEV-01: Design studies</b>		20	10	30	from 1 to 3 M€	<b>12 Nov 2019</b>
<b>INFRADEV-02: Preparatory Phase</b>		20	28	48	up to 4 M€	<b>29 Jan 2019</b> <b>end of 2020</b>
<b>INFRADEV-03: Individual Support</b>	15	45		60	from 2 to 5 M€	<b>22 Mar 2018</b> <b>20 Mar 2019</b>

# Call 2 – Implementing the EOSC

- Topic 1: Access to commercial services through the EOSC hub**
- Topic 2: Prototyping new services**
- Topic 3: Integration of public pan-European infrastructure services into the EOSC basic catalogue of services**
- Topic 4: Connecting ESFRI RI through Cluster projects**
- Topic 5: EOSC governance**
- Topic 6: Enhancing the EOSC portal & connecting thematic clouds**

# INFRAEOSC-01-2018

## *Access to commercial services through the EOSC hub*

*To set-up a legal and technical mechanism to integrate these supplementary commercial services into the EOSC hub in order to make them available to the scientists.*

- ❖ Commodity type **commercial digital services** that are necessary for interdisciplinary research activities
- ❖ Earth observation services: commercial services stemming from the use of **Copernicus** open data accessible through the **'DIAS' platforms**
- Pan-European e-Infrastructures will act as aggregators of demand for such commercial services, run and manage the procurement contracts and integrate these services into the EOSC service catalogue.
- Indicative budget **12M€**, Research and Innovation Action (RIA)

# INFRAEOSC-02-2019


## *Prototyping new innovative services*

*To develop an agile, fit-for-purpose and sustainable service offering accessible through the EOSC hub that can satisfy scientific community evolving needs by stimulating the design and prototyping of novel innovative digital services*

- **Targeting gaps** in the service offering of the EOSC catalogue of services
- The new services should address relevant aspects of the **research data cycle** (from inception to publication, curation, preservation and reuse)
- Responding initially to specific needs of particular scientific communities but in the long run they should be leveraged to become **as generic as possible**, serving a wider remit of research needs, as well as new users like industry and the public sector.
- Targeting services at **TRL 6** with the aim to reach **TRL 8** at the end of the project
- Indicative budget **28.5M€**, EU contribution per proposal (RIA) 5 - 6 M€

## **INFRAEOSC-03-2020**

# ***Integration and consolidation of pan-European access mechanisms to public e-Infrastructures & commercial services through the EOSC hub***

- Follow-up of EINFRA-12-2017
- Primarily integrate services for scalable computing, software, distributed databases and storage with services for access to and preservation of scientific information across Europe
- Covers services at TRL 8 and above
- Focus on generic services  be used by as many scientific communities, and by new users like industry and the public sector
- Indicative budget 79 M€
- *Scope of the topic to be fine-tuned with the WP amendment in 2019*

## **INFRAEOSC-04-2018**

### ***Connecting ESFRI RI through Cluster projects***

***Clusters of ESFRI, ERICs and IO infrastructures in large thematic domains for data stewardship and connection to the EOSC***

- to ensure **stewardship** of data handled by the involved RI in line with the **FAIR principles**
- to **expose** RI data and tools under the **EOSC catalogue**
- to address domain-specific **issues affecting data sharing** and re-use
- to ensure services harmonisation, integration and **interoperability** of data in those domains as well as interoperability with other relevant domains
- **Indicative budget 95 M€; between EUR 6 and 24 million per proposal (RIA)**  
on the basis of 1.5 -2 M€ of EU contribution per connected RI

# **INFRAEOSC-05-2018-2019**

## ***EOSC governance***

- a) Setup the EOSC coordination structure (2018)***
  - b) Coordination of EOSC-relevant national initiatives across Europe and support to prospective EOSC service providers (2018-2019)***
  - c) FAIR data uptake and compliance in all scientific communities (2018)***
- ✓ Grants awarded under this topic will complement each other (collaboration agreements)***
  - ✓ Grants will build on the results of past, ongoing and forthcoming proposals***

