Objective

The smart energy ecosystem constitutes the next technological leap of the conventional electrical grid, providing multiple benefits such as increased reliability, better service quality and efficient utilization of the existing infrastructures. However, despite the fact that it brings beneficial environmental, economic and social changes, it also generates significant security and privacy challenges, as it includes a combination of heterogeneous, co-existing smart and legacy technologies. Based on this reality, the SDN-microSENSE project intends to provide a set of secure, privacy-enabled and resilient to cyberattacks tools, thus ensuring the normal operation of EPES as well as the integrity and the confidentiality of communications. In particular, adopting an SDN-based technology, SDN-microSENSE will develop a three-layer security architecture, by deploying and implementing risk assessment processes,
self-healing capabilities, large-scale distributed detection and prevention mechanisms, as well as an overlay privacy protection framework. Firstly, the risk assessment framework will identify the risk level of each component of EPES, identifying the possible threats and vulnerabilities. Accordingly, in the context of self-healing, islanding schemes and energy management processes will be deployed, isolating the critical parts of the network in the case of emergency. Furthermore, collaborative intrusion detection tools will be capable of detecting and preventing possible threats and anomalies timely. Finally, the overlay privacy protection framework will focus on the privacy issues, including homomorphic encryption and anonymity processes.

Field of science

/ engineering and technology/environmental engineering/energy and fuels/renewable energy
/ engineering and technology/electrical engineering, electronic engineering, information engineering/electrical engineering/power engineering/electric power distribution

Programme(s)

Topic(s)

Call for proposal

H2020-SU-DS-2018

Funding Scheme

IA - Innovation action

Coordinator

AYESA ADVANCED TECHNOLOGIES SA

Address

Calle Gonzalo Jimenez De Quesada 2 Planta 11 Torre Sevilla Torre Pelli 41092 Sevilla

Spain

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

EU contribution

€ 484 625

Contact the organisation
Participants (32)

PANEPISTIMIO DYTIKIS MAKEDONIAS
Greece
EU contribution
€ 372 500
Address
Parko Agiou Dimitriou 1
50100 Kozani
Activity type
Higher or Secondary Education Establishments
Website
Contact the organisation

ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS
Greece
EU contribution
€ 462 500
Address
Charilaou Thermi Road 6 Km
57001 Thermi Thessaloniki
Activity type
Research Organisations
Website
Contact the organisation

PREDUZECE ZA TELEKOMUNIKACIJSKE USLUGE REALAIZ DOO BEOGRAD (SAVSKI VENAC)
Serbia
EU contribution
€ 252 875
Address
Mihajla Bogicevica 7
11000 Beograd
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Contact the organisation

ATOS SPAIN SA
Spain
EU contribution
€ 233 380,48
Address
Calle De Albarracin 25
28037 Madrid
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
**SCHNEIDER ELECTRIC FRANCE SAS**

- **Country:** France
- **EU contribution:** € 25,357,28
- **Address:** Rue Joseph Monier 35, 92500 Rueil Malmaison
- **Activity type:** Private for-profit entities (excluding Higher or Secondary Education Establishments)

**PUBLIC POWER CORPORATION S.A.**

- **Country:** Greece
- **EU contribution:** € 181,125
- **Address:** Chalkokondylí Street 30, 104 32 Athina

**FUNDACION TECNALIA RESEARCH & INNOVATION**

- **Country:** Spain
- **EU contribution:** € 492,812,50
- **Address:** Parque Científico Y Tecnológico De Gipuzkoa, Paseo Mikeletegi 2, 20009 Donostia/san Sebastian (Gipuzkoa)
- **Activity type:** Research Organisations

**DIMOS AVDIRON**

- **Country:** Greece
Greece

EU contribution
€ 82 250

Address
Genisea
67064 Genisea

Contact the organisation

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

INNOVATIVE ENERGY AND INFORMATION TECHNOLOGIES LTD

Bulgaria

EU contribution
€ 505 750

Address
Ul Magnurska School N11 Hay Tek Park By Office 316 1784 Sofia

Contact the organisation

Private for-profit entities (excluding Higher or Secondary Education Establishments)

ELEKTROENERGIEN SISTEMEN OPERATOR EAD

Bulgaria

EU contribution
€ 103 250

Address
Bul Tsar Boris Iii 201 1618 Sofia

Website
Contact the organisation

Private for-profit entities (excluding Higher or Secondary Education Establishments)

