

Autumn Call 2023, Online Launch Event, 7th Sept 2023

Xavier Priem, CELTIC-NEXT Director



#### Who is CELTIC-NEXT?





CELTIC-NEXT is the world industry-driven ECP\* ICT\*\* not for profit **cluster** involving all the major ICT\*\* industry players, service providers, many SMEs, and research institutions & academia to enable a secured, trusted, and sustainable digital society.

\*Eureka Clusters Program, launched on 17/6/2021, CELTIC-NEXT was launched earlier in 2003

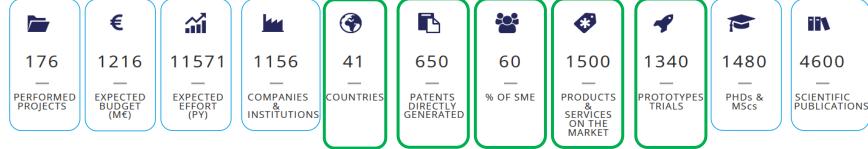
<sup>\*\*</sup> Information & Communications Technologies 2



#### Who is CELTIC-NEXT?



Since its launch in 2003, CELTIC has achieved:



CELTIC-NEXT is open to all entities willing to align their business targets with their national public priorities, by running common RD&I\*\*\* projects to advance the development and uptake of advanced ICT solutions, thus accelerating their own Time-To-Market.







- > The ICT Cluster under the umbrella of EUREKA
- Focused on Next-Generation Communications for the Digital Society
- ➤ A flexible and agile community of over 1150 private and public organisations, among prominent industry players, small & medium-sized enterprises and academic/research institutions
- The organiser of regular calls for projects, twice a year, in Spring and Autumn; and larger Flagship Calls
- Financed through public and private funding through transnational RD&I cooperation
- Open to any organisation willing to contribute to the industry-driven European and beyond ICT research programme





# Who is CELTIC-NEXT?

**CELTIC-NEXT Mission & Vision** 

#### The mission of CELTIC-NEXT is to:

- Foster our Eureka collaborative RD&I program for the ICT community
- > Accelerate the deployment and uptake of advanced ICT services
- Employ the new network concepts of 5G and beyond, and lead to the innovation ownership and implementation of 6G in Eureka countries

#### Because It is crucial to consolidate the position of:

- > Eurekan manufacturers and service providers
- Eurekan countries sovereignty

#### The strong ambition of CELTIC-NEXT is, therefore, to:

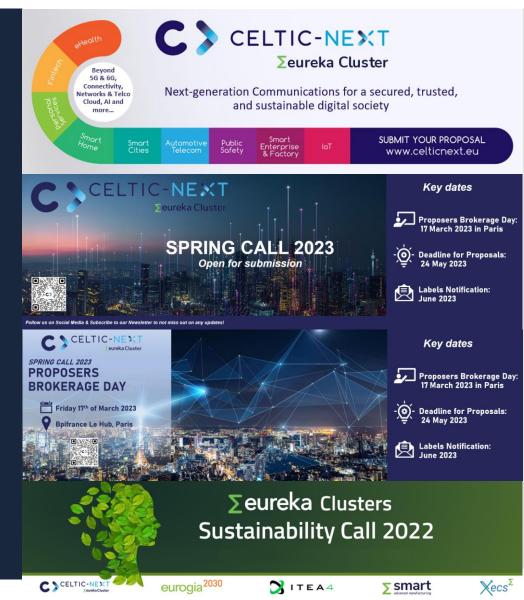
- Assist Eurekan National Authorities, Eurekan Industry, and Eurekan Societies
- Make them access to societal benefits, competitive advantages, commercial returns of being at the forefront of the new digital era for the society



#### What CELTIC-NEXT does ...

CELTIC-NEXT manages an international Quality Label that enables international consortia to apply more successfully to National Funding schemes and assemble them to fund international cooperative innovation.