# INFRAEOSC-05-2018-2019

## *EOSC governance*

### *a) Setup the EOSC coordination structure (2018)*

- *Support the EOSC Executive Board* overseeing the EOSC implementation and support the development of innovative business models for the delivery of EOSC core functions;
- *Help coordinate all EOSC relevant activities* funded under H2020;
- *Support decision making process* regarding EOSC core functions and help set rules and methods of participation;
- *Structure the EOSC community* of stakeholders ;
- *Liaise with Third Countries* in policy and technical developments compatible with EOSC.
- *Indicative budget 10 M€; 1 proposal expected to be funded (CSA)*



# INFRAEOSC-05-2018-2019

## *EOSC governance*

### *b) Coordination of EOSC relevant national initiatives across Europe and support to prospective EOSC service providers (2018-19)*

- Support the **coordination, convergence and federation** of EOSC relevant national initiatives for open research data and services;
- Support EOSC coordination structure in **assessing the level of interoperability and organisational readiness** of involved EOSC service providers;
- Map and **harmonise the delivery of horizontal services** related to research data across EOSC providers and related national initiatives
- Proposals will build on and complement related work on the EOSC Hub
- Indicative budget **30 M€**, up to 6 M€ per proposal (RIA)

# INFRAEOSC-05-2018-2019 - *EOSC governance*

## c) *FAIR data uptake and compliance in all scientific communities (2018)*

- *implementation of a common scheme to ensure FAIR data development **uptake and compliance** by national and European research data providers;*
- *Facilitate **coordination of initiatives across MS & AC**;*
- *Develop and implement **measures on FAIR data policy** addressing, among others, data stewardship, data curation & creation of metadata catalogues;*
- *Support the co-development and implementation of **standards for data management and certification schemes for data repositories** ;*
- *Organise **FAIR competence centres** for areas not addressed by other initiatives;*
- *Address the establishment of a **European data science** competence framework for inclusion in academic **curricula**.*
- *Indicative budget **10 M€**; Coordination & Support Action (CSA)*

## **INFRAEOSC-06-2019-2020**

### ***Enhancing the EOSC portal and connecting thematic clouds***

***a) Support to the EOSC Portal (2019)***

***b) Connecting thematic clouds into the EOSC (2020)***

***✓ Grants will build on the results of past, ongoing and forthcoming proposals***

# INFRAEOSC-06-2019-2020

## *Enhancing the EOSC portal and connecting thematic clouds*

### *a) Support to the EOSC Portal (2019)*

- *Provide a fully functional, sustainable and comprehensive **user interface to the EOSC services**;*
- ***Incorporate existing** scientific **gateways**, data and cloud thematic platforms developed under FP7 and H2020;*
- *Proposals will build on the work of eInfraCentral and provide additional support for the implementation of the EOSC Hub*
- *Indicative budget **2 M€**, one proposal expected to be funded (RIA)*