CEZ DISTRIBUTION BULGARIA AD

Bulgaria

EU contribution
€ 96 250

Address
Tsrigradsko Shouse Blv 159 1784 Sofia

Contact the organisation
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Country</th>
<th>EU contribution</th>
<th>Address</th>
<th>Activity type</th>
</tr>
</thead>
<tbody>
<tr>
<td>UBITECH LIMITED</td>
<td>Cyprus</td>
<td>€ 285 906,25</td>
<td>26 Nikou &amp; Despinas Pattchi</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
</tr>
<tr>
<td>CYBERLENS LTD</td>
<td>United Kingdom</td>
<td>€ 183 750</td>
<td>10 12 Mulberry Green Old Harlow</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
</tr>
<tr>
<td>SIDROCO HOLDINGS LIMITED</td>
<td>Cyprus</td>
<td>€ 262 937,50</td>
<td>Petraki Giallourou 22</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
</tr>
<tr>
<td>0 INFINITY LIMITED</td>
<td>United Kingdom</td>
<td>€ 260 636,25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2A Heigham Road Imperial Office
E6 2JG London

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation

EIGHT BELL LTD
Cyprus
EU contribution
€ 256 375

Agias Paraskevis 23 Strovolos
2002 Nicosia

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation

INCITES CONSULTING SA
Luxembourg
EU contribution
€ 254 625

130 Route D’arlon
8008 Strassen

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation

ENERGYNAUTICS GMBH
Germany
EU contribution
€ 134 925

Robert Bosch Strasse 7
64293 Darmstadt

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Country</th>
<th>EU contribution</th>
<th>Address</th>
<th>Activity type</th>
<th>Website</th>
<th>Contact the organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU</td>
<td>Norway</td>
<td>€ 443 000</td>
<td>Hogskoleringen 1 7491 Trondheim</td>
<td>Higher or Secondary Education Establishments</td>
<td>[Link]</td>
<td>[Link]</td>
</tr>
<tr>
<td>SIAXAMPA NIS E.E.</td>
<td>Greece</td>
<td>€ 123 900</td>
<td>Kalis Elpídos 26 554 37 Thessaloniki</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
<td>[Link]</td>
<td>[Link]</td>
</tr>
<tr>
<td>GOTTFRIED WILHELM LEIBNIZ UNIVERSITÄT HANNOVER</td>
<td>Germany</td>
<td>€ 225 307,50</td>
<td>Welfengarten 1 30167 Hannover</td>
<td>Higher or Secondary Education Establishments</td>
<td>[Link]</td>
<td>[Link]</td>
</tr>
<tr>
<td>RAVNA HYDRO LTD</td>
<td>Bulgaria</td>
<td>€ 99 750</td>
<td>Ul. General Karzov 21 4300 Karlovo</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
<td>[Link]</td>
<td>[Link]</td>
</tr>
</tbody>
</table>
FUNDACIO INSTITUT DE RECERCA DE L'ENERGIA DE CATALUNYA

Spain
EU contribution
€ 367 187,50
Address
C/ Jardins De Les Dones De Negre 1
08930 Sant Adria De Besos
Activity type
Research Organisations
Website
Contact the organisation

ESTABANELL Y PAHISA ENERGIA SA

Spain
EU contribution
€ 183 697,50
Address
Calle Rec 26-28
08400 Granollers
Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)
Contact the organisation

CHECKWATT AB

Sweden
EU contribution
€ 173 057,50
Address
Marketenterivagen 1
415 28 Goteborg
Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)
Contact the organisation

INDEPENDENT POWER TRANSMISSION OPERATOR SA

Greece
EU contribution
€ 177 625
Address
Dyrrachiou Str. & Kifisou 89
10443 Athens
Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)
<table>
<thead>
<tr>
<th>Organization</th>
<th>Country</th>
<th>EU Contribution</th>
<th>Address</th>
<th>Activity Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINTEF ENERGI AS</td>
<td>Norway</td>
<td>€ 453 320</td>
<td>Sem Saelandsveg 11, 7465 Trondheim</td>
<td>Research Organisations</td>
</tr>
<tr>
<td>DIL DIEL</td>
<td>Bulgaria</td>
<td>€ 103 250</td>
<td>8, Boris Hristov Str., Fl. 2, Ap.5, 1111 Sofia</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
</tr>
<tr>
<td>OPTIMIZACION ORIENTADA A LA SOSTENIBILIDAD SL</td>
<td>Spain</td>
<td>€ 122 150</td>
<td>Avenida Leonardo Da Vinci 18, Piso 2, 41092 Sevilla</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
</tr>
<tr>
<td>GEIE ERCIM</td>
<td>France</td>
<td>€ 137 500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SCHNEIDER ELECTRIC INDUSTRIES SAS
France
€ 364,455.22

Address
Rue Joseph Monier 35
92500 Rueil Malmaison

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Contact the organisation

ATOS IT SOLUTIONS AND SERVICES IBERIA SL
Spain
€ 86,432.02

Address
Ronda De Europa 5
28760 Tres Cantos Madrid

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Contact the organisation

Last update: 26 November 2020
Record number: 222641

Permalink: https://cordis.europa.eu/project/id/833955

© European Union, 2021