- CELTIC Bottom-up calls
- CELTIC Flagship projects & open calls
- EUREKA ECP Joint Calls





# CELTIC's Community

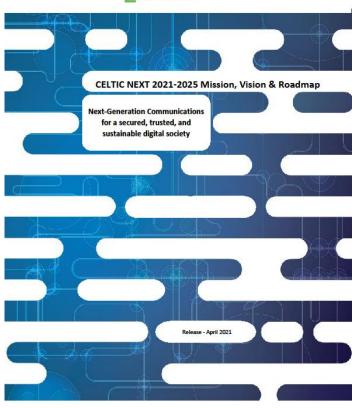




with over 1150 community members across 41 countries (Europe & beyond)









#### **CELTIC-NEXT** in the **European Funding** Landscape

**EUREKA-CELTIC & European Space Agency** Mol Signed (Nov. 2021)

**EUREKA-CELTIC &** 6G-IA SNS MoU Signed (Apr. 2022)





#### **Press Release** Eureka PT Chair I Eureka Cluster - CELTIC I European Space Agency



#### **Connecting Terrestrial ICT with Space ICT** Strategic Collaboration between Eureka, CELTIC-NEXT and ESA AR



Director of Telecommunications and Integrated Applications and Head of ECSAT at the European Space Agency (ESA), and CELTIC Office Director Xavier Priem.

Porto, 22 November 2021. Eureka Clust (CELTIC-NEXT) and the European Space A signed a Memorandum of Intent (MoI) to ogether. This will enable the faster convergence and development of terrestrial and non-terrestrial network and service technologies in the innovative field of Space

The MoI will help to foster economic growth and jobs through coordinated R&DI activities and the commercial exploitation of integrated space and terrestrial systems enabled by 5G and 6G. The collaboration aims to leverage the complementarity of ESA and CELTIC-NEXT and build on synergies to maximise the return on investment and to support

Knowledge exchange & SRIAs cross-contributions

> Leveraging funding schemes across TRLs & topics

Calls timing alignment Easier pipelining of proposals

From Research to Market (TRL **↗**, early adopters, testbeds...)

Offering innovative entities the full panel between top-down programs and bottomup spaces for their collaborative projects

#### Memorandum of Understandina with 6G-IA signed



NEXT and the 6G Smart Networks and Ser-simple framework where the signatories can vices Industry Association (6G-IA) signed a lidentify the complementary nature of their Memorandum of Understanding (MoU), which aims at establishing synergies and complementary activities in collaborative ICT both initiatives and contribute to the research. The MoU will help foster economic achievement of their goals. growth and jobs through coordinated R&D&I activities and the commercial exploitation of sity of 6G-IA and CELTIC-NEXT as well as the generated results. The collaboration aims to fact that their projects are somewhat seleverage the complementarity of 6G-IA and quential in terms of their Technology Readi-CELTIC-NEXT and build on synergies to max-imise the return on investment and to sup-on the respective investments and increase port achieving the UN Sustainable the impact on the Sustainable Development

sovereignty and resiliency in the rapidly have shown how critical it is to count on both terrestrial and non-terrestrial ICT services, as

and allied countries' funding to reach a criti- mental, and societal benefits. cal mass of R&D&I and a faster time-to-market for the European countries and their

This Memorandum of Understanding vides the platform for leveraging on each signatory's strengths and cooperation, to To support the achievement of their com support sovereignty and resiliency for Europe and allied countries.

The purpose of this MoU is to set out a

The signatories aim to leverage the diver-

ICT has become, more than ever, a pillar of cross-programme discussions and workshops on potential technology pathfinders changing social, political and economic envi- and solutions, with a view to stimulating a ronment of today and its regional battlefields. pipeline of new projects for both initiative The Russian war against Ukraine as well as the and sharing reciprocal contributions to each measures against the COVID-19 pandemic other's Strategic Research and Innovation

The focus of the cooperation is to stimutogether they constitute one of the critical in- late the respective communities to consider frastructures of a country, especially consid- the issues in a holistic way considering the ering the digitalisation of the society and the "end-to-end" perspective of the new communications services being enabled by 5G with new verticals and communities. The 6G-Therefore, it is mandatory to increase and 6G technologies, as well as developing IA community is also eager to collaborate and leverage to its maximum the European an understanding of the economic, environ-

mon objectives, the signatories intend to:

