



PFAS
twin

D6.1. Report on the kick-off meeting

Deliverable Report

WP6 - Management

Due date: M2

Lead Beneficiary: UBFC

Dissemination level: Public

Version: 1.0



Project: 101059534 — [PFAS](#)twin
HORIZON-WIDERA-2021-ACCESS-02



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Project details

Project acronym	Project title
PFAStwin	Twinning to address the PFAS challenge in Serbia
Grant Agreement No.	Funding scheme
101059534	HORIZON Coordination and Support Actions HORIZON-WIDERA-2021-ACCESS-0

Consortium

University of Belgrade – Faculty of Chemistry (UBFC), Republic of Serbia,
coordinator

Agencia Estatal Consejo Superior de Investigaciones Científicas, M.P. (CSIC),
Spain, partner

Bureau de Recherches Géologiques et Minières (BRGM), France, partner

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Work package details

Work package	Work package title
WP6	Management
Work Package Leader	Lead Beneficiary
Vladimir Beškoski	UBFC

Deliverable details

Deliverable	Deliverable title
D6.1	Report on kick-off meeting
Deliverable description	Report on the kick-off meeting- report with minutes of meeting
Due date	Submission date
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Lead author	Contributors
Vladimir Beškoski	Tatjana Božić (PM)
Person responsible for the deliverable	Vladimir Beškoski (PC)
Nature	Dissemination level
Report	PU- Public

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Executive summary

A report on the kick-off meeting has been developed within Work Package 6 Management of the PFAStwin. This report describes the first consortium meeting and all the decisions made to achieve the PFAStwin project's goals through effective management and networking.

Kick-off meeting

The kick-off meeting of the PFAStwin project was held in Belgrade on September 8-9th, 2022, at UBFC (Lecture Hall) from 10:00 h to 17:00 h. The agenda of the kick-off meeting is shown in Annex I, all presentations are added to Annex II and photos from the kick-off meeting are given in Annex III of this Report.

Participants of the Kick-off meeting:

1. Prof. dr. Vladimir Beškoski, Full professor at UBFC, Project Coordinator (PC) of PFAStwin and WP6 leader;
2. MSc Tatjana Božić (PM), Head of the Grant and International Cooperation Office at UBFC, PFAStwin project manager (PM) and WP4 leader;
3. Prof. dr. Goran Roglić, Full professor, Dean of UBFC and PFAStwin team member;
4. Prof. dr. Natalija Polović, Full professor and president of the UBFC council;
5. Prof. dr. Maja Gruden-Pavlović, Full professor at UBFC and PFAStwin WP5 leader;
6. Prof. dr. Ljubodrag Vujisić, Associate professor at UBFC and PFAStwin WP2 leader;
7. Prof. dr. Dubravka Relić, Associate professor at UBFC and PFAStwin WP3 leader;
8. Prof. dr. Branimir Jovančičević, Full professor at UBFC and PFAStwin technical manager;
9. Dr. Begoña Jiménez, Senior Scientist at CSIC and PFAStwin WP1 leader;
10. Dr. Fabienne Battaglia, Senior researcher at BRGM and PFAStwin GA candidate;
11. Dr. Marc Crampon, a researcher at BRGM and SC candidate;
12. Dr. Juan Muñoz-Arnanz, a researcher at CSIC and SC candidate;

13. Dr. Marija Lješević, lecturer at the UBFC and PFAStwin team member;
14. Dr. Branka Lončarević, lecturer at the UBFC and PFAStwin team member;
15. Dr. Konstantin Ilijević, Assistant professor and PFAStwin dissemination and exploitation manager;
16. Ana Vekić, UBFC, PFAStwin financial manager;
17. Ana Đorđević, UBFC library and Cherry Repository, photographer;
18. MSc Kristina Kasalica, PhD student at UBFC, minutes of the meeting.

Minutes of meeting

Thursday, September 8th

1. Welcome and introduction

In the first part of the PFAStwin kick-off meeting, the Opening session, project coordinator Prof. dr. Vladimir Beškoski and members of UBFC management, Prof. dr. Goran Roglić, Dean of UBFC, and Prof. dr. Natalija Polović, president of the UBFC council, opened the meeting with a welcome speech. After that, all participants presented themselves, their role in the project, and their field of research activities.

2. Presentation of partners

Representatives of all three project partners presented their institutions and the scientific work of their groups involved in the PFAStwin project. Dr. Konstantin Ilijević presented UBFC, dr. Juan Muñoz-Arnanz presented CSIC, and dr. Fabienne Bataglia and dr. Marc Crampon presented BRGM.

3. Project overview and forming of management structures

Prof. dr. Vladimir Beškoski gave the Project overview, its scope and goals. After this, he proceeded to the Forming of management structures. Candidates for each committee were presented and, after the vote, appointed.

The General Assembly (GA) will consist of one representative from each consortium member and will be the ultimate decision-making body of the Consortium. The members are Prof. dr. Vladimir Beškoski (UBFC), Dr. Begoña Jiménez (CSIC), Dr. Fabienne Battaglia (BRGM). The following substitutes were approved: Tatjana Božić (PM) (UBFC), Dr. Juan Muñoz-Arnanz (CSIC) and Dr. Marc Crampon (BRGM).

The Steering Committee (SC) will consist of WP Leaders and one member of each P.C. and will monitor the effectiveness and efficient implementation of the project. For the Steering committee, Dr. Begoña Jiménez (CSIC), Prof. dr. Ljubodrag Vujisić (UBFC), Prof. dr. Dubravka Relić (UBFC), Tatjana Božić (PM) (UBFC), Prof. dr. Maja Gruden-Pavlović (UBFC), Prof. dr. Vladimir Beškoski (UBFC), Dr. Marc Crampon (BRGM), Dr. Juan Muñoz-Arnanz (CSIC).

External Advisory Board (EAB) consists of experts from non-partners who will meet once a year and will provide scientific, technical, ethical and legal guidance, input and feedback on the project roadmap, advice on links with relevant interest groups outside the twinning project, propose and encourage the potential interactions of the twinning project with other projects, initiatives and activities.

The following members were voted on the kick-off meeting: dr. Jasmina Grubin, National Contact Point (NCP) in Serbia; Ministry of Education, Science and Technological Development, Republic of Serbia; Ivan Đuričković, National Focal Point for the Stockholm convention in Serbia; Ministry of Environmental Protection, Republic of Serbia; Prof. dr. Tanja Ćirković Veličković, Full professor and vice dean for science at UBFC; Prof. dr. Miroslav M. Vrvic, president of the BREM group Ltd; Full Research Professor and University Professor-Retired; Dr. Zoran Stojanović, Head of laboratory, Serbian Environmental Protection Agency (SEPA) and Vidosava Džagić, Assistant director, Belgrade Chamber of Commerce.

During the kick-off meeting, additional members were proposed and contacted after the meeting. The following members were added to the EAB: Ana García González, Head of the Institutional Coordination Area S.G. of Clean Air and Industrial Sustainability at the Ministry for the Ecological Transition and the Demographic Challenge; Prof. Eric D. van Hullebusch, Head of the Environmental Engineering and Industry, Institut de Physique du Globe de Paris, Prof. dr. Antonio Masi, Associate professor at University of Padova, DAFNAE (Department of Agronomy, Food, Natural resources, Animals and Environment), College of Agriculture, Prof. dr. Giancarlo Renella, Full professor at University of Padova, DAFNAE (Department of Agronomy, Food, Natural resources, Animals and Environment), College of Agriculture, Prof. dr. Roland Kallenborn, Professor at Faculty of Chemistry, Biotechnology and Food Science, Norwegian University of Life Science and Dr. Aleksandar Jović, Assistant Minister for International Cooperation and European Integration, Ministry of Education, Science and Technological Development of the Republic of Serbia.

The resumes of EAB members are given in Annex IV.

The Dissemination and Exploitation Committee (DEIC) is responsible for coordinating and implementing all dissemination, communication, and exploitation activities. The DEIC shall propose IPR and exploitation strategies, prepare and update the Plan for generated research data management (DMP), and the Dissemination and **Exploitation Plan (PDER)**. Members are Prof. dr. Maja Gruden-Pavlović (UBFC), Dr. Konstantin Ilijević (UBFC), Dr. Marija Lješević, (lecturer at the UBFC), Dr. Branka Lončarević (lecturer at the UBFC), Dr. Marc Crampon (BRGM), Dr. Juan Muñoz-Arnanz (CSIC).

The Project Management Team (PMT) will help the project coordinator with the day-to-day running of the project. PMT members include Prof. dr. Vladimir Beškoski, MSc Tatjana Božić (PM), project manager, Prof. dr. Branimir Jovančičević, technical manager, dr. Konstantin Ilijević, dissemination and exploitation manager, Ana Vekić, financial manager.

The Taskforce team (TMT) was appointed by the Dean of the UBFC and approved at the kick-off meeting. The members are Prof. dr. Goran Roglić, Full professor and Dean of UBFC, Prof. Dr. Tanja Ćirković Veličković, Vice-dean for science and international cooperation, Ana Vekić, UBFC, PFAStwin financial manager, Ana Đorđević, representative of UBFC Library and Cherry repository, MSc Tatjana Božić (PM), Grant and International Cooperation Office employee at UBFC, PFAStwin manager and WP4 leader, Ljiljana Sekulić, representative of public procurement office at UBFC, Dr. Radmila Kopilović, UBFC Secretary. They will evaluate the tasks and workload of the G.O. and create an Action plan for its structural reform within WP4.

4. Work packages presentations

The next part of the meeting was dedicated to describing work packages. WP leaders introduced themselves and, in detail, described their packages. Dr. Begoña Jiménez (CSIC) presented the activities of WP1 titled "WP1-Development of scientific strategy for PFAS analysis and (bio)remediation for UBFC". Prof. dr. Ljubodrag Vujisić introduced the WP2 titled "Transfer and spreading of knowledge". Prof. dr. Dubravka Relić presented WP3 titled "Joint research, networking and future collaborations". After each WP presentation, distribution of work, action plans and administrative aspects of reporting were discussed, with a special focus on the activities in the project's first year.

5. Working lunch and tour of the UBFC

During lunch, participants had the opportunity to discuss the activities with WP leaders in more detail, and the management structure members talked more about the organisation of project activities. After lunch, participants visited the

UBFC museum and laboratories, emphasising the Center for instrumental analysis and the plant cultivation laboratories.

Friday, September 9th

6. Work packages presentations-continuation

Work package presentations were continued on the second day of the kick-off meeting. MSc Tatjana Božić (PM) presented the activities of the WP4 titled "Increasing and strengthening capacity of the institution for research projects management and administration". Prof. dr. Maja Gruden-Pavlović presented the activities of WP5 titled "Dissemination and communication". Prof. dr. Vladimir Beškoski presented WP6 titled "Management".

7. Budget presentation

Additional time was allocated for the presentation of the project budget and budget for the first year and for the financial reporting. MSc Tatjana Božić (PM), Ana Vekić, Dr Marija Lješević and dr Branka Lončarević presented the PFAStwin budget.

8. PDER and DMP development

The final part of the kick-off meeting was dedicated to the **Plan for dissemination and exploitation of results (PDER)** and the **Data Management Plan (DMP)**. MSc Tatjana Božić (PM) and Dr. Marija Lješević were moderators of this session. Within this part, procedures for attending conferences, procedures for grant awarding, and publications were discussed, as well as the strategies for dissemination and communication of results. Additionally, the project's branding was covered, and all participants agreed on the logo and design. It was decided that the project design templates for presentations and reports would be used throughout the project.

9. Concluding remarks

The meeting was finished with a more detailed discussion on several topics mentioned during all presentations. The next meeting will take place in September 2023, also in Belgrade. Online meetings will be organised for any decisions that need to be discussed before the next meeting.

Distribution of work and project budget for the first year

A detailed overview of the work budget was presented and discussed. Milestones and deliverables during the first year and their deadlines were discussed, including D5.1. Plan for dissemination and exploitation of results and D6.2 Data management plan. Special emphasis was on WP1- Development of a scientific strategy for PFAS analysis and remediation for UBFC should be completed in the first year since this WP should be completed during the first year. Additionally, the organisation of short-term training was discussed in detail, considering the training topics, necessary preparations, and budget. Regarding WP4, the topic was the work of the appointed TFT, which needs to define actions necessary for the grant office reform and organisation of lectures regarding project management at UBFC. For dissemination and communication, all activities were elaborated and publishing in top-ranking journals with open access and PFAStwin and Horizon Europe promotion at various events was underlined.

Financial and administrative aspects of reporting

Timesheets will be used for tracking the person's months. The Project Coordinator and Project manager will approve them. Person months should be spent exactly as planned, and actual costs will vary depending on the staff category. Keep in mind that minor budget adjustments do not require amendments to the GA relocation from WP to WP. However, it was agreed that all changes should be approved by the Steering Committee and discussed with Project Office to determine whether the amendment is necessary. It is advised to avoid unnecessary budget adjustments requiring amendments. All work must be reported to the WP leaders.

Plan of foreseen activities

- Visit from CSIC to UBFC within Task 1.1. was discussed, together with the coordination of work on the strategy preparation
- The organisation of STSE for training should start immediately to decide who will participate and have time to arrange the travel plans and training. Emphasis is on the best practice manuals that need to be created after the training.
- All three summer schools are planned for May-August 2024. They were envisioned as a series so that participants could attend all of



them and make the most of all the work and knowledge from all project participants.

- The sampling campaign within WP3 was discussed, and the research plan
- An action plan for reforming the UBFC Grant office and the hiring procedure was discussed. It was agreed that G.O. personnel should visit BRGM and CSIC offices to establish a link to improve UBFC administrative practices.
- Preparation for some of the lectures for the education of UBFC staff, especially young researchers, on project writing and management will start immediately.
- Special effort must be put into the launching of the PFAStwin website
- Mentioning the project and Horizon Europe at the conferences and similar events was underlined, as well as the project presentations. WP5 leader or DEIC should be notified so that a summary of events for dissemination and communication can be continuously updated
- External Advisory Board, General Assembly and Steering Committee meetings should be organised jointly with summer schools and the workshop. In that way, all experts will be in Belgrade to participate as experts in summer school and workshops.
- The next management meeting is planned for September 2023.

Conclusion

The overall conclusion was that the first management meeting was a great success. The project will facilitate new collaborations and joint research between UBFC and partners from E.U. institutions. The next meeting will take place in September 2023, also in Belgrade. Online meetings will be organised in between for any decisions that need to be discussed before the next meeting.

Belgrade, September 25th, 2022

Prof. dr. Vladimir Beškoski, PC

MSc Tatjana Božić, PM

ANNEX I- Kick-of meeting agenda

8th September 2022

Moderator: Prof. dr. Vladimir Beškoski

10:00-10:30	Opening ceremony – Prof. dr. Goran Roglič, Prof. dr. Natalija Polović
10:30-10:40	Brief introduction of Kick off meeting participants – All participants
10:40-11:00	Presentation of UBFC – Dr. Konstanin Ilijević
11:00-11:20	Presentation of CSIC – Dr. Juan Muñoz-Arnanz
11:20-11:40	Presentation of BRGM – Dr. Fabienne Battaglia, Dr. Marc Crampon
11:40-11:50	Brief introduction to PFAStwin (concept and goals) - PI, Prof. dr. Vladimir Beškoski
11:50-12:10	<i>Coffee break</i>
12:10-12:50	GA, SC, EAB, DEIC election and PMT update
12:50-13:10	WP1 presentation – WP1 leader, Dr. Begoña Jiménez
13:10-13:20	Discussion
13:20-13:40	WP2 presentation – WP2 leader, Prof. dr. Ljubodrag Vujisić
13:40-14:20	Discussion
14:20-15:20	<i>Lunch break</i>
15:20-15:40	WP3 presentation – WP3 leader, Prof. dr. Dubravka Relić
15:40-15:50	Discussion
15:50-16:00	Concluding remarks
16:00-17:00	Visit to the UBFC's laboratories and museum
19:00-22:00	<i>Dinner (Restaurant Comunale)</i>

9th September 2022

Moderator: Prof. dr. Vladimir Beškoski

10:00-10:20	WP4 presentation – WP4 leader, MSc Tatjana Božić
10:20-10:30	Discussion
10:30-10:50	WP5 presentation – WP5 leader, Prof. dr. Maja Gruden-Pavlović
10:50-11:00	Discussion
11:00-11:20	WP6 presentation – WP6 leader, Prof. dr. Vladimir Beškoski
11:20-11:30	Discussion
11:30-11:50	<i>Coffee break</i>
11:50-12:35	PFAStwin budget – MSc Tatjana Božić, Ana Vekić, Dr. Marija Lješević and Dr. Branka Lončarević
12:35-12:45	Discussion
12:45-13:45	Developing of PDER and DMP plans – Prof. dr. Vladimir Beškoski, MSc Tatjana Božić, Dr. Konstantin Ilijević, Dr. Marija Lješević and Dr. Branka Lončarević
13:45-14:00	Closing remarks
14:00-15:00	<i>Lunch break</i>
15:00-16:30	Belgrade sightseeing tour
19:00-22:00	<i>Dinner (Restaurant Stara koliba)</i>

ANNEX II - Presentations

1. Presentation of UBFC – Dr. Konstantin Ilijević
2. Presentation of CSIC – Dr. Juan Muñoz-Arnanz
3. Presentation of BRGM – Dr. Fabienne Battaglia, Dr. Marc Crampon
4. Brief introduction to PFAStwin (concept and goals) - PC, Prof. dr. Vladimir Beškoski
5. WP1 presentation – WP1 leader, Dr. Begoña Jiménez
6. WP2 presentation – WP2 leader, Prof. dr. Ljubodrag Vujisić
7. WP3 presentation – WP3 leader, Prof. dr. Dubravka Relić
8. WP4 presentation – WP4 leader, MSc Tatjana Božić
9. WP5 presentation – WP5 leader, Prof. dr. Maja Gruden-Pavlović
10. WP6 presentation – WP6 leader, Prof. dr. Vladimir Beškoski
11. PFAStwin budget – MSc Tatjana Božić, Ana Vekić, Dr. Marija Lješević and Dr. Branka Lončarević
12. Developing of PDER and DMP plans – Prof. dr. Vladimir Beškoski, MSc Tatjana Božić, Dr. Konstantin Ilijević, Dr. Marija Lješević and Dr. Branka Lončarević



University of Belgrade - Faculty of Chemistry

Dr Konstantin Ilijević

University of Belgrade - Faculty of Chemistry

Belgrade, 08/09/2022

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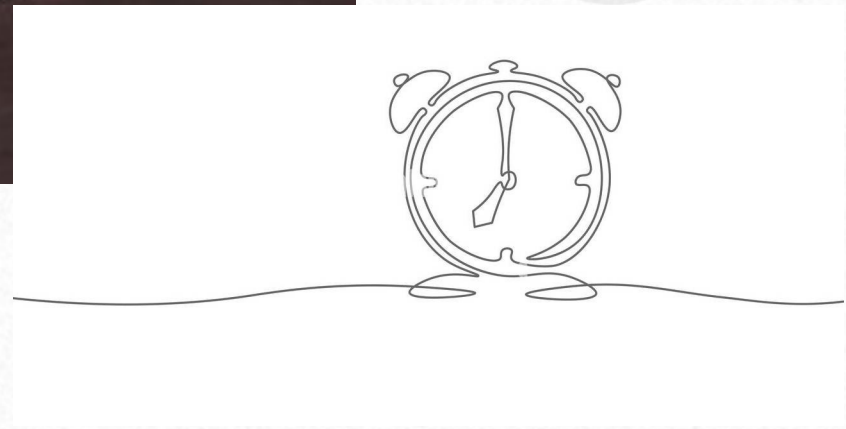


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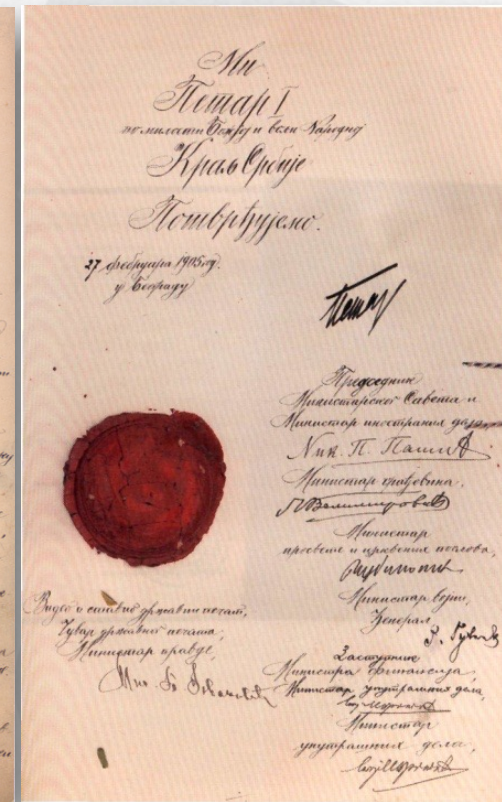
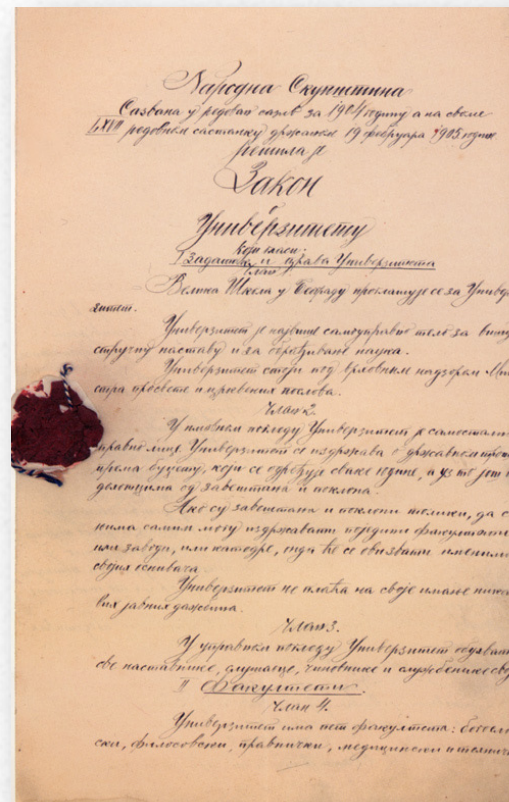






Tradition

- The modern Faculty of Chemistry, an institution of the Belgrade University, developed from "Licej" (Lyceum) (1838-1863)
- The first chemistry professor Mihailo Rašković in 1853 started teaching inorganic and organic chemistry and chemical technology
- Lyceum (1838 – 1863)
- Advanced School (1863 – 1905)
- University of Belgrade - Faculty of Philosophy / Department of Science and Mathematics (1905 – 1947)
- Faculty of Science and Mathematics (1947 – 1990)
- Faculty of Chemistry (1990 – present)



Our notable predecessors

- Sima Lozanić rector of "Velika škola", the rector of the University and the chairman of Serbian Science Academy; + minister of industry, minister of foreign affairs, ambassador of the Serbian government in London
- The Serbian Chemical Society was founded in 1897 (eleven members)
- One of the oldest scientific societies in Serbia and Europe - the tenth oldest among the chemical societies of the world.



Sima M. Lozanić (1847-1935)

Faculty of chemistry today

- **Basic academic studies**

- Chemistry (4 years)
- Biochemistry (4 years)
- Environmental Chemistry (4 years)
- Chemical Education (5 years)

- **Master studies**

- MSc in Chemistry
- MSc in Biochemistry
- MSc in Environmental Chemistry

- Currently there are 1000+ students at FC and 100.000 at UB
- Teaching staff - 84 members
- **6 Chairs** (Department of Analytical Chemistry, Applied chemistry, Biochemistry, Chemical Education, General and Inorganic Chemistry, Organic chemistry)

Centres:

- Innovation Center of the UBFC
- Center for Molecular Food Sciences

Library

- 98.668 serial publications in the archives
- **Cherry Repository**



Student organisations

- Students Parliament
- "Positron" magazine
- Center for scientific and research work of students
- Volunteer center
- Center for sports



Faculty of chemistry today

- 1300+ scientific projects in total so far
- **50 projects in progress**
- In 2011-2020 we have published **1560 scientific publications**
- **Average number of papers per Doctor of Science: 52**
- **Average h-index (without self-citations): 12**
- **Average citations per PhD (without self-citations): over 500**

Science Fund of the Republic of Serbia calls

IDEJE:

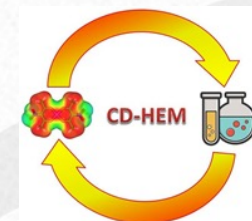
- totally 915 project proposals
- 39 are funded (natural sciences)
- FC-UB is involved in 2

PROMIS:

- totally 585 project proposals
- 59 are funded
- FC-UB is involved in 3

COVID19:

- totally 126 project proposals
- 14 are funded
- FC-UB is involved in 3



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International Projects Currently Being Realized

- **IMPTOX** / Horizon 2020
- **FoodEnTwin** / Horizon 2020
- **Stork project** / JICA Partnership Program
- **CIA p-LABs** / OPCW Funded Project
- **PRESSION** / ANSO Funded Project

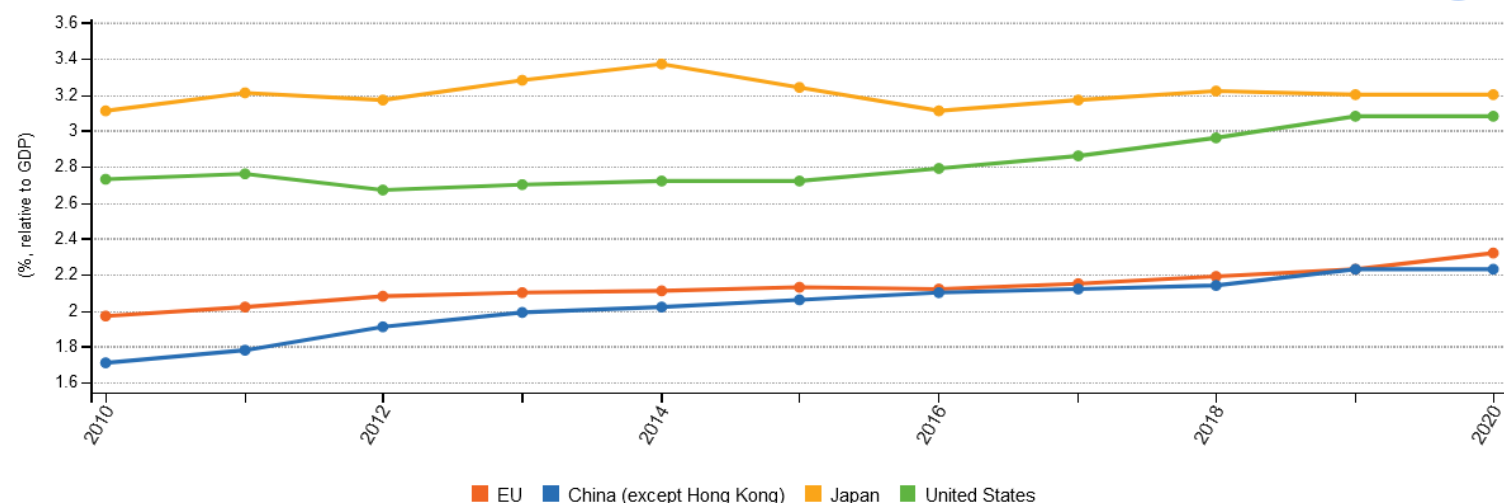


Research and development expenditure relative to GDP:

EU, USA, Japan: 2 - 3.4%

RS: < 1%

Gross domestic expenditure on Research and Development, 2010-2020



Future?

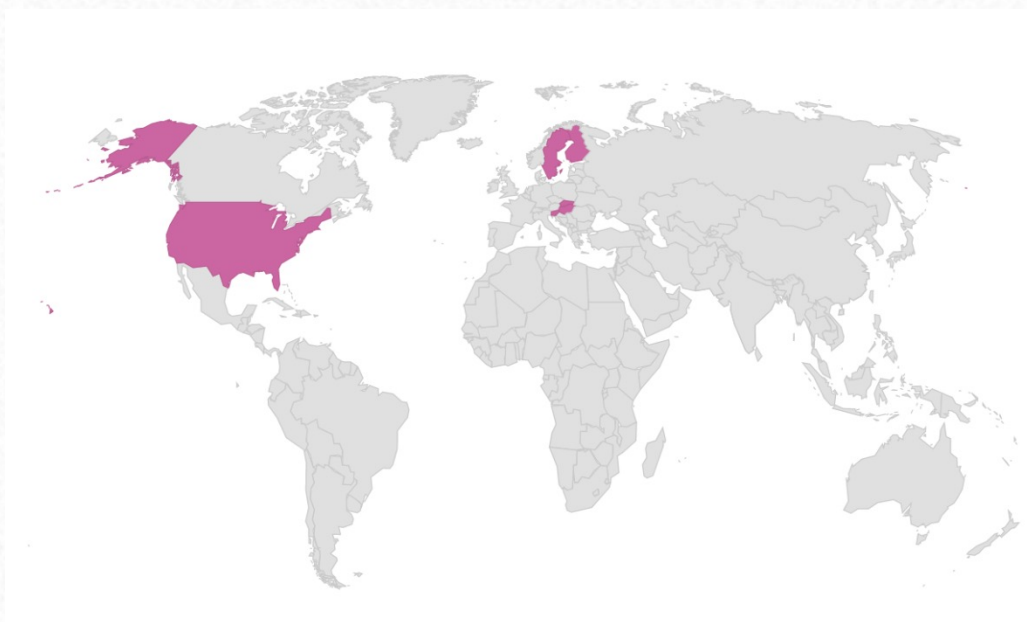
- How to compete and achieve excellence?

	Assistant professor	Associate professor	Full professor
Belgrade University	2	5	9
Faculty of Chemistry*	5	15	40

*FC also requires that almost half of the papers must be published in journals in top of their fields

Future?

6 potential candidates for assistant professor positions are currently at the post-doc studies all over the world



- 1. Ilija Cvijetić at the Institute of Chemistry in Ljubljana, **Slovenia**
- 2. Karla Ilić-Đurđić at Harvard University in Boston, **USA**
- 3. Gordana Krstić at the Faculty of Pharmacy, University of Szeged, **Hungary**
- 4. Jelica Milosevic at Lund University, Department of Biochemistry and Structural Biology, **Sweden**
- 5. Ivana Sofrenić in the NMR laboratory at the Verifin Institute of the University of Helsinki, **Finland**
- 6. Dr. Slađana Đurđić at the University of Bratislava, **Slovakia**

Future?

We can not predict the future but we can do our best to make it awesome!



Thank you for your attention!

kilijevic@chem.bg.ac.rs



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A little bit about CSIC, about us

Dr. Juan Muñoz–Arnanz
Researcher, IQOG-CSIC

Belgrade, 08/09/2022

Project: 101059534 — PFAStwin
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European Union

Spanish National Research Council (CSIC)

- Founded in **1939**, is Spain's largest public research institution, ranking third among Europe's largest research organizations.



Spanish National Research Council (CSIC)

- Attached to the Ministry of Science and Innovation, it plays a key role in scientific and technological policy in Spain and worldwide.



The mission

As a State Agency for scientific research and technological development, **CSIC** carries out activities aimed at:



Generation of knowledge through scientific and technical research



Provision of expert advice to public and private institutions



Promotion of scientific culture in society



Presence and representation in international bodies

The mission

As a State Agency for scientific research and technological development, **CSIC** carries out activities aimed at:



Transfer of research results, to promote and create technology-based enterprises



Management of large facilities and unique scientific and technical infrastructures



Delivery of highly-qualified pre-doctoral and post-doctoral training



Development of targeted research

Research centers and some figures

CSIC currently has 123 research institutes distributed throughout the national territory.



123
institutes

71 CSIC centers

52 joint centers

Research centers and some figures

CSIC currently has 123 research institutes distributed throughout the national territory.



123
institutes

71 CSIC centers

52 joint centers

11,000
people

14,000
Articles
per year

+600
PhD Thesis
per year

+3,500
Ongoing
projects

Top 5
European institution
by number of
actions H2020

7th
Public research
institution at a
global scale

450
Protected
technologies

Unique Scientific and Technical Infrastructures

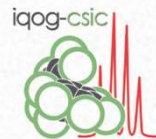
CSIC manages singular scientific infrastructures in Spain



Polar stations and research vessels



Project: 101059534 — PFAS^{twin}
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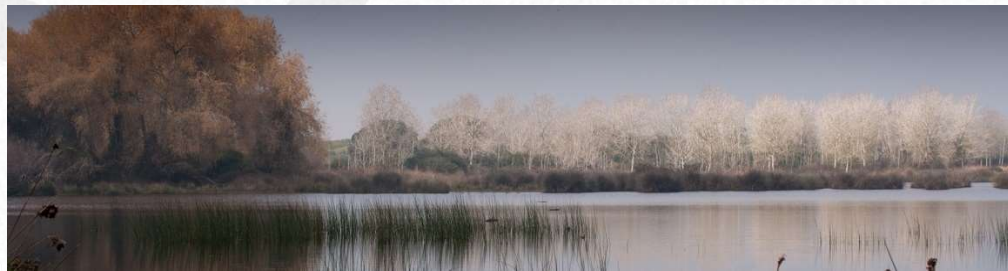
Funded by the European Union

Unique Scientific and Technical Infrastructures

CSIC manages singular scientific infrastructures in Spain



The Astronomical Observatory
of *Calar Alto*



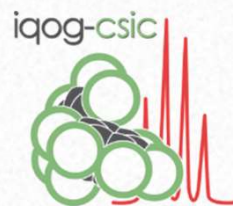
Doñana Biological Reserve/Station

Institute of General Organic Chemistry (IQOG)

The Institute of General Organic Chemistry (IQOG) carries out competitive research on different topics in the area of chemistry, very often at the interface with other fields such as biology, medicine, **environment** and materials, among others.



