



H2020 – the basics in short



Funding

- Typical grant 4-12 M€ for 3 years
- 100% or 70% funding even for large corporations



Consortium

- Typically 6-12 partners from 4-5 countries
 - Minimum requirement is 3 partners from 3 countries



Maturity scope

- Range from basic research to close-tomarket
 - The call text defines the desired TRL



Ownership

- IPR for the developer.
- Details in Consortium Agreement.



H2020 Benefits

Externally funded projects are not only about the funding

Partners

- Build your
 European value
 chain
- Assess and engage your future business partners

Positive PR

- Communication and dissemination provide positive publicity
- Participate in solving bigger challenges

R&D experts & sites

- Access to publicly funded R&D sites and pilot facilities
- Your capability validated by neutral and respected R&D player

Lower risk in long term R&D

- Longer term R&D with both opportunities and risks
- Public funding for things you might not afford otherwise

Markets

- Finding new customers
- Creating new markets
- Influencing regulations and standards

Note: H2020 includes technology roadmaps, market signals and industrial lobbying. The Calls may provide a hint where the markets and your competitors are going



H2020 has 13 months to go, still several hundreds of open calls

- European Innovation Council (EIC): €1.2 billion (e.g. FTI €100 million)
- A low-carbon, climate resilient future: €3.7 billion
- Circular economy: €1 billion
- Digitizing and transforming European industry and services: €1.8 billion
- Security Union: €1 billion
- Enhancing international cooperation: €550 million
- Actions on food and natural resources: €209 million
- ERC: €2.2 billion

https://ec.europa.eu/info/news/commission-invest-eu11-billion-new-solutions-societal-challenges-and-drive-innovation-led-sustainable-growth-2019-jul-02_en&pk_campaign=rtd_news%C2%A0





Why now?

- Still a lot of calls and funding before H2020 ends
- H2020 rules are known (unlike the next program)
- H2020 proposal and project processes well tested & work smootly
- Good funding rates (70/100% +25% overhead)
- Nice and agile bottom-up instruments with good hit rates or good funding rates



Every cent of H2020 budgets will be granted to someone

- the beneficiaries include your peers and European competitors!





Different types of EU funding opportunities in short

Traditional H2020 Calls

- Call text describes in detail what kind of research and results can get funded
- Good funding rates and grants
- 500+ calls still open in 2020

H2020's instruments with relatively free topic

- Fast Track to Innovation FTI
- EIC Accelerator Pilot (was SME2)
- MSCA
- ERC

H2020 joint undertakings

- Funding from combined sources (H2020, national, industry)
- For transport, ECSEL-JU is the most relevant



Eureka Clusters

- Eureka application, but national decisions &funding
- Eurostars
- Eureka/Penta, ITEA3, SMART, etc

EU funding outside H2020

- CEF, TEN-T
- LIFE+
- Pesco/PADR
- ERDF Structural funds
- etc

BUSINESS **FINLAND**

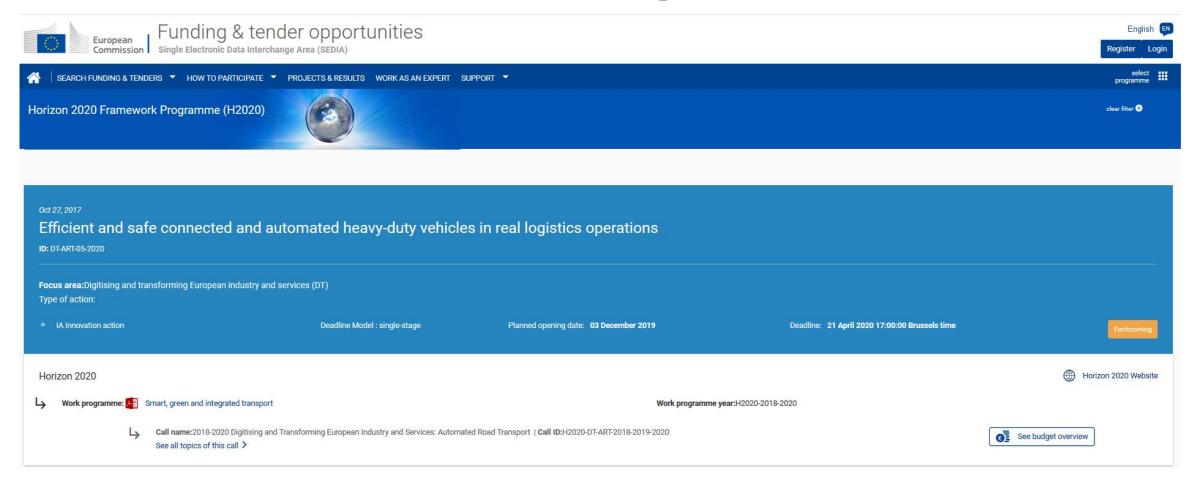
The "traditional" H2020 Calls with detailed call texts