**FG** SNS

- Create awareness and promote opportunities for collaboration within and across the respective communitie
- Consult mutually on their SRIAs Collaborate on the organisation and execution of activities with a view to
- reaching the common objectives identified Participate in and support suitable events organized by the other signatory
- Plan and manage joint activities in areas common interest in line with the
- Undertake joint communication, as appropriate
- Leverage their relevant resources expertise necessary to ensur Regularly review the effecti

#### priorities agreed

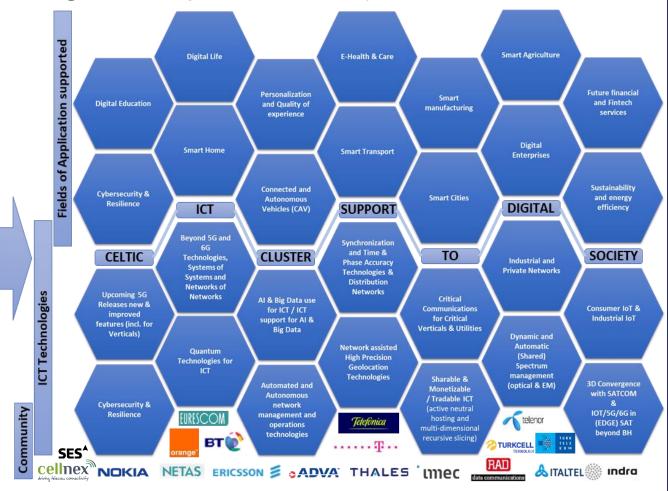
laborations for CELTIC-NEXT. This for the ICT community by enriching its DNA MoU offers the perfect playground for both communities to meet and work together or strategic topics and projects.



#### 2023 additional focus:

As usual, Proposals that address **any of the topics of the <u>CELTIC</u>** 

Strategic Roadmap in this bottom-up call are welcomed



https://www.celticnext.eu/strategic-roadmap/

CELTIC is also looking into:

- □ Non-Terrestrial-Networks and Terrestrial Networks convergence
- ☐ Digitalisation of the Economy thanks to ICT technologies
- ☐ Clean Growth
- ☐ Remote Health & Care
- ☐ ICT for Industry 4.0 and Logistics
- ☐ Critical Coms for Emergency & Rescue Services
- ☐ Critical Infrastructures & Cybersecurity
- ☐ Open RAN
- ☐ Private Networks
- ☐ AI for ICT & Networks (including Radio Massive MIMO, Open-RAN RICs, ...)
- ☐ Consumer IoT, Industry IOT
- ☐ ICT Technologies for METAVERSES
- ☐ and 5G Advanced and 6G topics

#### CELTIC-NEXT'S DNA

FOR YOUR SUCCESS C CELTIC-NEXT Seureka Cluster

Bottom-up

Proposers are free to define their project proposal according to their own research interests

Close to the market

So far projects have led to more than 1500 new or improved products and services

High Success Rate

High-quality proposals have a good chance of receiving funding.

Average success rate 60 %

Flexibility

Project focus can be adjusted to new technological developments in the field

By participating, you will get

Expectable benefits for you

Your opportunities are

- The award of an Globally Recognised Label
- Professional coaching and mentoring
- Easy access for SMEs
- Access to SMEs for Large industry & vice-versa
- Access to partners from more than 45 countries
- Access to national funding (while having international co-innovation)
- Transnational RD&I cooperation





- Boosting your competitiveness
- Accelerating your growth
- Shortening time to market
- Accessing new markets
- Increasing your international visibility
- Exposing your know-how to the eco-system
- Receiving guidance, coaching and monitoring of your project by the CELTIC Office,
- flexible project coaching process where you can adapt your project plan, consortium and other aspects, in agile way, using CELTIC's Project Change Requests



- Immerge yourself into a rich ecosystem covering the technology and business whole value chains (Large Industry, SMEs, Startups, RTOs, Academia, end-users)
- Build RD&I consortia during brokerage and other events
- Lead or be part of an industry lead project
- Create and foster collaborative innovation
- Stimulate disruptive and/or sustainable ideas
- Run and manage your collaborative project with the Office's support
- Adapt to internal and external circumstances
- Generate high economic impact
- Grow and collaborate beyond borders
- Deliver high social and economic impacts
- Support U.N. SDGs









