



TÜBİTAK Uluslararası İşbirliği Daire Başkanlığı AB Çerçeve Programları Müdürlüğü

Ufuk Avrupa Programı Küme 4: Dijital

Hasan Burak Tiftik

Küme 4 Ulusal İrtibat Noktası

Bilimsel Programlar Kıdemli Uzmanı



#	Konu
1-	Küme4: Dijital Genel Bilgi (Bütçe, Kılavuz, İletişim)
2-	2023 yılı Konu Başlıkları
3-	World-leading Data and Computing Technologies (DATA) - 2024
4-	Digital & Emerging Technologies for Competitiveness and Fit for the Green Deal (DIGITAL EMERGING) - 2024
5-	A human-centred and ethical development of digital and industrial Technologies (HUMAN) - 2024
6-	Smart Network Systems (SNS)
7-	Key Digital Technologies (KDT)

Dijital Konu Başlıkları



Bütçe Hibe Tutarı

Küme 4
Toplam: 15,3 Milyar Avro (%16)

Çağrı Takvimi

2024 Çağrıları
15.11.2023-19.03.2024

Ulusal İrtibat Noktaları

H. Burak TİFTİK (312 298 17 52)
Dr. Özlem GEZİCİ KOÇ (312 298 17 72)
Erencan BAL (312 298 14 67)

Kuruluşların Projelere Katılma Tipleri

Koordinatör

İş Paketi Lideri

İş Paketinde görevli

Alt yüklenici

Third Party

Kuruluşların Projelere Katılma Süreci

Ar-Ge Sağlayıcı

Industry Partner

SME/Startup/Innovator Partner

Pilot-Demo-End User

SSH (Sosyal Bilimler)

İlgili Olabilecek Sektör/Alanlar

Kamu Hizmetleri

Finans

Akıllı şehirler

Sağlık Servisleri

Turizm

Data Merkezleri

Tedarik Zinciri Yönetimi

Enerji

eGovernment

Ulaştırma

Güvenlik

Trusted Chips



Önemli Hususlar

Çok Ortaklı (Sinerji)

Ar-Ge ve Yenilik (Sustainable supply chain)

Sektörlerin dönüşümü

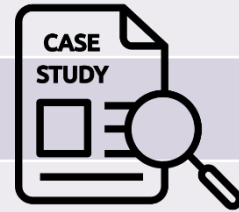
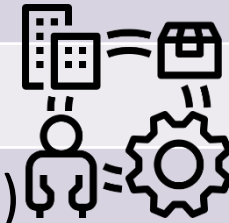
Business Case and Exploitation Strategy

Uygulama (EU Action Plans, Green Deal etc.)

Çalışma Programı

Ortak arama platformları

Koordinatörlük Desteği



Avrupa Politikaları

- [Europe's Digital Decade and Path to the Digital Decade Policy Programme](#)
- [EU Cybersecurity Act](#)
- [European Chips Act](#)
- [Artificial Intelligence \(AI\)](#)
- [Data, Cloud and Edge Computing](#)
- [High Performance Computing \(HPC\)](#)
- [Internet of Things](#)

Dijital Alanı Ortaklıklar Üyelik

AI, Data and Robotics

[AI, Data and Robotics Association \(Adra\)](#)



Photonics Partnership

[Photonics PPP | Photonics21](#)



6g Smart Network Systemes JU

[6G IA \(6g-ia.eu\)](#)



Hedef 3: World leading data and computing technologies (DATA)



DATA Çağruları

HORIZON-CL4-2024-DATA-01-01

(Bütçe: 38 Milyon Avro)
(TRL 4-5 to 6-7)

AI-driven **data operations** and **compliance technologies** (AI, data and robotics partnership) (IA)

- privacy preservation, smart contracting, consent management, bias detection, quality measurement, tracking of uses of data etc.
- federated and distributed AI/analytics and associate them with trustworthy AI techniques

HORIZON-CL4-2024-DATA-01-03

(Bütçe: 45 Milyon Avro)
(TRL 3-4 to 6-7)

Piloting emerging **Smart IoT Platforms** and **decentralized intelligence** (IA)

- Maximum %20 to third party each up to 200 000 Euro
- KOBİ ve Start-Up

HORIZON-CL4-2024-DATA-01-05

(Bütçe: 2 Milyon Avro)

Platform Building, standardisation and Up-scaling of the 'Cloud-Edge-IoT' Solutions (Horizontal Activities - CSA)



Hedef 4: Digital & Emerging Technologies for Competitiveness and Fit for the Green Deal (DIGITAL EMERGING)