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European Union

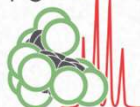
Organization of departments

- Bio-Organic Chemistry (QBO)
- Synthesis, Structure and Properties of Organic Compounds (SEPCO)
- **Instrumental Analysis and Environmental Chemistry (AIQA)**



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iqog-csic



CSIC

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

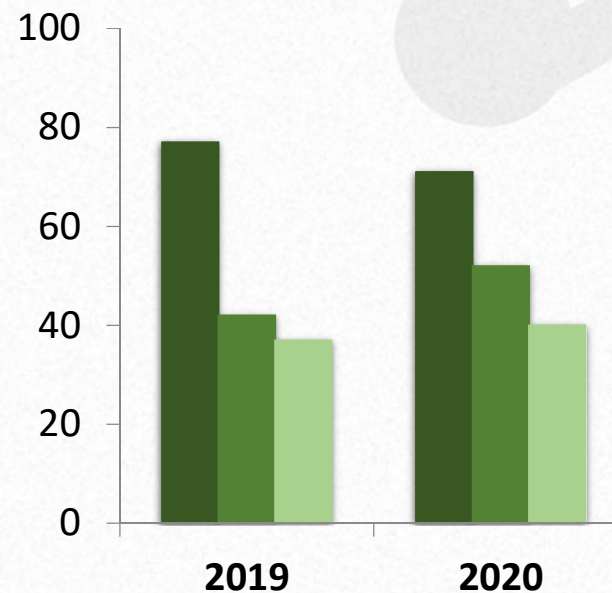


Funded by the
European Union

Organization of departments

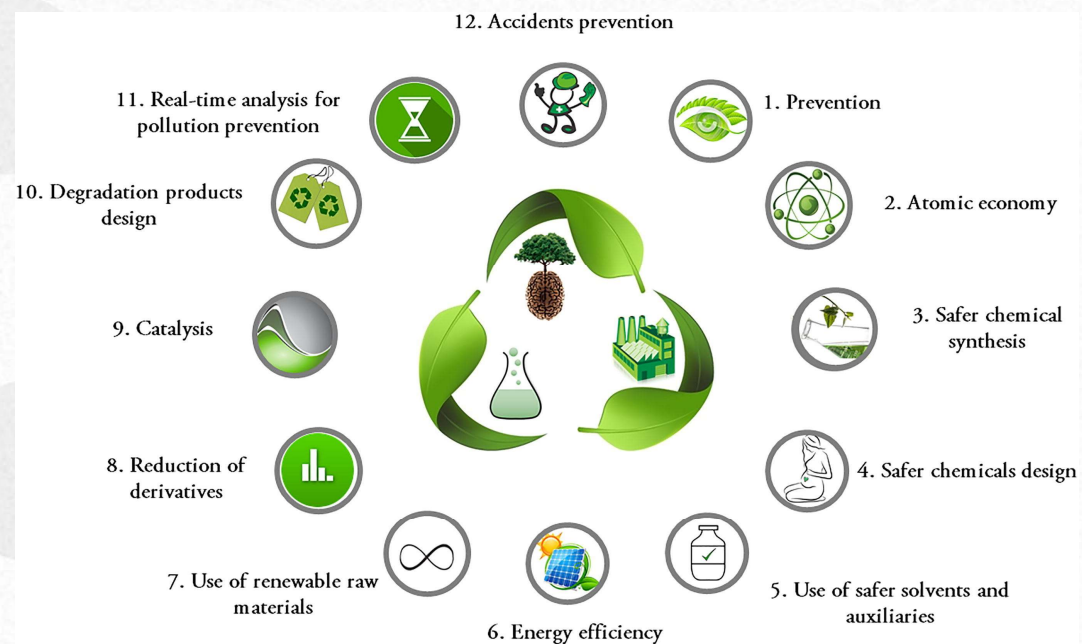
- Bio-Organic Chemistry (QBO)
- Synthesis, Structure and Properties of Organic Compounds (SEPCO)
- **Instrumental Analysis and Environmental Chemistry (AIQA)**

Total Publications	77	71
Publications Q1	42	52
Publications S1	37	40



Instrumental Analysis and Environmental Chemistry (AIQA)

- develops innovative analytical techniques and methodologies, mainly separation techniques, for their application in studies in the **environmental, food and health fields (3 groups)**.



Green chemistry

Mass Spectrometry Service

The **Mass Spectrometry Service** provides support to the research of the different Groups and Departments of the Institute, Public Research Organizations as well as to external users from private companies.



Agilent 7890 A-5975 C qMS



Agilent 1200 LC - 6500
Accurate Mass QTOF



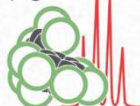
Waters Acquity UPLC-
Xevo TQS QqQ MS/MS

Our research group → Environmental Chemistry



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iqog-csic



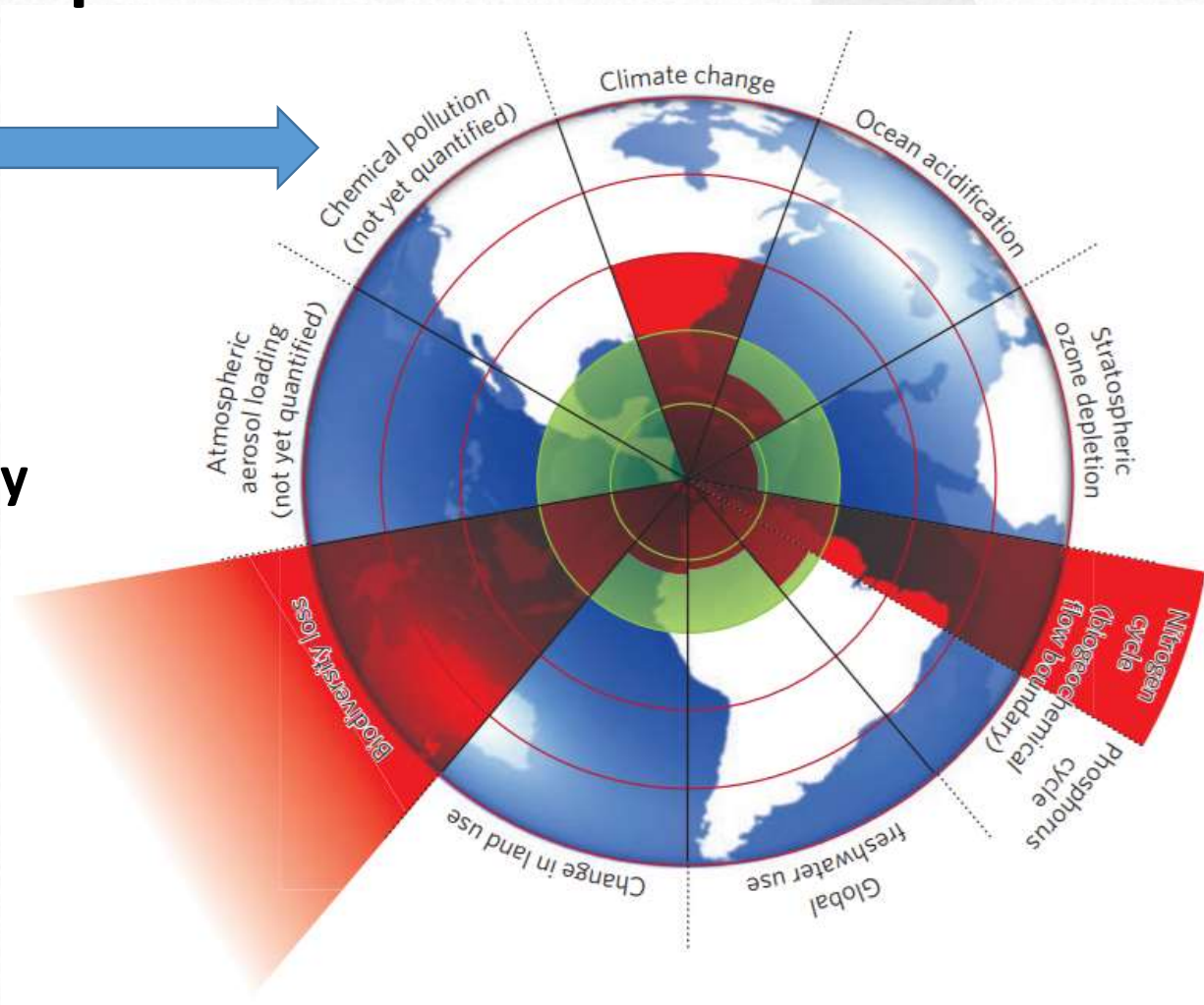
CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



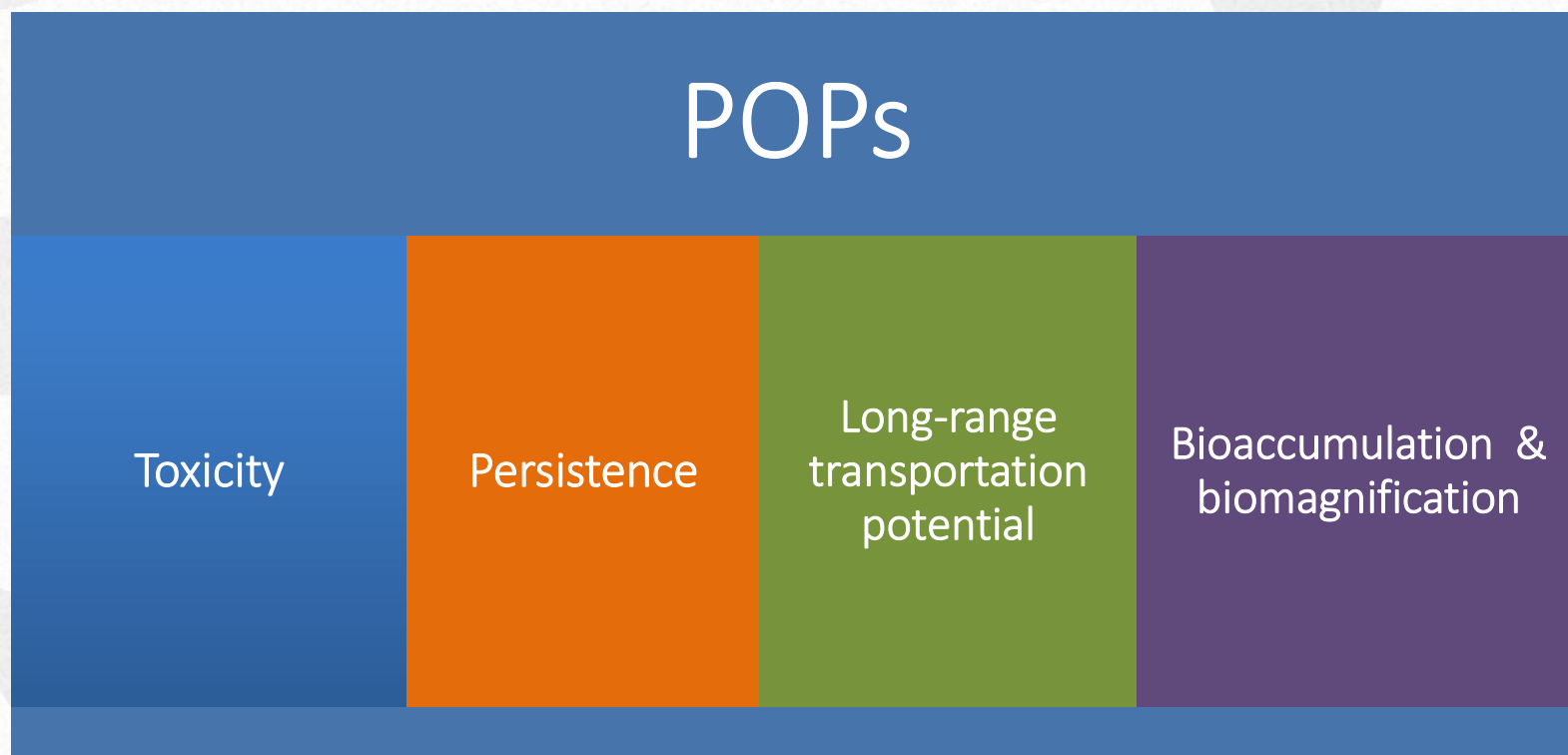
Funded by the
European Union

Our research group's interest

Understanding pollution as a planetary boundary



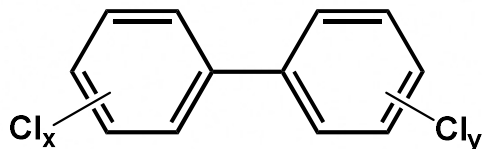
Our research group's interest



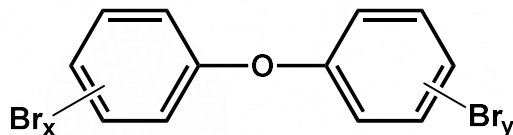
Our research group's interest

some **POP** families

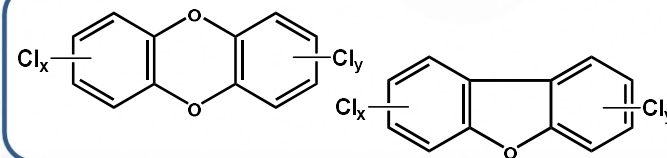
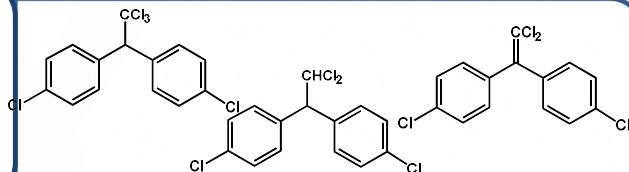
PCBs



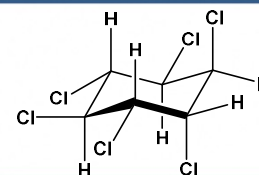
PBDEs



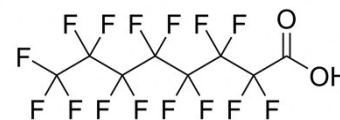
DDTs



PCDD/
Fs



HCHs

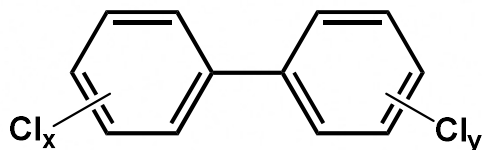


PFASs

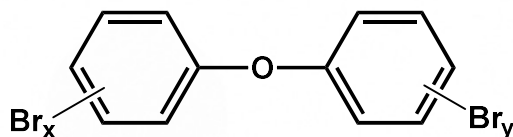
Our research group's interest

some **POP** families

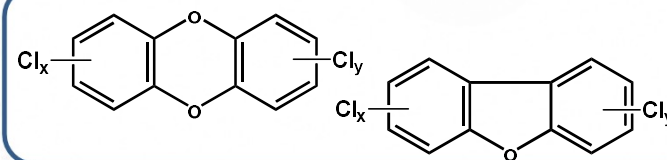
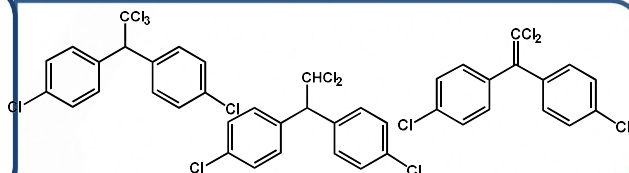
PCBs



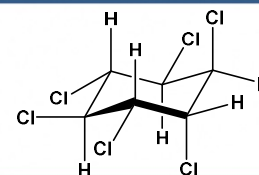
PBDEs



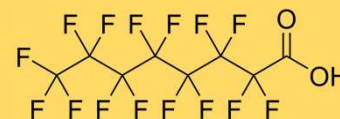
DDTs



PCDD/
Fs



HCHs



PFAS

Laboratory equipment



Soxhlet



DEXTech+



Pasvia
I
(JSD)



GPCuno
(Lctech)



Excellent laboratory equipment
for a high quality research

Our analytical instrumentation

Dioxin and POP's routine analysis

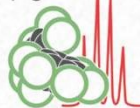


GC-HRMS. Magnetic sector dual focusing system. Thermo Scientific™ DFS™



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iqog-csic



CSIC
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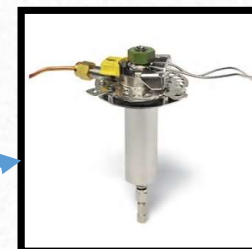


Funded by the
European Union

Our analytical instrumentation

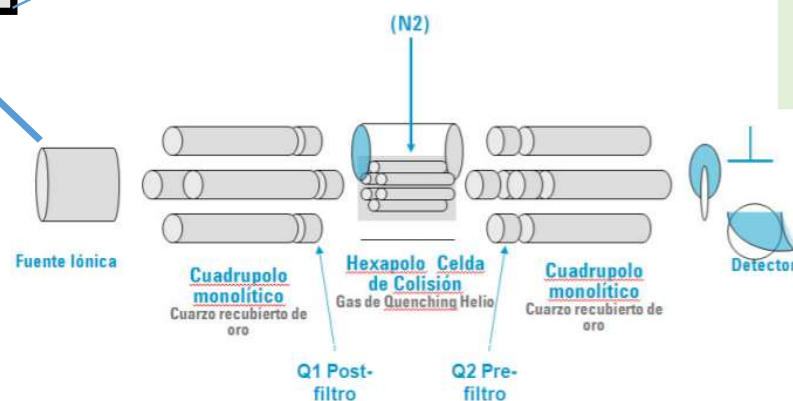
GC-QqQ-MS/MS system. Agilent 7010B

High efficiency EI source
(higher T, 20% more ions)



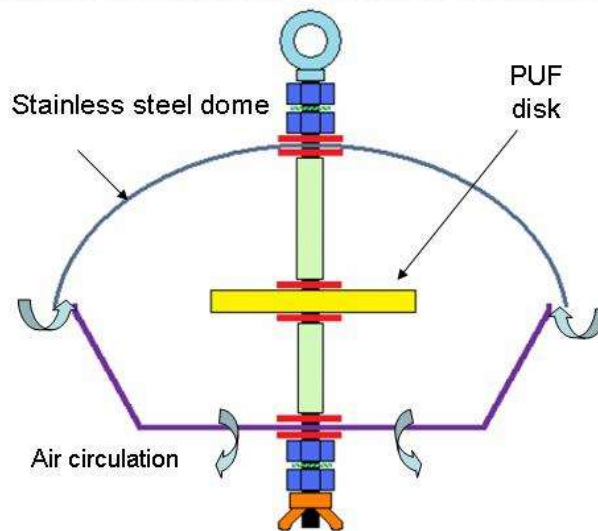
multi mode injector
(MMI)

Increased versatility and
sensitivity in targeted
analysis



Our research group's interest

Passive sampling



Active sampling

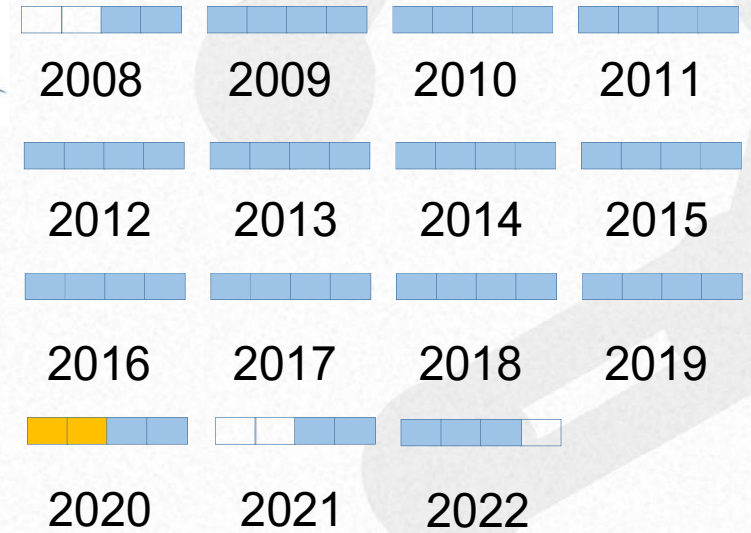
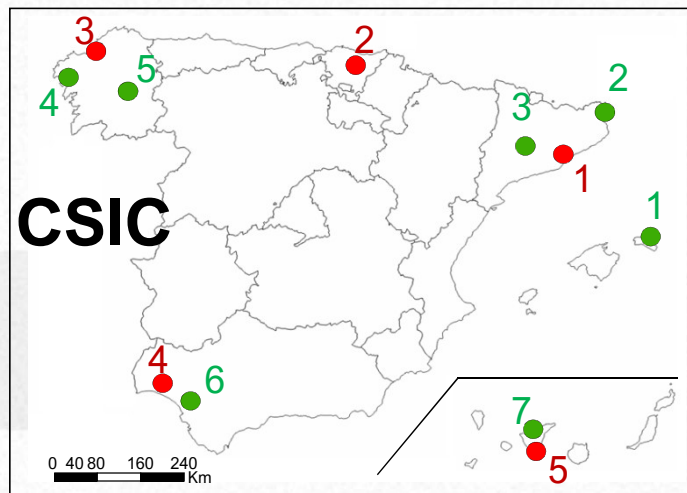


High Volume
active
sampler



SMP_POPs. National Network for POP's monitoring

Our group's research



53 Campaigns
 >1250 samples/
 >1250 blanks
 Data about
69 compounds



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 HORIZON-WIDERA-2021-ACCESS-02

Data since 2008 7 background sites 5 urban sites

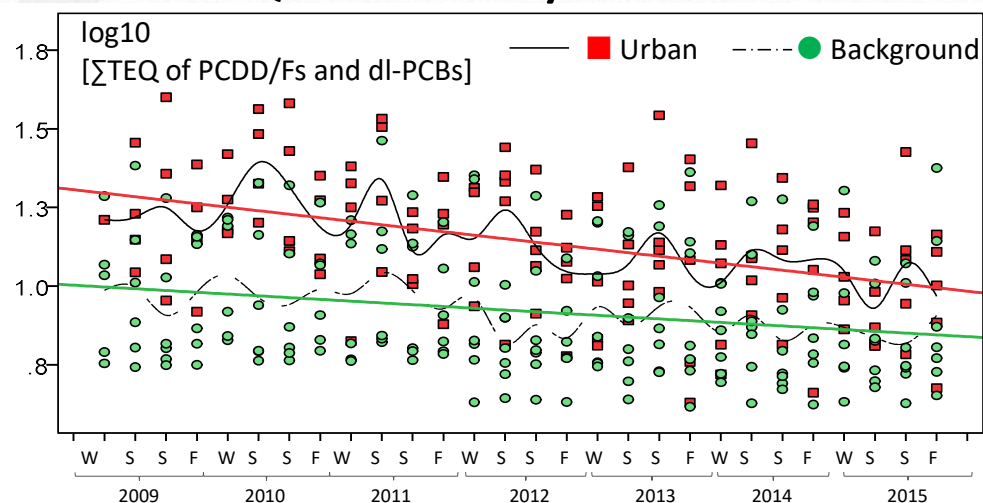


SMP_POPs. National Network for POP's monitoring

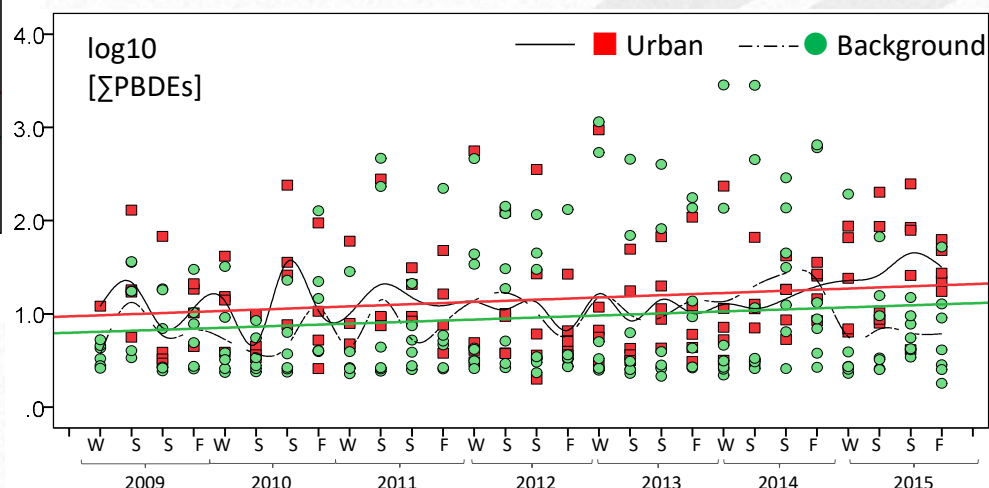
Our group's research



TEQs from PCDD/Fs and dl-PCBs



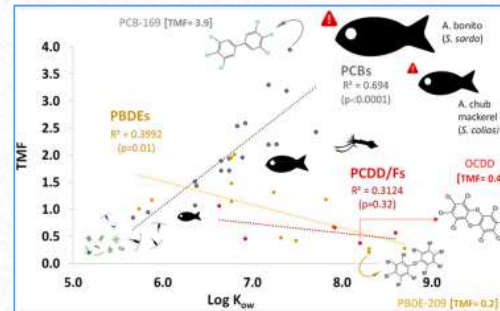
PBDEs



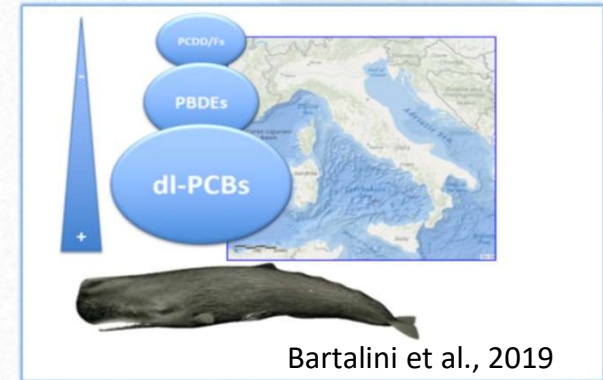
GC-MS background analyzing POPs



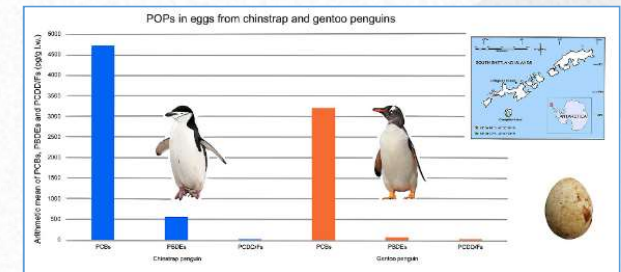
GC-HRMS (DFS) and GC-QqQ-MS/MS



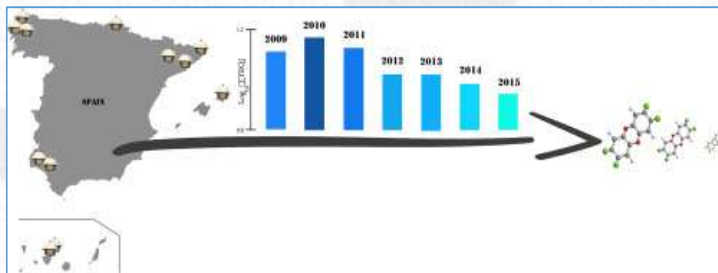
Castro-Jiménez et al., 2021



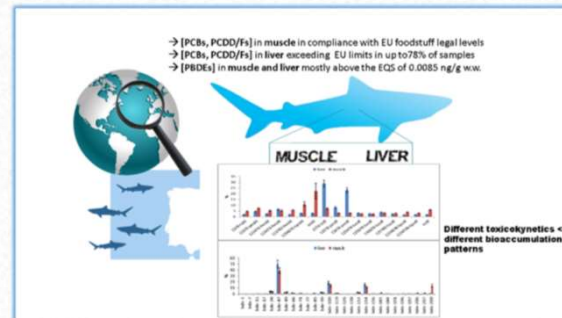
Bartalini et al., 2019



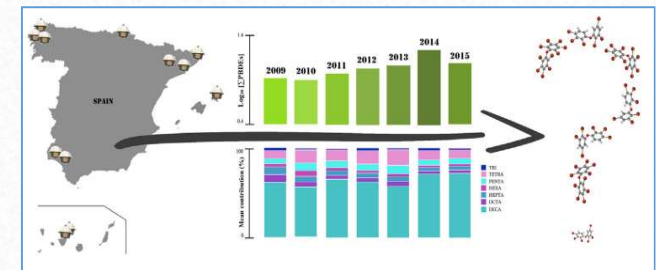
Morales et al., 2022



Muñoz-Arnanz et al., 2018



Muñoz-Arnanz et al., 2022

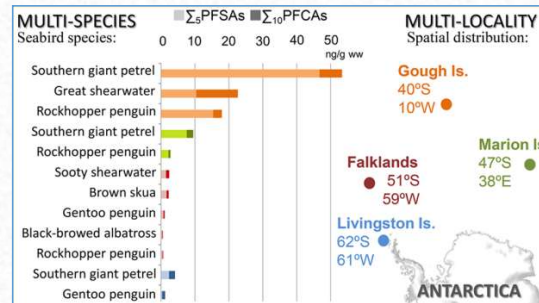


Roscales et al., 2018

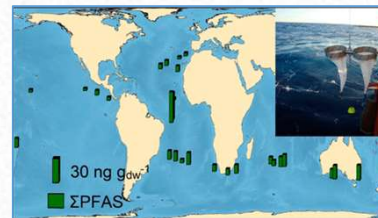
LC-MS background analyzing PFASs



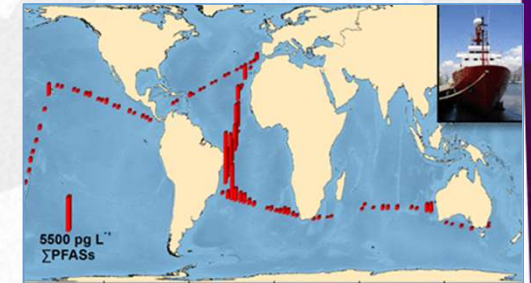
UPLC-MS/MS



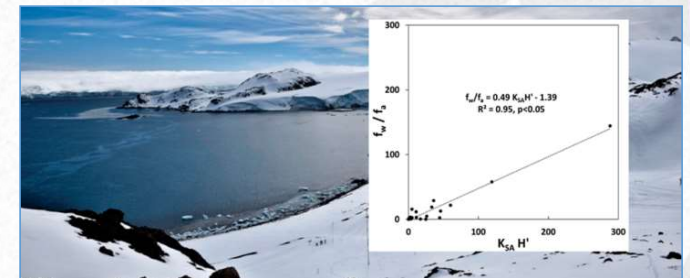
Roscales et al., 2019



Casal et al., 2017



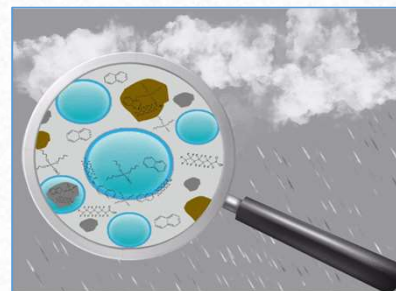
González-Gaya et al., 214



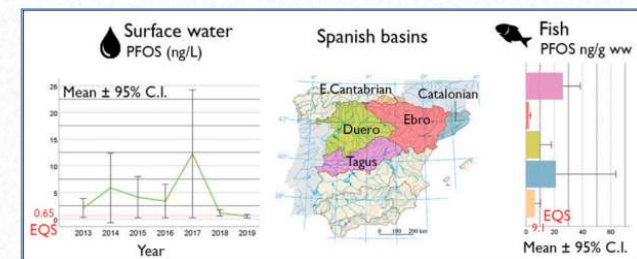
Casal et al., 2017



Casal et al., 2017



Casas et al., 2021



Roscales et al., 2022

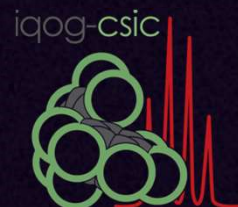
Thank you for your attention!

Juan Muñoz-Arnanz

juan.ma@iqog.csic.es



Project: 101059534 — **PFAS**twin
HORIZON-WIDERA-2021-ACCESS-02



Funded by the
European Union



BRGM PFAS twin Kick off meeting Activities in relation with PFAS twin

Crampon Marc, Battaglia-Brunet Fabienne

Belgrade
08/09/2022

Project: 101059534 — PFAS twin
HORIZON-WIDERA-2021-ACCESS-02



Funded by the
European Union



RÉPUBLIQUE
FRANÇAISE

*Liberté
Égalité
Fraternité*



Géosciences pour une Terre durable

brgm

Geosciences
for a
sustainable
Earth

BRGM
FRENCH GEOLOGICAL SURVEY



Project: 101059534 — PFAS^{twin}
HORIZON-WIDERA-2021-ACCESS-02



Geoscience for a sustainable Earth

brgm



Funded by the
European Union

BRGM THE FRENCH GEOLOGICAL SURVEY

The BRGM is France's public reference institution for Earth Science applications for the management of surface and subsurface resources and risks. Its activities are geared to scientific research, support to public policy development and international cooperation.