 over 500 of these still left

Ticker	Call topic	deadline
BG-07-2019-2020	The Future of Seas and Oceans Flagship Initiative	22/01/2020
BG-10-2020	Fisheries in the full ecosystem context	22/01/2020
BG-11-2020	Towards a productive, healthy, resilient, sustainable and highly-valued Black Sea	22/01/2020
DT-ART-05-2020	Efficient and safe connected and automated heavy-duty vehicles in real logistics operations	21/04/2020
DT-ART-06-2020	Large-scale, cross-border demonstration of connected and highly automated driving functions for passenger cars	21/04/2020
LC-BAT-11-2020	Reducing the cost of large batteries for waterborne transport	21/04/2020
LC-GV-06-2020	Advanced light materials and their production processes for automotive applications	21/04/2020
LC-GV-07-2020	Reducing the environmental impact of hybrid light duty vehicles	21/04/2020
LC-GV-08-2020	Next generation electrified vehicles for urban and suburban use	21/04/2020
LC-GV-09-2020	Setting up a common European research and innovation strategy for the future of road transport	21/04/2020
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	09/01/2020
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	21/04/2020
LC-MG-1-13-2020	Decarbonising long distance shipping	09/01/2020
LC-MG-1-14-2020	Understanding and mitigating the effects on public health of emerging non-regulated nanoparticle emissions issues and noise	09/01/2020
LC-MG-1-15-2020	Towards global environmental regulation of supersonic aviation	21/04/2020
MG-2-13-2020	Coordination and support for an integrated freight transport and logistics system	21/04/2020
MG-2-14-2020	The effects of automation on the transport labour force, future working conditions and skills requirements	21/04/2020
MG-3-4-2020	Innovative electric network architectures and systems, optimising global energy, electrical power, data and communication for aviation	21/04/2020
MG-3-5-2020	Next generation multifunctional and intelligent airframe and engine parts, with emphasis on manufacturing, maintenance and recycling	21/04/2020
MG-3-6-2020	Towards sustainable urban air mobility	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	21/04/2020
MG-4-10-2020	Improving impact and broadening stakeholder engagement in support of transport research and innovation	21/04/2020
MG-4-7-2020	Digitalisation of the transport system: data sharing	21/04/2020
MG-4-8-2020	Advanced research methods and tools in support of transport/mobility researchers, planners and policy makers	21/04/2020
MG-4-9-2020	The European mobility culture of tomorrow: Reinventing the wheel?	21/04/2020



H2020 Calls in funding & tenders portal





How to read the Call text?

The Call text defines e.g.

- Requested activity and results
 - Specific challenge (= context, motivation)
 - Scope (= the activities in your project)
 - Expected impacts (= the results to deliver)
- Max grant for your project (typically 3-15 M€)
- Funding rate; RIA 100%+25%, IA 70%+25%
- TRL, i.e., how close to market you are
- Consortium and duration
 - Typically min 3 partners from 3 countries for 3 years
- Single stage or two stage proposal process
- Deadline (= sharp!)

What's essential in it?

- The proposal needs to respond in ALL the text. If something is missing, you're out.
- The results and actions are delivered by the consortium together. Consider what you can/want to do yourself, then list the partners you need.
- Make decisions and kick off 4-6 months before DL!



Technology readiness level defines which call suits for you

H2020 TRL definitions

https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014 2015/annexes/h2020-wp1415-annex-g-trl en.pdf

- TRL 1 basic principles observed
- TRL 2 technology concept formulated
- TRL 3 experimental proof of concept
- TRL4 technology validated in lab
- TRL 5 technology validated in (industrially*) relevant environment
- TRL 6 technology demonstrated in (industrially*) relevant environment
- TRL 7 system prototype demonstration in operational environment
- TRL 8 system complete and qualified
- TRL 9 –actual system proven in operational environment (Competitive manufacturing*)



^{*} In the case of Key Enabling Technologies



EIC accelerator Pilot (SME funding)

- For innovative SMEs
- No consortium needed
- Two tracks;
 - Grant max 2,5M€ (70%)
 - Blended; Equity max 15 M€
- 24 month project
- Funding for both finalising R&D and business development
- This is the only path for an SME to get 2,5M€ without diluting ownership!

