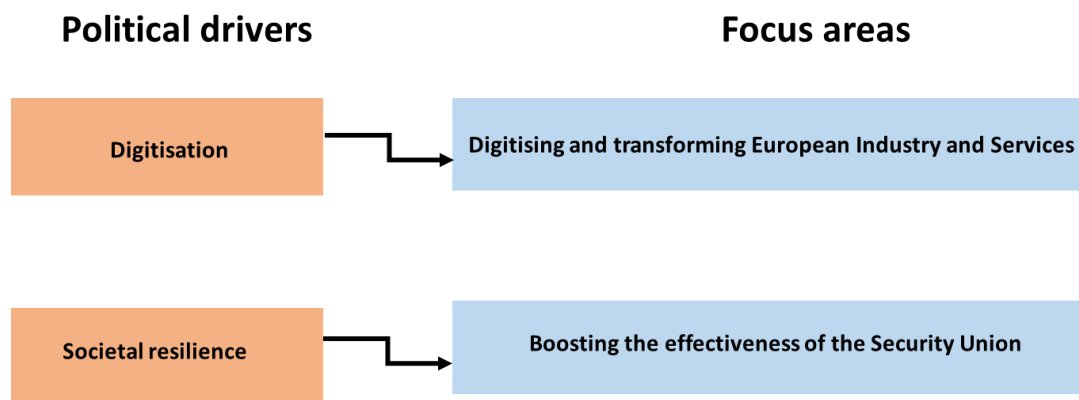# H2020 ICT 2018-2020

This guide will summarize for UNIPI proposers the LEIT–ICT Work Programme 2018-2020 Calls for proposals and the ICT-related Calls part of other H2020 WPs 2018-2020 with deadline 2018-2019. It includes policy context information, downloadable work programmes, links to the topics web pages, links to the EC presentations of some topics and other useful information.

The focus areas in the Work Programme ICT 2018-2020 translate the following high-level EU political drivers.

Political drivers	**Focus areas**
Digitisation	Digitising and transforming European Industry and Services
Societal resilience	Boosting the effectiveness of the Security Union

The objectives of **Digitising and transforming European industry and services** focus area are:

- enabling all sectors and application areas to adapt, transform and benefit from digitisation, notably by allowing also smaller and newer players to capture value;
- developing industrial strategies, including new business models, and leverage this major transformation to increase the competitiveness of EU industries and create new markets;
- connecting to Member States and regions in order to better align research and innovation agendas and develop synergies;
- removing barriers for innovation enabled by digitisation, by addressing issues such as up- and cross-skilling, harmonising regulatory frameworks and standardisation.

The objectives of **Boosting the effectiveness of the Security Union'** focus area are:

- reductions to loss of human life, environmental, economic and material damage from natural and man- made disasters
- new technologies, solutions and processes for fighting and preventing crime (including cyber-crime and cyber security), illegal trafficking and terrorism (including cyber-terrorism), and understanding and tackling terrorist ideas and beliefs.
- research on innovative processes and technologies for action and recovery from post disaster situations.

LEIT-ICT WP 2018-2020

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The **ICT-Leadership in Enabling and Industrial Technologies (LEIT) Work Programme 2018-2020** addresses the main priorities in the digital area through the following Calls for proposals:

- **Information and Communication Technologies for Digitising European Industry (ICT)** - (2018: 514M€, 2019: 688M€, 2020: 625M€)

- **Digitising and transforming European industry and services (DT)** - (2018: 115M€, 2019: 145M€, 2020: 166M€)

- **Cybersecurity: Boosting the effectiveness of the Security Union' (SU)** - (2018: 90M€, 2019: 15M€, 2020: 47M€)

Call Information and Communication Technologies for Digitising European Industry (H2020-ICT-2018-2020)

The Digitising European Industry (DEI) initiative aims to establish next generation digital platforms and re-build the underlying digital supply chain on which all economic sectors are dependent. The initiative should enable all sector and application areas to adapt, transform and benefit from digitisation, notably by allowing also smaller players to capture value. Digital Platforms are becoming a key factor in one sector after another, enabling new types of services and applications, altering business models and creating new marketplaces. Actions under this heading will provide extensive support to key DEI components in Photonics, Robotics, Manufacturing technologies and Cyber-Physical Systems. Support to Micro-electronics, in particular for higher TRLs, will continue through the ECSEL Joint Undertaking.