Understanding
geological phenomena and associated risks.

Developing
new methodologies and techniques.

Producing and distributing
and disseminating data to support the management of soils, subsoils and their resources.

Delivering
the necessary tools for managing soils, subsoils and their resources, preventing risks and pollution and developing climate change policies.

**Over
1000 staff**
including more than 700
engineers and
researchers

The BRGM is

A PUBLIC INDUSTRIAL AND COMMERCIAL

institution created in 1959 and working under the Ministry for Higher Education, Research and Innovation, the Ministry for the Ecological Transition and the Ministry for the Economy and Finance.

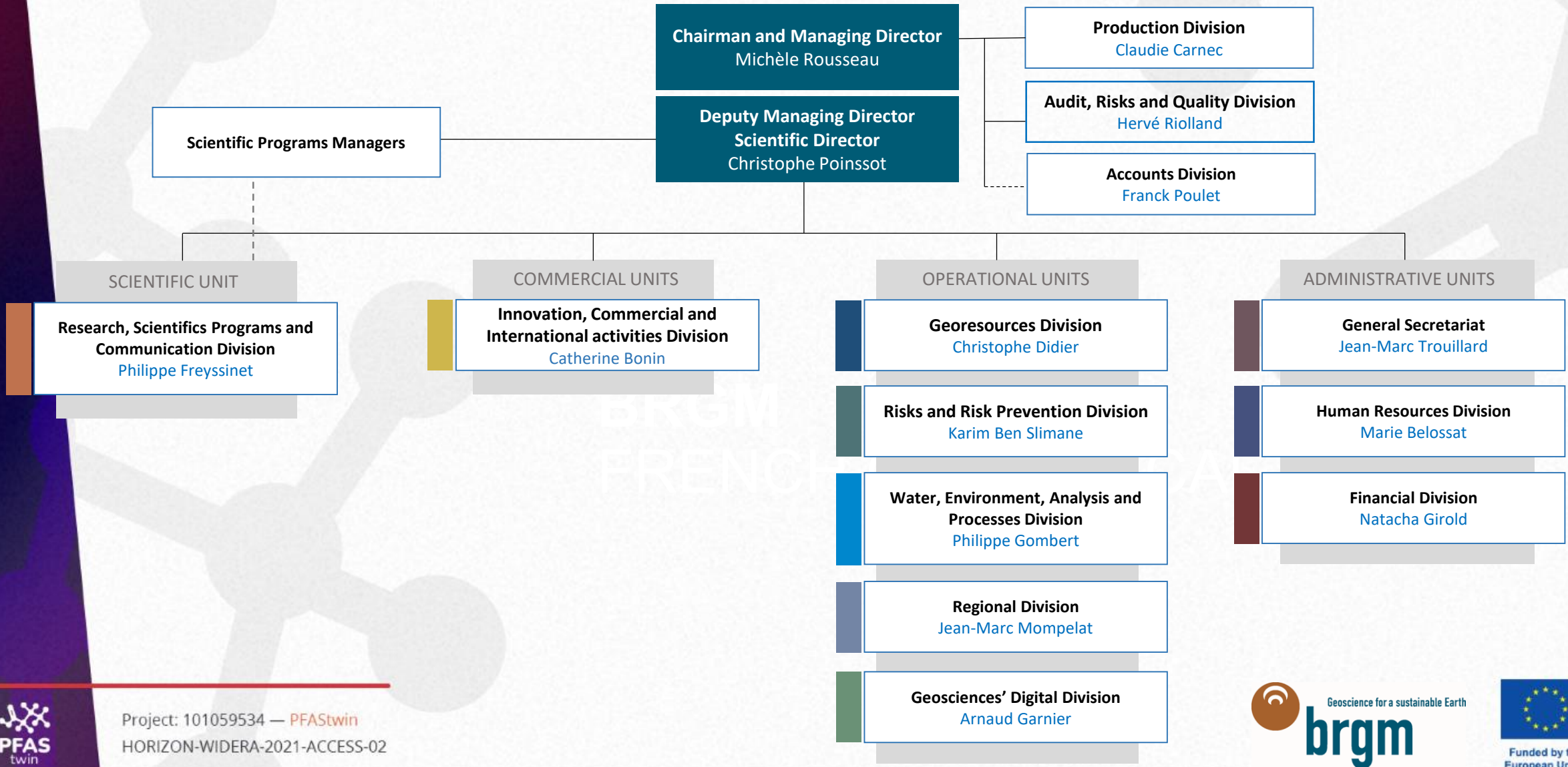


Certification and accreditation

The BRGM has held ISO 9001 certification (for Quality) since 2004, and ISO 14001 (Environment) since 2012.

Our laboratories are accredited by COFRAC.

GOVERNANCE





KEY ROLES

Scientific research

Scientific research at the BRGM is focused on furthering geological knowledge and understanding surface and subsurface phenomena. Key objective: to meet the challenges of global change.

The BRGM's scientific research is conducted through:

- **projects funded by government grants** for public service activities,
- **projects with multiple co-funding** (regional and European),
- **partnerships with targeted agencies** (ANR, ADEME, etc.),
- **responses to calls for proposals** from the ministries,
- **fast-track research development under contracts with industries.**

257 international
reference publications (ISI)



KEY ROLES

Research for business innovation

Research under contract are undertaken with industrial sectors and businesses of every size.

A broad spectrum of applications for soil and subsoil resources and uses is covered:

- **Addressing challenges to supplies of subsurface resources:** minerals, water, geothermal energy.
- **Developing new (eco)technologies and tools for subsurface uses and their management:** materials and energy storage, development and security of utility and communication networks.
- **Proposing efficient tools for operational assessments and monitoring of the environment:** risk prevention and environmental precaution, integrated data products.

Three market sectors:

- Energy and mineral resources
- Water and environment
- Infrastructure and planning



KEY ROLES

Support to public policy development

Support to public policy development includes expert assessments, monitoring and studies for the State, local authorities, agencies and public institutions.

- **Surface and subsurface observation** to build and disseminate knowledge.
- **Methodological studies and synopses** to transfer research results to “civil society”.
- **Independent public expert studies.**
- **Training** and knowledge transfer.

A **national committee** representing the BRGM’s supervisory ministries sets out overall guidelines for our activities to support public policy development. A **national programming body addresses the needs expressed** by national and regional partners.

108 agreements
signed with local government
bodies



KEY ROLES

International cooperation

The BRGM runs projects internationally to protect populations and promote sustainable resource management.

Two key lines of action:

- **protecting people and their environment** against natural risks,
- **ensuring the permanence and quality of natural resources:** water, minerals and (geothermal) energy.

Internationally as in France, the BRGM supplies its know-how and expertise, particularly in areas relating to "**geological infrastructure**", **mineral resources, access to water, natural risks and geothermal energy.**

Projects in
30 countries



KEY ROLES

Mine safety

In 2006, the French State handed responsibility to the BRGM for the management of surveillance, risk prevention and safety work in former mining sites.

Main objectives:

- **ensuring the safety of people and property** in former mining areas,
- **maintaining technical mining competences** for this purpose.

The BRGM is responsible in particular for:

- **mine safety engineering work**, as delegate project manager.
- **surveillance of mining site facilities**, for compliance with the Mining Code or the Environment Code,
- **management of the post-mine information system**, particularly intermediate technical mining archives, and contributions to mining intelligence.



KEY ROLES

Training

The BRGM disseminates its scientific competences and techniques through training activities and continuing professional training.

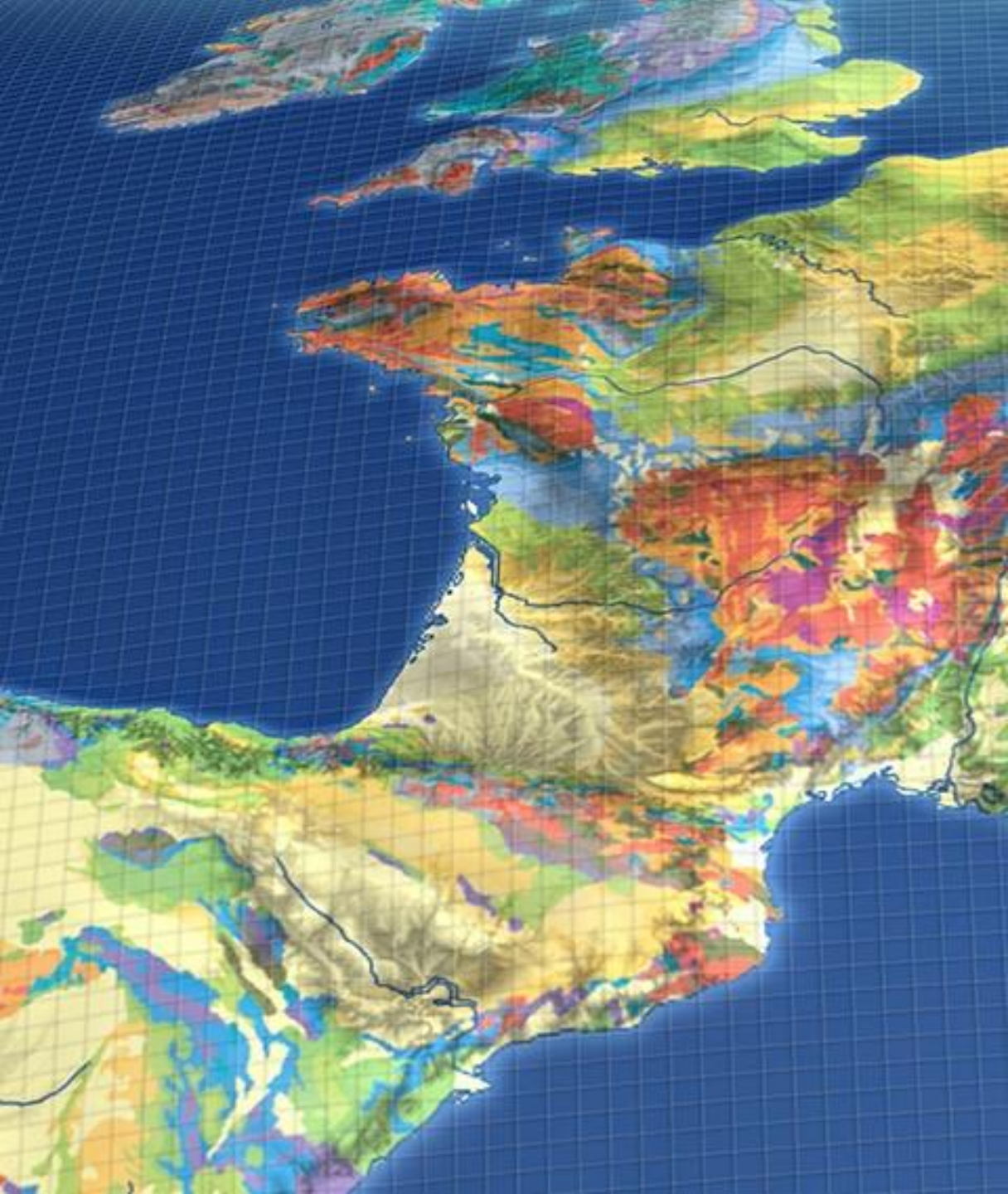
- **BRGM Campus**

Higher education diploma courses in the geosciences, through training support and partnerships with higher education establishments.

- **BRGM Formation**

Continuing professional training, through some sixty introductory and advanced courses in all geoscience fields.

20 years
of experience
in continuing
professional training



EUROPE

The BRGM in Europe

At the EU level, the BRGM has been involved for many years in research programmes, support to public policy development and international cooperation, thereby forging many enduring partnerships.

- **Close involvement in European research programmes.**
- **Activities to support EU public policy development,** interfacing between the authorities, public and private-sector managers and research.
- **International cooperation: promotion of French and European approaches,** exchanges of good practice, EU-funded development projects.
- **Partnerships with numerous excellence networks in the EU.** Decisive role in the organisation of Europe's geological sphere.

BRGM GEOMICROBIOLOGY AND ENVIRONMENTAL MONITORING - GME

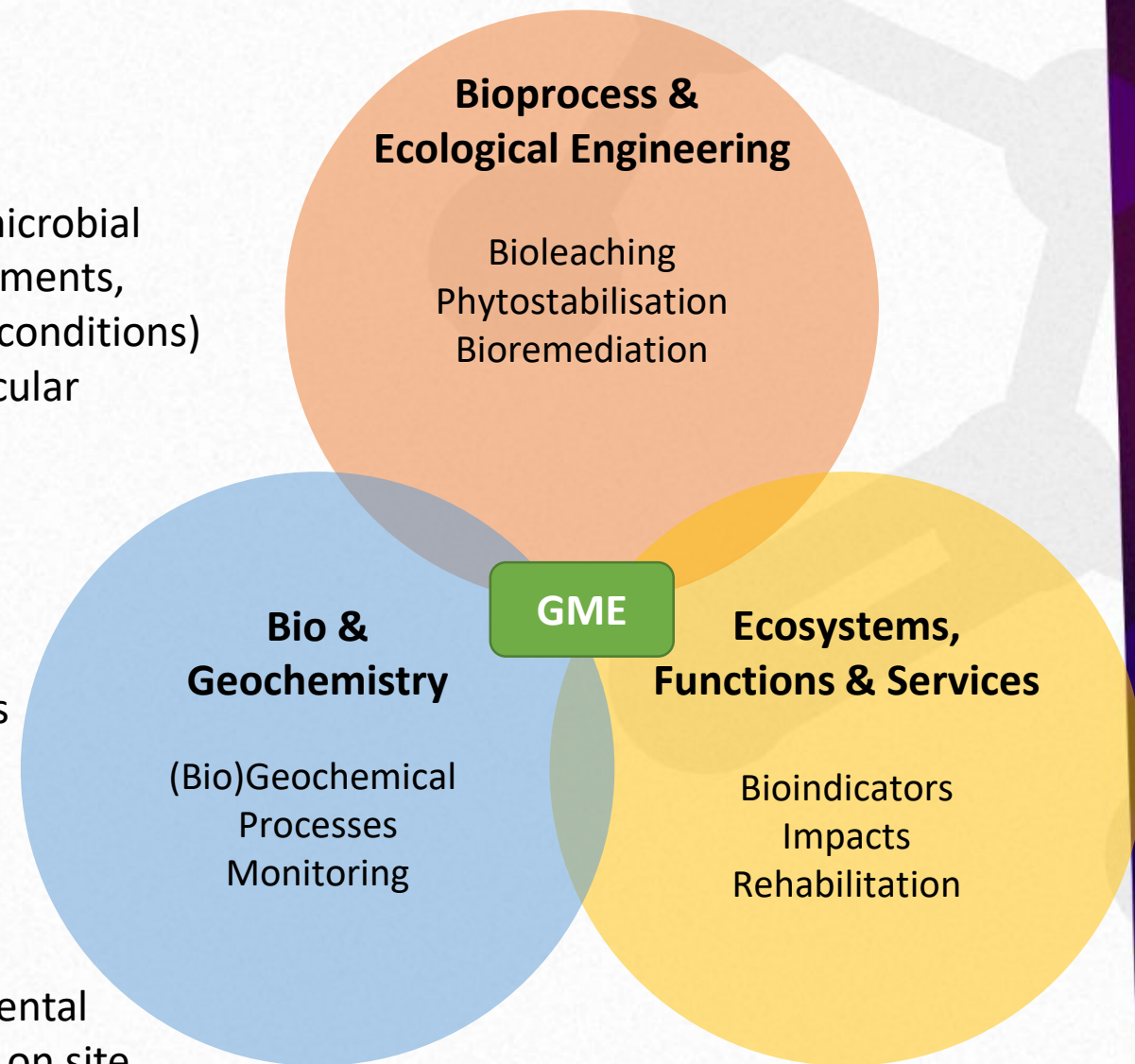


Project: 101059534 — PFASStwin
HORIZON-WIDERA-2021-ACCESS-02



PRINCIPALE MISSIONS

- Characterisation of the biodiversity and functions of microbial populations in contaminated environments (soils, sediments, subsoil, including aquifers under normal and extreme conditions) and biotechnological processes using classical & molecular microbiology approaches;
- Development of biotechnologies for environmental remediation and waste recovery;
- Development or adaptation of on-site measurement methodologies, to characterize different environments (in particular mining environments, polluted sites and soils, sediments), development of sensors (physical, biosensors) and development of bioindicators of the health of ecosystems and their function (services);
- The missions are mainly based on multi-scale experimental studies carried out in the laboratory, the pilot hall and on site, as well as the PRIME and BioREP platforms.



BRGM, Water, Environment, Process Development and Analysis Division – Geomicrobiology and Environmental Monitoring Unit

- Bioprocesses based on geomicrobiology

From geomicrobiological processes to environmental biotechnologies:

- In-situ: observations, sampling, measures
- Laboratory: identification of microbial reactions (oxidation, reduction, biodegradation), enrichments, isolation in aerobic or anaerobic conditions
- Development of bioreactors (fixed films, slurries, aerobic and anaerobic).
- Microcosms and mesocosms simulating in-situ conditions (geochemistry, transport, pressure, temperature...)
- Collection of strains and microbial populations

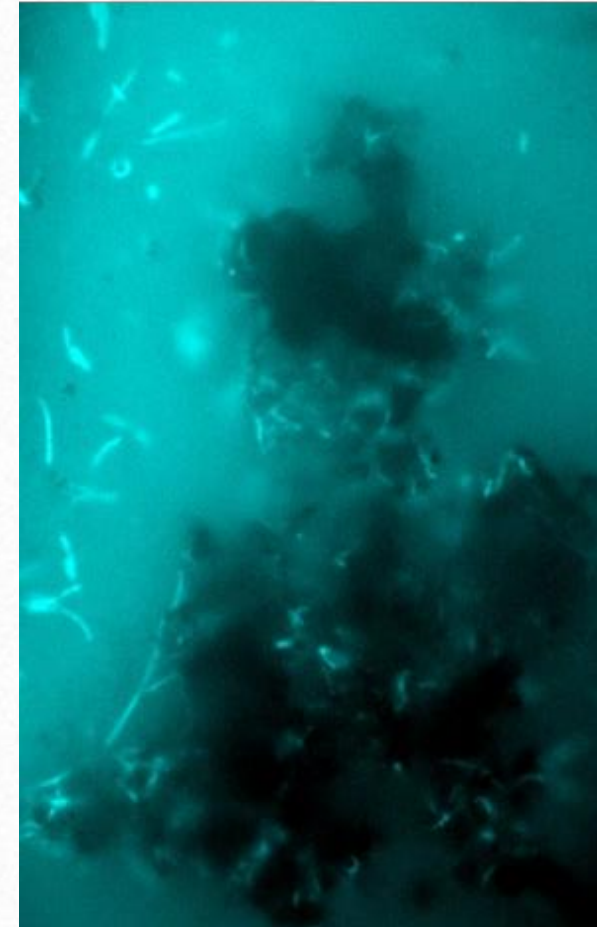


BRGM, Water, Environment, Process Development and Analysis Division – Geomicrobiology and Environmental Monitoring Unit

- Tools for the monitoring of bio-processes

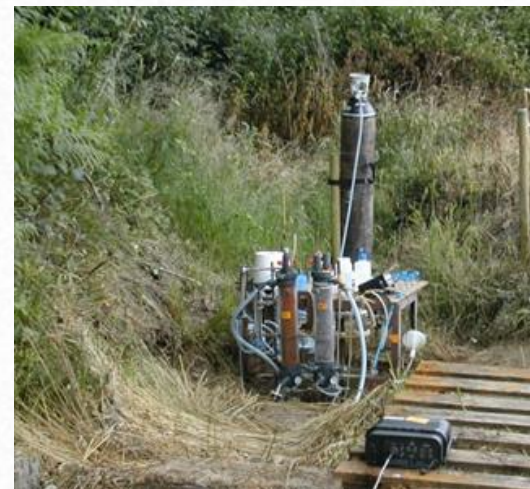
Tools for the monitoring of bio-processes and biotechnologies:

- Identification of organisms involved in bio-processes
- Identification of functions and associated genes
- Relation between bio-processes/microbial activities and genes detection
- Monitoring of microbial communities (diversity, activity, biomass...)
- Monitoring of biofilm development



BRGM, Water, Environment, Process Development and Analysis Division – Geomicrobiology and Environmental Monitoring Unit

- Multi-scale expertise
 - From the laboratory to the site:
 - Laboratory equipment for microbiology and molecular biology
 - Microcosms and mesocosms from cm^3 to m^3
 - Laboratory bioreactors (columns, slurries)
 - Pilot bioreactors (platforms and on-site)



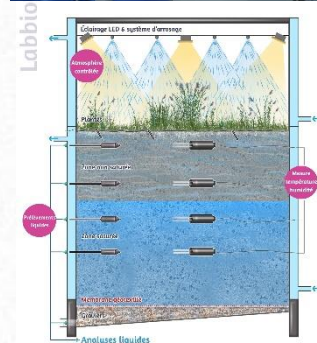
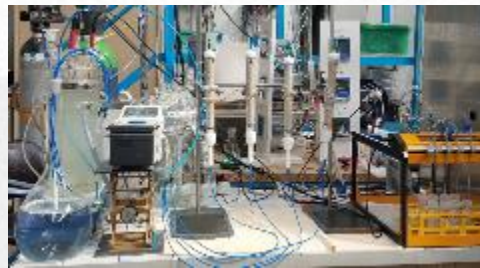
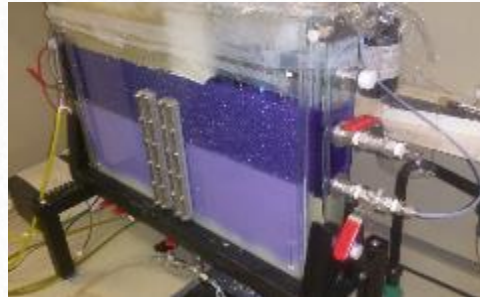
BRGM, Water, Environment, Process Development and Analysis Division – Geomicrobiology and Environmental Monitoring Unit

- We realized...
 - Collaborative projects with companies:
 - **Biotreatments based on bio-oxidation** for the treatment of arsenic containing water (mine water, drinking water)
 - **Biotreatments based on sulfate-reduction** for the treatment of mine water (metals, metalloids), industrial effluents, groundwater (CrVI)
 - Bio-process combining adsorption and biodegradation of PCBs
 - **Development of bioindicators** for the monitoring of bioremediation processes or rehabilitation of polluted and degraded sites.



PRIME Platforms

Experimental platform for the study of different environments at different scales



PRIME Platforms

Several topics / projects and publications

(Phyto)stabilization of mine tailings

Applied Geochemistry 111 (2019) 104438



Microcosm-scale biogeochemical stabilization of Pb, As, Ba and Zn in mine tailings amended with manure and ochre

Hugues Thouin^{a,c,1}, Marie-Paule Norini^{a,b,1}, Lydie Le Forestier^a, Pascale Gautret^a, Mikael Motelica-Heino^a, Dominique Breeze^a, Cindy Gassaud^a, Fabienne Battaglia-Brunet^a

^a Université d'Orléans, CNRS, BRGM, BRTO, UMR 7327, 45071, Orléans, France
^b BRGM, BP 30309, 45060, Orléans Cedex 2, France

Journal of Environmental Management 233 (2019) 117–130



Mobility of Pb, Zn, Ba, As and Cd toward soil pore water and plants (willow and ryegrass) from a mine soil amended with biochar

Marie-Paule Norini^{a,b}, Hugues Thouin^a, Florie Miard^a, Fabienne Battaglia-Brunet^{a,b}, Pascale Gautret^a, Régis Guégan^a, Lydie Le Forestier^a, Domenico Morabito^a, Sylvain Bourgerie^a, Mikael Motelica-Heino^a

^a Université d'Orléans, CNRS, BRGM, BRTO, UMR 7327, 45071, Orléans, France
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^c Université d'Orléans, ONIRIS, UR4308, UR6243, UR6430, 45067, Orléans, France

Chemical Geology 579 (2021) 120356



Leaching of trace metals (Pb) from contaminated tailings amended with iron oxides and manure: New insight from a modelling approach

Samuel Mertz^{a,b}, Lydie Le Forestier^{a,b,c}, Philippe Batallard^a, Nicolas Devau^b

^a Univ. Orléans, CNRS, BRGM, BRTO, UMR 7327, F-45071 Orléans, France
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Journal of Environmental Management 315 (2022) 115738



Temporal evolution of surface and sub-surface geochemistry and microbial communities of Pb-rich mine tailings during phytostabilization: A one-year pilot-scale study

Hugues Thouin^a, Marie-Paule Norini^{a,b}, Fabienne Battaglia Brunet^{a,b}, Pascale Gautret^a, Marc Crampon^a, Lydie Le Forestier^a

^a Université d'Orléans, CNRS, BRGM, BRTO, UMR 7327, 45071, Orléans, France
^b BRGM, BP 30309, 45060, Orléans Cedex 2, France

Mobility of metals in soils from WW1



Effect of water table variations and input of natural organic matter on the cycles of C and N, and mobility of As, Zn and Cu from a soil impacted by the burning of chemical warfare agents: A mesocosm study



Microbial community response to environmental changes in a technosol historically contaminated by the burning of chemical munitions

Hugues Thouin^{a,b,c}, Fabienne Battaglia-Brunet^{a,b,c}, Marie-Paule Norini^b, Catherine Joulian^a, Jennifer Hellal^a, Lydie Le Forestier^d, Sébastien Dupraz^a, Pascale Gautret^b

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^d Université d'Orléans, CNRS, BRGM, BRTO, UMR 7327, F-45071 Orléans, France



Influence of environmental changes on the biogeochemistry of arsenic in a soil polluted by the destruction of chemical weapons: A mesocosm study

Hugues Thouin^{a,b,c,d}, Fabienne Battaglia-Brunet^{a,b,c,d}, Marie-Paule Norini^{b,c,d}, Lydie Le Forestier^{b,c,d}, Mickaël Charron^a, Sébastien Dupraz^a, Pascale Gautret^{b,c,d}

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Remediation of chlorinated solvents using nZVI

Heliyon 7 (2021) e05954



Degradation of tetrachloroethylene by zero valent iron nanoparticles in the presence of a natural groundwater bacterial biofilm in a sandy porous media

Marc Crampon^a, Jennifer Hellal, Christophe Mouvet, Patrick Olivier

^a BRGM, F-45060 Orléans, France



Shift in Natural Groundwater Bacterial Community Structure Due to Zero-Valent Iron Nanoparticles (nZVI)

Marc Crampon^a, Catherine Joulian, Patrick Olivier, Mickaël Charron and Jennifer Hellal

Bureau de Remédiation Géologique et Microbiologie, Orléans, France



Production of biosurfactant using the endemic bacterial community of a PAHs contaminated soil, and its potential use for PAHs remobilization

Horian Cazak^{a,b,c,d}, David Huguenot^a, Marc Crampon^a, Stéfan Colombano^a, Stéphanie Betelu^a, Nathalie Galopin^a, Arnaud Perrault^a, Marie-Odile Simonnot^a, Ioannis Ignatiadis^a, Stéphanie Rossano^a

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^b CNRS, BRGM, Orléans, France
^c Université de Bourgogne, Dijon, France
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Biodegradation and bioremediation of organic contaminants

Science of the Total Environment 610–611 (2018) 708–719



Contents lists available at ScienceDirect
Science of the Total Environment

Journal homepage: www.elsevier.com/locate/scitotenv



Do natural biofilm impact nZVI mobility and interactions with porous media? A column study

Marc Crampon^{a,d}, Jennifer Hellal^a, Christophe Mouvet^a, Guillaume Wille^b, Caroline Michel^a, Anke Wiener^c, Joergen Braun^c, Patrick Olivier^a

^a BRGM, BRTO, UMR 7327, 45071 Orléans Cedex 2, France
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frontiers in Microbiology

ORIGINAL RESEARCH
published: 04 November 2021
doi: 10.3389/fmicb.2021.742039

Microbial Transformation of Chlordecone and Two Transformation Products Formed During *in situ* Chemical Reduction

Jennifer Hellal^a, Pierre-Louis Saalfrid^a, Sébastien Bristeau^a, Marc Crampon^a, Delphine Musset^a, Oriane Dalla-Negra^a, Aurélien Mauffret^a, Christophe Mouvet^a and Catherine Joulian^a

^a BRGM, Orléans, France; ^b UMR 8030 Géochimie Métabolique, CEA, Institut de Biologie François Jacob, Genoscopex, Université d'Evry Val d'Essonne, Université Paris-Saclay, Evry, France

Journal of Contaminant Hydrology 251 (2022) 104605



Contents lists available at ScienceDirect
Journal of Contaminant Hydrology

Journal homepage: www.elsevier.com/locate/jconhyd



Polycyclic aromatic hydrocarbons remobilization from contaminated porous media by (bio)surfactants washing

Florian Cazak^{a,b,c}, Stéfan Colombano^a, David Huguenot^a, Stéphanie Betelu^a, Nathalie Galopin^a, Arnaud Perrault^a, Marie-Odile Simonnot^a, Ioannis Ignatiadis^a, Stéphanie Rossano^a, Marc Crampon^a

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^c Université de Bourgogne, Dijon, France

frontiers in Microbiology

ORIGINAL RESEARCH
published: 20 November 2021
doi: 10.3389/fmicb.2021.742039

Dynamics of Soil Microbial Communities During Diazepam and Oxazepam Biodegradation in Soil Flooded by Water From a WWTP

Marc Crampon^a, Coralie Soulier^a, Pauline Sidot^a, Jennifer Hellal^a, Catherine Joulian^a, Mickaël Charron^a, Quentin Guilleminot^a, Géraldine Picolet-Colbaut^a and Marie Peillonat^a

^a Bureau de Recherches Géologiques et Minières, Orléans, France; ^b UMR 7619 METIS, Sorbonne Université, Paris, France

WP2 – BRGM contribution

- Task 2.1.2. Organization of two training courses at BRGM (M11-M14)

Two persons from UBFC will be trained at BRGM. First training course will be for modelling and up-scaling of techniques for the environmental treatment of emerging pollutants (laboratory, pilot and on site).

A second training course will be focused on methods to assess the toxicity of pollutants on microbial communities.

WP2 – BRGM contribution

- Task 2.2.3. Summer school at BRGM for bioremediation of polluted sites (summer 2023)

Bioremediation technologies, from **laboratory to mesocosm** and case studies: biodegradation of POPs in soils (PCBs, PAHs, pesticides), bio-augmentation and inoculated supports; treatment of polluted water (mine and industrial water), phytostabilization of mine wastes; complementarity of chemical / electrochemical / biological remediation approaches.

WP2 – BRGM contribution

- Task 2.2.3. Summer school at BRGM for bioremediation of polluted sites (summer 2023)

Lecturers: Dr. Marc Crampon (biodegradation of PAHs),

Dr. Fabienne Battaglia-Brunet (phytostabilization, bioremediation of metal-contaminated environments),

Dr. Ioannis Ignatiadis (BRGM, combination of chemical/electrochemical/biological processes for bioremediation of organic compounds),

Dr. Caroline Michel (biodegradation of pesticides, PCBs, development of processes using microbial carriers for the treatment of sediments and soils).

Participants will be initiated to the potential and functioning of databases and internet interfaces managed by BRGM in the domain of polluted sites and soils in France. Professors from French universities involved in bioremediation projects with BRGM will also be invited to present their work.

Thank you for your attention!