DIGITAL EMERGING Çağruları

HORIZON-CL4-2024-DIGITAL-EMERGING-01-22
(Bütçe: 13,5 Milyon Avro)
(TRL 2-5)

Fundamentals of Software Engineering (RIA)

- Methods, mechanisms and tools that allow **smart intelligent system specification, agile system and code development, advanced code analysis, fault prediction and location and self-repair**
- Methods and tools for the development of **dynamic and resilient software for systems** running on multiple processing architectures

HORIZON-CL4-2024-DIGITAL-EMERGING-01-03
(Bütçe: 30 Milyon Avro)
(TRL 2-3 to 4-5)

Novel paradigms and approaches, towards AI-powered robots– step change in functionality (AI, data and robotics partnership) (RIA)

- **Robust perception** and the integration of **sensing into physical structures** to enhance motion and perception
- Advanced **safe and reliable navigation** functionalities, integrating anticipation, re- planning, high-level goal optimization
- Advanced **cognitive capabilities**, integrating any type of learning
- Novel design approaches, e.g. **soft robotics, under-actuated, miniaturised, modular/reconfigurable** robot
- Mobile manipulation, natural manipulation of arbitrary objects including **soft, fragile or other items complex to handle** (e.g. dirty, slippery, deformable)
- **Advanced navigation/manipulation in extreme environments**

HORIZON-CL4-2024-DIGITAL-EMERGING-01-04
(Bütçe: 60 Milyon Avro)
(TRL 3-5 to 6-7)
(200 000 Avro Third Parties) (%40 of total)

Industrial leadership in AI, Data and Robotics boosting competitiveness and the green transition (AI Data and Robotics Partnership) (IA)

- **Large scale pilots** bringing major industries from key application sectors in Europe
- The development of **large-scale pilots** addressing key applications with a significant and scalable impact on the objectives of the green deal



Hedef 4: Digital & Emerging Technologies for Competitiveness and Fit for the Green Deal (DIGITAL EMERGING)



DIGITAL EMERGING Çağruları

HORIZON-CL4-2024-DIGITAL-EMERGING-01-54
(Bütçe: 18 Milyon Avro)
(TRL 2-5)

Smart photonics for joint communication & sensing and access everywhere (Photonics Partnership) (RIA)

- **Sensors/probes to monitor the quality of the communication** network and of photonic signals transported in the communication network
- Methods to use the network as **large-scale distributed sensor**
- Development of foundational **optical technologies, systems and networks** that provide the future access infrastructure

HORIZON-CL4-2024-DIGITAL-EMERGING-01-55
(Bütçe: 15 Milyon Avro)
(TRL 2-5 to 4-7)

Photonics Innovation Factory for Europe (Photonics Partnership) (IA)

- Substantially improved penetration of core photonics technologies into multiple end-user application
- Creation of a sustainable streamlined ecosystem for photonics innovation in Europe from TRL 2-7

HORIZON-CL4-2024-DIGITAL-EMERGING-01-31
(Bütçe: 33 Milyon Avro)
(TRL 3-4 to 5-6)

Pilot line(s) for 2D materials-based devices (RIA)

- Broadly accessible pilot line(s) fostering the creation of electronic and photonic devices and systems (co-)integrating two-Dimensional Materials (2DM)
- Significant progress towards the adoption of the 2DM in the silicon and semi-conductor arena

HORIZON-CL4-2024-DIGITAL-EMERGING-01-21
(Bütçe: 20 Milyon Avro)
(TRL 4-6)

Open Source for Cloud/Edge to support European Digital Autonomy (RIA)

- Prototypes of cloud and edge servers demonstrated in relevant centralised and distributed environments



Hedef 6: A human-centred and ethical development of digital and industrial Technologies (HUMAN)



HUMAN Çağruları

HORIZON-CL4-2024-HUMAN-01-07

(Bütçe: 20 Milyon Avro)

(TRL 2-3 to 4-5)

Collaborative intelligence – combining the **best of machine and human** (AI Data and Robotics Partnership) (RIA)

- Demonstrate the value of **human-machine collaboration and interaction**
- Demonstrate how collaborative **decision-making** improves over human decision-making

HORIZON-CL4-2024-HUMAN-01-06

(Bütçe: 30 Milyon Avro)

(TRL 2-3 to 4-5)

Explainable and **Robust AI** (AI Data and Robotics Partnership) (RIA)