Topic ID	Type of action	Topic title	Opening date	Deadline 2018	Deadline 2019	EC Topic presentation
ICT-01-2019	RIA, CSA	Computing technologies and engineering methods for cyber-physical systems of systems	16/10/18		28/03/19	
ICT-03-2019	IA	Photonics Manufacturing Pilot Lines for Photonic Components and Devices	16/10/18		28/03/19	Topic presentation
ICT-05-2019	RIA, IA, CSA	Application driven Photonics components	16/10/18		28/03/19	
ICT-06-2019	RIA	Unconventional Nanoelectronics	16/10/18		28/03/19	
ICT-08-2019	RIA	Security and resilience for collaborative manufacturing environments	16/10/18		28/03/19	
ICT-09-2019-2020	RIA, IA, CSA	Robotics in Application Areas	16/10/18		28/03/19	
ICT-10-2019-2020	RIA	Robotics Core Technology	16/10/18		28/03/19	
ICT-11-2018-2019	IA	HPC and Big Data enabled Large-scale Test-beds and Applications	26/07/18	14/11/18		Topic presentation
ICT-13-2019	IA	Supporting the emergence of data markets and the data economy	16/10/18		28/03/19	Topic presentation
ICT-14-2020	RIA	Co-designing Extreme Scale Demonstrators (EsD)	24/01/19		18/06/19	
ICT-15-2019-2020	RIA, CSA	Cloud Computing	16/10/18		28/03/19	
ICT-19-2019	RIA, CSA	Advanced 5G validation trials across multiple vertical industries	26/07/18	14/11/18		Topic presentation
ICT-20-2019-2020	RIA	5G Long Term Evolution	16/10/18		28/03/19	
ICT-23-2019	RIA	EU-Taiwan 5G collaboration	05/09/18		15/01/19	Topic presentation
ICT-24-2019	RIA	Next Generation Internet - An Open Internet Initiative	16/10/18		28/03/19	Topic presentation
ICT-25-2018-2020	RIA	Interactive Technologies	26/07/18	14/11/18		Topic presentation
ICT-30-2019-2020	IA, CSA	An empowering, inclusive Next Generation Internet	16/10/18		28/03/19	
ICT-31-2018-2019	RIA	EU-US collaboration on NGI	16/10/18		28/03/19	Topic presentation
ICT-33-2019	IA, CSA	Startup Europe for Growth and Innovation Radar	16/10/18		28/03/19	
ICT-34-2018-2019	PCP	Pre-Commercial Procurement open	16/10/18		28/03/19	

Call Digitising and transforming European industry and services: digital innovation hubs and platforms (H2020-DT-2018-2020)

This Call is dedicated to the implementation of the DEI strategy through support to digital innovation hubs, the development of platforms and large-scale pilots. In particular, the 'digitising and transforming European industry and services' (DT) focus area will be mainly implemented with the two following types of activities: a) digital innovation hubs, which provide easy access to the latest digital innovations and experimentation facilities to potential users; b) cross-sectorial and integrated digital platforms and large-scale pilots for experimentation and co-creation with users.