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Project: 101059534 — **PFAS**win
HORIZON-WIDERA-2021-ACCESS-02



Funded by the
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Brief introduction to PFAS twin (concept and goals)

Prof. Vladimir Beškoski

University of Belgrade – Faculty of Chemistry

Belgrade, 08/09/2022

Project: 101059534 — PFAS twin
HORIZON-WIDERA-2021-ACCESS-02

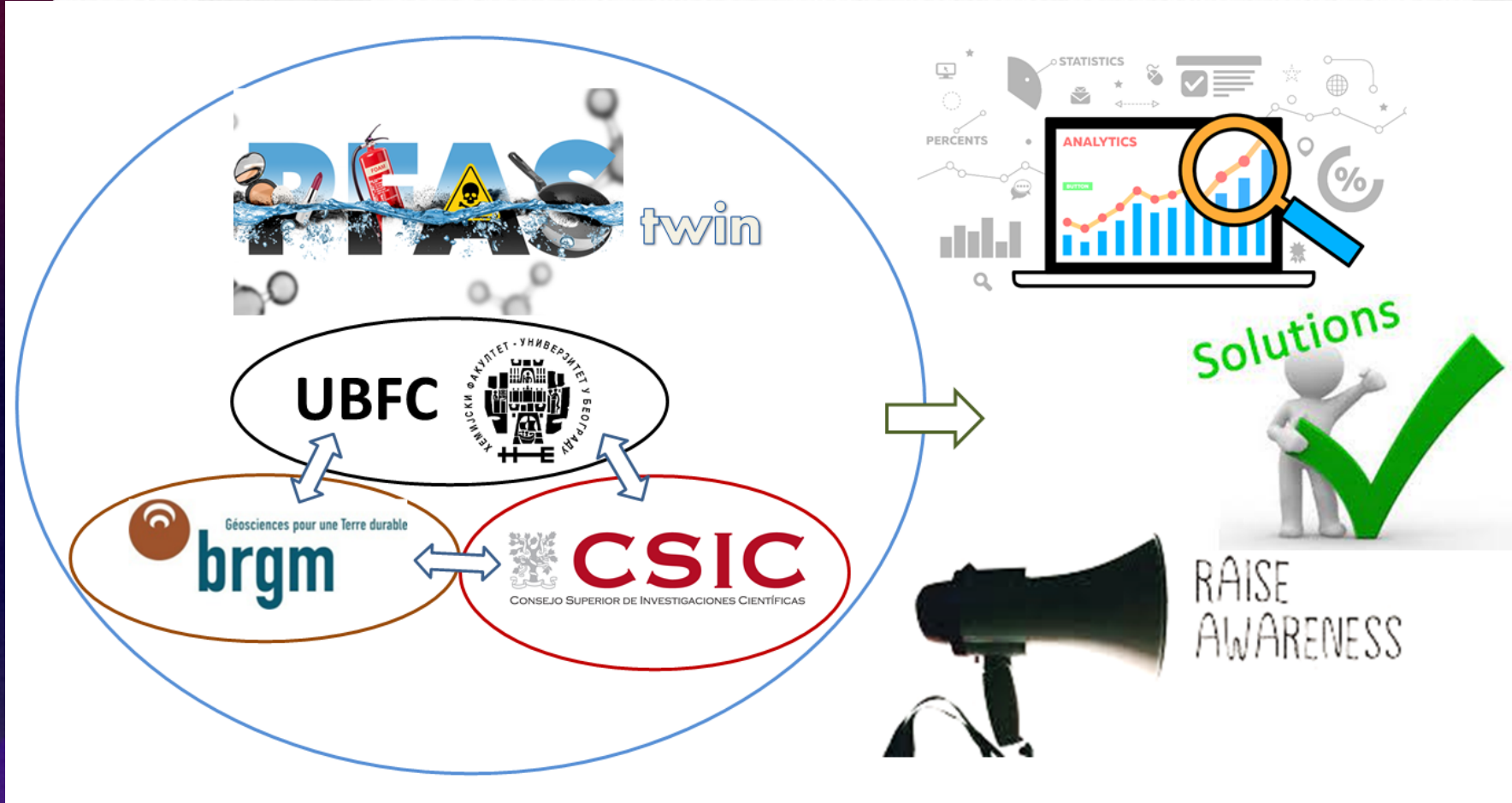


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Project title: Twinning to address the PFAS challenge in Serbia

Overall objective

Overall objective of the PFAS_{twin} is to significantly strengthen the capacity of University of Belgrade, Faculty of Chemistry (UBFC) in the field of state of the art PFAS analysis and bioremediation by promoting collaboration with institutions from partner countries (PC): France (BRGM) and Spain (CSIC); in order to raise the individual strength of Republic of Serbia to mitigate the PFAS pollutions as well as to develop innovative strategies for solving the most challenging environmental problems.



Specific objective

- SO1. Develop a **scientific strategy for PFAS analysis and bioremediation** for UBFC in coordination with PC in order to improve excellence capacity in WBC.
- SO2. Provide **knowledge transfer toward UBFC by organizing trainings in EU partner institutions** to obtain the best practices for the novel, state of the art methods and significant breakthroughs in analysis and bioremediation of PFAS.
- SO3. Spread the knowledge and **enhance networking between WBC and PC institutions** through the organization of three **comprehensive summer schools** in all participating institutions.
- SO4. Establish **new approaches for PFAS analysis and bioremediation** at UBFC and increase mobility (inwards and outwards) of qualified scientists by supporting novel research activities and research and training grants.
- SO5. **Strengthened** the research management capacities and **administrative skills** of the UBFC staff.
- SO6. **Raise the research profile and excellence of UBFC** and its staff through scientific publications, conference attendances, popular lectures and workshops for scientific sector, stakeholders and industry sector.

Work Package No	Work Package name	Lead Beneficiary	Effort (Person-Months)	Start Month	End Month	Deliverable No(s)
WP1	Development of scientific strategy for PFAS analysis and remediation for UBFC	CSIC	9.60	2	12	D1.1, D1.3, D1.2
WP2	Transfer and spreading of knowledge	UBFC	16.00	9	23	D2.2, D2.1
WP3	Joint research, networking and future collaborations	UBFC	16.00	18	28	D3.1, D3.2
WP4	Increasing and strengthening capacity of the institution for research projects management and administration	UBFC	57.00	1	36	D4.4, D4.1, D4.2, D4.3
WP5	Dissemination and communication	UBFC	16.05	1	36	D5.5, D5.1, D5.2, D5.3, D5.4
WP6	Management	UBFC	17.00	1	36	D6.5, D6.4, D6.3, D6.2, D6.1

PFASStwin Gantt chart



Thank you for your attention!

vbeskoski@chem.bg.ac.rs



Project: 101059534 — PFAS twin
HORIZON-WIDERA-2021-ACCESS-02



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GA, SC, EAB, DEIC election and PMT update

Prof. Vladimir Beškoski

University of Belgrade – Faculty of Chemistry

Belgrade, 08/09/2022

Project: 101059534 — **PFAS**twin
HORIZON-WIDERA-2021-ACCESS-02



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The General Assembly (GA) will consist of one representative from each consortium member and will be the ultimate decision-making body of the Consortium.

GA (General assembly) candidates

1. Dr. Vladimir Beškoski, Full professor at UBFC, PI of PFAStwin and WP6 leader;
2. Dr. Begoña Jiménez, senior scientist at CSIC and PFAStwin WP1 leader;
3. Dr. Fabienne Battaglia, Senior researcher at BRGM;

The **GA will meet once a year at the UBFC** to chart progress (M1 (kick-off), M13, M25, M35).

Between the GA meetings, **technical meetings** will bring together **smaller teams** cooperating on specific tasks using TEAMS platform which will be used as internet-based communication platform for whole project communication. **Selected teams will produce the following protocols:**

1. Monitoring of PFAS (M7)
2. Risk assessment (M8)
3. Evaluation of PFAS biotransformation using pretreatment and bioremediation (M9)
4. Organization of research and training grants for researchers, PhD students and postdocs (M10)

The Steering Committee (SC) will consist of WP Leaders and one member of each PC and will monitor the effectiveness and efficient implementation of the project.

SC (Steering committee) candidates

1. Dr. Begoña Jiménez, senior scientist at CSIC and PFAStwin WP1 leader;
2. Dr. Ljubodrag Vujisić, Associate professor at UBFC and PFAStwin WP2 leader;
3. Dr. Dubravka Relić, Associate professor at UBFC and PFAStwin WP3 leader;
4. MSc Tatjana Božić, Grant and International Cooperation Office employee at UBFC, PFAStwin manager and WP4 leader;
5. Dr. Maja Gruden-Pavlović, Full professor at UBFC and PFAStwin WP5 leader;
6. Dr. Vladimir Beškoski, Full professor at UBFC, PI of PFAStwin and WP6 leader;
7. Dr. Marc Crampon, Researcher, BRGM;
8. Dr. Juan Muñoz-Arnanz, Researcher, CSIC;

External Advisory Board (EAB) consists of experts from non-partners who will meet once a year and will provide scientific, technical, ethical and legal guidance, input and feedback on the project roadmap, advice on links with relevant interest groups outside twinning project, propose and encourage the potential interactions of the twinning project with other projects, initiatives and activities.

EAB (External Advisory Board) candidates

1. Jasmina Grubin, National Contact Point (NCP) in Serbia; Ministry of Education, Science and Technological Development, Republic of Serbia;
2. Ivan Đuričković, National Focal Point for the Stockholm convention in Serbia; Ministry of Environmental Protection, Republic of Serbia;
3. Dr. Tanja Ćirković Veličković, Full professor and vice dean for science at UBFC;
4. Dr. Miroslav M. Vrvic, president of the BREM group ltd; Full Research Professor University Professor-Retired;
5. Dr. Zoran Stojanović, Head of laboratory, Serbian Environmental Protection Agency (SEPA);
Vidosava Džagić, Asistant director, Belgrade Chamber of Commerce.

Dissemination and Exploitation Committee (DEIC) is responsible for the coordination and implementation of all dissemination, communication, and exploitation activities. The DEIC shall: propose IPR and exploitation strategies; prepare and update the Plan for generated research data management (DMP), and the Dissemination and Exploitation Plan (PDER).

DEIC (Dissemination and Exploitation Committee) candidates

Dr. Maja Gruden-Pavlović, Full professor at UBFC and PFAStwin WP5 leader;

Dr. Konstantin Ilijević, Assistant professor and PFAStwin dissemination and exploitation manager;

Dr. Marija Lješević, Research associate and PFAStwin assistant project manager;

Dr. Branka Lončarević, Research associate and PFAStwin assistant project manager;

Dr. Marc Crampon, Researcher, BRGM;

Dr. Juan Muñoz-Arnanz, Researcher, CSIC.

PMT –Project Management team (updated)

1. Dr. Vladimir Beškoski, Full professor at UBFC, PI of PFAStwin and WP6 leader;
2. MSc Tatjana Božić, Grant and International Cooperation Office employee at UBFC, PFAStwin manager and WP4 leader;
3. Dr. Branimir Jovančičević, Full professor at UBFC and PFAStwin technical manager;
4. Dr. Konstantin Ilijević, Assistant professor and PFAStwin dissemination and exploitation manager;
5. Dr. Marija Lješević, Research associate and PFAStwin assistant project manager;
6. Dr. Branka Lončarević, Research associate and PFAStwin assistant project manager;
7. Ms. Ana Vekić, UBFC, PFAStwin financial manager.

Task force team (TFT)-WP4: Our suggestion for task force members: Dean of UBFC, Vice dean for science and international cooperation, Head of accounting office, representative of UBFC Library and Cherry repository, representative of Grant Office, representative of public procurement office, UBFC Secretary.

Thank you for your attention!

vbeskoski@chem.bg.ac.rs



Project: 101059534 — PFAS twin
HORIZON-WIDERA-2021-ACCESS-02



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WP1. Development of Scientific Strategy for PFAS Analysis and (Bio)Remediation for UBFC

Dr. Begoña Jiménez

Senior scientist, IQOG-CSIC

Belgrade, 08/09/2022

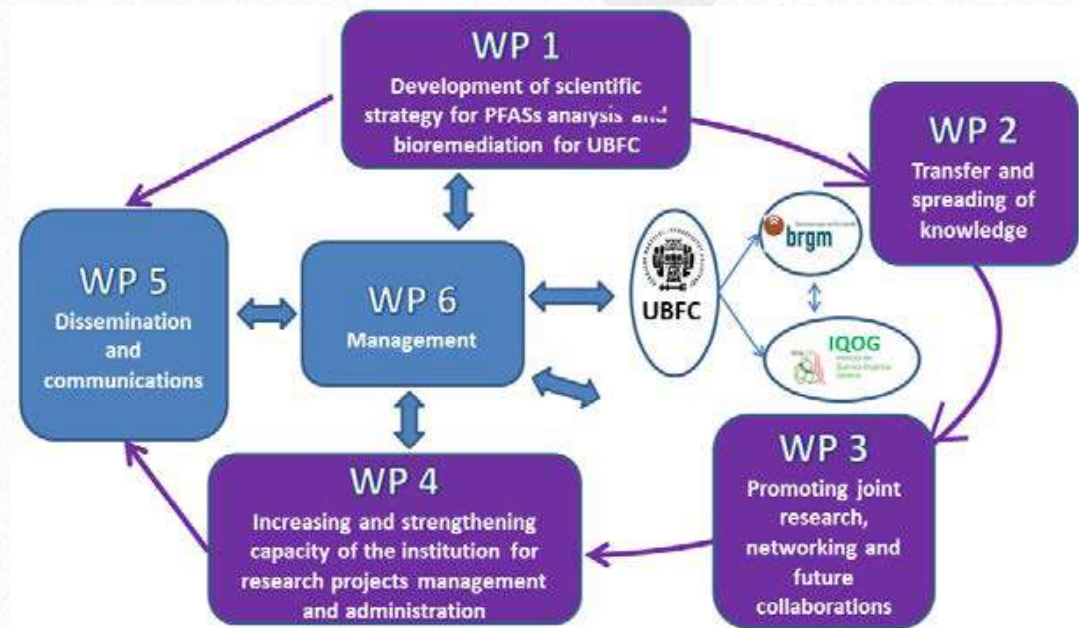
Project: 101059534 — PFAStwin
HORIZON-WIDERA-2021-ACCESS-02



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Work plan and resources

- The PFAS_{Stwin} project includes the planning of work packages, where project activities will be organized through six work packages



WP1: Development of Scientific Strategy for PFAS Analysis and (Bio)Remediation for UBFC

- Main aim is to develop a scientific strategy for PFAS analysis and (bio)remediation of these contaminants of emerging concern for UBFC (2022-2032).



WP1: Development of Scientific Strategy for PFAS Analysis and (Bio)Remediation for UBFC

Specific objectives are:

- to become a prominent institution for the analysis and remediation of PFAS
- to determine the current state of PFAS pollution in the EU and Serbia
- to evaluate the existing techniques of monitoring and remediation



Project: 101059534 — PFAS^{twin}
HORIZON-WIDERA-2021-ACCESS-02



CSIC

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WP1: Development of Scientific Strategy for PFAS Analysis and (Bio)Remediation for UBFC

PFAS
4,700

Persistent and accumulative in organisms and the environment



An all-encompassing approach must be implemented



Project: 101059534 — PFAS^{twin}
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CSIC

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Europe scenario and Serbia future

Active monitoring



National limits values

- ❧ Water and soil
- ❧ Textiles
- ❧ Food packaging
- ❧ Drinking water limits

Europe scenario and Serbia future

Active monitoring



National limits values

- ❖ Water and soil
- ❖ Textiles
- ❖ Food packaging
- ❖ Drinking water limits

Serbia future

- ❖ Scientific Strategy and Action Plan (2022-2032) will be developed
- ❖ UBFC as a driving force for monitoring and regulation of PFAS in the Republic of Serbia

The strategy and action plan



Increasing the UBFC infrastructure

- ❖ Investment in equipment
- ❖ Recruiting and training of new staff
- ❖ Future projects and collaborations
- ❖ Policy makers and Industry



Project: 101059534 — PFAS^{twin}
HORIZON-WIDERA-2021-ACCESS-02



CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



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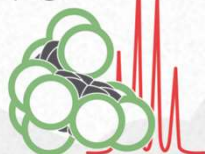
The strategy and action plan



Increasing the UBFC infrastructure

- Investment in equipment
- Recruiting and training of new staff

iqog-csic



IQOG-CSIC partners

- Current analysis
- Strategy development
- Enhance the research capacities
- Increase collaborations



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The strategy and action plan

- Establishment of the **Center of excellence for environmental biotechnology and bioremediation on UBFC**
- Establishment of mechanisms for easier official communication and cooperation between institutions
- Recognition of UBFC as a **national center for research on PFAS, the never ending chemicals**



Project: 101059534 — PFAS^{twin}
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CSIC

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WP1 challenges

- Obtaining relevant data for the current state analysis
- Use **PFAS**twIn to connect and coordinate similar project partner's network
- Establish a connection with **relevant authorities** for solving challenges of PFAS and other emerging contaminants



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CSIC

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Description of work

Task 1.1. Current state analysis in the field of environmental PFAS analysis and (bio)remediation at UBFC (M2-M3)

- IQOG-CSIC WP1 leader aims to help estimate current state in the field of PFAS analysis and (bio)remediation of emerging contaminants in Serbia
- The duration of visit will be one month



Project: 101059534 — PFAS^{twin}
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Description of work

Task 1.2. Writing scientific strategy of environmental analysis and (bio)remediation for UBFC (M4-M7)

- IQOG-CSIC will be in charge for writing scientific strategy of PFAS analysis and (bio)remediation for UBFC (2022-2032)
- Two persons from UBFC will actively participate in strategy writing by visiting IQOG-CSIC



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Description of work

Task 1.3. Writing action plan for environmental analysis and (bio)remediation for UBFC (M8)

- IQOG-CSIC will be in charge for writing action plan for PFAS analysis and (bio) remediation
- Writing of action plan will last one month



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HORIZON-WIDERA-2021-ACCESS-02



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Milestones

ML1.1 - Scientific strategy written

- Scientific strategy of PFAS analysis and bioremediation for UBFC will be developed, printed and available on the web site of the project (M7).



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Deliverables

- **D1.1. Current state analysis report** will be available at project website (M3).
- **D1.2. Report on scientific strategy writing** will be available at project website after training visit in PC (M5).
- **D1.3. Action plan** - printed and online versions will be available at project website (M8).



Project: 101059534 — PFAS^{twin}
HORIZON-WIDERA-2021-ACCESS-02

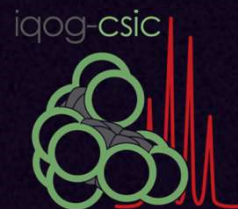


Thank you for your attention!

Email:
bjimenez@iqog.csic.es



Project: 101059534 — **PFAS**twin
HORIZON-WIDERA-2021-ACCESS-02



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WP2: Transfer and spreading of knowledge

WP Leader: Dr. Ljubodrag Vujisić (Associate professor, UBFC)

Belgrade, 8/9/2022
Kick-off Meeting

Project: 101059534 — **PFAS**twin
HORIZON-WIDERA-2021-ACCESS-02



Funded by the
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Objectives

- Increase scientific and technological skills of scientific staff and ESR of the linked institutions;
- Exchange of best practice between CC and PC institutions;
- Spread knowledge and increase networking opportunities for researchers and ESR
- Duration of WP2 – 15 months (M9-M23)

Total staff effort for WP2 – 16.00 PM

UBFC	CSIC (IQUG)	BRGM
7.00	5.00	4.00

Tasks

2.1. Organization of short term exchanges (STSE) of staff and ESR

Duration

PM
per institution

Deliverable
months
Deadline

M9-M14

UBFC: 3
BRGM: 2
CSIC: 3

D 2.1
M14

2.1.1. Organization of three training courses at CSIC

M9-M12

31 Oct 2023

2.1.2. Organization of two training courses at BRGM

M11-M14

2.2. Organization of three summer schools

M21-M23

UBFC: 4
BRGM: 2
CSIC: 2

D 2.2
M23

2.2.1. Summer school at CSIC for identification and quantification of legacy and emerging POPs in environmental samples

M21

2.2.2. Summer school at UBFC for using of GCxGC-MS for the environmental forensics and MicroOximax respirometer for remediation monitoring

M22

31 Jul 2024

2.2.3. Summer school at BRGM for bioremediation of polluted sites

M23

Deliverables & Milestone

Deliverable No	Deliverable Name	Lead Beneficiary	Type	Dissemination Level	Due Date (month)
D2.1	Manual for best practices	UBFC	R — Document, report	PU - Public	14
D2.2	Report on summer schools	UBFC	R — Document, report	PU - Public	23

Milestone No	Milestone Name	Lead Beneficiary	Means of Verification	Due Date (month)
ML 2	Application portal for trainings and summer schools created	UBFC	Application procedures for the trainings and summer schools established and available on the web site of the project	9

Critical risks

Risk No	Description	Work Package No(s)	Proposed Mitigation Measures
2	Inability to hold the training courses due to restriction of travel or participants/training staff health in the case of pandemic (High)	WP2	Substitute participants and training staff will be appointed for each training; Online trainings will be organized
3	Low attendance of summer schools (Medium)	WP2	Wide dissemination activities and attractive meeting venues and an online streaming are planned
4	Brain-drain of lead researchers of UBFC (High)	WP1-6	Competitive salaries and other benefits to enable keeping the lead staff will be provided. Also one of the terms of Consortium agreement will be obligatory return mechanism from PC to CC for CC project participants.
8	Administrative structure of UBFC slow and inefficient (Medium)	WP1-6	Top-management involvement in the EAB should assure smooth execution of planned activities.

Task 2.1. Organization of short term exchanges (STSE) of staff and ESR

- The trainings for best practices for the novel methods in PFAS analysis and (bio)remediation will be organized for researchers from CC. UBFC staff and ESR will apply for trainings using the Project website portal (ML-2.1, M9).
- The duration of all trainings will be up to 3 months and five trainings will be organized in PC for 5 persons from UBFC.
- For all trainings, funding will be provided (350 €/person for travel expenses and 2000€/month/person for accommodation and living costs). Also, funding for consumables which will be used during trainings will be provided (2000 €/training).
- Each participant of trainings will be obligated to provide ticket and boarding invoices. Also, in order to promote their work, they will create a report on trainings, as well as write the best practices manual (D 2.1, M14) and hold a lecture on learned techniques at their home institution. Trainings will be organized according to the following tasks: Exchange of best practice between CC and PC institutions;
- Spread knowledge and increase networking opportunities for researchers and ESR

Task 2.1.1. Organization of three training courses at CSIC (M9-M12)

- **Three persons from UBFC** will be trained at CSIC on:

Sample treatment, Analytical procedures and QA/QC for the determination of PFAS in different samples.

- Trainings will be divided by type of sample sources: one researcher will be trained for **water and sediment samples**, one for **food samples** and one for **biological samples**.

Trained researchers will be in charge of writing a manual which will be implemented at UBFC.

Task 2.1.2. Organization of two training courses at BRGM (M11-M14)

- **Two persons from UBFC** will be trained at BRGM. The first training course will be for **modelling and up-scaling of techniques for the environmental treatment of emerging pollutants** (laboratory, pilot and on-site) and the second for **methods to assess the toxicity of pollutants on microbial communities**. Trained researchers will write a manual for UBFC.

PM (Person/Months): Planning and supervision of trainings and preparation of best practice manuals (30 % of the time spent by trainee is estimated to be spent by the experts involved in the training)

Task 2.2. Organization of three summer schools (M21-M23)

- **Application for the Summer schools will be opened 6 months prior the event.** Applicants will have to send a CV and motivation letter using the Project website portal (ML2, M9). PMT will be in charge of the selection process.
- Funding for the invited lecturers in each summer school will be provided through the project (350 €/lecturer for travel expenses and 220 €/day/lecturer for accommodation and allowance).
- For the participants that have a residence outside of the country where the summer school will be held, funding will be also provided (350 €/person for travel expenses and 80 €/day/person for accommodation and living costs).
- Funding for consumables, printing and catering costs for the summer schools is planned (11500 €/summer school).
- **After every summer school report will be written (D2.2, M23).**

Task 2.2.1. Summer school at CSIC for identification and quantification of legacy and emerging POPs in environmental samples(M21)

- The summer school will cover the next topics: general introduction to POPs, international regulations, sampling techniques for all environmental matrices, sample treatment, extraction and clean up techniques, GC and LC techniques, qMS, QQQ and HRMS detectors, quantification, QA/QC and data handling, case studies, contaminated, awareness, alternatives, the substitution of legacy and emerging POPs.
- **Lecturers:** Dr. Ana Isabel Sánchez, Dr. Begoña Jiménez, Dr. Jose Luis Roscales, Dr. Juan Muñoz-Arnanz
- **Leading expert:** Dr. Begoña Jiménez
- **Organizer: CSIC, duration: 1 week**, target audience: **20 from UBFC** (15 ESR + 5 researchers), and **10 from PC** (5 from CSIC, 5 from BRGM)

Task 2.2.2. Summer school at UBFC for using of GCxGC-MS for the environmental forensics and MicroOximax respirometer for remediation monitoring(M22)

- The summer school will cover the next topics: field and laboratory measurements (collecting microbiological, chemical, physico-chemical and biochemical data), general introduction to GCxGC-MS working principles and applications, sample preparation for chemical analysis, extraction and clean up techniques for GCxGC-MS, target and non-target analyses using GCxGC-MS, environmental forensics of contaminated sites, general introduction to MicroOxymax respirometer working principles and applications, quantification and data handling.
- **Lecturers:** Dr. Vladimir Beškoski, Dr. Ljubodrag Vujisić, Dr. Branimir Jovančičević
- **Invited lecturer(s):** Dr. Jean-François Focant - full professor, University of Liege (Belgium)
- **Leading expert:** Dr. Vladimir Beškoski
- **Organizer: UBFC, duration: 1 week**, target audience: **30 from UBFC** (20 ESR + 10 researchers), and **10 from PC** (5 from CSIC, 5 from BRGM)

Task 2.2.3. Summer school at BRGM for bioremediation of polluted sites(M23)

- Summer school at BRGM will cover a range of research areas on the theme of bioremediation technologies, from laboratory to mesocosm and case studies: biodegradation of POPs in soils (PCBs, PAHs, pesticides), bio-augmentation and inoculated supports; treatment of polluted water (mine and industrial water), phytostabilization of mine wastes; the complementarity of chemical/electrochemical/biological remediation approaches.
- **Lecturers:** Dr. Marc Crampon, Dr. Fabienne Battaglia-Brunet (BRGM), Dr. Ioannis Ignatiadis (BRGM), Dr. Caroline Michel (BRGM), Dr. Mikael Motelica (University of Orléans)
- **Invited lecturer(s):** Dr. Jean-François Focant - full professor, University of Liege (Belgium)
- **Leading expert:** Dr. Fabienne Battaglia-Brunet
- **Organizer: BRGM, duration: 1 week**, target audience: **20 from UBFC** (15 ESR + 5 researchers), and **10 from PC** (5 from CSIC, 5 from BRGM)
- **WP2 Milestone: ML2** - Application portal for trainings and summer schools created
Application procedures for the STSE of staff and ESR and summer schools will be established and available on the website of the project (**M9**).

Thank you for your attention!

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Project: 101059534 — **PFAS**twin
HORIZON-WIDERA-2021-ACCESS-02



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WP3: Joint research, networking and future collaborations

WP Leader: Dr. Dubravka Relić (Associate professor, UBFC)

Belgrade, 8/9/2022
Kick-off Meeting

Project: 101059534 — **PFAS**twin
HORIZON-WIDERA-2021-ACCESS-02



Funded by the
European Union

Objectives

- Increase scientific capacity of ESR, PhD students and postdocs from UBFC by networking with PC;
- Enhance opportunities for frontier research and novel partnerships.
- Duration of WP3 – 11 months (18-28 M)

Total staff effort for WP3 – 16.00:

UBFC	CSIC (IQUG)	BRGM
12.00	2.00	2.00

Tasks

Task No	Task Name	Duration	PM (per institution)	Deliverable
3.1. Analysis of PFAS in soil, sediment, and water samples	3.1.1. Monitoring of PFAS	M18-M20	UBFC: 3+2 PM	
	3.1.2. Risk assessment	M21-M22	BRGM: 0 PM CSIC: 1.5 PM	
3.2. Evaluation of PFAS biotransformation using pretreatment and bioremediation		M23-M25	UBFC: 5 PM BRGM: 1.5 PM CSIC: 0 PM	D3.1
3.3. Organization of research and training grants for researchers, PhD students and postdocs		M26-M29	UBFC: 2 PM BRGM: 0.5 PM CSIC: 0.5 PM	D3.2

Milestones & Deliverables

Milestone No	Milestone Name	Lead Beneficiary	Type	Dissemination Level	Due Date (month)	Deadline
ML3.1	Collection of samples from locations in Serbia data for all sampling location in Serbia will be stored at project website and CHERRY repository	UBFC			19	31 Mar 2024
ML3.2	List of approved grants - Final decision on the award of grants will be available on the web site of the project	UBFC			23	31 Jul 2024

Deliverable No	Deliverable Name	Lead Beneficiary	Type	Dissemination Level	Due Date (month)	Deadline
D3.1	Report on analysis and microbial transformation of PFAS will be written after analysis of collected samples risk assessment and microbial biotransformation	UBFC	R - Document, report	PU - Public	25	30 Sep 2024
D3.2	Report on grantee's research and training will be delivered after all grantees complete their research visits	UBFC	R - Document, report	PU - Public	28	31 Dec 2024

Critical risks

Risk No	Description	Work Package No(s)	Proposed Mitigation Measures
4	Brain-drain of lead researchers of UBFC (High)	WP6, WP2, WP1, WP3 , WP4, WP5	Competitive salaries and other benefits to enable keeping the lead staff will be provided. Also, one of the terms of Consortium agreement will be obligatory return mechanism from PC to CC for CC project participants.
5	Risk of delays linked to the pandemic, imports of chemicals slowed (Medium)	WP3	Experimental activities will be significantly intensified after obtaining slowly imported items to avoid delays of milestones and deliverables. In addition, all consumables with long
8	Administrative structure of UBFC slow and inefficient (Medium)	WP6, WP2, WP1, WP3 , WP4, WP5	Top-management involvement in the EAB should assure smooth execution of planned activities.

Task 3.1. Analysis of PFAS in soil, sediment, and water samples (M18-M22)

- **3.1.1. Monitoring of PFAS (M18-M20)**
- **Protocol for monitoring of PFAS (M7)**
- Sediment and water samples will be collected from the wastewater canal Vojlovica (WWCV) in Pancevo industrial zone, the Danube and Sava rivers in Belgrade and analysed for PFAS using the best methodologies established in task 2.1. Beside surface water samples, the municipal drinking (tap) water and bottled spring water commonly consumed in Serbia will be analysed for PFAS as well.
- Tap water samples will be collected from Pancevo and Belgrade city while plastic- and glass-bottled water products of different Serbian brands will be obtained from several supermarkets.
- **CSIC will help with the analysis at UBFC (Juan Muñoz Aranz) during one month visit.**
- Additionally, some of the samples will be analysed at CSIC using the techniques not available at UBFC (UPLC-QqQ). The main technique for characterization of PFAS will be HPLC-MS/MS, but additional analysis will be performed to evaluate the composition of samples to determine the potential co-contamination with other POPs or metals (chemical analysis: GCxGCMS, FTIR, ICP-MS).

Task 3.1. Analysis of PFAS in soil, sediment, and water samples (M18-M22)

- **ML3.1- Collection of samples from locations in Serbia (M19)** – obtained data for all sampling location in Serbia will be stored at project website and CHERRY repository.
- **Analysts:** Persons from UBFC trained at CSIC.
- **Process manager(s):** WP3 leader, CP, PM, Team members (Marija Ljesevic and Branka Loncarevic), CSIC (Begoña Jiménez, Juan Muñoz Arnanz).

Task 3.1. Analysis of PFAS in soil, sediment, and water samples (M18-M22)

- **3.1.2. Risk assessment (M21-M22)**
- **Protocol for risk assessment (M8)**
- To understand potential human health risk, exposure levels will be compared with reference toxicological values and/or drinking water guidelines.
- Taking the results of PFAS monitoring into consideration, risks to human health and the aquatic ecosystem will be assessed in Serbia.
- To understand potential non-carcinogenic and carcinogenic human health risks, exposure levels will be compared with reference toxicological values and/or drinking water guidelines.
- The aquatic risk assessment will be assessed by determining the ratio of measured environmental concentrations of PFAS with predicted no-effect concentrations (PNEC) of aquatic organisms.

Task 3.1. Analysis of PFAS in soil, sediment, and water samples (M18-M22)

- **Analysts:** WP3 leader, Tijana Milićević, Jovana Orlić
- **Process manager(s):** WP3 leader, CP, PM, Team members (Marija Ljesevic and Branka Loncarevic)

Task 3.2. Evaluation of PFAS biotransformation using pretreatment and bioremediation (M23-M25)

- **Protocol for evaluation of PFAS biotransformation using pretreatment and bioremediation (M9)**
- In order to make PFAS more susceptible to microbial activity and thus biodegradation, oxidation of PFAS will be investigated, and UV, Fenton, ozone and metal oxides (TiO₂, ZnO₂) will be used in this process. Vast experience of UBFC staff in bioremediation coupled with the training on best methodologies in the scaling up (task 2.1.2) will be used to design a PFAS biodegradation protocol and scale it up in a bioreactor (RTS-8 Plus, Multi-channel Bioreactor with noninvasive real time cell concentration pH and O₂ measurement, which will be bought through this project for UBFC in order to raise the capacity of the PFAS research lab).
- The results from these experiments will be used to precise the potential (bio)degradation of the selected compounds on contaminated soils. After these pretreatment protocols, PFAS will be subjected to biodegradation using microbial communities (bacteria and fungi) isolated from Pancevo industrial zone wastewater canal known for PFAS contamination. BRGM members will design column experiments in BRGM PRIME platform which will allow testing bioaugmentation with selected microbial communities for the degradation of PFAS in polluted water. Additionally, experiments on PFAS sorption to soil (on the PFAS previously selected in task 3.1) will be performed using soils with different physico-chemical parameters (batch sorption experiments and columns transport experiments).

