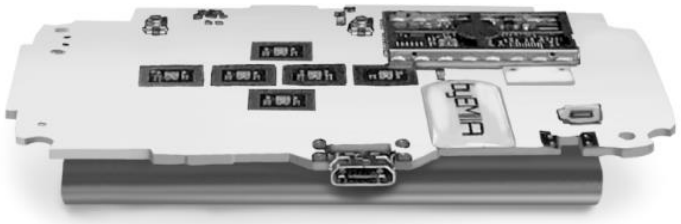
EMIIA

CONVERGENCE #1

EMIIA – autonomous cyber physical platform for the Internet of Things **IoT/IIoT**

Embedded electromechanical and software-hardware solutions based on Smart controllers and **MONOCLE** modules with integrated self-updating software and autonomous neural network for automation and machine vision based on the principles of cognitive radio optics:

– Foggy/Peripheral (boundary) computing – **Fog/Edge Computing**;
– Machine vision based on the principles of cognitive radio optics – **Cognitive radio optics**;
– Wireless mesh network – **Wireless Mesh Network**.



Without Foggy computing it is not possible to build and secure the Internet of things!

Result of implementation of hardware/software and electromechanical components of the platform:

60% reduce capital and operating costs on the Internet of things **IoT/IIoT**

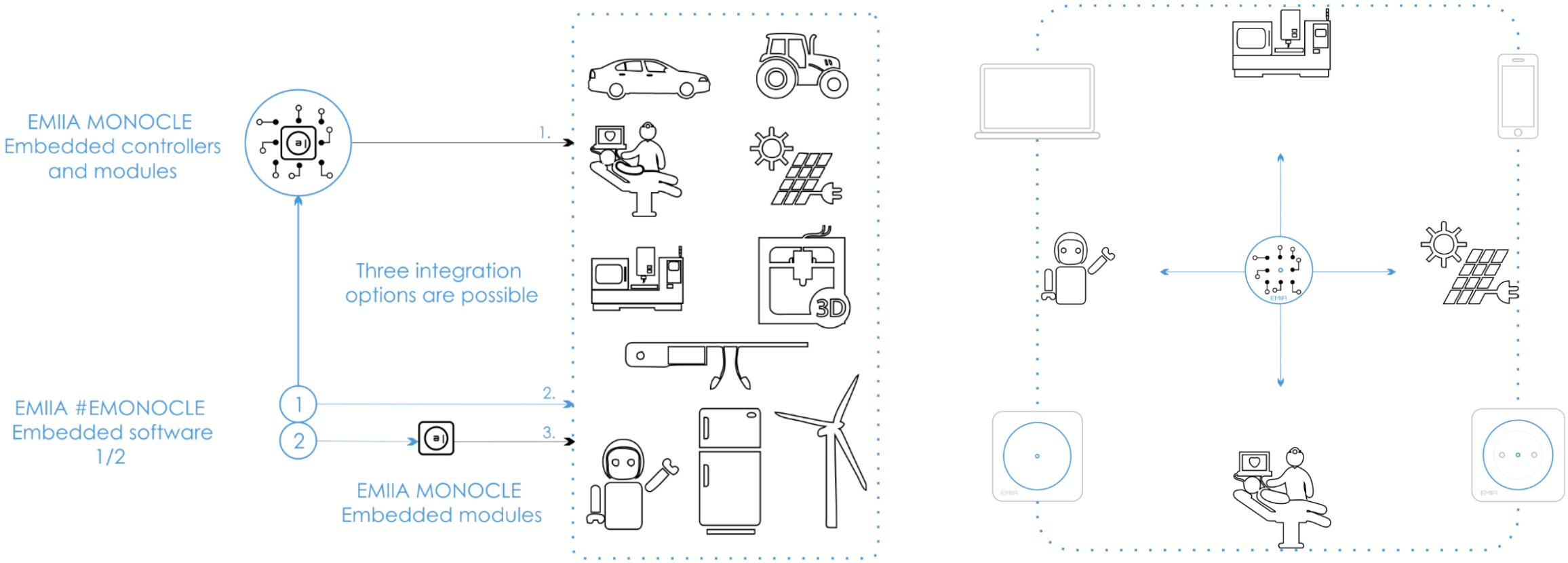
(**automation, information security, Industry 4.0**).