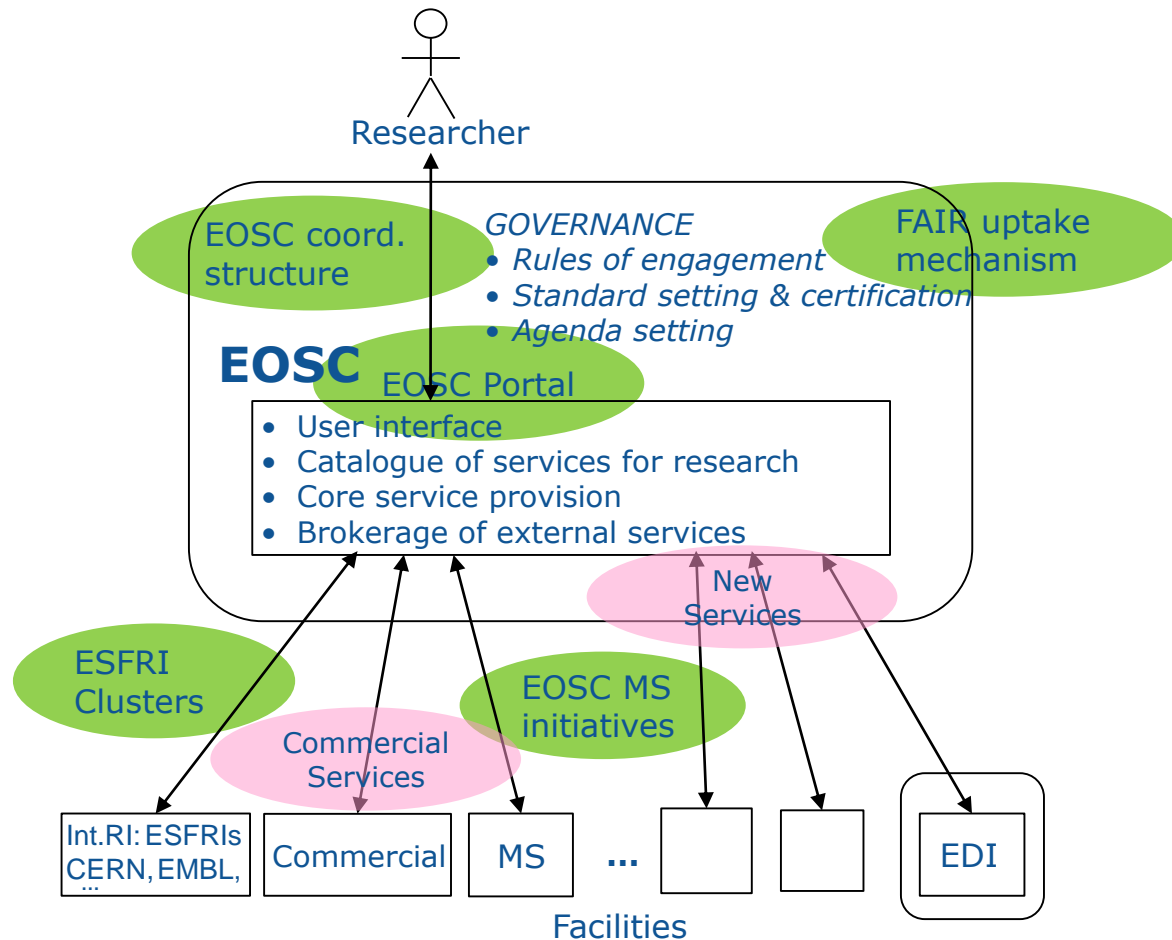
# INFRAEOSC-06-2019-2020

## *Enhancing the EOSC portal and connecting thematic clouds*

### *b) Connecting thematic clouds into the EOSC (2020)*

- *Ensure functional interoperability and gradual integration of existing thematic clouds into the EOSC;*
- *Proposals will complement the activities developed by the projects funded under the topic INFRAEOSC-04-2018*
- *Indicative budget 5 M€, 1-2 M€ per thematic cloud in the proposal (RIA)*
- *Scope of the sub-topic to be fine-tuned with the WP amendment in 2019*