- data-efficient learning, transformers, reinforcement learning, federated and edge-learning, automated machine learning
- hybrid approaches integrating learning, knowledge and reasoning, model-based approaches, neuromorphic computing, or other nature-inspired approaches
- continual learning, active learning, long-term learning
- multi-modal learning, natural language processing, speech recognition and text understanding

HORIZON-CL4-2024-HUMAN-01-61

(Bütçe: 6 Milyon Avro)

Facilitate the engagement in global ICT standardisation development (CSA)



1- 6G'de Avrupa'nın teknoloji egemenliğini desteklemek

2- Avrupa'nın 5G'ye geçişini artırmak

6G SNS
IA

SNS Misyonları

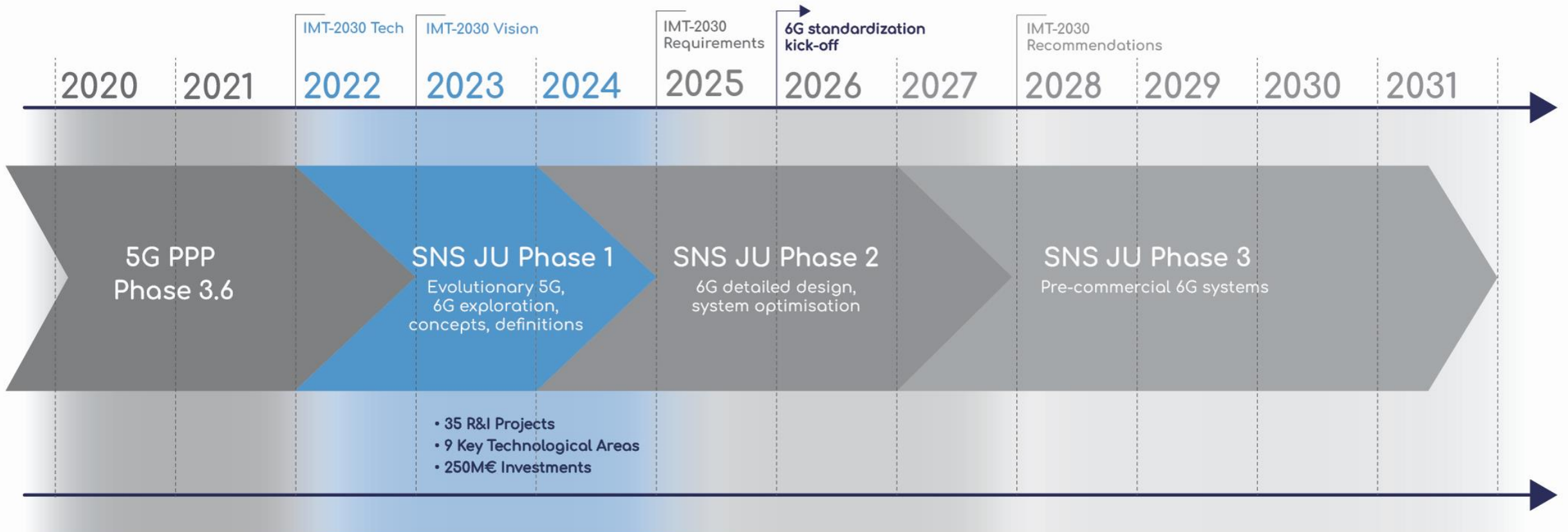


SNS Çalışma Programı Yapısı

Stream B	Düşük TRL Seviyeli araştırmalar (6G for IOT, Devices and Software)
Stream C	Enerji verimli 6G araştırmaları ve mikroelektronik geliştirmeleri
Stream D	Geçmiş SNS projelerine dayalı büyük ölçekli deneme ve pilot çalışmalar

2024 Çağrı Takvimi yakında açıklanacak

Smart Networks Systems (SNS) Joint Undertaking



SNS Çağruları

HORIZON-JU-SNS-2024-STREAM-B-01-01: System Architecture - Standardisation and Follow-up/PoCs

HORIZON-JU-SNS-2024-STREAM-B-01-02: Wireless Communication Technologies and Signal Processing – Standardisation and Follow-up/PoCs

HORIZON-JU-SNS-2024-STREAM-B-01-04: Reliable Services and Smart Security– Standardisation and Follow-up/PoCs

HORIZON-JU-SNS-2024-STREAM-B-01-05: International Collaboration – EU-JP

HORIZON-JU-SNS-2024-STREAM-B-01-06: International Collaboration – EU-SK

HORIZON-JU-SNS-2024-STREAM-B-01-07: Sustainability

Cascading Calls: <https://smart-networks.europa.eu/open-calls-from-sns-projects/>



TEŞEKKÜRLER