Task 3.2. Evaluation of PFAS biotransformation using pretreatment and bioremediation (M23-M25)

- **Note:** 1 person from BRGM will come to UBFC for 1 month or 2 persons for 2 weeks to be involved with the experimental design and experiments.
- **Analysts:** Persons from UBFC trained at BRGM.
- **Process manager(s):** WP3 leader, CP, PM, Team members (Marija Ljesevic and Branka Loncarevic), BRGM (Marc Crampon). (D3.1, M25).
- ***D3.1. Report on analysis and microbial transformation of PFAS will be written after analysis of collected samples risk assessment and microbial biotransformation (M25).***

Task 3.3. Organization of research and training grants for researchers, PhD students and postdocs (M26-M29)

- **Protocol for organization of research and training grants for researchers, PhD students and postdocs (M10)**
- At the beginning of the third year of this project the research and training grants will be awarded in order to promote new joint research projects and assist ESR, PhD students and postdocs research and training.
- **36000 €** (9 Grants x 4000 €)
- Applicants for this grant will apply through the project website. A call for grants will be made public within M16 of the project's length. An announcement of the call for grants will be made at the start of the second project year (M18). Candidates must submit their cv, project proposal, motivation letter, letter of recommendation, and supervisor endorsement within the next four months (up to M22).

Task 3.3. Organization of research and training grants for researchers, PhD students and postdocs (M26-M29)

- Host institutions can be BRGM, CSIC or any institution of applicant's choice that is involved in the research area that is complementary to the project scientific topic.
- **Research and training grant are mainly intended for researchers from UBFC and for researchers from PC institutions to work at UBFC, but they will also be advertised to a wider community to assure that the best proposals are funded.**
- DEIC will be in charge of evaluating (M23) and selecting the best project proposals and award the grants (ML3.2, M26).
- Final decision on the award of grants will be available on the web site of the project (M23).
- **ML3.2- List of approved grants** - Final decision on the award of grants will be available on the web site of the project (M26).

Task 3.3. Organization of research and training grants for researchers, PhD students and postdocs (M26-M29)

- Each grantee will be obligated to provide a report on the research/training and hold a lecture about their results at their home institution. Consolidated report on all grants will be written and this will be the Deliverable of this task (D3.2).
- ***D3.2. Report on grantee`s research and training will be delivered after all grantees complete their research visits (M28).***
- **Process manager(s):** WP3 leader, CP, PM, Team members (Marija Ljesevic and Branka Loncarevic)

Thank you for your attention!

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Project: 101059534 — **PFAS**twin
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WP4: Increasing and strengthening capacity of the institution for research projects management and administration

WP Leader: MSc Tatjana Bozic, Grant and International Cooperation Office employee

Belgrade, 9/9/2022
Kick-off Meeting

Project: 101059534 — **PFAS**twin
HORIZON-WIDERA-2021-ACCESS-02



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Objectives

- Enable UBFC to support in a more efficient, better coordinated manner management and implementation of ongoing and future research projects
- Increase and strengthen the operational capacity of UBFC for research projects management and administration
- Duration of WP4 – total period of the project (1-36 M)

Total staff effort for WP4 – 57.00:

UBFC	CSIC (IQUG)	BRGM
48.00	4.50	4.50

Tasks

Task No	Task Name	Duration	PM (per institution)	Deliverable
4.1	Structural reform within the institution	M1-M6	UBFC: 2 PM BRGM: 0 PM CSIC: 0 PM	D4.1
4.2	Building the capacity of UBFC	M7-M36	UBFC: 38 PM BRGM: 0 PM CSIC: 0 PM	D4.2
4.3	Strengthening the GO through know how exchange	M7-M9, M16-M18	UBFC: 4 PM BRGM: 3.5 PM CSIC: 3.5 PM	D4.3
4.4	Raising skills in research project management, project administration, financial and data management through training of research and administrative personnel	M6-M31	UBFC: 4 PM BRGM: 1 PM CSIC: 1 PM	D4.4

Deliverables & Milestones

Deliverable No	Deliverable Name	Lead Beneficiary	Type	Dissemination Level	Due Date (month)	Deadline
D4.1	Report with the action plan on the reorganization of the work force in the UBFC towards achieving better GO performance accepted by the Governing body of the UBFC will put into force	UBFC	R - Document, report	PU - Public	6	28 Feb 2023
D4.2	Report on the recruitment procedure for hiring additional personnel for the GO of UBFC	UBFC	R - Document, report	PU - Public	12	31 Aug 2023
D4.3	Report on the STSE enabling know-how exchange with twinning partners will be available at project website	UBFC	R - Document, report	PU - Public	18	29 Feb 2024
D4.4	Report on the lectures and seminars held with the list of topics covered by the seminar, CVs of lecturers, summaries of the lectures, signed lists of participants and feedback on lecture/seminar given by participants will be delivered	UBFC	R - Document, report	PU - Public	31	31 Mar 2025

Milestone No	Milestone Name	Lead Beneficiary	Type	Dissemination Level	Due Date (month)	Deadline
ML4.1	Call for additional personnel for GO opened	UBFC			9	31 May 2024

Critical risks

Risk No	Description	Work Package No(s)	Proposed Mitigation Measures
4	Brain-drain of lead researchers of UBFC (High)	WP6, WP2, WP1, WP3, WP4, WP5	Competitive salaries and other benefits to enable keeping the lead staff will be provided. Also, one of the terms of Consortium agreement will be obligatory return mechanism from PC to CC for CC project participants.
6	Difficulties in the recruitment process for additional personnel for the GO (High)	WP4	Job advertisement will be posted on multiple online platforms to obtain a higher number of quality candidates, competitive salaries and other benefits.
8	Administrative structure of UBFC slow and inefficient (Medium)	WP6, WP2, WP1, WP3, WP4, WP5	Top-management involvement in the EAB should assure smooth execution of planned activities.

Task 4.1: Structural reform within the institution

- **Taskforce team (TFT)** has been appointed by the Dean of the UBFC with the assignment to evaluate the tasks and workload of the GO, such as: international and national project management, financial and data management, legal aspects of project management, procurement procedures needed by specific projects, IPR and support for high-level expertise and servicing offered to the academic and industrial sector. The evaluation report of the Taskforce team will also contain an Action plan for the structural reform (D4.1, M6).
- **Members of the TFT**
Dean of UBFC (Prof. Dr. Goran Roglic), Vice-dean for science and international cooperation (Prof. Dr. Tanja Cirkovic Velickovic), Head of the accounting office (Ana Vekic), representative of UBFC Library and Cherry repository (Ana Djordjevic), representative of Grant Office (Tatjana Bozic), representative of public procurement office (Ljiljana Sekulic), UBFC Secretary (Dr. Radmila Kopilovic).

Task 4.1: Structural reform within the institution

Action plan for the structural reform of Grant Office

Main objective: to provide a top-level guideline for GO strategy development

Description of process: the GO strategy, targets, resources, and roadmaps have to be planned, implemented and controlled

Steps of the process:

1. Develop strategic goals and potentials plus a SWOT analysis
2. Develop objectives and indicators for national and international projects
3. Develop a strategic roadmap and risk analysis
4. Feasibility analysis
5. Decisions (for action as a result of pervious steps)
6. Communication (with all participants and the broader public)

Outcome: Written strategy document - Action plan

Task force team will produce **Evaluation report (D4.1)** which will contain **Action plan** for the structural reform of the Grant Office

Process manager(s): TFT

Task 4.2: Building the capacity of UBFC

- Additional personnel for the GO of the institution will be recruited. Based on the Action plan, personnel needed for capacity building will be hired through an open call procedure (ML4.1, M9). Reports on the recruitment procedure will be delivered (D4.2, M12).
- **Process manager(s):** TFT and Legal office

Task 4.3: Strengthening the GO through know-how exchange

- Head of GO and Head of Accounting office will visit counterpart offices in CSIC and BRGM. A total of 4 STSE (two 5-day visits for two persons) is planned. The first visit is scheduled for M7 and the second for M16. A consolidated report of STSE for enabling know-how exchange with twinning partners will be written (D4.3, M18).
- The overall aim of STSE is to strengthen skills and raise the knowledge of the personnel involved in project management at the UBFC.
- CSIC will support and encourage mutual visits of project managers, grant office employees and other personnel involved in project management. The following departments from CSIC will be involved: International Aid Justification Service, the Legal Support Unit, and the International Programs Area. Follow-up of the visits will be ensured in order to deepen and consolidate the obtained know-how in the form of virtual meetings and training webinars.
- BRGM will support and encourage visits from project managers, grant office partners and other personnel involved in the project management. Short visits are planned in the partners' office/lab. Training webinars, virtual or at BRGM, will be carried out to increase the know-how, especially about the setup and management of EU projects, of all involved partners.
- Process manager: Head of GO

Task 4.4: Raising skills in research project management

- This measure will be implemented through a series of lectures and seminars, after which a report will be given (D4.4, M31). The lectures will be held by UBFC and experts from partner institutions and invited experts on the given topic. Funding is provided for the experts from the partner institutions and external invited lecturers. Lectures and seminars will be open for PhD students and researchers from the UBFC. Hands-on seminars will include theoretical and practical training and a certificate of seminar completion.
- **Lecturers:** UBFC, BRGM and CSIC experts (Grant Office personnel, project coordinators, personnel in charge of repository).
- **Invited lecturers:** Dr. Steve Quarrie, Dr. Goran Stojanović and Ratko Bojović from EUTA - European Training Academy. EUTA is one of the most prominent networks of experts in Serbia in the field of EU funds, Dr. Tanja Ćirković Veličković (UBFC, coordinator of one Twinning project- FoodEnTwin and RIA project Imptox), Dr. Jasmina Nikodinović-Runić (IMGGI, partner of RIA project Biolcep), Jasmina Grubin (NCP), Branislav Aleksić, (Head of Export Control and Corporate Security Department at Fraunhofer, Germany), Ana Đorđević (UBFC - in charge for the CHERRY repository and UBFC library), Marija Sola Spasić (Project manager, University of Belgrade, School of Electrical Engineering and NCP for finance).
- **Process manager(s):** Head of GO, Head of Accounting Office, Team member (Branka Loncarević)

Task 4.4: Seminars and Lectures

No	Topic	Type	Lecturers	Target audience	Due Date (month)	Deadline
1	Proposal preparation and writing	hands-on seminar	UBFC, EUTA, NCP	PhD students and researchers of the UBFC	6	28 Feb 2023
2	Project administration and management – examples of good practice	seminar	BRGM, EUTA, IMGGI	PhD students and researchers of the UBFC	7	31 Mar 2023
3	Financial management of EU projects: Horizon Europe new regulations	lecture	UBFC	PhD students and researchers of the UBFC	8	30 Apr 2023
4	How to increase project impact - paving the pathways to impact	lecture	IMGGI, UBFC, CCIS	PhD students and researchers of the UBFC	10	30 Jun 2023
5	Open data and open results	lecture	UBFC	PhD students and researchers of the UBFC	12	31 Aug 2023
6	Non-proliferation controls and Dual-use technologies	seminar	Fraunhofer-Gesellschaft	PhD students and researchers of the UBFC	14	31 Oct 2023
7	Research data management	hands-on seminar	UBFC, CSIC, EUTA	PhD students and researchers of the UBFC	20	30 Apr 2024
8	Gender aspects of research projects	lecture	UBFC, IMGGI	PhD students and researchers of the UBFC	25	30 Sep 2024

Thank you for your attention!

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Project: 101059534 — **PFAS**twin
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WP5. Dissemination and communication

WP leader: Prof. Maja Gruden



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Objectives within the work package 5:

- To raise the awareness about the outcomes of the project and the developments that have been achieved;
- Increase communications between public, research sector, industry and stakeholders;
- Increase public support for the efforts made by scientist to solve major societal problems;
- Raise the profile of the institution from the Widening country and its staff.



Tasks within the work package 5:

Task 5.1: PDER-Dissemination and Exploitation Plan

Task 5.2: Visual identity and development of dissemination materials

Task 5.3: Online presence

Task 5.4. Dissemination for the scientific community

Task 5.5. Targeting researchers, industry, stakeholders, and wider population

Tasks 5.1:

PDER should be built soon after the project initiation. This document will offer information for:

- a) the project assets and messages to disseminate and communicate,
- b) the target groups to be informed and engaged,
- c) the communication tools to use for the different target groups
- d) detailed planning including foreseen actions, consortium resources and responsibilities and time-plan in order to achieve the widest possible dissemination of results.

PDER should be delivered in Month 6 (D5.1), and it will be updated twice during the project lifetime (**M17 and M26-D5.2 and D5.3**).

Task 5.2: Visual identity and development of dissemination materials

Basic tools for the dissemination and the communication of project activities and results should be prepared:

- a project logo and the elaboration of visual identity (fonts, colour-palette, etc.).
- templates for documents (format of the deliverables, etc.), slides and posters (including a general project presentation).
- A project brochure with basic information on the project; leaflets and poster rollup



Task 5.2: Visual identity and development of dissemination materials



Task 5.3: Online presence

- **Establishment of website (M2)** which include detailed information on the project's background, partners, activities, resources (including deliverables and publications), international cooperation and events, as well as news section. The website will act as a main reference point for the project - number of website hits **(ML5.1 – M4)**
- **Establishment of social media profiles** (Instagram, Facebook, LinkedIn...) **(ML5.1 – M4)** - dr Konstantin Ilijevic
- Project E-newsletter will be published every six months (8 in total), sent to subscribers, and shared through both the project's channels and the partner organizations channels **(First M6-February 2022)**.



Task 5.4. Dissemination for the scientific community

- Task 5.4.1. Open access publications in high impact scientific journals

Procedure to be establish

- Task 5.4.2. Publication within conferences

Coordinator 3/year Partners 2/year 350EUR for travel 220EUR flat rate
max 1800/conference

- Establishment of Commity who will aprove application
- Establishment of the application procedure

D 5.5 Report on the scientific publications and press releases M36

Task 5.5. Targeting researchers, industry, stakeholders, and wider population

- Task 5.5.1. Organization of project presentation (**M10 –June2023**, M22, M35)

In order to report on main projects information, results and news for the wider scientific population, industry and stakeholders and distribute promotion material of the project (flyers, booklets), each partner will hold a project presentation once a year, in their home institution.

Please always announce on the website of the Project

Task 5.5. Targeting researchers, industry, stakeholders, and wider population

- **Task 5.5.2. Workshop at UBFC (M32)**

A one-day workshop will be organized at UBFC for the representatives of industry and stakeholders. It will be supported by CCIS, MPNTR and MoEP of the Republic of Serbia. The topics of the workshop will be a presentation of the project, panel discussions about PFAS challenges and bridging the scientific findings, industry implementation and improvement of regulation policies.

D5.4 Report on the lectures and workshop held (M35)

Task 5.5. Targeting researchers, industry, stakeholders, and wider population

- Task 5.5.3. Popular lectures (**M11-July 2023**, M23, M33) – UBFC lecturers at Kolarac People’s University (Ilija M. Kolarac Endowment), Center for the promotion of Science and CCIS.

The purpose of the lectures program will be to continually raise the level of general and scientific knowledge of the audience, satisfy their curiosity and promote the responsibility of the society to work systematically on spreading knowledge. Also, promotional material for the project (flyers, booklets) will be distributed

D5.4 Report on the lectures and workshop held (M35)

Task 5.5. Targeting researchers, industry, stakeholders, and wider population

Task 5.5.4. Press releases (M1, M24, M36)

Three project press releases will be published, one at the beginning of the project (after the kick-off meeting) one at the interim (M24) and one before or in combination with the final event (M36). At least three outreach articles will be written by UBFC, published in relevant international and national magazines. In addition, all project partners will be involved in this task and will contribute to writing articles and updates for national magazines and media in order to ensure dissemination at their respective country levels.



WP6 - Management

Prof. Vladimir Beškoski

University of Belgrade – Faculty of Chemistry

Belgrade, 09/09/2022

Project: 101059534 — **PFAS**twin
HORIZON-WIDERA-2021-ACCESS-02



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WP6 - Management

- Lead beneficiary – UBFC
- Start month – 1
- End month – 36
- Effort (Person months) – 17.00

UBFC CSIC (IQOG) BRGM

10.0 3.5 3.5

WP6 - Objectives

- Ensure efficient project management **progress in line with the budget and the schedule;**
- Risk management and overall strategic project guidance to **enable successful implementation of project objectives;**
- Project administration, **fulfilling all contractual and reporting obligations.**

WP6 - Tasks

Task No	Task Name	Duration	PM (per institution)	Milestones & Deliverables
6.1	Project Management	M1-M36	UBFC: 1 PM BRGM: 0.5 PM CSIC: 0.5 PM	ML7 D6.1, D6.2, D6.3, D6.4
6.2	General Assembly meetings and consortium communication	M1-M2, M11, M23, M35	UBFC: 1.5 PM BRGM: 0.3 PM CSIC: 0.3 PM	
6.3	Administrative and financial management	M1-M36	UBFC: 4 PM BRGM: 1.5 PM CSIC: 1.5 PM	
6.4	Data, knowledge and IPR management	M3-M5, M14-M15, M24-M25	UBFC: 3 PM BRGM: 1 PM CSIC: 1 PM	
6.5	Gender equality plan (GEP) development	M4, M19, M32-M33	UBFC: 0.5 PM BRGM: 0.2 PM CSIC: 0.2 PM	D6.5

WP6 – Milestones & Deliverables

Milestone No	Milestone Name	Lead Beneficiary	Type	Dissemination Level	Due Date (month)	Deadline
ML7	Kick-off meeting organized and governing bodies constituted	UBFC			1	30 Sept 2022

Deliverable No	Deliverable Name	Lead Beneficiary	Type	Dissemination Level	Due Date (month)	Deadline
D6.1	Report on the kick-off meeting	UBFC	R - Document, report	PU - Public	2	31 Oct 2022
D6.2	Data Management Plan	UBFC	R - Document, report	C-UE/EU-C -	5	31 Jan 2023
D6.3	Update of DMP	UBFC	R - Document, report	C-UE/EU-C -	15	30 Nov 2023
D6.4	Second update of DMP	UBFC	R - Document, report	C-UE/EU-C -	25	30 Sep 2024
D6.5	Final guideline for improving GEP at UBFC	UBFC	R - Document, report	PU - Public	33	31 May 2025

WP6 – Critical risks

Risk No	Description	Work Package No(s)	Proposed Mitigation Measures
4	Brain-drain of lead researchers of UBFC (High)	WP6, WP2, WP1, WP3, WP4, WP5	Competitive salaries and other benefits to enable keeping the lead staff will be provided. Also, one of the terms of Consortium agreement will be obligatory return mechanism from PC to CC for CC project participants.
8	Administrative structure of UBFC slow and inefficient (Medium)	WP6, WP2, WP1, WP3, WP4, WP5	Top-management involvement in the EAB should assure smooth execution of planned activities.

WP6 – Tasks

Tasks	Detailed description of work	Deliverable
Task 6.1: Project Management (M1-M36)	Detail work plan will be produced before signing of CA. Progress monitoring: CP together with PIs from PC institutions will establish easily online communication using TEAMS platform (biweekly or monthly basis).	D6.1 Report on the kick-off meeting- report with the minutes of meeting (M2)
	Monthly video conferences of the Steering Committee where updates about the progress will be provided using TEAMS platform. Forming a project folder on the CHERRY repository of UBFC.	
	Production of templates for writing Standard Operating Procedure (SOP) reports and Laboratory logbook (M3).	

Process manager(s): CP, PM, Team members (Marija Ljesevic and Branka Loncarevic) BRGM (Fabienne Battaglia-Brunet), CSIC (Begoña Jiménez)

WP6 – Tasks

Tasks	Detailed description of work	Deliverable
<p>Task 6.2 <i>General Assembly meetings and consortium communication (M1-M2, M11, M23, M35)</i></p>	<p>Prior kick of meeting, the nominations for the members of GA, SC, EAB, DEIC and TFT together with their CVs will be circulated to all partners prior to the kick-off meeting for consideration, so that the election can be performed at the kick of meeting (M0).</p> <p>Prior kick off meeting draft version of Dissemination and Exploitation Plan (PDER) will be prepared (M0).</p> <p>Prior kick off meeting social media channels will be prepared (M0).</p> <p>A kick-off meeting will be organized in Belgrade, Serbia (at the UBFC) (ML7, M1) and there the GA, SC, EAB, DEIC and TFT will be elected.</p>	<p>Report on the kick-off meeting- report with the minutes of meeting (M2)</p>

Process manager(s): CP, PM, Team members (Marija Ljesevic and Branka Loncarevic) BRGM (Fabienne Battaglia-Brunet), CSIC (Begoña Jiménez)

WP6 – Tasks

Tasks	Detailed description of work	Deliverable
Task 6.3 Administrative and financial Management (M1-M36)	This task encompasses all financial and administrative activities , including: Follow-up on any issues relating to the Consortium Agreement and Grant Agreement; Representation of the beneficiaries at the European Commission, acting as the intermediary for any communication between the Commission and any beneficiary; Receiving the financial contribution to the project on behalf of the beneficiaries and administering its allocation; in accordance with the agreement and any decisions taken by the General Assembly and keeping all relevant records; Ensure that the partners are aware of and fulfil all their Grant Agreement responsibilities and reporting duties ; Stay in close contact with the EC representatives informing them about the progress of the project; Implement the periodic and final technical and financial reporting to the EC according to the GA requirements and In addition to these reports a report on financial audit will be attached.	Project technical and financial reporting and final reports (M15, M36).

Process manager(s): CP, PM, Team members (Marija Ljesevic and Branka Loncarevic), Head of Accounting office, BRGM (Fabienne Battaglia- Brunet), CSIC (Begoña Jiménez)

WP6 – Tasks

Tasks	Detailed description of work	Deliverable
<p>Task 6.4 Data, knowledge and IPR management (M3-M5, M14-M15, M24-M25)</p>	<p>The Dissemination and Exploitation Innovation Committee (DEIC) established as the main body dealing with the issues related to the exploitation of project results, such as patents, licences, other immaterial rights, and technology transfer will provide consolidated Dissemination and Exploitation Plan (PDER) with agreements for dissemination obligations of project participants.</p> <p>DEIC will meet once a year together with the GA meetings and additionally as necessary by videoconference on a TEAMS platform.</p> <p>The DEIC will encourage and advise the optimal exploitation of industrially exploitable results generated in PFAStwin.</p> <p>A data management plan (DMP) will be created at the kick-off meeting and finalized up to M5 and updated at M15 and M25.</p>	<p>D6.2. Data Management Plan- A data management plan (DMP) will be created at the kick-off meeting and finalized up to M5 and updated at M15 and M25.</p> <p>D6.3. Update of DMP -An update of DMP which was created at the kick-off meeting and finalized up to M5 will be updated until M15. (M15)</p> <p>D6.4. Second update of DMP (M25)-A second update of DMP which was created at the kick-off meeting and updated at M15 will be updated once more until M25.</p>

Process manager(s): CP, PM, Team members (Marija Ljesevic and Branka Loncarevic), BRGM (Fabienne Battaglia-Brunet), CSIC (Begoña Jiménez)

WP6 – Tasks

Tasks	Detailed description of work	Deliverable
<i>Task 6.5 Gender equality plan (GEP) development (M4, M19, M32-M33)</i>	<p>UBFC accepted gender equality plan (GEP) in January 2022, which outlines protocols for achieving gender equality and addressing antidiscrimination strategy. This GEP will be updated regularly by UBFC management and administration, and PFAStwin will help steer the development and updates of this plan to accomplish the harmonization with EU and international policies. EAB, BRGM (Vincent Bouchot) and CSIC (Executive Committee on Equality) will provide advises for the update of GEP.</p> <p>The PFAStwin EAB will monitor the development of GEP and give suggestions and guidelines for the improvement of measures undertaken, implementation and new strategies.</p> <p>SC together with the CP and PMT will be in charge of ensuring the application of GEP during the PFAStwin implementation.</p> <p>Within task 4.4 it is planned to organize lecture "Gender aspects of research projects".</p>	D6.5. Final guideline for improving GEP at UBFC (M33).

Process manager(s): CP, PM, Team members (Marija Ljesevic and Branka Loncarevic), EAB, BRGM (Vincent Bouchot) and CSIC (Executive Committee on Equality)

Thank you for your attention!

vbeskoski@chem.bg.ac.rs



Project: 101059534 — PFAS^{twin}
HORIZON-WIDERA-2021-ACCESS-02



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PFASStwin budget

MSc Tatjana Božić, Ana Vekić, Dr. Marija Lješević and Dr. Branka Lončarević

Belgrade, 9/9/2022

Project: 101059534 — **PFASStwin**
HORIZON-WIDERA-2021-ACCESS-02



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Budget overview

Table 3.1.1. Distribution of budget for every PFAS_{twin} WP

	Staff cost, SC (€)	Travel cost, TC (€)	Other cost, OC (€)	SC + TC + OC (€)	Total (SC + TC + OC + indirect cost + subcontracting) (€)	Total compared to overall budget (%)	Percent of the funds allocated to coordinator
WP1	38,130.00	7,050.00	10,000.00	55,180.00	68,975.00	5.83	
WP2	75,550.00	101,650.00	44,500.00	221,700.00	277,125.00	23.44	
WP3	48,100.00	4,700.00	229,500.00	282,300.00	352,875.00	29.84	71.09
WP4	141,825.00	13,230.00	3,000.00	158,055.00	197,568.75	16.71	
WP5	49,305.00	36,390.00	37,000.00	122,695.00	153,368.75	12.97	
WP6	66,575.00	24,240.00	15,200.00	106,015.00	132,518.75	11.21	
Overall budget					1 182 431.25		

Personnel cost

- Time sheets- approved by Project coordinator

Beneficiary	Personnel cost
UBFC	EUR 150,160.00
CSIC	EUR 142,135.00
BRGM	EUR 127,190.00
Total	EUR 419,485.00

Staff effort

		UBFC	CSIC	BRGM
WP1	Task 1.1.	0.5	1.6	0
	Task 1.2.	2.5	1.5	0
	Task 1.3.	2	1.5	0
	WP1 sum	5	4.6	0
WP2	Subtask 2.1.1.	1.5	3	0
	Subtask 2.1.2.	1.5	0	2
	Subtask 2.2.1.	1	2	0
	Subtask 2.2.2.	2	0	0
	Subtask 2.2.3.	1	0	2
	WP2 sum	7	5	4

Staff effort

		UBFC	CSIC	BRGM
WP3	Subtask 3.1.1.	3	1.5	0
	Subtask 3.1.2.	2	0	0
	Task 3.2.	5	0	1.5
	Task 3.3.	2	0.5	0.5
	WP3 sum	12	2	2
WP4	Task 4.1.	2	0	0
	Task 4.2.	38	0	0
	Task 4.3.	4	3.5	3.5
	Task 4.4.	4	1	1
	WP4 sum	48	4.5	4.5

Staff effort

	UBFC	CSIC	BRGM	
WP5	Task 5.1.	1	0.5	0.5
	Task 5.2.	0.5	0	0
	Task 5.3.	2.5	0	0
	Subtask 5.4.1	0	0.5	0.5
	Subtask 5.4.2	1.85	0.5	0.5
	Subtask 5.5.1.	1	0.3	0.3
	Subtask 5.5.2.	3	0.2	0.2
	Subtask 5.5.3.	1	0	0
	Subtask 5.5.4.	1	0.1	0.1
sum	11.85	2.1	2.1	
WP6	Task 6.1.	1	0.5	0.5
	Task 6.2.	1.5	0.3	0.3
	Task 6.3.	4	1.5	1.5
	Task 6.4.	3	1	1
	Task 6.5.	0.5	0.2	0.2
	sum	10	3.5	3.5

Direct costs WP1

		Other cost (€)		Travel and subsistence (€)		sum (€)
Task 1.1.	UBFC	-		-		-
	CSIC	-		2,350.00	350 € x 1 trainer + 2000 € x 1 months = 2 350 €	2,350.00
	BRGM	-		-		-
Task 1.2.	UBFC	7,000.00	Preparing of scientific strategy	4,700.00	350 € x 2 travel for training 2 participants + 2000 € x 1 months x 1 training	11,700.00
	CSIC	-		-		-
	BRGM	-		-		-
Task 1.3.	UBFC	3,000.00	Preparing of action plan	-		3,000.00
	CSIC	-		-		-
	BRGM	-		-		-
	total	10,000.00		7,050.00		17,050.00

WP2

		Other cost (€)		Travel and subsistence (€)		sum (€)
Task 2.1.1.	UBFC	-		19,050.00	350 € x 3 training participants + 2000 € x 3 months x 3 training	19,050.00
	CSIC	6,000.00	3x 2000 € organization of 3 trainings	-		6,000.00
	BRGM	-		-		-
Task 2.1.2.	UBFC	-		12,700.00	350 € x 2 training participants + 2000 € x 3 months x 2 training	12,700.00
	CSIC	-		-		-
	BRGM	4,000.00	2x 2000 € organization of 2 trainings	-		4,000.00
Task 2.2.1	UBFC	-		15,000.00	20 participants (350 € x 20 travel+ 80 € x 5 day x 20 accommodation and expense)	15,000.00
	CSIC	11,500.00	Organization of 1 summer school	9,550.00	4 Invited lecturers (350 € x 4 travel +220 € x 5 day x 4 accommodation and expense), 5 participants (350 € x 5 travel + 80 € x 5 dayx 5 accommodation and expense)	21,050.00
	BRGM	-		3,750.00	5 participants (350 € x 5 travel + 80 € x 5 dayx 5 accommodation and expense)	3,750.00
Task 2.2.2	UBFC	11,500.00	Organization of 1 summer school	5,800.00	4 Invited lecturers (350 € x 4 travel +220 € x 5 day x 4 accommodation and expense)	17,300.00
	CSIC	-		3,750.00	5 participants (350 € x 5 travel + 80 € x 5 dayx 5 accommodation and expense)	3,750.00
	BRGM	-		3,750.00	5 participants (350 € x 5 travel + 80 € x 5 dayx 5 accommodation and expense)	3,750.00
Task 2.2.3	UBFC	-		15,000.00	20 participants (350 € x 20 travel+ 80 € x 5 day x 20 accommodation and expense)	15,000.00
	CSIC	-		3,750.00	5 participants (350 € x 5 travel + 80 € x 5 dayx 5 accommodation and expense)	3,750.00
	BRGM	11,500.00	Organization of 1 summer school	9,050.00	4 Invited lecturers (350 € x 4 travel +220 € x 5 day x 4 accommodation and expense), 5 participants (350 € x 5 travel + 80 € x 5 dayx 5 accommodation and expense)	20,550.00
total		44,500.00		101,150.00		145,650.00

Direct costs WP3

		Other cost (€)		Travel and subsistence (€)		equipment (€)	sum (€)
Task 3.1.1.	UBFC	26,500.00	Consumables for PFAS analysis	-		-	26,500.00
	CSIC	24,000.00	Consumables for PFAS analysis	2,350.00	1 person for 1 month or 2 persons for 2 weeks	-	26,350.00
	BRGM	-		-		-	-
Task 3.1.2.	UBFC	10,000.00	software	-		-	10,000.00
	CSIC	-		-		-	-
	BRGM	-		-		-	-
Task 3.2	UBFC	39,000.00	Consumables for PFAS analysis, oxidation and biodegradation	-		70,000.00	109,000.00
	CSIC	-		-		-	-
	BRGM	24,000.00	Consumables for PFAS sorption and bioremediation studies	2,350.00	1 person for 1 month or 2 persons for 2 weeks	-	26,350.00
Task 3.3	UBFC	36,000.00	4 000 € x 9 awarded research and training grant	-		-	36,000.00
	CSIC	-		-		-	-
	BRGM	-		-		-	-
total		159,500.00		4,700.00		70,000.00	234,200.00

Direct costs WP4

		Other cost (€)		Travel and subsistence (€)		sum (€)
Task 4.1.	UBFC	-		-		-
	CSIC	-		-		-
	BRGM	-		-		-
Task 4.2	UBFC	-		-		-
	CSIC	-		-		-
	BRGM	-		-		-
Task 4.3	UBFC	-		10,200.00	350 € x 2 person x 2 grant office + 220 € x 10 day x 2 person x 2 grant office	10,200.00
	CSIC	-		-		-
	BRGM	-		-		-
Task 4.4	UBFC	3,000.00	Organization of trainings	1,010.00	350 € x 1 invited lecturers +220 € x 3 day x 1 invited lecturers	4,010.00
	CSIC	-		1,010.00	350 € x 1 invited lecturers +220 € x 3 day x 1 invited lecturers	1,010.00
	BRGM	-		1,010.00	350 € x 1 invited lecturers +220 € x 3 day x 1 invited lecturers	1,010.00
total		3,000.00		13,230.00		16,230.00

Direct costs WP5

		Other cost (€)		Travel and subsistence (€)		sum (€)
Task 5.1.	UBFC	-		-		-
	CSIC	-		-		-
	BRGM	-		-		-
Task 5.2	UBFC	2,500.00	design and printing	-		2,500.00
	CSIC	-		-		-
	BRGM	-		-		-
Task 5.3	UBFC	3,000.00	Establishing website and maintenance	-		3,000.00
	CSIC	-		-		-
	BRGM	-		-		-
Task 5.4.1	UBFC	12,000.00	Publishing of open access papers	-		12,000.00
	CSIC	-		-		-
	BRGM	-		-		-
Task 5.4.2	UBFC	4,500.00	Conference participation fees, 3 per year	11,700.00	1300 € x 3 conferences x 3 years	16,200.00
	CSIC	3,000.00	Conference participation fees, 2 per year	7,800.00	1300 € x 2 conferences x 3 years	10,800.00
	BRGM	3,000.00	Conference participation fees, 2 per year	7,800.00	1300 € x 2 conferences x 3 years	10,800.00

Direct costs WP5

		Other cost (€)		Travel and subsistence (€)		sum (€)
Task 5.5.1	UBFC	-		-		-
	CSIC	-		-		-
	BRGM	-		-		-
Task 5.5.2	UBFC	6,000.00	workshop organization	3,030.00	3 Invited lecturers (350 € x 3 travel +220 € x 3 day x 3 accommodation and expense)	9,030.00
	CSIC	-		3,030.00	3 participants (350 € x 3 travel +220 € x 3 day x 3 accommodation and expense)	3,030.00
	BRGM	-		3,030.00	3 participants (350 € x 3 travel +220 € x 3 day x 3 accommodation and expense)	3,030.00
Task 5.5.3	UBFC	3,000.00	popular lectures organization	-		3,000.00
	CSIC	-		-		-
	BRGM	-		-		-
Task 5.5.4	UBFC	-		-		-
	CSIC	-		-		-
	BRGM	-		-		-

Direct costs WP6

		Other cost (€)		Travel and subsistence (€)		sum (€)
Task 6.2	UBFC	9,200.00	Organization of all management meetings	-		9,200.00
	CSIC	-		12,120.00	travel for 3 persons to 4 management meetings (350 € x 3 x 4 travel +220 € x 3 day x 3 x 4)	12,120.00
	BRGM	-		12,120.00	travel for 3 persons to 4 management meetings (350 € x 3 x 4 travel +220 € x 3 day x 3 x 4)	12,120.00
Task 6.3	UBFC	6,000.00	External audit	-		6,000.00
	CSIC	-		-		-
	BRGM	-		-		-
Total		15,200.00		24,240.00		39,440.00

Thank you for your attention!

