



**WB Steering Platform for Research
and Innovation**

Brussels, 25 June 2018

www.bio-ict.ac.me

- ❑ Pilot project, supported by the Government of Montenegro (WB Loan)
- ❑ BIO-ICT: Centre of Excellence in Bioinformatics (www.bio-ict.ac.me)
- ❑ Budget: 3 235 000.00 EUR (3.4 with VAT)
- ❑ Duration: 01 June 2014 – 31 May 2018 (+ additional 2 months – transition period)

Project partners



Faculty of Electrical Engineering,
University of Montenegro



Biotechnical faculty, University of
Montenegro



Institute for Marine Biology, University
of Montenegro



The Institute of Public Health of
Montenegro



Cogi DOO



Green House Jovović DOO



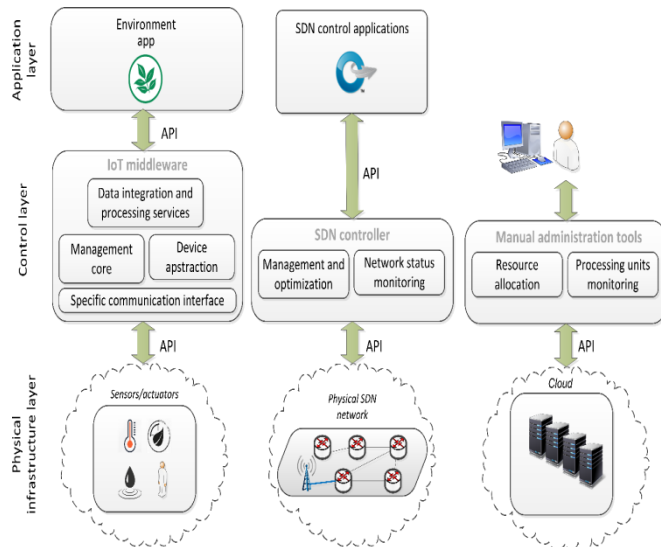
St. Petersburg Scientific Research
Center for Ecological Safety



The Centre for TeleInFrastruktura,
Denmark

What???

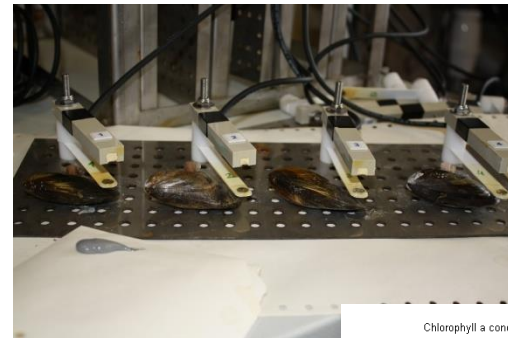
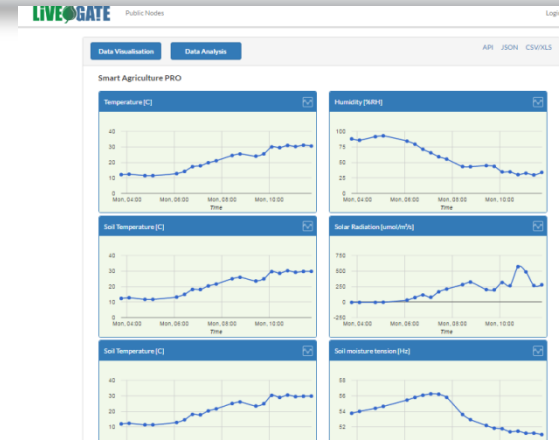
BIO-ICT **aim** is to boost the application and use of latest ICT technologies in the areas of sustainable agriculture, monitoring of the crops, forest and water/sea ecosystem, development of techniques for controlling and reducing air pollution, analysis and standardization of food products, control of land quality, and improvement in the public health area.



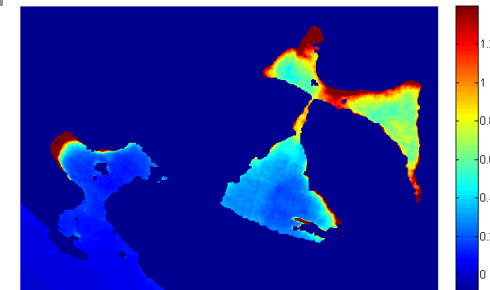
How???

1. development of new scientific approaches and methods for improving products and services in life sciences (primarily agriculture, health and ecology);
2. strengthening interdisciplinary research in Montenegro (4 national research institutions involved);
3. strengthening cooperation with international research entities (2 international research partner institutions);
4. establishing cooperation with private sector in Montenegro (2 national commercial entities in the project), and
5. improving potential for creating commercial innovations through the commercialization of knowledge and IP.