The proposal is like a business plan; To be competitive, you need

Clearly novel and innovative product, even disruptive

High enough maturity:
At least TRL 6

Good business plan and skilful team

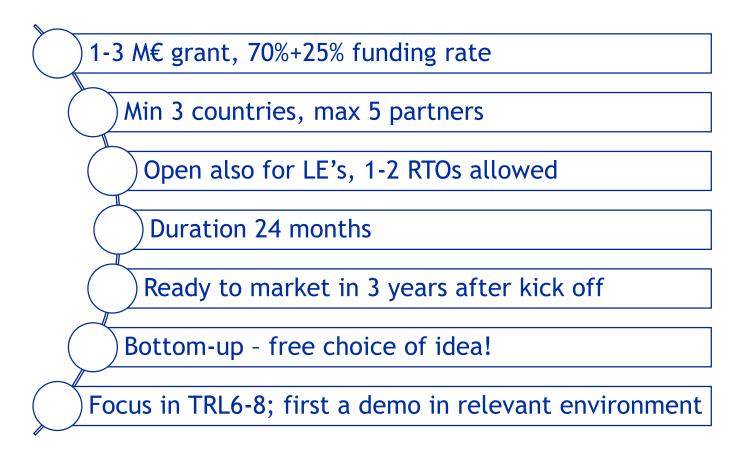
Ambition and chances for international growth

IPR strategy, freedom to operate (FTO) European benefit – what's in it for the rest of the EU?



H2020 with "free topic": Fast track to innovation

- For close to market innovations with strong business potential and risk
- 100 M€ annually, the next cut offs
 - 18.2.2020
 - 9.6.2020
 - 22.11.2020



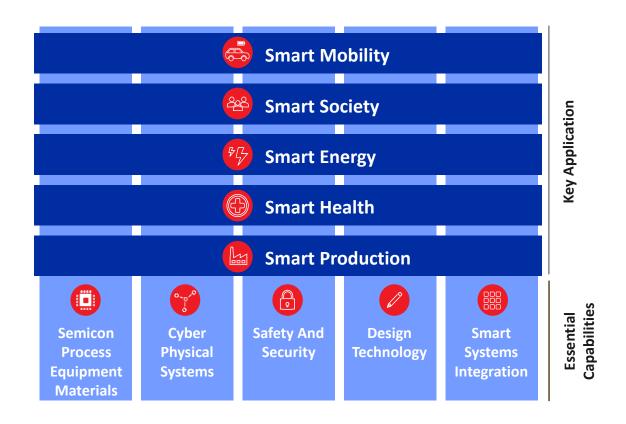


H2020 with relatively free topic:

ECSEL Joint Undertaking Electronics components and systems for European Leadership

Compared to typical H2020 RIA/IA;

- Very large consortiums;
 - typically 30-60 partners
- Very big total budgets; even 100M€
 - In RIA max 15 M€ from H2020 In IAs max 30 M€ from H2020
- Smaller funding rates; 40-70%
 - EU share 20/25/30/35%
 - National share often the same, but depends on the country
- Higher hit rates; 20-60%





Eurostars

National level decisions and funding

performing SMEs.
Coordinator must invest 10% to R&D

No thematic restriction for the area of innovation.

Budget 0.5 k€-6 M€, funding rates about 50%, max 36 months

To the market within 2 years after the project completion. (excl. clinical trials)

Need 2+ countries in consortium. EU 28 countries, Turkey, Israel and South Korea. 72 % of the participants are SMEs, the rest consists of RTOs and LEs

Cut-offs in autumn and spring

Hit rate about 30%



National funding with relatively free topic: EUREKA Clusters

A typical Cluster project



2-14 participants



3-4 countries



average duration 30 months



average project cost 1.5 - 15 M€



Telecommunications



Smart electronics systems



Low carbon energy technologies



Software intensive systems and services



New Cluster on Metallurgy



Micro and Nano electronic technologies and applications



Advanced manufacturing program

The most agile bottom-up instruments

Feature	EIC accelerator pilot	Fast Track to Innovation FTI	EuroStars
To whom?	Strong innovation and business potential, high risk included	Strong innovation and business potential, still risk included	Have an innovation that needs R&D
Source	H2020	H2020	National funding agencies; Business Finland
Max grant/ budget	2,5M€/3,6M€ (equity max 15M€)	3M€/4,3M€	0,5-6M€, average 1,4M€ (COO takes 50%)
Funding rate	70% +25%, option for blended	70% +25% (RTOs 100%+25%)	Defined by national funding agency.
Consortium	Single applicant	Min 3 countries. 3-5 partners, RTOs max 1/3 or 2/4-5.	Min 2 countries, typically 3-4 countries Note: Also Canada, Turkey and South Korea
Coordinator	SME	Large Enterprise (preferably)	R&D intensive SME (must)
Duration	24M	24M	1236M, average 29
Funding scope	Topic is free; both R&D and business development are must and funded	Topic is free; both R&D and business development are must and funded	Topic is free; R&D is funded
TRL scope	TRL6-8	TRL6-8	Not defined clearly
Application dates	8.1.2020. 18.3.2020, 19.5.2020, 7.10.2020	22.2.2020, 9.6.2020, 27.10.2020	12.9.2019, 2020 not launched but probably 03/2020, 09/2020
Launch to market	As the project ends	In 3 years from project start	In 2 years from project end
Pros	High funding rate, resub not limited	High funding rate, resub not limited	30% get funded
Cons	5-15% get funded, High enough TRL when starting?	5-15% get funded High enough TRL when starting?	Low/no funding for Large Enterprises. Coordination must be by SME