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Project: 101059534 — **PFAS**twin
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Project Exploitation and Dissemination Plan (PDER) - draft



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Project: Contract No. 101059534
HORIZON-WIDERA-2021-ACCESS-02

Twining to address the PFAS challenge in Serbia

PFASStwin

D6.2: Data Management Plan (DMP)

Deliverable Report

WP6 - Management

Due date: M5

Lead Beneficiary: UBFC

Dissemination level: Confidential, only for members of the consortium
(including the Commission Services)

Version: 1.0

ANNEX III - Photo impressions of the kick-off meeting

Day 1, September 8th, 2022



Participants at the Kick-off meeting



Prof. dr. Vladimir Beskoski's welcome speech



Prof. dr. Vladimir Beškoski is addressing the participants



Dr. Konstantin Ilijević presenting UBFC



Dr. Juan Muñoz-Arnanz is giving a presentation about CSIC



Dr. Fabienne Battaglia presenting BRGM



Dr. Marc Crampon presenting BRGM



Dr. Begoña Jiménez presenting WP1



Prof. dr. Ljubodrag Vujisić presenting WP2



Prof. dr. Dubravka Relić presenting WP3



Visit the UBFC museum



Visit the UBFC laboratories



Kick-off meeting participant's dinner

Day 2, September 9th 2022



MSc Tatjana Božić presenting WP4



Prof. dr. Maja Gruden-Pavlović presenting WP5



Prof. dr. Vladimir Beškosi presenting WP6



Ana Vekić presenting PFAStwin budget



Tatjana Božić (PM) discussing DMP and PDER development



Sightseeing tour



PFASStwin promotional cookies



Kick-off meeting dinner




ANNEX IV - EAB members resumes

1. Dr. Jasmina Grubin, National Contact Point (NCP) in Serbia; Ministry of Education, Science and Technological Development, Republic of Serbia
2. Ivan Đuričković, National Focal Point for the Stockholm convention in Serbia, Ministry of Environmental Protection, Republic of Serbia
3. Prof. dr. Tanja Ćirković Veličković, Full professor and vice dean for science at UBFC
4. Prof. dr. Miroslav M. Vrvic, president of the BREM group ltd; Full Research Professor and University Professor-Retired
5. Dr. Zoran Stojanović, Head of laboratory, Serbian Environmental Protection Agency (SEPA)
6. Vidosava Džagić, Assistant director, Belgrade Chamber of Commerce
7. Ana García González, Head of the Institutional Coordination Area S.G. of Clean Air and Industrial Sustainability at the Ministry for the Ecological Transition and the Demographic Challenge
8. Prof. dr. Eric D. van Hullebusch, Institut de Physique du Globe de Paris (IPGP) / Université Paris Cité (UPC), France
9. Prof. dr. Antonio Masi, University of Padova, DAFNAE (Department of Agronomy, Food, Natural resources, Animals and Environment), College of Agriculture, Italy.
10. Prof. dr. Roland Kallenborn, Professor in Organic Chemistry, Faculty of Chemistry, Biotechnology and Food Sciences (KBM), Norwegian University of Life Sciences (NMBU), Norway
11. Dr. Aleksandar Jović, Assistant Minister for International Cooperation and European Integration, Ministry of Education, Science and Technological Development of the Republic of Serbia

PERSONAL INFORMATION

Jasmina Grubin



-  Njegoševa 12, 11000 Belgrade, Serbia
-  +381 11 3640230  +381 64 8166061
-  jasmina.grubin@mpn.gov.rs
-  www.mpn.gov.rs

Sex Female | Date of birth 08/05/1965 | Nationality Serbian

WORK EXPERIENCE

(2012-present)

Senior Advisor

Ministry of Education, Science and Technological Development, Republic of Serbia, 22-26 Nemanjina, Belgrade, www.mpn.gov.rs

- Monitoring of scientific organisations through annual work reports and financial reports
- Comparative analysis and monitoring of scientific productivity indicators in natural sciences in Serbia versus other European countries
- Development of a series of studies and analysis of scientific research in Serbia
- Preparation of criteria for the evaluation of scientific work of researchers
- Participation in preparation of strategic scientific development documents at national level.
- Coordinator of National Scientific Board for Biological Sciences

Business or sector Department for Science

(2004 - 2012)

Advisor

Ministry of Education, Science and Technological Development republic of Serbia, 22-26 Nemanjina, Belgrade, www.mpn.gov.rs

- Monitoring the impact of scientific projects through annual work reports and financial reports,
- Preparation of public calls for scientific projects and specific documents in the field of Natural Sciences
- Comparative analysis and monitoring of indicators of scientific productivity in natural sciences in Serbia versus other European countries
- Coordinator of National Scientific Board for Biological Sciences
- Data entry in 'Researchers of Serbia Data Base'

Business or sector Department for Science

(2000 - 2004)

Honorary volunteer

University of Belgrade, Institute of Botany and Botanical Garden „Jevremovac“ Belgrade

- Realization practical teaching in the field of botany science
- Work on the application of various scientific and research methods for scientific and commercial purposes in the Laboratory for preparation of herbal preparations

Business or sector Chair of Plant Ecology and Phytogeography

(1995 - 2000)

Owner and General Manager at SME, Belgrade

(1992 - 1994)

Engineer of Agriculture

Private Company, Zajecar
Managing the production of medicinal plants.

EDUCATION

(2016)

PhD in Ecology, biogeography and environmental protection

Institute of Botany and Botanical Garden "Jevremovac", Faculty of Biology, University of Belgrade, Serbia. Title: **Seasonal changes in the content of toxic metals in the soil and the leaves of evergreen species *Prunus laurocerasus* L., *Buxus sempervirens* L. and *Mahonia aquifolium* (Purch) Nutt. in the city of Belgrade**

- (2003) **MSc in Plant Ecology**
Institute of Botany and Botanical Garden "Jevremovac", Faculty of Biology, University of Belgrade, Serbia. Title: **Structural and Functional Adaptations of Climbing Plants from Genus *Parthenocissus Planch.* and *Ampelopsis Michx.* (Vitaceae)**
- (1991) **BSc**
The Institute for Fruit Science and Viticulture, Faculty of Agriculture, University of Belgrade. Title: **Variability of Oblačinska sour cherry (*Prunus cerasus L*) in the area of Zajecar**

OTHER TRAINING

- (2022) **Monitoring and Evaluation Certification Programme - International Training Centre of the ILO**
- (2021) **SAIGE trening "How to write a competitive proposal in Horizon Europe" 2021**
- (2021) **Capacity Building of National Contact Points for Research and Innovation in the Western Balkans**
- (2020) **Procurement Workshop - World Bank Training 2020**
- (2020) **World Bank /Serbia Accelerating Innovation and Growth Entrepreneurship – SAIGE) Training**
Environmental and Social Management Framework
- (2020) **WS Elsevier Researcher Academy**
Entities in SciVal - Topics, Research Areas and Journals.ics, Elsevier Researcher Academy Workshop
- (2020) **WS "Nagoya protocol" - Regulation (EU) No 511/2014 of the European Parliament and of the Council of 16 April 2014 on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization in the Union Text with EEA relevance**
- (2018) **Training for internal quality audit procedure**
The Faculty of Organizational Sciences, University of Belgrade, Jove Ilića 154, Belgrade, <http://www.fon.bg.ac.rs/>

Training for implementation of standards and training for Internal auditors for ISO 9001:2015 and ISO 19011:2011.
- (2017) **Training for acquiring basic analytical skills in data processing**
Republic Secretariat for Public Policy. Republic of Serbia, Vojkovićeveva 10, Belgrade, www.rsjp.gov.rs
- (2013) **RTDI Evaluation Training Belgrade, 07-11 October 2013**
EVAl-INNO - Fostering Evaluation Competencies in Research, Technology and Innovation in the SEE Region

Mother tongue(s) Serbian/Bosnian/Croatian/Montenegrin

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C1	C1	C1	C1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

PERSONAL SKILLS

- Communication skills**
- Good communication skills are related to my experience in the ministry department for science
 - Good understanding of terminology in the field of research and science

- Organisational / managerial skills
 - Good interpersonal skills, teamwork, task management, good analytical skills, problem-solving skills.
- Computer skills
 - Advanced user of Ms Office™ tools (Word, Excel, Power Point), Statistica, etc.
 - Basic knowledge of graphic design applications (Photoshop)
 - Easily adaptable to new tools and environments
- Other skills
 - Ability to create friendly atmosphere, analytical and practical, skills in research techniques (surveys)
- Driving licence B
- Sports and hobbies Brisk walking, swimming, gardening, personal development and reading

ADDITIONAL INFORMATION

Publications Scientific papers published in the Serbian and the world known science journals
Letters of References are available on request

Projects

MESTD representative on the project funded under the Erasmus+ Capacity Building in Higher Education action - "Boosting Engagement of Serbian Universities in Open Science (BE-OPEN), 573950-EPP-1-2016-1-RS-EPPKA2-CBHE-SP".
 Assembly of members - AoM - WP4-Joint Action on Health Information (InfAct), Project Number 801553, funded by the Health Programme of the European Union.
 External associate at project "Structure-activity relationship of newly synthesized biological active compound", Project Number 172032
 External associate at project "Bioactive natural products as potential sources of new pharmaceuticals and food supplements" Project Number 172048
 Biodiversity and conservation of tree gene pool in Serbia, Project Number 1932

Member of committees and Working groups

Member of the Working group for selection of the candidates for L' Oreal-UNESCO For Women in Science International Awards program
 Member of the team for coordination, monitoring and reporting on the implementation of the Action Plan for the Implementation of the Government Program 2020-2022.
 Member of the Working group for Revision of The National Biological Diversity Strategy 2011-2018
 Member of the Negotiating group of the EU integration process in Chapter 18 – Statistics
 Member of the Negotiating group of the EU integration process in Chapter 28 – Consumer and Health Protection
Member of the Evaluation Committee for the action: IPA 2018 "Increased innovation capacity and technological readiness of SMEs "(2017)
 Member of the Evaluation Committee for the action: IPA 2014 "New products and services developed by SMEs through research commercialisation" (2020)
 Member of the Evaluation Committee for the procurement of individuals and firms within "Serbia Competitiveness and Jobs Project" - World Bank, Project ID: P152104
 Member of the Evaluation Committee for the procurement of the PIU consultants within Serbia Accelerating Innovation and Entrepreneurship Project - World Bank
 Member of Working group for catalogisation work positions in R&D institutions in line with reforms in the way these institutions are funded

Other relevant information

Assistant Research Professor in Ecology, Biomedicine and Environmental protection
 Horizon Europe National Contact Point for Health & Food, Bioeconomy, Natural Resources, Agriculture and Environment, Widening Participation and ERA
 Experience in working for the international organisations (OECD, EUROSTAT, UNESCO, UNDP) – evaluations, national reports, analyses, etc
 Experience in working for the national institutions (Statistical Office of the Republic of Serbia, Public Policy Secretariat of the Republic of Serbia, Serbian Business Registers)

Experience in preparation of strategic scientific development documents at national level.

Expert consultant in the work of expert committees and other authorities

Experience in evaluating and categorizing researchers based on their research results

- Awards**
- Acknowledgement for the help and participation in open science project (citizen scientists) "Daily Monitoring of Emotional Responses to the Coronavirus Pandemic in Serbia: A Citizen Science Approach", granted by Centre for Behavioural Genetics, Department of Psychology, Faculty of Philosophy, University of Novi Sad, Novi Sad, Serbia.
 - Acknowledgement for engagement, commitment, great selfless fight against the epidemic caused by the virus SARS-Cov 2, granted by Ministry of Education, Science and Technological Development, Republic of Serbia.
 - Acknowledgement for the occasion of ten years of implementation of the program "For Women in Science" in the Republic of Serbia, for dedicated work and overall engagement in connection with the implementation of this scholarship program in the Republic of Serbia, granted by L'Oréal BALKAN.

BRIEF BIOGRAPHY



Ivan Djurickovic, MSc. Chem. Eng.

Current Position: Senior Adviser for systematic monitoring of chemicals in Department for Chemicals of the Ministry of Environmental Protection and National Official Contact Point for Stockholm Convention at the Republic of Serbia

Ivan Djurickovic was born in 1984 in Belgrade. In 2010, he graduated Chemical Engineering at the Faculty of Technology and Metallurgy of the Belgrade University (MSc. Chem. Eng.). From 2011 till present he has been employed at National Governmental Authorities for Chemicals Management (Serbian Chemicals Agency and Ministry of Environmental Protection – Department for Chemicals) engaged at regulatory affairs related to Integrated Chemicals Registry, Chemicals Risk Management, implementation of the Stockholm Convention on POPs and harmonization of the EU POPs Regulation in Serbia as well as project coordinator and project board member of numerous UNEP, UNIDO, UNDP and GEF projects related to chemicals & waste management in Serbia. He was a member of SC Subsidiary Bodies, committees and working groups such as SC- DDT Experts Group; SC Effectiveness Evaluation Committee, Intersessional working groups of the Persistent Organic Pollutants Review Committee. His current international position is a Member of the Bureau of the Stockholm Convention on behalf of the Eastern Europe Region (Vice-President of the SC Conference of the Party).

Curriculum vitae - Dr Tanja Cirkovic Velickovic



Dr Tanja Cirkovic Velickovic is a Full Professor of Biochemistry at the Faculty of Chemistry, University of Belgrade since 2013, where she also serves as Vice-Dean for Research since 2020 and Head of the Center for Molecular Food Sciences since 2014. She graduated Biochemistry at the Faculty of Chemistry and further specialized in Immunology during the postdoctoral study period at the Department of Medicine of the Karolinska Institute in Stockholm, Sweden. Since 2016 she is appointed Full Professor of Food Chemistry of Ghent University, Belgium and Ghent University Global Campus in South Korea. She is President of the Serbian Proteomics Association (SePA) since 2015. In 2018 she has been elected to the Serbian Academy of Sciences and Arts, as a corresponding member. She coordinated an EUfunded Regional Potential project that in the period 2010-2013 provided support for the establishment of the Proteomics facility at the Faculty of Chemistry. Since 2016, microplastics as an emerging food contaminant, is among her main scientific interests (http://www.chem.bg.ac.rs/biohemija/grupe/Tanja_Cirkovic-en.html). She has published more than 130 articles in international peer reviewed journals of which vast majority is ranked as Q1 Journals, one research monograph and seven book chapters. Her publications were cited over 3700 times with an h-index of 33 (Google scholar). She has experience in national and international projects management and coordination, including EU projects, Science Fund of Republic of Serbia projects and contract projects with industry from the country and abroad.

Participation in research projects

Active projects:

2020-2022: Development of the assays for detection of SARS-CoV-2 virus capsid proteins in biological fluids of COVID-19 patients (CAPSIDO) – 7542203, (principal investigator), Project is funded by: Science Fund of the Republic of Serbia (Belgrade, Serbia)

2021-2023: Development of ELISA and Immuno-PCR for Sensitive and Specific Detection of Shellfish Tropomyosin (ShellPCR) – 6504499 (principal investigator), Project is funded by: Science Fund of the Republic of Serbia (Belgrade, Serbia)

2021-2025: An Innovative Analytical Platform to Investigate the Effect and Toxicity of Micro and Nano Plastics Combined with Environmental Contaminants on the Risk of Allergic Disease in Preclinical and Clinical Studies (IMPTOX) – No. 965173 (principal investigator), Horizon 2020, Project is funded by: European Commission (Brussels, Belgium)

2019-2023: The Core Outcome Measures for Food Allergy – CA18227, COST Actions, Project is funded by: European Commission (Brussels, Belgium)

2021: Implementation of innovative solutions, in response to COVID-19 crisis in the Republic of North Macedonia and the Republic of Albania, Project is funded by: UNDP Srbija (Beograd, Serbia)

2021-2025: Plastics Monitoring Detection Remediation Recovery (PRIORITY), COST Actions

Finished projects:

2010: Reinforcement of the Faculty of Chemistry, University of Belgrade, towards becoming a centre of excellence in the region of West Balkans for molecular biotechnology and food research – FCUB-ERA 256716 (principal investigator), Project is funded by: European Union (Brussels, Belgium)

2011: Molecular properties and modifications of some respiratory and nutritive allergens – 172024 (principal investigator), Project is funded by: Ministry of Science and Technological Development (Belgrade, Serbia)

2014: Improving Allergy Risk Assessment Strategy for New Food Proteins (ImpARAS) – COST Action FA1402, Project is funded by: European Union (Brussels, Belgium)

2020: Preventing and Responding to COVID-19 in at-Risk Areas - Sustainable Production of the Serological IgG Test for SARS CoV-2 in Serbia – LVP-BPA UNDP 00121484/2020 (principal investigator), Project is funded by: UNDP (Beograd, Serbia)

2018-2021: Twinning of research activities for the frontier research in the fields of food, nutrition and environmental 'omics (FoodEnTwin) – No. 810752 (principal investigator), Horizon 2020, Project is funded by: European Commission (Brussels, Belgium)

2020-2021: Production of the protein, probable marker for linden allergy, Project is funded by: Innovation Fund of the Republic of Serbia (Belgrade, Serbia).

Author identification numbers

ORCID: 0000-0003-2559-5234

ResearcherID: R-6751-2016

Scopus: 8629757700

Europass curriculum vitae



Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Fax(es)

E-mail(s)

Nationality(-ies)

Date of birth

Gender

Vrvic M. Miroslav

BREM GROUP Ltd., Str. Oslobođenja 39b, 11090 Belgrade-Rakovica, Serbia

+381-11-3565573

Mobile:+381-63-392841

+381-11-3564204

mmvchem@sezampro.rs & mmvrvic@bremgroup.com

Serbian

August 11th, 1952

Male

Desired employment / Occupational field

Chemistry/Biotechnology

Work experience

Dates

Occupation or position held

Main activities and responsibilities

Name and address of employer

Type of business or sector

Dates

Occupation or position held

Main activities and responsibilities

Name and address of employer

Type of business or sector

Dates

Occupation or position held

1995-2017

Project manager

Research project manager for national scientific projects in field of:

- Introduction and development of methods for monitoring bioremediation of polluted soil,
- Implementation of *ex situ* bioremediation technique to polluted soil and water
- Microbiological chemistry, biogeochemistry, biotechnology of active substances especially nutraceuticals and biotechnologies,
- Biochemistry of microorganisms and applied microbiology and biotechnology,
- Introduction and development of methods for monitoring bioremediation of polluted soil,
- Implementation of *ex situ* bioremediation technique to polluted soil and water

Faculty of Chemistry, University of Belgrade, 11158 Belgrade, Studentski trg 16, POB 51, Serbia

Education and R&D

2017-Current

Full Research Professor (Elected by Ministry of Education, Science and Technological Development of the Republic Serbia)

R&D and Consulting in Chemistry, Biochemistry, Biotechnology and Environment Protection. Co-owner and CEO from 2006-Current

"BREM GROUP" Ltd. (www.bremgroupo.com), 11090 Belgrade, Str. Oslobođenja 39b, Serbia

R&D and application of new biotechnology in environment protection

2003-2017

Full Professor

Main activities and responsibilities	<ul style="list-style-type: none"> - Head lecturer in area of: Fundamentals of Biotechnology, Biotechnological and Industrial Biochemistry, Biochemistry of Food and Nutrition, Green Chemistry, Food and Function, Biotechnology and Green Chemistry, Trends in Biotechnology and Trends in Ecological Biochemistry (BS, MS and PhD studies) - Academic Advisor for Graduated degree diploma and PhD dissertations - Head of the Group for Microbiological Chemistry (common concern for both Faculty of Chemistry and Department of Chemistry of the Institute for Chemistry, Technology and Metallurgy in Belgrade) - September 30th, 2017, University Professor-Retired
Name and address of employer	Faculty of Chemistry, Department for Biochemistry, University of Belgrade, 11158 Belgrade, Studentski trg 16, POB 51, Serbia
Type of business or sector	Education and R&D
Dates	1997-2003
Occupation or position held	Associate Professor
Main activities and responsibilities	Education and research and managing research projects
Name and address of employer	Faculty of Chemistry, Department for Biochemistry, University of Belgrade 11158 Belgrade, Studentski trg 16, POB 51, Serbia
Type of business or sector	Education and R&D
Dates	1992-1997
Occupation or position held	Assistant Professor
Main activities and responsibilities	Education and research and managing research projects
Name and address of employer	Faculty of Chemistry, Department for Biochemistry, University of Belgrade 11158 Belgrade, Studentski trg 16, POB 51, Serbia
Type of business or sector	Education and R&D
Dates	1977-1992
Occupation or position held	Assistant
Main activities and responsibilities	Research and teaching courses in the field of Microbial Chemistry for students of Chemistry
Name and address of employer	Faculty of Science, Department for Chemistry of Natural Products, (now Department for Biochemistry of the Faculty of Chemistry), University of Belgrade Studentski trg 12, 11000 Belgrade, Serbia
Type of business or sector	Education and R&D
Education and training	
Dates	1991
Title of qualification awarded	Doctorate in Chemistry (equivalent with PhD)
Principal subjects/Occupational skills covered	Defended the dissertation in the field of fundamental and applied aspects of interaction of thionic bacteria with sulphide substrates
Name and type of organisation providing education and training	Faculty of Science University of Belgrade
Dates	1975
Title of qualification awarded	Graduated Degree in Chemistry
Principal subjects/Occupational skills covered	Inorganic, organic, analytical chemistry, chemistry of natural products, biochemistry, instrumental methods in organic chemistry, biochemistry of macromolecules, microbial chemistry
Name and type of organisation providing education and training	Faculty of Science University of Belgrade

Personal skills and competences

Mother tongue(s)

Other language(s)

Self-assessment

European level ⁽¹⁾**English****French****Russian****Serbian**

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2
B1	B1	B1	B1	B1
A1	A1	A1	A1	A1

⁽¹⁾ Common European Framework of Reference (CEF) level

Social skills and competences

Good communication skills (gained through participation in national and international conferences and hours of teaching).

Experience of working in multidisciplinary research teams.

Good adaptation to multicultural environments.

Organisational skills and competences

Good experience in project and team management.

Project coordination and administration of national and international research projects.

Skills in coordinating academic teams for both teaching and research.

Technical skills and competences

Scientific and technical expertise in following topics: microbiology, food technology and biotechnology

Broad interdisciplinary knowledge of natural sciences

Computer skills and competences

Good command of Windows XP, Microsoft Office™ tools, Internet

Driving licence(s)

/

Additional information

He is the author and co-author of several monographs and chapters in monographs in the Serbian and English language and more than 100 scientific papers from ISI list (Citation at Sept. 16th, 2018, 1156, h-index 17). In renowned national journals, he has tens of papers, as well as more than 400 presentations at scientific meetings in the country and abroad, printed as a whole and as resumes. He was invited lecturer at a lot of scientific meetings, university, institutes around the world. Tens of patents and technologies which are being applied and the products marketed, also are results of his scientific and applied work.

Adviser professor and mentor for doctor-course students and students of master degree at Faculty of Chemistry in the field of biochemistry and biotechnology. He was the Mentor for more than 100 graduate and specialist papers, tens of master's theses and more than 25 dissertations for a PhD Degree.

He was on about 40 shorter study visits to universities, research institutions and companies abroad (Europe, Americas, Asia and Africa. 1975-2018).

President and member of few Scientific Basic Board of the Serbian Ministry of Science (2003-Current)
Biocides instructor for training of the Advisers for Chemicals (2008-Current).

Project manager in following projects (main applicable projects):

1. Project for rehabilitation and / or remediation of the contaminated location of the heating plant Novi Beograd using *in situ* bioremediation, 2017-Current
2. Technologies and production of infant formula, follow-on formula, breast milk fortifier, and toddler instant food., "IMPAZ"/"Impamil" Ltd, Zajecar/Belgrade, 1989-2018
3. M. Vrvic (Group leader, Research group 5-RG5), EC FP 7 RegPot Project, Reinforcement of the Faculty of Chemistry, University of Belgrade, towards becoming a Center of Excellence in the region of WB for Molecular Biotechnology and Food research, Grant agreement no: 256716, July 2010-June 2013.

4. Organical bounded essential trace elements (Se, Cr, Fe)-technologies-peraprations-market, Farmaceutical industry "Galenika"-Belgrade and "NRK ENGINEERING" Ltd, Belgrade, 1988-2015.
5. Simultaneous Bioremediation and Soilification of Degraded Areas to Preserve Natural Resources of Biologically Active Substances, and Development and Production of Biomaterials and Dietetic Products 2011-2017; Project financed by Ministry of Science and
6. Production mobile bioreactor and obtaining consortium biomass for bioremediation process 2008-2011; Project financed by Ministry of Science, Serbia
7. Recultivation of drill-in disposals and possibility of remediation and bioremediation of soil, waste waters and sludge accidently and incidentally contaminated with petroleum and petroleum derivates 2005-2008; Project financed by Ministry of Science, Serbia
8. Ecological acceptable treatment of off-balance waste emulsions for metal-manufacture industry in behalf of Factory of Lubricants in Kruševac, by two stage physical-chemical and ex situ bioremediation process: eligibility, applicability and industrial level testing with 600 m³ of treated fluids, year 2008
9. Isolation, selection and adaptation of zymogeonus microorganisms – Basis of successful bioremediation on example of industrial halde contaminated soil in circle of Petroleum Refinery Pančevo, year 2007
10. Pilot installation for ex situ bioremediation of soil contaminated with petroleum and its derivates from Petroleum Refinery Pančevo, year 2006
11. Physical-chemical, chemical and microbiological investigations of process in drains of Ranney wells-Belgrade water supplying system, year 2004

Relevant publications:

1. Tatjana Šolević Knudsen, Mila Ilić, Jelena Milić, Gordana Gojgić-Cvijović, Srđan Miletić, Vladimir Beškoski, Miroslav M. Vrvic; Ex Situ Stimulated Bioremediation of a Soil Contaminated with Oil Pollutants: The Dynamics and the Efficiency of Biodegradation of Saturated and Aromatic Hydrocarbons in Bioremediation: Advances in Research and Applications; Edited by Mohammed Kuddus; Nova Science Publishers, Inc. New York 2018; pp. 211-239 (ISBN: 978-1-53613-554-1)
2. N.M. Lugonja, D.M. Stanković, B. Miličić, S.D. Spasić, V. Marinković, M.M. Vrvic; Electrochemical monitoring of the breast milk quality; *Food Chemistry* **240** (2018) 567–572
3. Nenad Marić, Ivan Matić, Petar Papić, Vladimir P. Beškoski, Mila Ilić, Gordana Gojgić-Cvijović, Srđan Miletić, Zoran Nikić, Miroslav M. Vrvic; Natural attenuation of petroleum hydrocarbons - a study of biodegradation effects in groundwater (Vitanovac, Serbia); *Environmental Monitoring and Assessment* **190**:89 (2018)
4. Simeon Minić, Miloš Ješić, Dijana Đurović, Srđan Miletić, Nikoleta Lugonja, Vesna Marinković, Aleksandra Nikolić-Kokić, Snežana Spasić and Miroslav M Vrvic; Redox properties of transitional milk from mothers of preterm infants; *Journal of Paediatrics and Child Health* **54**(2) (2018) 160-164
5. Djurić, A., Gojgić-Cvijović, G., Jakovljević, D., Kekez, B., Stefanović Kojić, J., Mattinen, M.-L., Harju, I.E., Vrvic, M.M., Beškoski, V.P., *Brachy bacterium* sp. CH-KOV3 isolated from an oil-polluted environment—a new producer of levan, *International Journal of Biological Macromolecules*, **104**, (2017), 311-321
6. Tanja Jednak, Jelena Avdalović, Srđan Miletić, Latinka Slavković-Beškoski, Dalibor Stanković, Jelena Milić, Mila Ilić, Vladimir Beškoski, Gordana Gojgić-Cvijović, Miroslav M. Vrvic; Transformation and synthesis of humic substances during bioremediation of petroleum hydrocarbons; *International Biodeterioration & Biodegradation* **122** (2017) 47-52
7. Violeta D. Jakovljević and Miroslav M. Vrvic; The Potential Application of Selected Fungi Strains in Removal of Commercial Detergents and Biotechnology; in *Application and Characterization of Surfactants*; Edited by Reza Najjar; Intech 2017, pp. 233-258
8. Dijana Djurović, Branka Milisavljević, Boban Mugoša, Nikoleta Lugonja, Srđan Miletić, Snežana Spasić, Miroslav Vrvic; Zinc concentrations in human milk and infant serum during the first six months of lactation; *Journal of Trace Elements in Medicine and Biology* **41** (2017) 75-78
9. Vladimir P. Beškoski, Srđan Miletić, Mila Ilić, Gordana Gojgić-Cvijović, Petar Papić, Nenad Marić, Tatjana Šolević-Knudsen, Branimir S. Jovančićević, Takeshi Nakano, and **Miroslav M. Vrvic**, Biodegradation of isoprenoids, steranes, terpanes and phenanthrenes during in situ bioremediation of petroleum contaminated groundwater, *CLEAN – Soil, Air, Water* **45**(2) 2017
10. Marinkovic, Vesna; Rankovic-Janevski, Milica; Spasic, Snežana; Nikolic-Kokic, Aleksandra; Lugonja, Nikoleta; Djurovic, Dijana; Miletic, Srđan; Vrvic, Miroslav M.; Spasojevic, Ivan;

- Antioxidative Activity of Colostrum and Human Milk: Effects of Pasteurization and Storage, *Journal of Pediatric Gastroenterology & Nutrition* **62**(6) (2016), 901-906
11. Sanja Jeremic, Vladimir P. Beškosi, Lidija Djokic, Branka Vasiljevic, Miroslav M. Vrvic, Jelena Avdalović, Gordana Gojgić Cvijović, Latinka Slavković Beškosi, Jasmina Nikodinovic-Runic, Interactions of the metal tolerant heterotrophic microorganisms and iron oxidizing autotrophic bacteria from sulphidic mine environment during bioleaching experiments. *Journal of Environmental Management*, **172** (2016) 151-161
 12. Mirjana B. Pešić, Miroslav B. Barać, Sladjana P. Stanojevic, Miroslav M. Vrvic, (2016). Heat-Induced Casein-Whey Protein Interactions in Caprine Milk: Whether Are Similar to Bovine Milk? In: *Emerging and Traditional Technologies for Safe, Healthy and Quality Food*, Eds: V. Nedović, P. Raspor, J. Lević, V. Tumbas Šaponjac, G.V. Barbosa-Cánovas, Springer, 163 – 175
 13. Branka Kekez, Gordana Gojgić-Cvijović, Dragica Jakovljević, Vladimir Pavlović, Vladimir Beškosi, Aleksandar Popović, Miroslav M. Vrvic, Vladimir Nikolić. Synthesis and characterization of a new type of levan-graft-polystyrene copolymer, *Carbohydr. Polym.* (2016) **154**: 20-29
 14. Jovana R. Stefanović Kojić, Miroslav M. Vrvic, Gordana Đ. Gojgić – Cvijović, Vladimir P. Beškosi, Dragica M. Jakovljević, (2016). Microbial Polysaccharides: Between Oil Wells, Foods and Drugs. In: *Emerging and Traditional Technologies for Safe, Healthy and Quality Food*, Eds: V. Nedović, P. Raspor, J. Lević, V. Tumbas Šaponjac, G.V. Barbosa-Cánovas, Springer, 313 – 327
 15. Boban Mugoša, Dijana Đurović, Mirjana Nedović-Vuković, Snežana Barjaktarović-Labović, Miroslav Vrvic, Assessment of Ecological Risk of Heavy Metal Contamination in Coastal Municipalities of Montenegro, *Int J Environ Res Public Health* **13**(4) (2016) 393
 16. Jelena Avdalović, Aleksandra Đurić, Srdjan Miletić, Mila Ilić, Jelena Milić, Miroslav M. Vrvic; Treatment of a mud pit by bioremediation; *Waste Management & Research* **34**(8), 2016, 734-739
 17. Jelena Katanić, Tatjana Boroja, Nevena Stanković, Vladimir Mihailović, Milan Mladenović, Samo Kreft, Miroslav M. Vrvic, Bioactivity, stability and phenolic characterization of *Filipendula ulmaria* (L.) Maxim., *Food & Function* **6** (2015), 1164–1175.
 18. Jelena Avdalović, Vladimir Beškosi, Gordana Gojgić-Cvijović, Maija-Liisa Mattinen, Mirjana Stojanović, Snežana Zildžović, Miroslav M. Vrvic; Microbial solubilisation of phosphorus from phosphate rock by iron-oxidizing *Acidithiobacillus* sp. B2, *Minerals Engineering* **72**, 17-22, 2015
 19. Kozarski, M., Klaus, A., Vunduk, J., Zizak Z., Niksic M , Jakovljevic D., Vrvic, M.M., Van Griensven, L.J.L.D. Nutraceutical properties of the methanolic extract of edible mushroom *Cantharellus cibarius* (Fries): Primary mechanism, *Food and Function*, **6** (2015) 1875-1886
 20. Kozarski M, Klaus A, Jakovljevic D, Todorovic N, Vunduk J, Petrović P, Niksic M, Vrvic M.M., van Griensven L., Antioxidants of Edible Mushrooms (Review), *Molecules*, **20**(10) 2015, 19489-19525
 21. Nenad Marić, Mila Ilić, Srđan Miletić, Gordana Gojgić-Cvijović, Vladimir Beškosi, Miroslav M. Vrvic, Petar Papić, Enhanced *in situ* bioremediation of groundwater contaminated by petroleum hydrocarbons at the location of the Nitex textiles, Serbia, *Environmental Earth Sciences* **74**(6) (2015) 5211-5219
 22. Srdjan B. Miletić, Snežana D. Spasić, Jelena Avdalović, Vladimir Beškosi, Mila Ilić, Gordana Gojgić-Cvijović, Miroslav M. Vrvic; The effect of humic acids on zymogenous microbial consortia growth; *Clean – Soil Air Water* **42** (9), 2014, 1280-1283
 23. Maja Kozarski, Anita Klaus, Dragica Jakovljević, Nina Todorović, Miomir Nikšić, Miroslav M. Vrvic, Leo J.L.D. van Griensven, Dietary polysaccharide extracts of *Agaricus brasiliensis* fruiting bodies: chemical characterization and bioactivities at different levels of purification, *Food Research International* **64**, 2014, 53–64
 24. Mirjana B. Pesic, Miroslav B. Barac, Sladjana P. Stanojevic, Miroslav M. Vrvic; Effect of pH on heat-induced casein-whey protein interactions: A comparison between caprine milk and bovine milk; *International Dairy Journal* **39** (2014) 178-183
 25. Milena G. Rikalovic, Miroslav M. Vrvic, Ivanka M. Karadzic; Bioremediation by Rhamnolipids Produced by Environmental Isolates of *Pseudomonas aeruginosa*; in *Bioremediation Processes, Challenges and Future Prospects*; Ed. Jesus Bernardino Velazquez-Fernandez, Sae Muniz-Hernandez, Nova Science Publishers, New York, p. 299-333, (2014)
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46. B. Jovančičević, M. Antić, I. Pavlović, M. Vrvic, V. Beškoski, A. Kronimus, J. Schwarzbauer, Transformation of petroleum saturated hydrocarbons during soil bioremediation experiments, *Water Air Soil Pollut.* **190** (2008) 299-307.