- ❑ 101 people involved in different stages of the project (88 researchers and technicians; 13 people for support to IP, commercialization, management) (full & part time). **Special focus – young researchers, esp. full-time, with series of incentive measures**
- ❑ 3 completely new laboratories established and 10 upgraded; 2 outdoor research facilities at commercial partners established and 1,2 M EUR invested in new RTDI equipment
- ❑ 31 SCI research papers and 90 papers at international (59) and national (31) conferences, 3 chapters in a Springer publication
- ❑ 5 national patents. 1 PCT submitted, currently available at WIPO search database;
- ❑ Developed systems for support to different types of users: LiveGate IoT platform (www.livegate.ac.me), SeMar (Smart buoy system); BioPortal; etc...



Chlorophyll a concentration [mg/m^3] - Landsat 8 - 15.3.2015



- ❑ Chip based on the controllable generator of constant power ready, in cooperation with the Technical University of Vienna (NDA signed)
- ❑ Chip is the basic building block for plant tissue humidity measurement
- ❑ 2 pitching presentations to ENIF fund were held, but decided to first proceed with testing and patenting

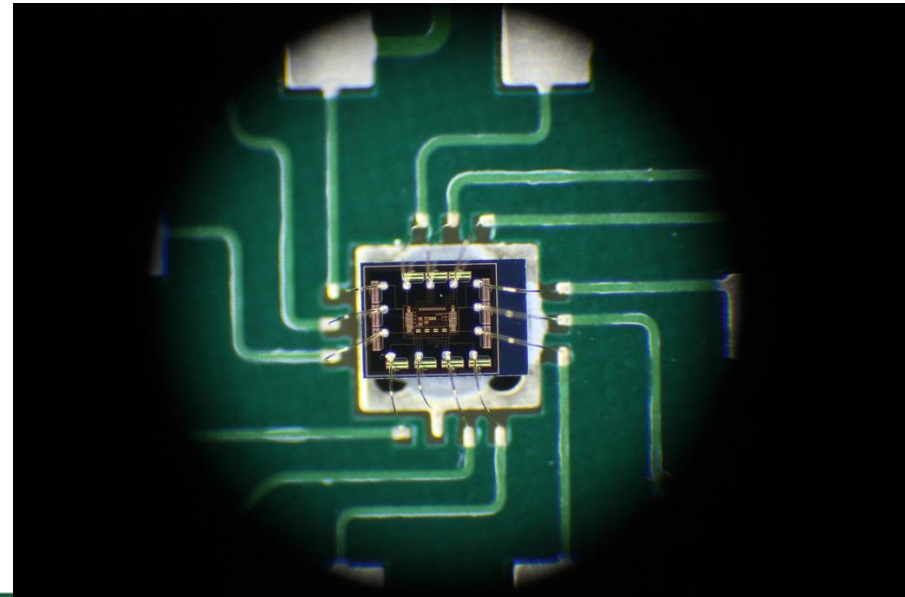
National patent was approved on 25 October 2016, which gave us the priority date for international application



PCT submitted to EPO and WIPO on 23 October 2017, using the priority date from 2016 . **FIRST PCT VIA NATIONAL IP OFFICE**



Research paper, titled “A Controllable Constant Power Generator in 0.35um CMOS Technology for Thermal-Based Sensors Applications” accepted for publishing in SCI Journal of Sensors, Hindawi



Smart Buoy System: 1. salt and fresh waters 2. multiplying knowledge through extending network

In cooperation with **Amplitudo Ltd.** developed system was 'packed'.



In cooperation with **Morsko dobro** (public enterprise in charge of management of coastal area), 3 systems installed at: MBI, hotels Splendid (open coast, mid), hotel Kalamper (southern coastal area). Tested for two months, now in the process of improving electronics (salt water).



In cooperation with **Regional Water Supply Authority**, system based on similar methodology is installed at a supply distributional point in Budva (fresh water).

Hindering factors: 'raw material' supply; knowledge transfer contracting; 'packaging' unavailable in Montenegro



- ❑ As of 06 June 2018, BIO-ICT succeeded by the Centre of Excellence for Research and Innovation, as a separate unit of the University of Montenegro (same level as institutes and faculties).
- ❑ New unit will take up on the BIO-ICT achievements, and be also TTO and project support unit for the entire University, as planned within the project Sustainability Strategy and developed Business Plan
- ❑ Process of selecting Centre Director, preparing updated RTDI program and organizational model finalization is ongoing





Thank you!!!

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