# Mapping of 2018-2019 actions



# Call INFRAEOSC Summary

Research Infrastructures	2018	2019	2020	Total	Single grant	Deadlines
<b>CALL H2020-INFRAEOSC-2018-2020</b>	<b>142</b>	<b>45.5</b>	<b>84</b>	<b>271.5</b>		
<b>INFRAEOSC-01: Access to commercial services</b>	12			12	from 11 to 12 M€	<b>22 Mar 2018</b>
<b>INFRAEOSC-02: Prototyping new services</b>		28.5		28.5	from 5 to 6 M€	<b>29 Jan 2019</b>
<b>INFRAEOSC-03: Integration &amp; consolidation</b>			79	79		<b>mid 2020</b>
<b>INFRAEOSC-04: Connecting ESFRI RI through clusters</b>	95			95	from 6 to 24 M€	<b>22 Mar 2018</b>
<b>INFRAEOSC-05: EOSC governance</b>	(a)	10		10	up to 10 M€	<b>19 Apr 2018</b>
	(b)	15	15	30	from 5 to 6 M€	<b>21 Nov 2018</b>
	(c)	10		10	up to 10 M€	<b>19 Apr 2018</b>
<b>INFRAEOSC-06: portal &amp; thematic clouds</b>	(a)		2	2	up to 2 M€	<b>20 Mar 2019</b>
	(b)			5	5	<b>mid 2020</b>



# Call 3 – Integrating and opening RIs of European interest

To open up **key** national and regional research infrastructures to all European researchers and to ensure their optimal use and joint development:

*Emphasis on sustainability, widening, skills, innovation and data management in compliance with the EOSC*

1. Integrating activities for **Advanced communities**
2. *Integrating activities for **Starting communities** (2020)*
3. ***Pilot for a new model** of IA : new ways for opening and integrating at EU level RIs of European interest (2020)*





# INFRAIA-01-2018-2019

## *Integrating Activities for Advanced communities*

- RI communities with an advanced degree of coordination achieved through previous IA
- Targeted approach, **one stage** calls, **two deadlines**: 2018 and 2019.
- Indicative total budget 226.5 M€, at least 110 M€ per deadline, up to 10 M€ of EU contrib. per GA (RIA)
- Emphasis on **novelties** with respect to previous GAs; on **widening TA / VA provision** in term of services, users, and served disciplines; on **innovation aspects**; on the contribution to a **catalogue of RI services**; on addressing the **sustainability of the integrated RI services** provided at EU level, on the adoption of the **European Charter for Access to RI**, on **data stewardship & connection** of data services and tools to the **EOSC**



## Call 3 – Integrating and opening RIs of European interest (continued in 2020)

### **INFRAIA-02-2020: Integrating Activities for Starting communities**

RI Communities never supported for their integration under EU FPs

- **Two-stage call:** 1<sup>st</sup> stage 2019, 2<sup>nd</sup> 2020. **Bottom-up** approach
- Emphasis on **networking**, standardisation and **common access procedure**, **complementarity** and coherence with the existing European RI landscape

### **INFRAIA-03-2020: Pilot for a new model of Integr. Activities**

To explore new ways to support the opening of national/regional/ European RIs and the provision of integrated RI services at EU level

- **One stage call.** Targeted approach – 2020
- Targeting larger sets of RIs, gathering close communities, even with different degree of coordination, to develop and implement a programme focussing on **access provision and integration**

# Call INFRAIA Summary

Research Infrastructures	2018	2019	2020	Total	Single grant	Deadlines
<b>CALL H2020-INFRAIA-2018-2020</b>	<b>101.5</b>	<b>125</b>	<b>155</b>	<b>381.5</b>		
<b>INFRAIA-01: IA - advanced communities</b>	101.5	125		226.5	Up to 10 M€	<b>22 Mar 2018 20 Mar 2019</b>
<b>INFRAIA-02: IA – starting communities</b>			155	155	up to 5 M€	<b>end 2019 + mid 2020</b>
<b>INFRAIA-03: Pilot for a new model of IA</b>						<b>mid 2020</b>

## **Call 4 – European Data Infrastructure**

*To integrates world-class HPC capability, high-speed connectivity and leading-edge data and software services*

- 1. Support to a Pan-European High Performance Computing infrastructure and services (PRACE)**
- 2. Supporting Centres of Excellence on HPC that promote the use of upcoming exascale computing capabilities**
- 3. Supporting the governance of the EDI**
- 4. Support to Public Procurement of innovative HPC systems (2020)**