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48. V. P. Beškosi, V.F. Matić, J. Milić, D. Godjevac, B. Mandić, M. M. Vrvic, Oxidation of dibenzothiophene as model substrate for removal of organic sulphur from fossil fuels by iron(III)-ion generated from pyrite by *Acidithiobacillus ferrooxidans*, J. Serb. Chem. Soc. **72** (2007) 533-537.
49. B.S.Jovančićević, M.M.Vrvic, J.Schwarzbauer, H.Wehtner, G.Scheeder, D.Vitorović, Organic-geochemical differentiation of petroleum-type pollutants and study of their fate in Danube alluvial sediments and corresponding water (Pančevo Oil Refinery, Serbia), Water Air Soil Pollut. **183** (2007) 225-23
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51. S. Saval, J.S. Terzić, M.M. Vrvic, Bioremediation of contaminated soils and aquifers, Microbiology-Belgrade, **43** (2) (2006) 65-76.
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55. T. Šolević, B. Jovančićević, M. Vrvic, H. Wehtner, Oil pollutants in alluvial sediments-influence of the intensity of contact with ground waters on the effect of microorganisms, J. Serb. Chem. Soc. **68** (2003) 227-234.
56. J. Milčić-Terzić, Y. Lopez-Vidal, M.M. Vrvic, S. Saval, Detection of catabolic genes in indigenous microbial consortia isolated from diesel-contaminated soil, Bioresource Technol. **78** (2001) 47-54.
57. O. Cvetković, J.A. Curiale, V. Dragutinović, D. Jarvie, M.M. Vrvic, Evidence of stability of sedimentary organic matter during bacterial desilicification of an oil shale, J. Serb. Chem. Soc. **66** (2001) 95-99.
58. J. Milčić-Terzić, Y. Lopez-Vidal, M.M. Vrvic, S. Saval, Biodegradation potential assessment of microbial consortia isolated from a diesel-contaminated soil, Water Sci. Technol. **42** (2000) 403-406.

Membership in scientific and professional societies,

Member of Serbian Society for Microbiology,
Member of Serbian Biochemical Society,
Member of American Chemical Society.
Member of American Society for Microbiology,
Member and co-founder of Serbian Society for Food Technology.

Invited lectures

He was as invited lecturer at lot of scientific meeting, university, institutes around the world, from 1987 till 2017.

Expert Group Meeting on "Emerging technologies for water treatment and soil remediation and their assessment", Centre for Science and High Technology of UNIDO (ICS-UNIDO), Trieste (Italy), 2007.

Awards

Recipient of the Medal for an exceptional contribution to application of science in industry, awarded by Serbian Chemical Society for 2000.

Thank-you note for years of unselfish support to work, Serbian Society for Microbiology, 2015.

Annexes

List of all publications upon request

CURRICULUM VITAE

1. Surname: **Stojanović**
2. Name: **Zoran**
3. Date of Birth: **20/02/1966**
4. Nationality: **Serbian**
5. Marital status : **divorced, two children**

6. **Obrazovanje:**

Faculty	Faculty of Chemistry, University of Belgrade
Duration	1983 - 1989
Academic degree	master chemist
Faculty	Agri Faculty, University of Novi Sad
Duration	PhD studies - ongoing

7. **Foreign languages: (Mark 1 to 5)**

language	reading	speaking	writing
English	4	4	4
Greek	4	4	4
German	3	2	3
Bulgarian	3	3	3

8. **Other Qualifications:** active in MS Word, Excel and Powerpoint.
9. **Present occupation:** Head of National Reference Laboratory Department for environment in Serbian Environmental Protection Agency,
10. **Period:** 12 years
11. **Specialties:** Experience of 21 years in analytical methods for heavy metals and organic pollutants- pesticides, drugs, etc. In food, animal feed and environmental matrices
12. **Experience:**

YEAR	Trenings/Workshops
2016	Training course „Sample preparation methods of fish matrix for analysis for residues of PCDD, PCDF and dl-PCBs” in National Reference Laboratory for Dioxins, Bratislava, Slovakia, June 06-10, 2016.
2016	Training course „Pesticide Analysis in Food by LC and GC HRAM Mass Spectrometry” in collaboration with prof. Amadeo Fernandez-Alba, Dreieich, Germany, May 17-20, 2016.
2015	11 th Summer School on Toxic Compounds in the Environment 2015, Brno, Czech Republic, June 15-20, 2015.
2010	Slovenia; Training course for ISO 17043 (2 weeks)
2009	Czech Republic Workshop Recent Advances in Food Analysis RAFA 2009 (1 nedelja)
2006	Training on water and soil quality monitoring at Iowa State, USA; October (3 nedelje)
2005	Training course: EU Norms for Pesticide and Veterinary Drugs Residues in Food, CSL, York, UK, May 2005;
2003	Training course: „Veterinary Drug Residues Analysis in Food”, Veterinary Science Division, Belfast, NI, UK, November 1 st – December 15 th 2003.; - Applicative training in veterinary drug residues analysis in food;

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- Ivanovic Snezana, Baltić Ž. M., Popov-Raljić Jovanka, Pisinov B., Maslić-Strizak Danka, **Stojanović Z.**, Pavlović I., (2012). THE EFFECT OF DIFFERENT PROBIOTICS ON BROILER MEAT QUALITY. **African Journal of Microbiology Research**, 6, 5, 937-943
- Ivanovic Snezana, Baltić M., Popov-Raljić Jovanka, Pisinov B., Pavlović I., **Stojanović Z.**, (2011). THE DEPENDENCE OF CHICKEN MEAT QUALITY PARAMETERS OF PROBIOTICS. Proceedings of the **The 3th International Conference on Sustainable Animal Agriculture for Developing Countries** (SAADC 2011), 26-29. July. Volume II, 472-476
- Lilic S., **Stojanović Z.**, Matekalo-Sverak Vesna, Baltić Z. M., Ivanovic Snezana. (2011) LIPID CONTENT OF MEAT AND ADIPOSE TISSUE FATTY ACID COMPOSITION IN HYBRO G+ BROILERS. **57th International Congress of Meat Science and Technology**, Ghent, Belgium, August 7-12, Flash - Proceedings
- Ivanovic Snezana, Pisinov B., Maslić-Strizak Danka, Savić B., **Stojanović Z.** (2012). INFLUENCE OF PROBIOTICS ON QUALITY OF CHICKEN MEAT. **African Journal of Agricultural Research** Vol.7(14), pp. 2191-2196
- Ivanovic D. Snezana, **Stojanović M. Zoran.**, Popov-Raljić Jovanka, Baltić M., Pisinov B., Maslić-Strizak Danka, Pavlović I., (2013). MEAT QUALITY CHARACTERISTICS OF DUROC X YORKSHIRE, DUROC X YORKSHIRE X WILD BOAR AND WILD BOAR. **Hem. Ind.** 67 (6) 999–1006

- D.Kovačević, G.Vuković, **Z.Stojanović**, „Određivanje ostataka fungicida u višnjama reverzno-faznomtečnom hromatografijom visokog pritiska“, Book of Abstracts, 7. Savetovanje o zaštiti bilja, Soko Banja, 2005., G.Vuković D.Kovačević, **Z.Stojanović**, “Determination of iprodione, procymidone and vinclozolin in cherry samples from domestic market”, 4th MGPR International Symposium of Pesticides in Food and the Environment in Mediterranean Countries, Book of Abstracts, Aydin, 2005.p.70
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- Z.Stojanović**, G.Vuković, M.Tadić, “Liquid Chromatography Tandem Mass Spectrometry for the Determination of Pesticide Residues in River Waters of Serbia“, RAFA Book of Abstract, Prague, 4-6 november 2009. p. 308
- Z.Stojanović**, B. Špirović-Trifunović, G.Vuković, V. Bursić, M. Mojašević, (2012) “QuEChERS method for determination of Pesticide Residues in Strawberries”, Belgrade International Food Conference – Food, Health and wellbeing, Belgrade, Serbia, 26th -28th November, Book of abstracts, p.79
- M. Balać, **Z.Stojanović**, “Determination of Herbicide Residues by GC/MS in water of River Sava“, Annual MGPR Meeting 2012 and International Conference on Food and Health Safety: Moving Towards a Sustainable Agriculture Beograd, 11 - 12 October 2012, Book of Abstracts, p. 75
- Bursić V., Vuković G., Zeremski T., Beuković D., **Stojanović Z.**, Pucarević M., Beuković M., Vasiljević I. (2014). “Multiresidue method for the analysis of pesticide residues in brown hare by liquid chromatography tandem-mass spectrometry”, 10th European Pesticide Residue Workshop, Dublin, Ireland, 30th June-3rd July, Programme and book of abstracts, p.86.
- Đurković A., Čađo S., Denić Lj., Dopuđa Glišić T., **Stojanović Z.** “ Phytoplankton composition and physico-chemical characteristics of Vrutci accumulation” Book of abstracts, 43.Conference “Water 2014”,

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- Denić Lj., Đurković A., Čađo S., Dopuđa Glišić T., Novaković B., **Stojanović Z.** “Ocena ekološkog potencijala akumulacije Vrutci na osnovu bioloških i fizičko-hemijskih elemenata kvaliteta” Book of abstracts, 43.Conference “Water 2014”, (2014), p.41-48
- Čađo S., Đurković A., Denić Lj., Dopuđa Glišić T., **Stojanović Z.** “Sezonska dinamika fitoplanktona i fizičko-hemijske karakteristike akumulacije Grlište” Book of abstracts, 43.Conference “Water 2014”, (2014), p.49-56
- Denić Lj., Čađo S., Đurković A., Dopuđa Glišić T., Novaković B., **Stojanović Z.** “Ocena ekološkog potencijala akumulacije Grlište na osnovu bioloških i fizičko-hemijskih elemenata kvaliteta” Book of abstracts, 43.Conference “Water 2014”, (2014), p.57-64;
- Čađo S., Đurković A., Denić Lj., Dopuđa Glišić T., Novaković B., Veljković N., **Stojanović Z.** “Ocena ekološkog potencijala jezera Gruža” Zbornik radova 45.Conference “Water 2016”, Zlatibor, Srbija, 15-17. June 2016
- Čađo S., Đurković A., Novaković B., Denić Lj., Dopuđa Glišić T., **Stojanović Z.**, Veljković N., “Phytoplankton in Gruza Lake” Book of abstracts, 45.Conference “Water 2016”, Zlatibor, Srbija, 15-17. June 2016;
- G.Vuković, J. Ilić, V. Bursić, M. Mojašević, B. Špirović-Trifunović, J.Vlajković, **Z.Stojanović**, (2015) “ISO EN 15562 and AOAC QuEChERS method: Investigation matrix effect of soil”, 7th Symposium Chemistry and Environmental Protection, Palić, Serbia, 9th -12th June, Book of abstracts, p.209;
- Bursić V., Vuković G., **Stojanović Z.**, Trebše P., Cara M., “Validation method for the determination of UV filters in river mussels from Danube by LC-ESI-MS/MS analysis”, 7th International Symposium on recent advances in food analysis - RAFA, Book of abstracts (2015) Prague, Czech Republic, p.262;
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- Maja Turk Sekulić, Sabolč Pap, **Zoran Stojanović**, Nikola Bošković, Jelena Radonić, Tatjana Šolević Knudsen (2018) “Efficient removal of priority, hazardous priority and emerging pollutants with Prunus armeniaca functionalized biochar from aqueous wastes: Experimental optimization and modeling”, Science of the Total Environment Vol.613-614(2018), pp. 736-750, Available Online
- Zoran Stojanović**, Ivana Deršek Timotić, Boris Novaković, Nebojša Veljković (2018) Surface Water Quality Assessment in Serbia - Water Quality Index and Ecological Status Comparison, International Journal of Modern Engineering Research (IJMER), ISSN: 2249–6645, Vol. 8, Iss.10, 2018, Open Access
- Ivana Trajković, Milka Vidović, **Zoran Stojanović**, Dušan Antonović, Milica Sentić (2019) Evaluation of bottled water quality from the market of the Republic of Serbia, 47th IUPAC World Chemistry Congress, 7-12 July 2019, Paris.
- Ivana Trajković, Milka Vidović, **Zoran Stojanović**, Dalibor Stanković, Milica Sentić (2019) Innovative approach for wireless electrochemical remediation of cyanotoxins based on bipolar electrochemistry, 47th IUPAC World Chemistry Congress, 7-12 July 2019, Paris.

14. Projects:

Period	Project Name
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2020-2022	INTERREG TID(Y)UP F(ol)low the Plastic from source to the sea: Tisza-Danube integrated action plan to eliminate plastic pollution of rivers (http://www.interreg-danube.eu/approved-projects/tid-y-up/partners)
2017-2019	JDS-4 Joint Danube Survey 4, Zajedničko ispitivanje Dunava 4, Član Chemistry Core Team-a i aktivan član Tima za uzorkovanje velikih zapremina vode na sadržaj organskih polutanata,
2012-2016	IPA 2012 Establishment of integrated environmental monitoring system for air and water quality in Serbia,
2012-2016	TEMPUS Project Network for education and training for public environmental laboratories NETREL,
2013-2016	ECRAN Project Drina River Basin Management Plan (RBMP),
2006-2009	Serbia-Germany Twinning Project "Strengthening the capacities of the Water Directorate",
2005-2011	DREPR Danube River Enterprise Pollution Reduction Project for Serbia,
2005-2010	CARDS 2005 Twinning project "Institutional Capacity Building of Food Chain Laboratories Administration",
2005-2009	Technical Assistance to Serbian Food Chain Safety Laboratories (FCSL),
2002-2004	Technical Assistance to the Reform of the Food Chain Laboratories in Serbia (RFL) 2002-2004.

BRIEF BIOGRAPHY



Vidosava Džagić, Master Mechanical Engineer, and International Master in Public Procurement Management

Today she works in the Chamber of Commerce of Serbia - Belgrade Chamber of Commerce as an assistant director. During her 30-year career, she has gained valuable professional experience working in both the private and public sectors, as well as in associations. Throughout her career, she has constantly collaborated with companies, research and development and academic institutions, public administration and local municipalities, international organizations and industry experts, with the aim of improving the business environment and improving the performance and competitiveness of the Serbian economy.

She worked as an advisor in the office of the President of the Chamber of Commerce and Industry of Serbia (CCIS), special advisor in the Deputy Prime Minister's Office, Secretary of State at the Ministry of Public Administration and Local Self-Government, vice president of CCIS, president of the Valjevo Regional Chamber of Commerce.

Vidosava has more than 10 years of experience in working in the real sector of the Serbian economy. During that period, she went through the entire production process, as well as, management process - she was the General Manager, Executive Director for QA & QC, Project Manager for QMS, Chief Laboratory Engineer and Design Engineer. She is an expert in business development, strategic planning, corporate governance and implementation of quality management system, with 20 years of experience in this field.

In addition, she was the President of the Council for Vocational Education and Training of Adults, a member of the Board of Directors of ReSPA (Regional School of Public Administration) and a member of the Technical Board for the Certification Body and Accreditation Body of Serbia.

She graduated from the Faculty of Mechanical Engineering, University of Belgrade in 1987, and in 2018, she completed the International Master in Public Procurement Management, University of Tor Vergata, Roma supported by the EBRD.

She is married and the mother of two daughters.



Name	Eric D. van Hullebusch
Gender	Male
Year of birth	1975
Nationality	French
Civil Status	Married
Present position	Full Professor of Biogeochemistry of Engineered Ecosystems

Prof. Eric D. van Hullebusch

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EDUCATION

- | | | |
|-------------|---|--|
| 2012 | - | Habilitation degree in Environmental Sciences (Université Paris-Est – France) |
| 1999 – 2002 | - | PhD degree in Aquatic Chemistry and Microbiology (Université de Limoges – France) |
| 1998 - 1999 | - | MSc degree in Aquatic Chemistry and Microbiology (Université de Poitiers – France) |
| 1997 – 1998 | - | Master degree in Environmental Chemistry (Université de Limoges – France) |
| 1994 – 1997 | - | BSc degree in Biology and Chemistry (Université de Limoges – France) |

EMPLOYMENT RECORD

- | | | |
|----------------|---|--|
| 2018 - present | - | Full Professor of Biogeochemistry of Engineered Ecosystems (IPGP – Paris – France) |
| 2016 – 2018 | - | Full Professor of Environmental Science and Technology (IHE Delft Institute for Water Education – Delft – the Netherlands) |
| 2005 – 2016 | - | Associate Professor in Biogeochemistry of Engineered Ecosystems (Université Paris-Est – France) |
| 2004 – 2005 | - | Assistant Professor (Université de Limoges – France) |

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|-------------|---|
| 2002 – 2004 | - Post-doctoral Researcher (Wageningen University and Research - the Netherlands) |
| 1999-2002 | - PhD student (Université de Limoges – France) |
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MAIN DISCIPLINE / SPECIALISATION

- Investigation of the role of microbial organisms on the weathering of materials (concrete sewer pipe, basaltic glass) and bioleaching of hazardous solid wastes (coal fly ashes, metallurgical waste or electronic waste) for base, precious and critical elements recovery.
 - Study of metals (e.g. Cd, Pb, Zn, Ni, Co, Cr) and metalloids (Se, Te) biogeochemistry in engineered ecosystems (e.g. bioreactors) mainly dedicated to wastewater treatment for pollution control and resource recovery
 - Contaminated sites and soils remediation (hydrocarbons removal by soil washing and treatment of soil washing solution by implementing chemical and biological processes)
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MOST IMPORTANT PROJECTS

On-going

2021-2025 : co-PI and work-package coordinator of the H2020 project Promiscues (Preventing Recalcitrant Organic Mobile Industrial chemicals for Circular Economy in the Soil-sediment-water system) <https://cordis.europa.eu/project/id/101036449>. Budget of 11 995 k€.

2020-2023 : Coordinator of the EraMin2 project (EU co-fund project) : Bio-assisted Closed loop recycling of E-Mobility Metals from waste PCBs and Li-Ion Batteries (BaCLEM). Budget of 866 k€. Partners i) Institut de Physique du Globe de Paris, ii) Suleyman Demirel University (SDU) (Turkey), iii) Université de Liège (Belgium), iv) EXITCOM RECYCLING (Turkey), v) SYNGULON (Belgium). Funded by ANR, Tubitak and SPW-Wallonia

2019-2022 : Coordinator of the EraMin2 project (EU co-fund project) : Siderophores assisted Biorecovery of Technology Critical Elements (TCEs): Gallium (Ga), germanium (Ge) and indium (In) from end-of-life products (SIDEREC). Budget of 835 k€. Partners i) Institut de Physique du Globe de Paris, ii) Universidad Catolica del Norte (Chile), iii) Helmholtz-Zentrum Dresden-Rossendorf (Germany), iv) ASA Spezialenzyme GmbH (Germany). Funded by ANR, CONICYT and BMBF / Juelich

2020-2024 : Co-coordinator of an IPGP-BRGM project entitled : Éluclidation des facteurs contrôlant la cinétique d'oxydation du manganèse au cours du traitement d'exhaures de mine

Finished

2016-2019 : Co-PI on the CEFRIPIRA project (France-India partnership) : Assessment of Chromium Release from sukinda mining Overburden: an IsoTopic, chemical, physical and microbiological study (CHROMITE). Budget of 130 k€. Partners : i) Indian Institute of Science, Karnataka, Bangalore Urban District, ii) Institut de Physique du Globe de Paris, Paris, iii) Université Paris-Est, iv) Université d'Orsay).

2015-2019: Co-PI of the European Joint Doctorate (EJD) project : Advanced Biological Waste-to-Energy Technologies (ABWET). Total Budget 3918 k€. Partners : i) UNESCO-IHE (The Netherlands), ii) Université Paris-Est (France), ii) University of Cassino and Southern Lazio (Italy), iv) Tampere University of Technology (Finland). Project funded by the EU H2020 framework programme. (<http://www.internationaldoctorate.unicas.it/abwet/>).

2010-2018 : Co-PI of the Erasmus Mundus Joint Doctorate (EMJD) project The Environmental Technologies for Contaminated Solids, Soils and Sediments (ETeCoS³). Total Budget 7000 k€. Partners : i) UNESCO-IHE (The Netherlands), ii) Université Paris-Est, ii) University of Cassino and Southern Lazio (Italy). Project funded by the EU Erasmus Mundus Agency (<http://www.internationaldoctorate.unicas.it/>).

2010-2016 : Co-PI of programme SDCC/AIT – France Network (France/Thaïlande) : Sustainability issues due to coal ash from coal fired power plants. Total Budget total 35 k€. Partners i) Université Paris-Est (France), ii) Asian Institute of Technology (Bangkok, Thailand), iii) La Salle University (Manilla, Philippines).

2010-2014 : Coordinator of the IRSES project : Mining wastes bio/weathering, pollution control and monitoring (MinPollControl). Budget total 158 k€. Partners : i) Université Paris-Est (France), ii) UNESCO-IHE (The Netherlands), iii) Universidade Federal de Minas Gerais (Brazil), iv) Universidade Estadual de Montes Claros (Brazil). Project funded by the EU (FP7 programme).

2002-2004 : PI of the Marie Curie Individual project: Optimization of anaerobic granular sludge reactors: Speciation, Bioavailability and Dosing strategies of trace metals. Total Budget 158 k€ for 24 months. Wageningen University (The Netherlands)

NUMBER OF STUDENTS SUPERVISED

36 MSc students

17 PhD students as co-promotor

12 PhD students as main promotor

PUBLICATIONS

More than 260 peer-reviewed papers published since 2002, about 11200+ citations, h-index = 56

<https://www.scopus.com/authid/detail.uri?origin=AuthorProfile&authorId=56495689700>

List of recent papers

2021

1. *Trellu C., Pechaud Y., Oturan N., Mousset E., van Hullebusch E.D., Huguenot D., Oturan M.A. (2021) Remediation of soils contaminated by hydrophobic organic compounds: How to recover extracting agents from soil washing solutions? Journal of Hazardous Materials, 40A, 124137 <https://doi.org/10.1016/j.jhazmat.2020.124137>*
2. *Hemati A., Aliasgharzad N., Khakvar R., Khoshmanzar E., Lajayer B.A., van Hullebusch E.D. (2021) Role of Lignin and Thermophilic Lignocellulolytic Bacteria in the Evolution of*

- Humification Indices and Enzymatic Activities during Compost Production, *Waste Management*, 119, 122-134 <https://doi.org/10.1016/j.wasman.2020.09.042>
3. Colombano S., Davarzani H., **van Hullebusch E.D.**, Huguenot D., Guyonnet D., Deparis J., Lion F., Ignatiadis I. (2021) Comparison of thermal and chemical enhanced recovery of DNAPL in saturated porous media: 2D tank pumping experiments and two-phase flow modelling, *Science of the Total Environment*, 760, 143958 <https://doi.org/10.1016/j.scitotenv.2020.143958>
 4. Gielnik A., Pechaud Y., Huguenot D., Cébron A., Esposito G., **van Hullebusch E.D.** (2021) Functional potential of sewage sludge digestate microbes to degrade aliphatic hydrocarbons during bioremediation of a petroleum hydrocarbons contaminated soil. *Journal of Environmental Management*, 280, 111648 <https://doi.org/10.1016/j.jenvman.2020.111648>
 5. Bolaños-Benítez V., **van Hullebusch E.D.**, Birck J.-L., Garnier J., Lens P.N.L., Tharaud M., Quantin C., Sivry Y. (2021) Chromium mobility in ultramafic areas affected by mining activities in Barro Alto massif, Brazil: An isotopic study, *Chemical Geology*, 561, 120000 <https://doi.org/10.1016/j.chemgeo.2020.120000>
 6. Ilyas H., Masih I., **van Hullebusch E.D.** (2021) A decision tree framework to support design, operation, and performance assessment of constructed wetlands for the removal of emerging organic contaminants, *Science of the Total Environment*, 760, 143334 <https://doi.org/10.1016/j.scitotenv.2020.143334>
 7. Ilyas H., Masih I., **van Hullebusch E.D.** (2021) Prediction of the removal efficiency of emerging organic contaminants based on design and operational parameters of constructed wetlands, *Journal of Environmental Chemical Engineering*, 9 (1), 104592. <https://doi.org/10.1016/j.jece.2020.104592>
 8. Pontoni L., Roviello V., Race M., Savignano L., **van Hullebusch E.D.**, Esposito G., Pirozzi F., Fabbicino M. (2021) Supramolecular aggregation of colloidal natural organic matter masks priority pollutants released in water from peat soil, *Environmental Research*, 195, 110761 <https://doi.org/10.1016/j.envres.2021.110761>
 9. Nobaharan K., Bagheri Novair S., Asgari Lajayer B., **van Hullebusch E.D.** (2021) Phosphorus removal from wastewater: potential use of biochar and the key controlling factors, *Water*, 13, 517. <https://doi.org/10.3390/w13040517>
 10. Abhilash, Tabassum S., Ghosh A., Meshram P., **van Hullebusch E.D.** (2021) Microbial Processing of Waste Shredded PCBs for Copper Extraction Cum Separation—Comparing the Efficacy of Bacterial and Fungal Leaching Kinetics and Yields, *Metals*, 11(2), 317. <https://doi.org/10.3390/met11020317>
 11. Rajendran H.K., Fakrudeen M.A.D., Chandrasekar R., **van Hullebusch E.D.**, Chellam P.V. (2021) Electrocatalytic removal of fluoroquinolones from simulated pharmaceutical effluent: chemometric analysis, chemical blueprint of electrodes and generated sludge, *Environmental Research*, 195, 110844 <https://doi.org/10.1016/j.envres.2021.110844>
 12. Mal J., Nancharaiah Y.V., Bourven I., Simon S., **van Hullebusch E.D.**, Guibaud G., Lens P.N.L. (2021) Cadmium selenide formation influences the production and characteristics of extracellular polymeric substances of anaerobic granular sludge, *Applied Biochemistry and Biotechnology*, 193, 965–980 <https://link.springer.com/10.1007/s12010-020-03464-x>
 13. Maharaj B.C., Mattei M.R., Frunzo L., **van Hullebusch E.D.**, Esposito G. (2021) A general framework to model the fate of trace elements in anaerobic digestion environments, *Scientific Reports*, 11, 7476 <https://doi.org/10.1038/s41598-021-85403-2>

14. Ambaye T.G., Rene E.R., Nizami A.-S., Dupont C., Vaccari M., **van Hullebusch E.D.** (2021) Beneficial role of biochar addition on the anaerobic digestion of food waste: A systematic and critical review of the operational parameters and mechanisms, *Journal of Environmental Management*, 290, 112537. <https://doi.org/10.1016/j.jenvman.2021.112537>
15. Avril C., Malavergne V., **van Hullebusch E.D.**, Brunet F., Borensztajn S., Labanowski J., Hennet L., Guyot F. (2021) Aqueous alteration and bioalteration of a synthetic enstatite chondrite, *Meteoritics & Planetary Science*, 56 (3), 601-618 <https://doi.org/10.1111/maps.13641>
16. Colombano S., Davarzani H., **van Hullebusch E.D.**, Huguenot D., Guyonnet D., Deparis J., Ignatiadis I. (2021) Permittivity and electrical resistivity measurements and estimations during the recovery of DNAPL in saturated porous media: 2D tank experiments, *Journal of Applied Geophysics*, 191, 104359 <https://doi.org/10.1016/j.jappgeo.2021.104359>
17. Ambaye T.G., Vaccari M., Bonilla-Petriciolet A., Prasad S., **van Hullebusch E.D.**, Rtimi S. (2021) Emerging technologies for biofuel production: A Critical Review on Progress, Challenges, and Perspectives, *Journal of Environmental Management*, 290, 112627 <https://doi.org/10.1016/j.jenvman.2021.112627>
18. Azimi-Yancheshmeh R., Moeinaddini M., Feyznia S., Riyahi-Bakhtiari A.R., Savabieasfahani M., **van Hullebusch E.D.**, Asgari Lajayer B. (2021) Seasonal and spatial variations in atmospheric PM2.5-bound PAHs in Karaj city, Iran: sources, distributions, and health risks, *Sustainable Cities and Society*, 72, 103020 <https://doi.org/10.1016/j.scs.2021.103020>
19. Ilyas H., Masih I., **van Hullebusch E.D.** (2021) Development of predictive models for the removal efficiency of emerging organic contaminants in constructed wetlands based on their physicochemical properties, *Journal of Environmental Management*, 294, 112916, <https://doi.org/10.1016/j.jenvman.2021.112916>
20. Ilyas H., Masih I., **van Hullebusch E.D.** (2021) The anaerobic biodegradation of emerging organic contaminants by horizontal flow constructed wetlands, *Water Science and Technology*, 83 (11): 2809–2828. <https://doi.org/10.2166/wst.2021.178>
21. Ghosh S., Gandhi M., **van Hullebusch E.D.**, Das A.P. (2021) Proteomic insights into *Lysinibacillus* sp. mediated biosolubilisation of manganese, *Environmental Science and Pollution Research*, 28, 40249–40263 <https://doi.org/10.1007/s11356-020-10863-4>
22. Gerami Z., Lakzian A., Hemati A., Amirifar A., Asgari Lajayer B., **van Hullebusch E.D.** (2021) Effect of cadmium on sorghum root colonization by glomerular fungi and its impact on total and easily extractable glomalin production, *Environmental Science and Pollution Research*, 28, 34570–34583 <https://doi.org/10.1007/s11356-021-13205-0>
23. Rajput V.D., Minkina T., Feizi M., Kumari A., Khan M., Mandzhieva S., Sushkova S., El-Ramady H., Verma K.K., Singh A., **van Hullebusch E.D.**, Singh RK, Jatav HS, Choudhary R. (2021) Effects of Silicon and Silicon-Based Nanoparticles on Rhizosphere Microbiome, Plant Stress and Growth. *Biology*, 10(8), 791. <https://doi.org/10.3390/biology10080791>
24. Langergraber G., Castellar J.A.C., Andersen T.R., Andreucci M.-B., Baganz G.F.M., Buttiglieri G., Canet-Martí A., Carvalho P.N., Finger D.C., Griessler Bulc T., Junge R., Megyesi B., Milošević D., Oral H.V., Pearlmutter D., Pineda-Martos R., Pucher B., **van Hullebusch E.D.**, Atanasova N. (2021) Towards a Cross-Sectoral View of Nature-Based Solutions for Enabling Circular Cities. *Water*, 13(17): 2352. <https://doi.org/10.3390/w13172352>
25. Tao R., Bair R., Pickett M., Calabria J., Lakaniemi A.-M., **van Hullebusch E.D.**, Rintala J.A., Yeh D.H. (2021) Low concentration of zeolite to enhance microalgal growth and

ammonium removal efficiency in a membrane photobioreactor, *Environmental Technology*, 42 (24), 3863–3876. <https://doi.org/10.1080/09593330.2020.1752813>