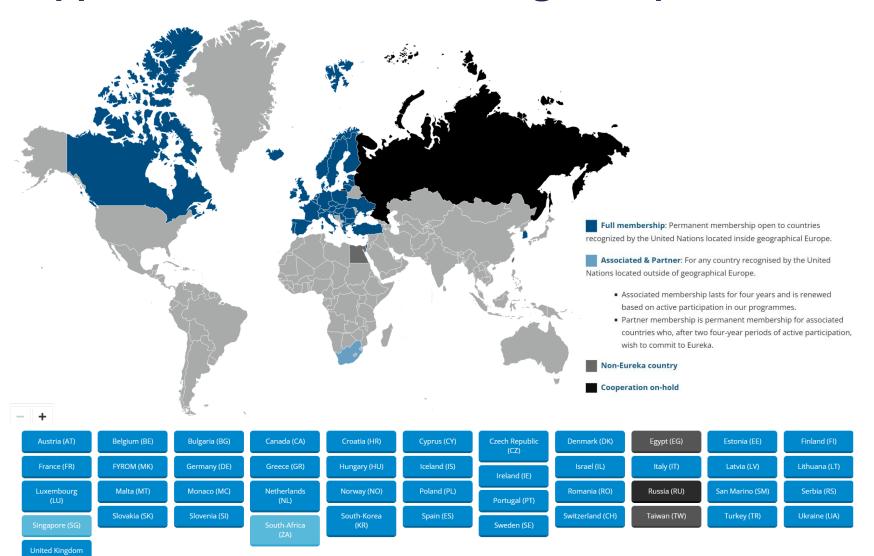






And potentially more countries in the future, like Chile, Taiwan...

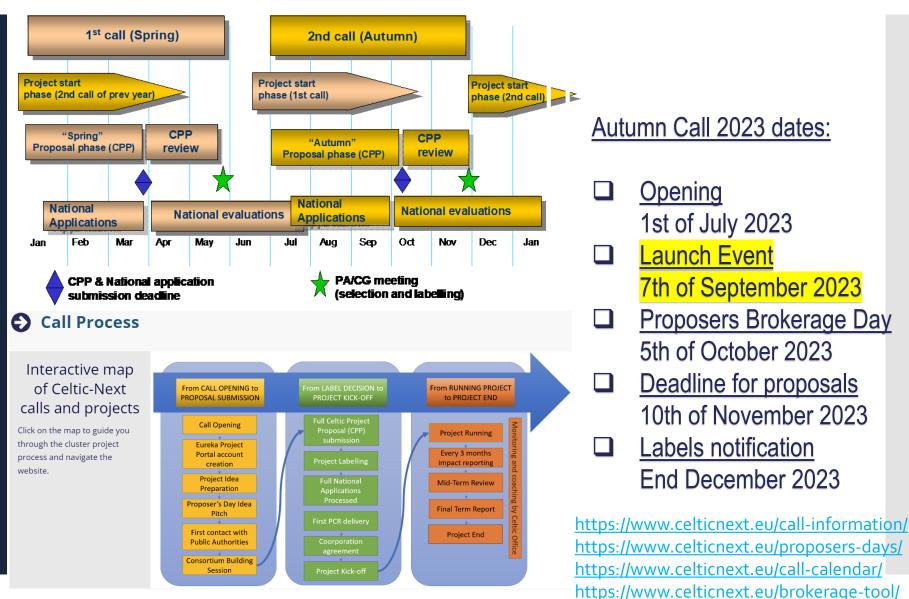
#### Opportunities to collaborate globally