60-80 %
savings on IoT/IIoT infrastructure, cloud computing and information security

30 %
replacing sensors and network modems (communication module)

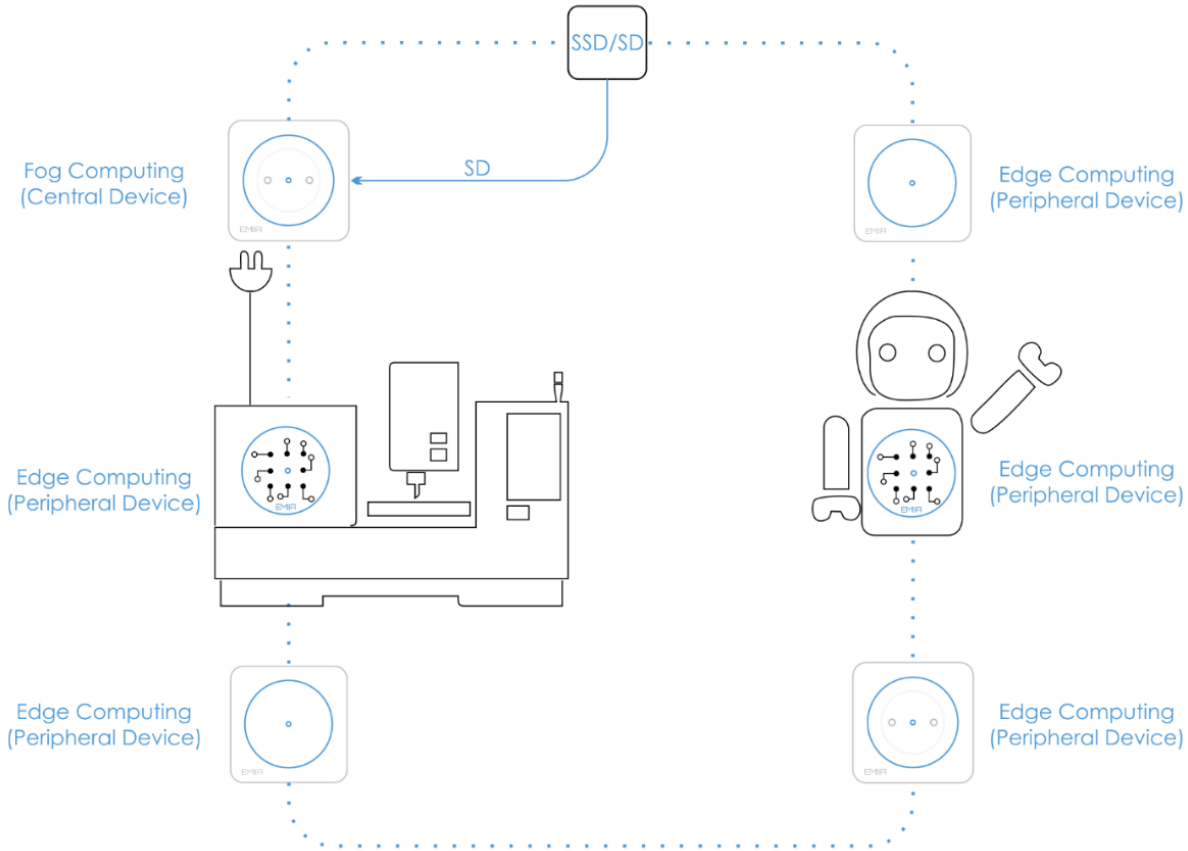
10 %
reducing power consumption

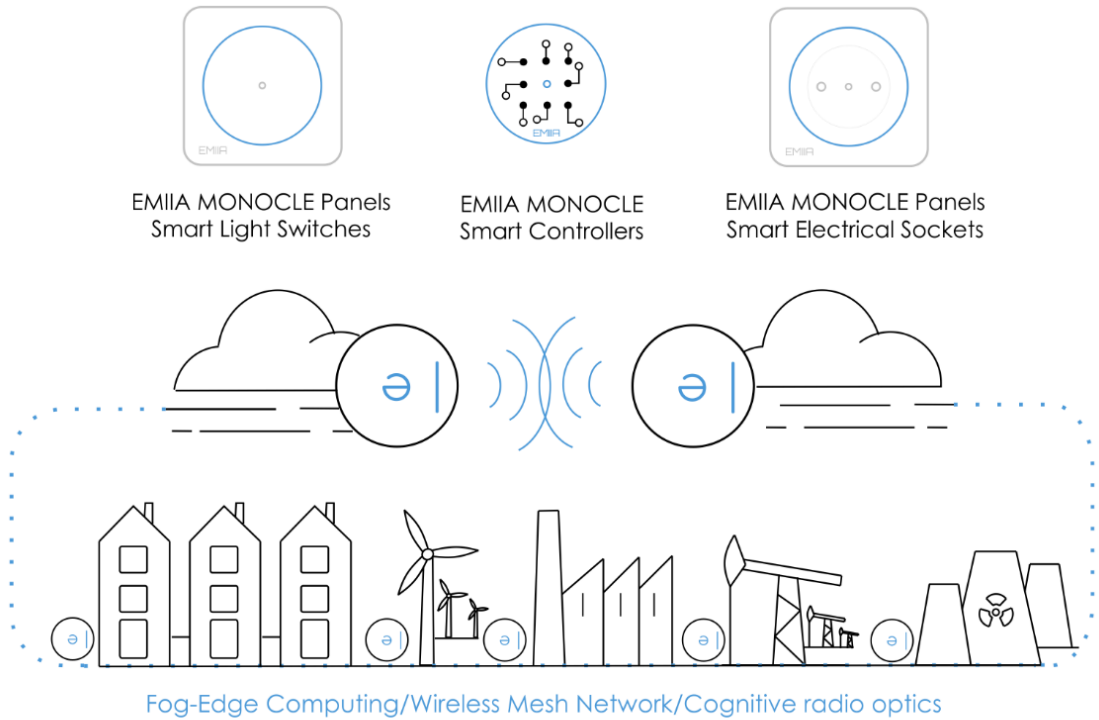
THE ORGANISATION OF AUTONOMOUS CYBER PHYSICAL PLATFORM "EMIIA": EMBEDDED SMART CONTROLLERS AND PANELS MONOCLE (CONTROLLERS, LIGHT SWITCHES AND ELECTRICAL SOCKETS)



Fog-Edge Computing/Wireless Mesh Network/Cognitive radio optics

EMIIA Autonomous Cyber Physics Platform IoT/IIoT





Fog-Edge Computing/Wireless Mesh Network/Cognitive radio optics

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MARKET, BUSINESS MODEL, STRATEGY

GLOBAL MARKET (B2B, B2C, B2G) SOFTWARE AND HARDWARE PLATFORMS FOR INDUSTRY (IIoT), AS WELL OFFICE AND RESIDENTIAL SPACES (IoT)

Transcript for Electromechanical and hardware/software components within the platform of the Internet of things for the infrastructure of IoT/IIoT:

Platform IoT/IIoT - electromechanical and hardware:
- Switches;
- Routers;
- Server equipment;
- Uninterruptible power supply;
- Communication modules;
- Controllers;
- Actuators.

Platform IoT/IIoT - software:
- Protection against cyber threats;
- Monitoring and data analysis tools;
- Database management tools.

Sensors: temperature, pressure, humidity, flow, accelerometers, magnetometers, gyroscopes, inertial, sensor, proximity, acoustic, motion, occupancy, presence, image processing (IPOS), intelligent presence sensors (IOS), CO2/CO, light and radar sensors.

→ More detailed

Online resource of the project: www.emiia.ru

The project's blog: emonocle.blogspot.com

Github Repository: github.com/EMIIA

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→ Profiles of project participants (team)