Big consortiums for value chain building

Feature	H2020 RIA/IA	ECSEL-JU RIA/IA
To whom?	Anyone	Anyone
Source	H2020	H2020 + national funding agencies
Max grant/ budget	Typically 4-15 M£	15M€/30M€ grant/even 100M€ budgets
Funding rate	100% +25%/ 70% +25%	40%100%, depends on call, org type and country
Consortium	Min 3 countries (typically 5-15 partners)	Min 3 countries (typically 30-50 partners)
Coordinator	Big enough, company for IA	Large Enterprise (preferably)
Duration	Typically 36M	Typically 36M
Funding scope	Defined in the Call text in very detail	Relatively free topic within the larger focus of ECS
TRL scope	TRL28, defined in the Call text	TRL 3-5/TRL6-8
Application dates	Defined in the Call text	Typically PO in May and FPP in September
Pros	High funding rate, numerous benefits	High hit rate, 2060%, very good VC building platform
Cons	5-15% get funded, one proposal matches one call	Low funding rates, complex building and decision making process



Proposal & practicalities

Funding & tenders portal

- PIC Code
- (SME validation)
- Opening the proposal in portal
- Inviting the partners
- Partner profiles
- Budgets
- Uploading Part B
- Submitting the proposal IN TIME

"Part B", the proposal of 70 pages

Excellence, e.g.,

- Objectives
- Relation to the work programme
- Concept and approach
- Ambition

Implementation, e.g.,

- Work plan
- Management, risks
- Consortium as whole
- Resources to be committed budget

Impacts, e.g.,

- Expected Impacts
- Communications, dissemination and exploitation of results
- IP and regulatory issues

Partners

- Partner descriptions
- Subcontracting



Process from idea to product, Example utilizing FTI funding Cut offs 19.2., 9.6. or 22.10.2020

From idea to product	Time
In-house R&D	2016?-
FTI idea development	11/2019-02/2020
FTI proposal building decision	01-02/2019
FTI proposal building process	03-06/2020
Decision by EC estimated	08-09/2020
Grant negotiations estimated	08-10/2020
Project kick off estimated	10-11/2020
Pre-payment, about 25% of grant	10-11/2020
Project ends	10-11/2022
New product launched at latest	2023

Proposal building process to 19.2.2020 DL	Time	
Select topic: • Novelty & innovation, strong business opportunity, some risk	01-02 /2020	
One-pager • Crystallize the idea for presenting it to own organisation & partners	02/2020	
Contact and engage the partners • Value chain, partners for your future businesses, large company	02/2020	
Finalise project concept, distribute work with partners	03-06	
Consortium meeting	/2020	
First draft & Budget proposal	_	
Partners inputs to the draft & budget	_	
Full draft prepared, comments on draft		
Consortium meeting (F2F/Skype) on final division of budget and work		
Polish, Refine, Review, Proofread and edit full proposal		
Submit the proposal	9.6.2020	



For a H2020 newbie, the low hanging fruit is to find a consortium

How to get onboard in a consortium?

- Tell the "H2020 usual suspects" you'd like to join a consortium
 - University or VTT research group active in your sector
 - The non-Finnish RTOs you already know
- Participate in the Commission infodays and brokerage events (e.g. EFECS or ECSEL brokerage in January)
 - Contact those who pitch a project idea!
 - Describe your know-how in your profile and tell you'd like to join consortium (doing what)
- Utilize online brokerage platforms
 - ECS collaboration tool for all ICT from electronics to Al





How Business Finland can support you?

Advice

- NCPs can provide further details
- NCPs and EUTI provide coaching and advice

EU proposal building grant

- Only for SME or mid-cap companies
- The project budget needs to be min 3M€, grant is max 5% of Finnish total budget, 50% funding
- Apply asap when you start working! Check details on BF webpage

Utilising ongoing BF project

- Option to use the grant for EU proposal building
- Contact your project officer to discuss budget change

FINLAND





Thank you for the attention! Take home:

- H2020 provides a multitude of funding opportunities, your competitors already utilize them
- If you plan to Coordinate your own, make the decision early enough!
- If you don't plan to coordinate, tell all RTOs you'd like to join a consortium!

Business Finlabd NCPs and EUTI would be glad to help ©

success?