nexT gEneRation sMart INterconnectEd ioT

Fact Sheet

Project Information

TERMINET
Grant agreement ID: 957406

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<td>H2020-EU.2.1.1.</td>
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<th>Overall budget</th>
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<td>€ 7 998 285</td>
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Coordinated by
PANEPISTIMIO DYTIKIS MAKEDONIAS
Greece

Project description

Making it simple to connect devices

Tens of billions of devices are connected to the Internet of Things (IoT), and the number of connections is growing every second. Information is being constantly sent and received from one smart device to another. Based on cutting-edge technologies such as software-defined networking (SDN), multiple-access edge computing, and virtualisation for next-generation IoT, the EU-funded TERMINET project will develop a novel next-generation reference architecture. Its main aim is to simplify the connection of a vast number of different devices through a flexible SDN-enabled middleware layer. To improve supply chain processes, the project will design an IoT-driven decentralised and distributed blockchain framework within manufacturing.
TERMINET’s approach will be tested in real-life situations such as energy, smart buildings, smart farming, healthcare and manufacturing.

Objective

The vision of TERMINET is to provide a novel next generation reference architecture based on cutting-edge technologies such as SDN, multiple-access edge computing, and virtualisation for next generation IoT, while introducing new, intelligent IoT devices for low-latency, market-oriented use cases. TERMINET’s primary intention is to bring (more efficient and accurate) decisions to the point of interest to better serve the final user targeting at applying distributed AI at the edge by using accelerated hardware and sophisticated software to support local AI model training using federated learning. Our solution aspires to reduce the complexity of the connecting vast number of heterogeneous devices through a flexible SDN-enabled middleware layer. It also aims to design, develop, and integrate novel, intelligent IoT devices such as smart glasses, haptic devices, energy harvesting modules, smart animal monitoring collars, AR/VR environments, and autonomous drones, to support new market-oriented use cases. Great expectation of the proposal is to foster AR/VR contextual computing by demonstrating applicable results in realistic use cases by using cutting-edge IoT-enabled AR/VR applications. By designing and implementing an IoT-driven decentralised and distributed blockchain framework within manufacturing, TERMINET aims to support maintenance and supply chain optimisation. Our solution intends to apply a vertical security by design methodology by meeting the privacy-preserving and trust requirements of the NG-IoT architecture. To foster standardisation activities for the IoT ecosystem, TERMINET will provide novel disruptive business models. For the evaluation of its wide applicability, TERMINET will validate and demonstrate six proof-of-concept, realistic use cases in compelling IoT domains such as the energy, smart buildings, smart farming, healthcare, and manufacturing.

Fields of science

Programme(s)

Topic(s)

Call for proposal
H2020-ICT-2020-1

Funding Scheme

RIA - Research and Innovation action

Coordinator

PANEPISTIMIO DYTIKIS MAKEDONIAS

Address
Parko Agiou Dimitriou 1
50100 Kozani
Greece

Activity type
Higher or Secondary Education Establishments

EU contribution
€ 881 250

Website

Contact the organisation

Participants (26)

ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS

Address
Charilaou Thermi Road 6 Km
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Activity type
Research Organisations

EU contribution
€ 401 562,50

Website

Contact the organisation

KAROLINSKA INSTITUTET

Address
Nobels Vag 5
17177 Stockholm

Activity type
Higher or Secondary Education Establishments

EU contribution
€ 199 687,50

Website

Contact the organisation

PUBLIC POWER CORPORATION S.A.

Address

EU contribution

Website

Contact the organisation
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<td>€ 239 375</td>
<td>Kedea Building, Tritis Septemvriou, Aristotle Univ Campus 54636 Thessaloniki</td>
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<td>SCHNEIDER ELECTRIC ESPANA SA</td>
<td>€ 196 875</td>
<td>Bac De Roda 52 Edif A 08019 Barcelona</td>
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<td>€ 336 562,50</td>
<td>Regent Street 207 3Rd Floor W1B 3HH London</td>
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ERICSSON TELECOMUNICAZIONI SPA
Italy
EU contribution
€ 410,625
Address
Via Anagnina 203
00118 Roma
Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

INNOVATION SPRINT
Belgium
EU contribution
€ 216,875
Address
Rue Clos Chapelle-aux-champs 30 Bte 1.3.30
1200 Bruxelles
Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

AMERICAN FARM SCHOOL POST SECONDARY EDUCATIONAL AND TRAINING ASSOCIATION
Greece
EU contribution
€ 167,937,50
Address
Marinou Antypa 54 23
55102 Thessaloniki
Activity type
Higher or Secondary Education Establishments

INTRASOFT INTERNATIONAL SA
Luxembourg
EU contribution
€ 407,500
Address
Rue Nicolas Bove 2B
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<td>Greece</td>
<td>€ 418 125</td>
<td>Mithridatou 36-38 11632 Athina</td>
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<td>ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA</td>
<td>Italy</td>
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<td>Via Zamboni 33 40126 Bologna</td>
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<td>GEIE ERCIM</td>
<td>France</td>
<td>€ 250 000</td>
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<td>Germany</td>
<td>€ 445 472,50</td>
<td>Kurfursten-anlage 36 69115 Heidelberg</td>
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MARTEL GMBH
Switzerland
EU contribution
€ 409,187.50
Address
Uberlandstrasse 111
8600 Dubendorf
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

OPTINVENT
France
EU contribution
€ 245,625
Address
14E Rue Du Patis Tatelin
Metropolis II
35700 Rennes
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

FUNDACIO PRIVADA I2CAT, INTERNET I INNOVACIO DIGITAL A CATALUNYA
Spain
EU contribution
€ 263,250
Address
Calle Gran Capita 2-4, Edifici Nexus I
08034 Barcelona
Activity type
Research Organisations

FONDAZIONE POLICLINICO UNIVERSITARIO AGOSTINO GEMELLI IRCCS
Italy
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