Topic ID	Type of action	Topic title	Opening date	Deadline 2018	Deadline 2019	EC Topic presentation
Support to hubs						
- *Consortia participating in the call should demonstrate that they are deeply rooted in innovation ecosystems that offer digital transformation services to companies in their proximity. They should provide a clear analysis how the proposed project will add value to an already existing service offer, and how it is aligned with the national or regional digitisation of industry initiative.*						
- *Every project should support a critical mass of dedicated highly innovative, cross border experiments bringing together technology suppliers and users. At least 50% of the budget should directly benefit SMEs or slightly bigger companies. For grants awarded under topics DT-ICT-01-2019, DT-ICT-02-2018, DT-ICT-03-2020, DT-ICT-04-2020, DT-ICT-05-2020 beneficiaries may provide support to third parties as described in part K of the General Annexes of the Work Programme.*						
- *Activities should aim at long-term sustainability and include a business plan for the digital innovation hubs, a plan to attract investors, to address training and skills development needs and dissemination. Established networks reaching out to SMEs like the Enterprise Europe Network and the NCP network should be used.*						
- *Selected projects are expected to collaborate on building a network of Digital Innovation Hubs, covering most regions in Europe.*						
DT-ICT-01-2019	IA, CSA	Smart Anything Everywhere	16/10/18		02/04/19	
Platforms and Pilots						
- *Proposals are expected to make a significant step forward in platform building, interoperability between existing platforms, integration of relevant digital technologies such as IoT, AI, photonics, robotics, cloud and Big Data, and validation via pilots and experimentation facilities. Starting from suitable reference architectures, platform interfaces are defined, tested via piloting, supported via ecosystem building to prepare their roll-out, and evolved into standards.*						
- *Various platform development activities exist at EU or national level, e.g. the Reference Architectural Model Industry 4.0 (RAMI 4.0) and the Industrial Data Space. To develop the next-generation digital platforms, proposals need to bring various initiatives together and act as linking pins. Proposals should build on existing platforms, pilot sites, testbeds, and experimental environments that have been developed in these various initiatives when applicable.*						
DT-ICT-07-2018-2019	IA, CSA	Digital Manufacturing Platforms for Connected Smart Factories	16/10/18		02/04/19	Topic presentation
DT-ICT-08-2019	IA	Agricultural digital integration platforms	26/07/18	14/11/18		
DT-ICT-10-2018-19	IA	Interoperable and smart homes and grids	26/07/18	14/11/18		Topic presentation
DT-ICT-11-2019	IA	Big data solutions for energy	16/10/18		02/04/19	
DT-ICT-13-2019	CSA	Digital Platforms/Pilots Horizontal Activities	26/07/18	14/11/18		

Call Cybersecurity (H2020-SU-ICT-2018-2020)

Within the next decade cybersecurity and privacy technologies should become complementary enablers of the EU digital economy, ensuring a trusted networked ICT environment for governments, businesses and individuals. The EU ambition is to become a world leader in secure digital economy. The compliance of the European infrastructures, products and services with relevant directives/regulations (e.g. NIS79, eIDAS80, GDPR81, proposal for an e-Privacy regulation) and standards will promote trust and confidence to the European consumers and providers/suppliers, paving the way for a competitive, trustworthy Digital Single Market.

Proposals under this call may be subject to security scrutiny if they could potentially lead to security-sensitive results that should be classified (see guide for classification). Proposals should consider the relevant human factor and social aspects when developing innovative solutions.

Topic ID	Type of action	Topic title	Opening date	Deadline 2018	Deadline 2019	EC Topic presentation
SU-ICT-02-2020	RIA	Building blocks for resilience in evolving ICT systems	25/07/19		19/11/19	Topic presentation
SU-ICT-04-2019	IA	Quantum Key Distribution testbed	26/07/18	14/11/18		Topic presentation

Some policy context, regulatory frameworks and other useful links:

Horizon2020 web site

Participants portal

Rules for participation and dissemination in Horizon 2020

Digital single market

Digitising European Industry initiative

Industrial Data Platforms – Key Enablers of Industry Digitization

European Cloud Initiative

ICT standardisation Priorities

EU eGoverment Action Plan 2016-2020

Implementation of the Action Plan for the European High-Performance Computing strategy

Quantum Technologies

Advancing the Internet of Things in Europe

EU cybersecurity strategy

5G for Europe Action Plan

5G Infrastructure Public Private Partnership (5G PPP)

International Cooperation on 5G

Directive (EU) 2016/1148 concerning measures for a high common level of security of network and information systems across the Union

Regulation (EU) No 910/2014 on electronic identification and trust services for electronic transactions in the internal market

Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data

European Electronic Communications Code

Regulation on the Body of European Regulators of Electronic Communications (BEREC)

Regulation on the promotion of Internet connectivity in local communities and public spaces (WIFI4EU)

The Radio Spectrum Policy Programme (RSPP)

ETSI Standardisation framework for Network Function Virtualisation initiatives