# **INFRAEDI-01-2018: Pan-European HPC infrastructure and services (PRACE)**

- Provide a seamless and efficient Europe-wide Tier-0 service to users, based on promoting research excellence and innovation
- Support software implementations, helping Tier-0 users and communities in adapting and adopting novel software solutions
- Identify new user needs and ensure openness to new user communities and new applications
- Run training and skills development programmes
- Coordinate activities with the European Technology Platform for HPC (ETP4HPC) and the Centres of Excellence in HPC applications
- Estimated budget **24 M€**, between 22 and 24 M€ per proposal (RIA)

# INFRAEDI-02-2018: HPC PPP - Centres of Excellence in exascale computing

## (a) Supporting Centres of Excellence – CoE (RIA)

- **Consolidating important domains** (e.g. materials, biomolecular, weather/climate, health/medicine, Big Data)
- **New CoE** in key areas (e.g. engineering) and openness to new areas
- **HPC applications** towards exascale performance (computing and extreme data)
- Services supporting **different usage models** - convergence of HPC, HTC & HPDA
- Commitment to the **co-design approach**
- Specialised **training and capacity building** – PRACE
- Data management and long term data stewardship towards exascale
- Estimated budget **72 M€**, between EUR 6 and 8 million per proposal

## (b) CoE coordination (CSA)

- a focal point for the consulting skills and training available from the CoE and other organisations (i.e. PRACE)
- Estimated budget **2 M€**, one proposal expected to be funded

# INFRAEDI-03-2018: Support to the governance of HPC Infrastructure

- Support the objectives of the European Cloud Initiative by promoting a sound **governance structure** for the management and the development of the EDI infrastructure and services (HPC/data/connectivity), decision making on funding, long-term sustainability and security;
- Establish a **communication platform** for the dialogue of stakeholders involved in the implementation of the Governance of the HPC infrastructure;
- Linking with relevant national and pan-European activities in the field;
- Organize outreach events;
- The action should involve users, implementers and funders, participating in the EU funded activities of HPC and Big Data.
- Estimated budget **0,9 M€** - 3 years, one proposal expected to be funded

# ***INFRAEDI-EDI-04-2020: Support to Public Procurement of innovative HPC systems***

- Contribute to the **coordination of plans and procurements** for the provision of leading-class HPC capabilities at European and national level
- **Procurement of innovative HPC solutions** for the deployment in Europe of two pre-exascale systems
- A substantial percentage of the new systems will be made available to European researchers in the frame of PRACE
- **Diversify** the available leading-class **HPC capabilities and architectures**, to satisfy the needs of a wider range of users in different key application areas
- Estimated budget **80 M€** (35% EU funding -> systems of ~228 M€ )
- *Scope to be fine-tuned with the WP amendments in 2019*



# Call INFRAEDI Summary

Research Infrastructures	2018	2019	2020	Total	Single grant	Deadlines
<b>CALL H2020-INFRAEDI-2018-2020</b>	<b>98.9</b>		<b>80</b>	<b>178.9</b>		
<b>INFRAEDI-01: PRACE</b>	<b>24</b>			<b>24</b>	Up to 24 M€	<b>22 Mar 2018</b>
<b>INFRAEDI-02: CoE on HPC</b>	<b>(a)</b> 72			72	from 5 to 6 M€	<b>22 Mar 2018</b>
	<b>(b)</b> 2			2	Up to 2 M€	<b>22 Mar 2018</b>
<b>INFRAEDI-03: governance of the HPC infrastructure</b>	<b>0.9</b>			<b>0.9</b>	Up to 0.9 M€	<b>22 Mar 2018</b>
<b>INFRAEDI-04: public procurement of HPC</b>			<b>80</b>	<b>80</b>		<b>mid 2020</b>



# Call 5: Demonstrating the role of RIs in the translation of Open Science into Open Innovation

Large initiatives and support measures to foster the innovation potential of research infrastructures:

1. Stimulate the **innovation potential of SMEs**
2. Network of research infrastructure **Industrial Liaison and Contact Officers**
3. *Co-Innovation platform for research infrastructure technologies (2020)*
4. *Innovation pilots (2020)*



# INFRAINNOV-01-2019

## *Stimulate the innovation potential of SMEs*

**Specific Challenge: Providing an effective mechanism for inclusion of innovative, agile SMEs in the EDI**

- **To stimulate the innovation potential of SMEs as users of advanced HPC services**
- **The action will involve financial support to third parties in the form of grants**
- **Indicative budget: 8 M€ , between 7 and 8 M€ per proposal (RIA)**



# **INFRAINNOV-02-2019: *Network of RI Industrial Liaison & Contact Officers***

Support the establishment of a **network of Industrial Liaison and Contact Officers** engaged with pan-European RI, including ESFRI and other relevant world class RI of European interest

- *Addressing **training session & exchange of best practises** across various research domains, enhanced cross-border and cross-thematic **brokerage events**, joint **awareness campaigns** towards industry (including SMEs), ...*
- *covering a wide range of scientific domains*
- ***portals of calls, tenders**, future needs and technology transfer opportunities per technological domain could also be developed*
- *Indicative budget **1.5 M€** - **Coordination & Support action (CSA)***



# Call 5: Demonstrating the role of RIs in the translation of Open Science into Open Innovation (continued in 2020)

## **INFRAINNOV-03-2020: Co-Innovation platform for research infrastructure technologies**

- innovation projects to integrate RIs with industry in a **co-development/co-creation** effort on the basis of their strategic potential to connect science, industrial leadership and societal challenges
- follow-up of the 2017 co-innovation platform for detection & imaging technologies

## **INFRAINNOV-04-2020: Innovation pilots**

- Targeting larger communities of RIs in **partnerships with industry and SMEs** for the implementation of strategic roadmap and/or joint research activities **in key technologies for the RI** development and upgrade
- Complementary to the IA pilot action
- Targeted approach

# Call INFRAINNOV Summary

Research Infrastructures	2018	2019	2020	Total	Single grant	Deadlines
<b>CALL H2020-INFRAINNOV-2019-2020</b>		<b>9.5</b>	<b>60</b>	<b>69.5</b>		
<b>INFRAINNOV-01: stimulate the innovation potential of SME</b>		<b>8</b>		<b>8</b>	from 7 to 8 M€	<b>29 Jan 2019</b>
<b>INFRAINNOV-02: network of RI ILO/ICO</b>		<b>1.5</b>		<b>1.5</b>	up to 1.5 M€	<b>20 Mar 2019</b>
<b><i>INFRAINNOV-03: co-innovation platform for RI technologies</i></b>			<b>60</b>	<b>60</b>		<b><i>mid 2020</i></b>
<b><i>INFRAINNOV-04: innovation pilots</i></b>						<b><i>mid 2020</i></b>

# Call 6: Policy and International cooperation

**Actions to reinforce European research infrastructures policy and international cooperation, the latter with flagship initiatives (*support to Sesame in Jordan, cooperation with Russia, EU-CELAC cooperation on RIs*).**

- 1. Policy and international cooperation measures for research infrastructures**
- 2. *Strengthening the human capital of research infrastructures and e-infrastructures (2020)***



# INFRASUPP-01-2018-2019

## *Policy and international cooperation for RI*

- **Two deadlines:** 2018 and 2019.
- **(a) Research & Innovation actions (RIA) for the 2018 deadline**
  - SESAME: development and installation, in partnership with the European synchrotrons & industry, of a European beamline
- **(b) Coordination & Support actions (CSA) for the 2018 deadline**
  - (b1) Support to the ERIC network
  - (b2) International visibility of European RI and of their services through, for example, a brokerage based approach and organization of a science market place
  - (b3) Catalogue of RI services, complementary and tightly linked to the EOSC catalogue
  - (b4) Support to the ESFRI
  - (b5) Support to the e-IRG