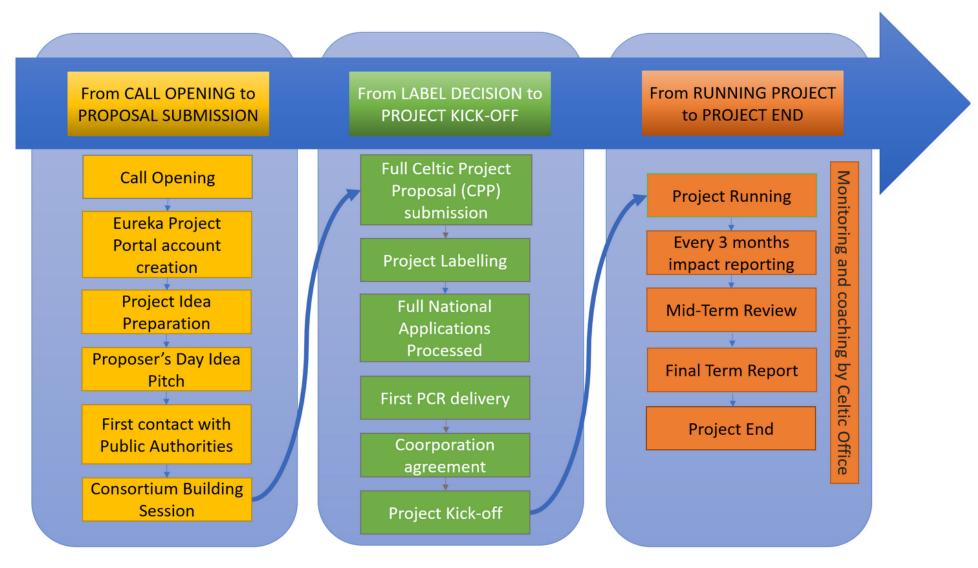
# Call process and timelines

CELTIC offers 2 bottom-up calls per year and additional flagship calls



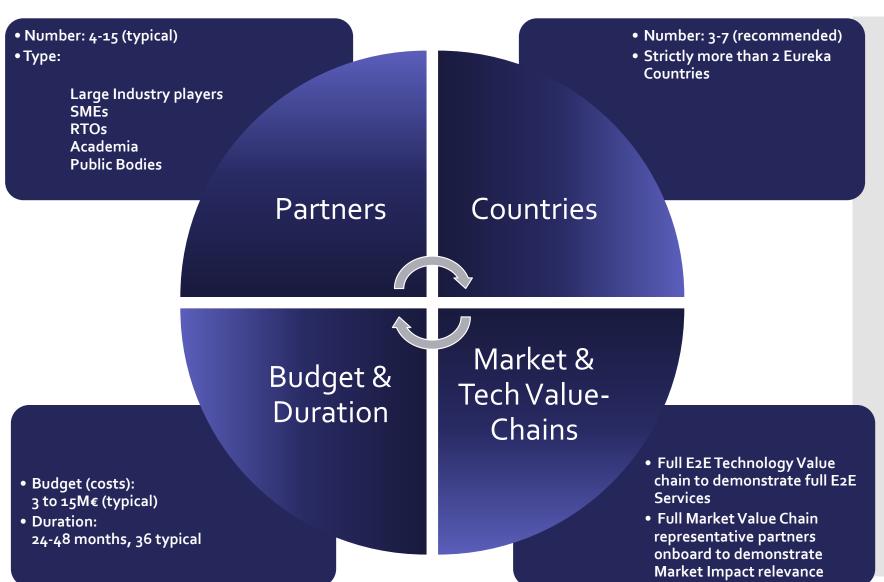
#### **CELTIC-NEXT Call Process**







CELTIC-NEXT's typical BOTTOM-UP call projects





# CELTIC-NEXT's typical FLAGSHIP projects

(hybrid bottom-up & top-down model)





CELTIC-NEXT

Seureka Cluster

#### Bottom-Up Spring Call 2023

13 valid proposals

51mio€ budget / 1030 FTEs

102 participants in 21 countries

AT, BE, CA, CH, DE, ES, FI, FR, HU, IL, KR, LU, PL,

PT, RO, RS, SE, TR, UK...

Labelling meeting on 30th June 2023

Bottom-Up Autumn Call 2023

Promotion starting 1st of July 2023

Launch Event Bog/2023 (20Y of CELTIC)

Brokerage Day B10/2023

FPP deadline 10th of November 2023

Labelling WK51 2023

Our Community is active!

