

WaterSpy

High sensitivity, portable photonic device for pervasive water quality analysis

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PHOTONICS PUBLIC PRIVATE PARTNERSHIP





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WaterSpy news

With the aim to develop the WaterSpy device, during this period the consortium has been working on the development of the different modules. **Fig.1** presents the the overall approach and configuration.



Main effort in this period is directed towards the development of the Quantum Cascade Lasers (QCL), the photodetector system and the microfluidics/ATR configuration development. **Figure 2** presents an overview of the work going on in this period.





WaterSpy **12M Meeting** in Poland





The WaterSpy 12M meeting was hosted on the 2nd and 3rd November 2017 in Warsaw (Poland), where VIGO is based (Fig.3). All partner organizations attended the event. During the first day of the meeting, administrative procedures were discussed, while an overview of the main active and completed tasks took place.



Fig.3 M12 meeting

The second day of the meeting was dedicated to a

main issues that have to be dealt with in the next



Fig 4. WaterSpy deliverables roadmap

Deliverables

D3.2 Lasers preliminary packaged devices D3.3 Lasers optimized for full spectral coverage more detailed and open technical discussion on the D3.4 Packaged optimized lasers integrated with driving electronics D4.1 Integrated photodetector preliminary version D4.2 Photodetector final version D4.3 Integrated photodetector and electronics D5.1 WaterSpy device modules v1 D5.2 WaterSpy device modules v2

D6.1 Mid-project testing output report

VIGO laboratory tour

period.







Review meeting

The first WaterSpy review meeting also took place in this period (December 2017). The project officer and the reviewers provided valuable comments for improving the system and keeping in track for a future WaterSpybased product.





Fig.5

Conferences participation

CyRIC represented WaterSpy in the Photonics Public Private Partnership Annual Meeting on the 8th and 9th March 2018. The project was presented in the workshop entitled "Security, Metrology and Sensors".

Planned events:

- The next WaterSpy consortium meeting (M18) will take place in Vienna, Austrian, where TUW is based. In combination with the M18 technical meeting, a Mid-IR Sensing workshop will be organized together with the Aquarius project consortium.
- Alpes Laser is going to participate in the OSA Mid-infrared Coherence Sources Topical Meeting in Strasbourg from 26th to 28th March, in the CEM Emissions monitoring and regulations event in Budapest, Hungary from 16th to 18th May and in the "Laser Applications to Chemical, Security and Environmental Analysis Conference (LACSEA)" in Orlando, Florida USA from 25th to 28th June. The laser developed for WaterSpy will also be presented in September in the International Quantum Cascade Lasers School and Workshop (IQCLSW) in Cambridge, UK (2-7.09) and in the "Field Laser Applications in Industry and Research (FLAIR) Assisi (12-16.09)
- AUG is going to present WaterSpy in the Photonics North 2018, Montreal, Canada in June. The topic will be "A laser induced IR photonic device for pervasive water quality analysis and bacterial detection

WaterSpy Consortium