*Indicative budget for 2018: 12.6 M€ - Up to 6 M€ for (a); up to 1.5 M€ for proposals under (b1) to (b4); up to 0.6 M€ for proposals under (b5)*



# INFRASUPP-01-2018-2019

## *Policy and international cooperation for RI*

- **(c) Research & Innovation actions (RIA) for the 2019 deadline**
  - **Cooperation with Russia:** joint research activities for the development of instrumentation between advanced Mega-science initiatives and EU facilities; joint design effort for new facilities; exchange programmes; access provision for European researchers to RU facilities
- **(d) Coordination & Support actions (CSA) for the 2019 deadline**
  - **EU-CELAC cooperation on RIs:** identification of priorities for regional and bi-regional cooperation, exchange of best practises, ...

**Indicative budget for 2019: 27 M€** - Up to 25 M€ for (c) and up to 1.5 M€ for (d)

# Call INFRASUPP Summary

Research Infrastructures	2018	2019	2020	Total	Single grant	Deadlines
<b>CALL H2020-INFRASUPP-2018-2020</b>	<b>12.6</b>	<b>27</b>	<b>1.5</b>	<b>41.1</b>		
INFRASUPP-01: policy & INCO measures for RIs	(a)	6		6	up to 6 M€	<b>22 Mar 2018</b>
	(b)	6.6		6.6	up to 1.5 or 0.6 M€	<b>22 Mar 2018</b>
	(c)		27	27	up to 25 M€	<b>20 Mar 2019</b>
	(d)				up to 1.5 M€	<b>20 Mar 2019</b>
<i>INFRASUPP-02: strengthening the human capital of RIs</i>			<b>1.5</b>	<b>1.5</b>		<b>mid 2020</b>

## **Other Actions: GÉANT Framework Partnership Agreement**

*The aim is to establish GÉANT and NREN ecosystem as the networking substrate for other e-infrastructures as well as the provider of services and applications underpinning the EOSC, exascale and any other research centric vertical solution.*

### **a.1) Provision of Operational Services (TRL 8 or above)**

- Further develop the next-generation GÉANT network; upgrade trust & identity services
- Developing new functionalities; build a test environment for services becoming operational
- Improve the minimum service level of the smaller European NRENs

### **a.2) Prototyping and piloting of new services (TRL 6 or above)**

- Prototyping network components, modules, services and applications accessing wired/wireless infrastructures and networked resources
- Respond to the needs of extreme-scale systems and ultra-low latency applications
- Piloting the widening of user base to public sector and industry

# Other Actions: GÉANT Framework Partnership Agreement

## a.3) International Cooperation, skills and dissemination

- Establish new collaboration agreements and develop further existing ones with NRENS or associations of NRENS outside the EU
- Organise workshops on end user network services requirements to inform future product portfolio pipelines and help understand demand for new services
- Strengthen the community creative programme
- Organize & participate in international events to disseminate the value of NRENS and e-Infrastructures at large and their contribution to the Open Science principles

## (b) Increase of long-term backbone capacity

- Restructuring the backbone network: long-term IRUs to develop a new, more extensive footprint, stimulating the market in cross-border communications infrastructure whilst decreasing the digital divide and reducing costs

Total budget (2018-2019): **128 M€** for 2 SGAs (a & b), of which at least 16 M€ for (b)

## Other Actions: support to NCPs

### *To facilitate transnational **cooperation between Horizon 2020 NCPs** in the area of RIs (incl. e-Infra)*

Continuation of previous action, focus on:

- Identification and sharing of **good practices**
- **raising** the general standard of **support to programme applicants**
- re-inforced support to **widening** activities, in particular to help NCPs in those countries that have been participating at low levels in the programme up to now
- *using various mechanisms including benchmarking, joint workshops, enhanced cross-border brokerage events, and specific training linked to the RI sector*

Total budget (2018) for a grant to identified beneficiaries: **0,35M€**

Thank you for your attention

HORIZON 2020