Al-NET Flagship follow-up project

Preparation has started

Interested Countries,
please contact CELTIC's Director

First topics drafting to happen this Summer

3D-NET (NTN, Space) flagship

Core Team of Industrials in recruitment

Interested Countries, please contact CELTIC's Director

First meetings to happen in October 2023



#### **CELTIC-NEXT Autumn Call 2023**





Important: please contact the Public Authorities before Projects submission:

https://www.celticnext.eu/national-public-contacts-funding-schemes/

Receiving their opinion early can avoid mistakes in your proposal, and will improve your chances to get the label by aligning with National Priorities and Schemes



# Events to prepare impactful projects:

#### **CELTIC-NEXT's**

- Launch Days
- Proposers Days
- Annual Events
- Brokerage platform



#### Autumn Call 2023 dates:

- Opening

  1st of July 2023
- Launch Event7th of September 2023
- Proposers Brokerage Day 4th of October 2023
- Deadline for proposals10th of November 2023
- Labels notification
  End December 2023

https://www.celticnext.eu/proposers-days/ https://www.celticnext.eu/call-calendar/ https://www.celticnext.eu/brokerage-tool/





## **CELTIC Flagship projects impact the Market & Standards**





**Secure Communications for Europe** *Spin-off's and Start-ups:* 

- Cailabs (France)
- aXenic Ltd (UK)

27 new and 28 improved products.

Record Data Transmission: 38.4 Terra bit / sec. The American Library of Congress (the world biggest) would be transmitted in 3 seconds

Cornelia Rogall-Grothe (State Secretary, BMI – German Ministry of the Interior) and Dr. Georg Schütte, State Secretary of the German Federal Ministry for Education and Research (BMBF) - Copyright: hannibal/BMBF

80 Partners 70M€

60

**Partners** 

8oM€



#### **SENDATE**

Secure Networking for a Data Center cloud in Europe

- The world's first 100G quantum safe transport over 2,800 km
- The world's first 400G link with single-photodiode for DC Interconnect
- Edge Computing shifts high traffic loads away from Core DC
- Secure cloud close to the customer allows low latency applications



SENDATE Closing Event in Ericsson's HQ in Kista, March 2019

## **AI-NET - Accelerating digital transformation** in Europe by Intelligent NETwork automation





#### CELTIC-NEXT AI-NET umbrella project

### **ANTILLAS** subproject

#### **MOSIA**

Optical networks for latency critical and highly available services

## **PROTECT** subproject



Secure enterprise connectivity

#### ANIARA

subproject

#### **ERICSSON**

5G / 6G Edge and Industry 4.0

#### **Subprojects**

- Coordination and management by Telekom system manufacturer
- Rapid development of prototypes and early market access

#### Horizontal working groups

- bi- and multi-lateral cooperation across sub-projects
- Standardization and open platforms
- Joint field tests and demos

**Automation** of services and applications on the edge (Nokia)

Carrier-grade **AI/ML** for automation (Ericsson)

**Edge platform and infrastructure** (RISE)

**Safety and security** solutions (ADVA)



#### **Project data and structure**







98 **Participants** Countries

68.3 M€ 507 PJ

Total budget

Total effort

Leverage though participation of many European countries



## AI-NET impact and current project KPIs ... and still counting!





**194** 

104

48

**Publications** 

PhD & Master Theses

IPR, Open Source & Standards Contributions

**60** 

46

36

PoCs

Keynotes and general public comms

Hirings

#### High impact with excellent project KPIs





#### 2023 Proposers' Brokerage Days: 3 important moments during those days



Keynote speakers will also present about innovative and cutting-edge ICT topics.

CELTIC Calls!

priorities, as well as the process of



Friday 17 March 2023

**CELTICNEXT.EU** 







**CELTICNEXT.EU** 



**CELTICNEXT.EU** 



https://www.celticnext.eu/celtic-brokerage-event-spring-call-2023/





#### Conclusion

Join the CELTIC-NEXT Community and apply to trans-national funding for your next steps of development of your innovations, technologies and products & services, and:

- Get a recognised international label to your innovations
- Don't be restraint to specific limit to your innovation project (bottom-up vs top-down)
- Get a larger visibility for collaboration
- Gain commercialisation channels (mixing Large Industry with SMEs and RTOs) in near-to-market innovation collaborations
- Accelerate your Time-To-Market by increasing your TRLs in a near to market funding scheme
- Collaborate easily outside of Europe (Eureka Network of Countries) with the proven EUREKA Clusters mechanism, extending again your visibility and commercialisation channels







<u>CelticNextEurekaCluster</u>



@CelticNext



CELTIC-NEXT Video
Channel

#### MANYTHANKS FOR YOUR ATTENTION.



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