26. Ambaye T.G., Vaccari M., **van Hullebusch E.D.**, Amrane A., Rtimi S. (2021) Mechanisms and adsorption capacities of biochar for the removal of organic and inorganic pollutants from industrial wastewater, *International Journal of Environmental Science and Technology*, 18, 3273–3294 <https://doi.org/10.1007/s13762-020-03060-w>
27. Verma N., Sehwat K.D., Mundlia P., Sehwat A.R., Choudhary R., Rajput V.D., Minkina T., **van Hullebusch E.D.**, Siddiqui M.H., Alamri S. (2021- Potential use of *Ascomyces nodosum* as a biostimulant for improving the growth performance of *Vigna acontifolia* (Jacq.) Marechal, *Plants*, 10, 10,2361. <https://doi.org/10.3390/plants10112361>
28. **van Hullebusch, E.D.**, Bani, A., Carvalho, M., Cetecioglu, Z., De Gussemme, B., Di Lonardo, S., Djolic, M., van Eekert, M., Griessler Bulc, T., Haznedaroglu, B.Z., Istenič, D., Kisser, J., Krzeminski, P., Melita, S., Pavlova, D., Plaza, E., Schoenborn, A., Thomas, G., Vaccari, M., Wirth, M., Hartl, M., Zeeman, G. (2021) Nature-based units as building blocks for resource recovery systems in cities, *Water*, 13, 3153. <https://doi.org/10.3390/w13223153>

2022

29. Ambaye T.G., Vaccari M., Prasad S., **van Hullebusch E.D.**, Rtimi S. (2022) Preparation and applications of chitosan and cellulose composite materials, *Journal of Environmental Management*, 301, 113850, <https://doi.org/10.1016/j.jenvman.2021.113850>
30. Pino-Herrera D.O., Fayolle Y., **van Hullebusch E.D.**, Huguenot D., Esposito G., Pechaud Y. (2022) Surface volatilization modeling of (semi-)volatile hydrophobic organic compounds: the role of reference compounds, *Journal of Hazardous Materials*, 424, 127300. <https://doi.org/10.1016/j.jhazmat.2021.127300>
31. Bagherifam S., Komarneni S., **van Hullebusch E.D.**, Stjepanović M. (2022) Removal of antimonate (Sb(V)) from aqueous solutions and its immobilization in soils with a novel Fe(III) modified montmorillonite sorbent, *Environmental Science and Pollution Research*, 29, 2073–2083 <https://doi.org/10.1007/s11356-021-15765-7>
32. Hemati A., Alikhani H.A., Ajdanian L., Babaei M., Asgari Lajayer B., **van Hullebusch E.D.** (2022) Effect of different enriched vermicomposts, humic acid extract and indole-3-acetic acid amendments on the growth of *Brassica napus*, *Plants*, 11(2), 227; <https://doi.org/10.3390/plants11020227>
33. Nobaharan K., Abtahi A., Asgari Lajayer B., **van Hullebusch E.D.**, (2022) Effects of Biochar Dose on Cadmium Accumulation in Spinach and its Fractionation in a Calcareous Soil, *Arabian Journal of Geosciences*, 15: 336 <https://doi.org/10.1007/s12517-022-09608-z>
34. Rajput V.D., Minkina T., Ahmed B., Singh V.K., Mandzhieva S., Sushkova S., Bauer T., Verma K.K., **van Hullebusch E.D.**, Wang B. (2022) Nano-biochar: A Novel Solution for Sustainable Agriculture and Environmental Remediation, *Environmental Research*, 210, 112891 <https://doi.org/10.1016/j.envres.2022.112891>
35. Pourret O., Bollinger J.-C., Hursthouse A., **van Hullebusch E.D.** (2022) Sorption vs Adsorption: the words they are a-changin', not the phenomena, *Science of the Total Environment*, in press 838, 156545 <https://doi.org/10.1016/j.scitotenv.2022.156545>
36. Kordi M., Salami R., Bolouri P., Delangiz N., Asgari Lajayer B., **van Hullebusch E.D.** (2022) White biotechnology and the production of bio-products, *Systems Microbiology and Biomanufacturing*, 2, 413–429 <https://doi.org/10.1007/s43393-022-00078-8>

37. Rahmati F., Asgari Lajayer B., Shadfar N., van Bodegom P.M., **van Hullebusch E.D.** (2022) A review on biotechnological approaches applied for marine hydrocarbon spills remediation, *Microorganisms*, 10, 1289. <https://doi.org/10.3390/microorganisms10071289>
38. Kazemi Z., Neyshabouri M.R., Bayat H., Asgari Lajayer B., **van Hullebusch E.D.** (2022) Models Performance in Predicting Least Limiting Water Range in Northwest of Iran under Semi-Arid and Semi-Humid Climates, *International Journal of Environmental Science and Technology*, 19, 8231-8242. <https://doi.org/10.1007/s13762-022-03980-9>

2023

39. Feng L., Oturan N., Karbasi M., Song W., **van Hullebusch E.D.**, Esposito G., Giannakis S., Oturan M.A. (2022) Electrochemical oxidation of Naproxen in aqueous matrices: Elucidating the intermediates' eco-toxicity, by assessing its degradation pathways via experimental and Density Functional Theory (DFT) approaches, *Chemical Engineering Journal*, 451, 138483. <https://doi.org/10.1016/j.cej.2022.138483>

In press

40. Hemati A., Aliasgharzad N., Khakvar R., Delangiz N., Asgari Lajayer B., **van Hullebusch E.D.** (2022). Influence of thermophilic lignocellulose degrading bacteria bioaugmentation on the change of compost biochemical characteristics, *Biomass Conversion and Biorefinery*, in press <https://doi.org/10.1007/s13399-021-02238-7>
41. Huno S.K.M., Das J., **van Hullebusch E.D.**, Annachhatre A.P., Rene E.R. (2022) Nitrate removal from groundwater using chemically modified coconut husk based granular activated carbon: Characterization of the adsorbent, kinetics and mechanism, *Systems Microbiology and Biomanufacturing*, in press. <https://doi.org/10.1007/s43393-022-00108-5>

Selected Book Chapters

1. **van Hullebusch E.D.** and Pechaud Y. (2015) [Role of natural and engineered biofilms composition on toxic inorganic contaminants immobilisation](#), Chapter 11 p 281-306 Edited by Abhilash, B.D. Panday and K.A. Natarajan Published by CRC press book "[Microbiology for Minerals, Metals, Materials and Environment](#) (ISBN-978-1-4822-5729-8, Cat. No.K24089)"
2. Yin N.H., Lens P.N.L., Sivry Y. and **van Hullebusch E.D.** (2017) [Lead and zinc metallurgical slags mineralogy and weathering](#), in [Sustainable Heavy Metal Remediation. Volume 2: Case studies](#) Eldon R. Rene, Erkan Sahinkaya, Alison Lewis, Piet N.L. Lens (Editors) Springer book, 133-160.
3. Sethurajan M., Lens P.N.L., Horn H.A., Figueiredo L.H.A. and **van Hullebusch E.D.** (2017) [Leaching and recovery of metals](#), in [Sustainable Heavy Metal Remediation. Volume 2: Case studies](#) Eldon R. Rene, Erkan Sahinkaya, Alison Lewis, Piet N.L. Lens (Editors) Springer book, 161-206.
4. Vemic M., Bordas F., Guibaud G., Lens P.N.L. and **van Hullebusch E.D.** (2017) [Leaching and recovery of molybdenum from spent catalysts](#), in [Sustainable Heavy Metal Remediation. Volume 2: Case studies](#) Eldon R. Rene, Erkan Sahinkaya, Alison Lewis, Piet N.L. Lens (Editors) Springer book, 207-239.
5. Işıldar A., van de Vossenbergh J., Rene E.R., **van Hullebusch E.D.** and Lens P.N.L. (2017) [Biorecovery of metals from electronic waste](#), in [Sustainable Heavy Metal Remediation. Volume 2: Case studies](#) Eldon R. Rene, Erkan Sahinkaya, Alison Lewis, Piet N.L. Lens (Editors) Springer book, 241-278.
6. Weijma J., Klok J.B.M., Dijkman H., Jansen G., Sánchez-Andrea I., Buisman C.J.N., **van Hullebusch E.D.**, Hennebel T., du Laing G., Cruz H., Pikaar I., Villa Gomez D.K. (2022) Established technologies for metal recovery from industrial wastewater streams. In Pikaar I.; Guest J.; Ganigué R.; Jensen P.; Rabaey K.; Seviour T.; Trimmer J.; van der Kolk O.;

Vaneekhaute C.; Verstraete W., Resource Recovery from Water: Principles and Application, IWA Publishing https://doi.org/10.2166/9781780409566_029

Reviewing and editing scientific activities

Books

1. **van Hullebusch E.D.** (2017) *Bioremediation of Selenium contaminated wastewaters*, Springer Book, 130 pp.
2. Roussel J., Feroso F.G., Collins G., **van Hullebusch E.D.**, Esposito G., Mucha A.P. (2018) *Trace element supplementation as a management tool for anaerobic digester operation: benefits and risks*, IWA e-book, 15 pp.
3. Collins, G., **van Hullebusch, E.D.**, Esposito, G., Carliell-Marquet, C., Feroso, F. G., eds (2018). Anaerobic digestion. Lausanne: Frontiers Media. 152 pp. doi: 10.3389/978-2-88945-679-6
4. Feroso F.G., **van Hullebusch E.D.**, Collins G., Roussel J., Mucha A.P., Esposito G. (2019) *Trace Elements in Anaerobic Biotechnologies*, IWA e-book, 215 pp.
5. **E. van Hullebusch**, D. Huguenot, Y. Pechaud, M.-O. Simonnot, S. Colombano (Eds.) (2020) *Environmental Soil Remediation and Rehabilitation : Existing and Innovative Solutions*, Springer-Nature book, 440 pp.
6. Desai, C., Boopathy, R., Jain, K.R., Madamwar, D., **van Hullebusch, E.D.**, eds. (2021). Eco-Sustainable Bioremediation of Textile Dye Wastewaters: Innovative Microbial Treatment Technologies and Mechanistic Insights of Textile Dye Biodegradation. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88971-380-6
7. Madamwar, D., Jain, K.R., Desai, C., **van Hullebusch, E.D.**, eds. (2021). Advanced Bioremediation Technologies and Processes for the Treatment of Synthetic Organic Compounds (SOCs). Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88971-698-2

Peer-review activities

<https://publons.com/researcher/1206501/eric-d-van-hullebusch/peer-review/>

- Reviewers for *Journal of Environmental Quality*, **Water Research**, *Chemical Geology*, *Biotechnology and Bioengineering*, **Bioresource Technology**, **Chemosphere**, *Soil Science*, *Analytica Chimica Acta*, *Talanta*, *Journal of Biotechnology*, **Journal of Hazardous Materials**, **Environmental Science and Technology**, *Environmental Technology*, *Chemical Engineering Journal*, *Process Biochemistry*, *Biological Trace Element Research*, **Reviews in Environmental Science and Bio/Technology**, *Environmental Chemistry*, *Water Science and Technology*, *Water*, *Air and Soil Pollution*, *Bioprocess and Biosystems Engineering*, *Ecological Engineering*, *Revue des Sciences de l'Eau*, *Cement and Concrete Composites*, *Journal of Environmental Management*, **Cement and Concrete Research**, ...
- Review editor for Frontiers Journals (Frontiers in Environmental Science / Frontiers in Microbiology / Frontiers in Earth Science) in Microbiological Chemistry and Geomicrobiology field from 2015

Editorial board memberships

- Editorial board member of *Reviews in Environmental Science and Bio/Technology* from 2006 to 2018 (Springer Nature).
- Editorial board member of *Euro-Mediterranean Journal for Environmental Integration* since 2016 (Springer Nature) and Chief Editor for topic for *Ecotoxicology, environmental safety and bioremediation* since 2020.
- Editorial board member of *Chemistry Africa* since 2017 (Springer Nature).
- Associate editor of *Arabian Journal of Geosciences* since 2019 (Springer Nature)
- Editorial board member of *Environment International* and *Heliyon Environment* since 2018 (Elsevier)
- Editorial board member of *Metals*, *Water*, *Minerals* since 2016 (MDPI AG)
- Editorial board member of *Microorganisms* since 2018 (MDPI AG)
- Review editor for Frontiers (Frontiers in Environmental Science / Frontiers in Microbiology / Frontiers in Earth Science) in Microbiological Chemistry and Geomicrobiology section from 2015 to 2019 and

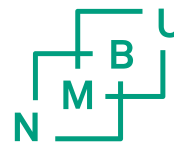
Frontiers in Sustainable Food Systems in Waste Management in Agroecosystems section since 2019

- Associate Editor for Frontiers in Microbiology section Microbiological Chemistry and Geomicrobiology since 2019.

Projects peer-review activities

H2020 Expert, Agence National de la recherche (ANR) (France), Fonds de recherche du Québec – Nature et technologies (Canada), Université de Mons, Université de Liège, KU Leuven, Innoviris (Belgium), National Research Foundation (NRF) (South Africa), King Fahd University of Petroleum and Minerals (Saudi Arabia), European Science Foundation (ESF), National Science Centre (NCN) - Member of the ST10 panel - Earth sciences, (Poland), Swiss National Science Foundation (SNSF),...

Curriculum vitae



* PERSONAL INFORMATION

*Family name, First name:	Kallenborn, Roland		
*Date of birth:	22.03.1960	*Sex:	male
*Nationality:	German		
Researcher unique identifier(s) (ORCID, ResearcherID, etc.):	0000-0003-1703-2538 F-8368-2011		
URL for personal website:	https://www.nmbu.no/emp/roland.kallenborn		

* HIGHER EDUCATION/OTHER TRAINING

	Subjects/degree/	Name of institution, country
1993	Biology, Dr. rer. nat.	University of Hamburg, Germany
1986	Examination, Teacher in biology and chemistry	Technical University Kaiserslautern, Germany

* POSITIONS (academic, business, industry, public sector, national or international organisations)

Current Position

	Job title/name of employer/country
2010-today	Professor in Organic Chemistry, Faculty of Chemistry, Biotechnology and Food Sciences (KBM), Norwegian University of Life Sciences (NMBU), Norway & since Jan 2022 University of Arctic (UArctic) Chair for Arctic Environmental Pollution Research.

Previous positions held (list)

	Job title/name of employer/country
2008-2022	Adjunct Professor, University Centre in Svalbard (UNIS), Arctic Technology
2005-2008	Professor and Department leader at the University Centre in Svalbard (UNIS), Dept. of Arctic Technology (3-year permission to leave from NILU)
1996-2010	Senior Scientist, Norwegian Institute for Air Research (NILU)
1995	Researcher, Institute of organic Chemistry, University of Basle, (CH)

No Carrier breaks

PROJECT MANAGEMENT EXPERIENCE

Project/topic/role in project/funding from			
Source	Project	Role	Period
RCN	NFR-ChiNo: Perfluorinerter forurensinger I Kinesiske og norske miljøprøver	PI	2012-2015
NCM	Perfluorinated alkylated compounds in the Nordic environment	Coord.	2003-2004
NCM	AMAP: Contaminants and climate	PI	2011-2013
NCM	AMAP: Contaminants and Climate II	PI	2013-2015
HERD	Antioxidants in Forrest fruit products	Coord.	2012-2015
SIU	ENORA: Education in Environmental organic Chemistry in ARmenia	Coord.	2013-2015
SIU	NorCan: Sanitation strategies in the High Arctic	PI	2016-2019
RCN	CSI: Chiral stable isotopes in Svalbard marine biota	PI	2013-2015
SMF	AtmoPart: Local particulate pollutant sources on Svalbard	Coord.	2013-2015
SMF	FluorosImpact: PFAS sources on svalbard	PI	2015-2016
RCN	Barelab:Laboratory collaboration on Svalbard	PI	2015-2018
RCN	PasNet: Passive samping for pollutants in Arctic waters	PI	2016-2017
EEA	EDUNET: Educational network RECETOX-NMBU/IKBM	Coord.	2016
KB	Local PFAS contamination in Ny-Ålesund	Coord.	2016
RCN	Novel organic pollutants from recycling of organic waste as risk factors for human exposure (NovelPol)	Coord.	2017-2021
RCN	Reducing the impact of fluorinated compounds on the environment and human health	PI	2017-2021
UArctic	Joint Arctic education and research in Environemntal Forensics (JAF)	Coord.	2022-2024
NCM	Nordic Master program in Arctic Environmental Forensics (NM-Arctic EnForce)	PI	2022-2025

Other relevant professional experiences

	Project/type of R&I activity and R&I content /role and tasks/funding from
2013-2015-	CSI: Chiral stable isotopes in Svalbard marine biota (RCN)/Development of new stable isotope determination methods/ PI
2014	Nordic Screening: Poly- and perfluorolkylated compounds (PFASs) in the Nordic environment (NCM)/ Development of new analytical methods for the determination of poly- and perfluoroalkyl substances in background environments/ PI
2017-2020	Reducing the impact of fluorinated compounds on the environment and human health/ Adopting new analytical methods/ Developing and testing remediation,mitigation methods for PFAS/ PI.

EXPERIENCE FROM NATIONAL/INTERNATIONAL COLLABORATION/NETWORKING (if applicable)

	Activity or project / tasks and responsibilities / context/programme/framework of the collaboration and names of key partners (companies, institutions)
1996-2019	Arctic monitoring and Assessment Program/ national expert for Environmental pollutants/ Circum Arctic assessment/ AMAP/
2010-2019	European Chemical Society / National member in the Division of Chemistry and the environment (DCE)/ Treasurer/ EuChemS

Other relevant professional experiences COMMISSIONS OF TRUST

2022 – today	University of the Arctic (UArctic) Chair for environmental pollutant Research
2021 – today	IUPAC delegate to Division 6: Environmental and Chemistry Division
2011 - today	Treasurer and Norwegian delegate; European Chemical Society (EuChemS), Division of Chemistry and the Environment (DCE)
2001 – today	Member of the Editorial Board : <i>Fresenius Environmental Bulletin</i> (FEB) and SETAC's Environmental Toxicology and Chemistry (2005 – 2008)
2013 – today	Member of the Editorial Board: <i>Environmental Chemistry and Ecotoxicology</i> (2018), Chemosphere (2009), <i>Fresenius Environmental Chemistry Letters</i> (FEB, since 2000)
1999 – 2010	Member of the Steering board and information officer of the <i>Association of Chemistry and the Environment</i> (ACE).
2005 – today	Board member: <i>Norwegian Chemical Society, working group: Analytical Chemistry</i>
1996 – today	<u>AMAP national key expert for Norway on persistent organic pollutants (POPs) and on human health aspects of environmental contamination in the Arctic"</u>
2018 - today	Senior advisor and counsellor for the international Joint Research Centre for Arctic Environment and Ecosystem (IJRC-AEE) at the Harbin Institute of Technology (HIT)
Since 2007	Elected Member of the Norwegian Scientific Academy for Polar Research.
Since 2018	Elected foreign member of the Specialised Committee for Polar Environment and Ecosystem in the Chinese Society for Environmental Sciences (SCPEE-CSES)
Since 2012	Elected Foreign member of the Armenian Academy of Engineering Sciences

SOCIETIES

1998	American Chemical Society (ACS)
1996	Gesellschaft Deutscher Chemiker (GdCh)
1982	Deutsche Ornithologische Gesellschaft (DOG)
1998	Society of Environmental Toxicology and Chemistry (SETAC)
1996	Norsk Kjemisk Selskap (NKS)
2018	Norsk polarklubben

MAJOR COLLABORATIONS

Prof. Dr. Stephan Weinbruch, Dept. of Applied Geosciences (IAG), Technical University of Darmstadt (Germany); Prof. Dr. D.C. G Muir, Ecosystems Protection Research Division, Water Science & Technology Directorate, Environment Canada Prof. Dr. Crispin Halsall, Lancaster University, UK; Prof. Dr. Kevin C. Jones, Lancaster University, UK; Dr. Martin Schlabach, NILU, Norway; Prof. Dr. Jan L. Lyche, NMBU-VetFak, Norway; Prof. Dr. Petter Jenssen, NMBU-MINA, Norway; Prof. Dr. Walter Vetter, University of Hohenheim, Germany; Prof. Dr. Thomas Ternes, Bundesanstalt für Gewässerkunde (BfG), Koblenz, Germany; Prof. Dr. Einar Jensen, UiT-The Arctic University (Tromsø); Prof. Dr. Anna Kärrman, Örebro University, Sweden; Prof. Dr. Lutz Ahrens, SLU, Sweden; Prof. Dr. Leiv K. Sydnes, University of Bergen (UiB, Norway); Prof. Dr. Jana Klanova, Masaryk University, Brno, Cz); Prof. Dr. Jana Hajslova, VSCHT, Prague (CZ); Prof. Dr. Gerhard Lammel, MPI-Mainz, Germany.

Track record

(ISI H-index 38, Mendelej 38; Scholar Google 49)

Total number of publications: 125 peer reviewed publication, 97 ISI registered

A list of up to ten publications, from the last ten years.

Relevant references; Cited >120 (Web of Science: status 20092022)

Determination of selected pharmaceuticals and caffeine in sewage and seawater from Tromsø/Norway with emphasis on ibuprofen and its metabolites

By: Weigel, S; Berger, U; Jensen, E; et al.

CHEMOSPHERE Volume: 56 Issue: 6 Pages: 583-

Times Cited: 345

Atmospheric monitoring of organic pollutants in the Arctic under the Arctic Monitoring and Assessment Programme (AMAP): 1993-2006

By: Hung, Hayley; Kallenborn, Roland; Breivik, Knut; et al.

SCIENCE OF THE TOTAL ENVIRONMENT Volume: 408 Issue: 15 Special Issue: SI Pages: 2854-2873

Times Cited: 253

Simultaneous solid-phase extraction of acidic, neutral and basic pharmaceuticals from aqueous samples at ambient (neutral) pH and their determination by gas chromatography-mass spectrometry

By: Weigel, S; Kallenborn, R; Huhnerfuss, H

JOURNAL OF CHROMATOGRAPHY A Volume: 1023 Issue: 2 Pages: 183-195

Times Cited: 232

Revolatilization of persistent organic pollutants in the Arctic induced by climate change

By: Ma, Jianmin; Hung, Hayley; Tian, Chongguo; et al.

NATURE CLIMATE CHANGE Volume: 1 Issue: 5 Pages: 255-260

Times Cited: 203

Ambient air levels and atmospheric long-range transport of persistent organochlorines to Signy Island, Antarctica

By: Kallenborn, R; Oehme, M; Wynn-Williams, DD; et al.

SCIENCE OF THE TOTAL ENVIRONMENT Volume: 220 Issue: 2-3 Pages: 167-

Times Cited: 128

Occurrence of selective serotonin reuptake inhibitors in sewage and receiving waters at Spitsbergen and in Norway

By: Vasskog, Terje; Anderssen, Trude; Pedersen-Bjergaard, Stig; et al.

JOURNAL OF CHROMATOGRAPHY A Volume: 1185 Issue: 2 Pages: 194-205

Times Cited: 126

Invited presentations to peer-reviewed, internationally established conferences and/or international advanced schools

27.06.–30.06.2011 RECETOX, Masaryk University, Brno, Cz: 7th RECETOX Summer School of Environmental Chemistry and Ecotoxicology. Lecture on "Fate and distribution of persistent pollutants in Arctic environments incl. biota"

25.09.2011: Aarhus University "PhD Summer school: Pollutant Analysis and Effects"

13.04.-17.04.2015 RECETOX, Masaryk University, Brno, Cz: INNOLEC innovation lecture: Environmental organic analytic strategies: Method validation and technologies (12 h, 1 ECTS).

17.06. - 24.06.2018 Summer school on "Water management in Cold climate" (co-organisor), University Centre in Svalbard (UIS), Longyearbyen, 67 students

10.09. - 29.11.2018: Analytische Methoden in den Geowissenschaften (6h lecture), Institute for Applied Geosciences (IAG), Technical University, Darmstadt, Germany

Plenary Lecture: International Conference of Chemistry in the Environment ICCE 2019 (15-19.06.2019), Thessaloniki, Greece

05.11. - 08.11.2019. EU-Recent Advancements in Food Analysis (RAFA), Prague (Cz).

Research expeditions that the applicant Principal Investigator has led

Expedition leader and participant of several student and research expeditions into Antarctica (Terra Nova Bay, October 1993) the central Arctic (2005-2009), Northern Atlantic and the Barents Sea arranged by the University Centre in Svalbard (UNIS), on-sea, with the Norwegian research vessel "RV Lance", on-land and to various research stations incl. Ny-Ålesund (2007-2009: North-Western Spitsbergen) and West-Greenland (2010 Nuuk & 2015 Sisimiut).

Major contributions to the early careers of excellent researchers

Supporting supervisor and mentor: Dr. Dorte Herzke (NILU); Dr. Anita Evenset (Akvaplan niva), Dr. Urs Berger (now UFZ Leipzig Germany), Prof. Dr. Torkjel Sandanger (UiT) and others

ANTONIO MASI

Curriculum Vitae



PERSONAL INFORMATION

Name	MASI, ANTONIO
Telephone	++39-049-827.2932 (work); ++39-335-1012.390 (mobile)
Fax	++39-049-827.2929
E-mail	antonio.masi@unipd.it
web	http://www.dafnae.unipd.it
Nationality	Italian
Date of birth	[02, 04, 1964]
Gender	male

PROFESSIONAL EXPERIENCE

- | | |
|--|---|
| Dates | 1998-TO DATE |
| • Name and address of employer | University of Padova, DAFNAE (Department of Agronomy, Food, Natural resources, Animals and Environment), College of Agriculture |
| • Type of business or sector | Research in Agricultural Biotechnology |
| • Occupation or position held | From March 2015: Associate Professor
1998-2015: Research scientist / lecturer / Assistant Professor |
| • Research activity and themes | Food, Agriculture, and Biotechnology; Environment (including Climate Change); Plant health and crop protection; High-throughput research; Pressure on environment and climate; Food quality and safety; Life sciences, genomics and biotechnology for health; Fundamental knowledge and basic tools for functional genomics; Plant Proteomics. |
| • Main activities and responsibilities | Research Project leader / Group leader / Coordination activity. Investigations in plant physiology, biochemistry and plant adaptation to the environment are carried out in an integrative way, by making use of molecular biology, functional genomics and use of GMOs, gene expression studies, proteomics, microscopy, mass spectrometry for metabolite identification, biochemical and physiological measurements, and remote sensing for plant phenotyping under diverse abiotic and biotic adverse conditions and pollutants (e.g. ultraviolet radiation, heavy metals, perfluoroalkyl compounds – PFAS, sulfadiazines).
Teaching: <i>Plant Physiology and Biochemistry</i> (undergraduate degree course in “Agricultural Biotechnology”); <i>Plant Biology</i> (undergraduate degree courses in “Agricultural Science and Technology”, “Viticulture and Enology”, “Land and Landscape Restoration and Enhancement”); <i>Plant Natural Products</i> (graduate degree course in “Food Biotechnology”); <i>Analytical Methods for Food Quality and Safety</i> (undergraduate degree course in “Biotechnology”); <i>Remote sensing for plant phenomic analysis</i> (Second level Master on “GIScience and Unmanned System for the integrated management of the territory and the natural resources”); <i>Advanced technologies for the agrifood sector: nanotechnologies, proteomics, metabolomics</i> (graduate degree course in “Food Biotechnology”); <i>Plant Bioactive Compounds and Food Quality</i> (Master-level degree course in “Food and Health”). As a Visiting Professor, he has taught a short course in “Plant Proteomics” at the Birla Institute of Technology (2019), Mesra, Ranchi (India, 2019). |

EDUCATION AND TRAINING

- Date, qualification, organisation and main subjects
- Date, qualification, organisation and main subjects

AWARDS & FELLOWSHIPS

MOTHER TONGUE OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

ADDITIONAL INFORMATION

1995: Ph.D. in Photobiology, University of Padova; dissertation title: “Biological effects of ultraviolet-B radiation in plants”.

1992: *Laurea* (master-level degree) in Agricultural Sciences, College of Agriculture at the University of Padova. Studies in Agricultural Sciences, including Agronomy, Botany, Soil Science, Dairy sciences, Food Science, Biochemistry and Biotechnology.

2019 VISITING PROFESSOR AT THE BIRLA INSTITUTE OF TECHNOLOGY (MESRA, RANCHI, INDIA) AND AT THE UNIVERSITY OF GOUR BANGA (MALDA, WEST BENGAL, INDIA)

2010 (APRIL THROUGH JUNE): VISITING PROFESSOR AT TRIBHUVAN UNIVERSITY IN KATHMANDU AND POKHARA, NEPAL, FOR STUDIES ON THE EFFECTS OF CLIMATE CHANGE IN MEDICINAL PLANTS OF HIMALAYAN NEPAL, WITHIN THE EUROPEAN PROGRAMME “SUTROFOR” – SUSTAINABLE TROPICAL FORESTRY.

2004 (APRIL-DECEMBER, FULBRIGHT FELLOWSHIP): FULBRIGHT SENIOR SCHOLAR, DEPARTMENT OF PLANT BIOLOGY, CORNELL UNIVERSITY, ITHACA, NY, USA

1994-1995 (ONE YEAR FELLOWSHIP FROM UC BERKELEY, EDUCATION ABROAD PROGRAM): DEPARTMENT OF PLANT BIOLOGY, UNIVERSITY OF CALIFORNIA AT BERKELEY, CALIFORNIA, USA

1989-1990 (SIX MONTHS FELLOWSHIP FROM “ALDO GINI” FOUNDATION): PLANT PHYSIOLOGY INSTITUTE, UNIVERSITY OF BERN, SWITZERLAND

ITALIAN

ENGLISH

EXCELLENT

EXCELLENT

EXCELLENT

1993-1999: MEMBER OF THE “CONSULTA DEL CENTRO DI CALCOLO” (BOARD OF THE COMPUTING CENTRE), UNIVERSITY OF PADUA

1993-2012: MEMBER OF SCIENTIFIC BOARD OF C.R.I.B.I. – INTERDEPARTMENTAL RESEARCH CENTER FOR INNOVATIVE BIOTECHNOLOGY, UNIVERSITY OF PADUA

2002-2009: MEMBER OF THE DOCTORAL SCHOOL IN CROP PRODUCTION, CURRICULUM: AGROBIOTECHNOLOGY; **FROM 2009:** MEMBER OF THE DOCTORAL SCHOOL IN ANIMAL AND FOOD SCIENCE

SEPT 2006, BRUXELLES: ASSISTING THE EUROPEAN COMMISSION TO EVALUATE PROPOSALS FOR THE CONSERVATION, CHARACTERISATION, COLLECTION AND UTILISATION OF GENETIC RESOURCES IN AGRICULTURE.

2007-2012: FULBRIGHT COMMISSION: EVALUATING APPLICATIONS IN THE FIELD OF AGRICULTURAL SCIENCES (FULBRIGHT-BEST, BUSINESS EXCHANGE AND STUDENT TRAINING; RESEARCH SCHOLARS; VISITING STUDENT RESEARCHER)

2016: ASSISTING THE EUROPEAN COMMISSION (ERA) TO EVALUATE PROPOSALS UNDER THE H2020 WORK PROGRAMME.

2016: ORGANISER OF THE INTERNATIONAL SUMMER SCHOOL: "ENVIRONMENT AND BIODIVERSITY MANAGEMENT IN NEPAL HIMALAYAS", 25 JULY-12 AUGUST 2016 KATHMANDU (NEPAL)

2018: ORGANISER OF A “THEORETICAL-PRACTICAL COURSE ON PLANT MICROPROPAGATION”, AGRIPOLIS (LEGNARO, PD) 24-28 SEPTEMBER 2018

2019-2020-2022: ASSISTING THE REA - EUROPEAN COMMISSION, SUSTAINABLE RESOURCES FOR FOOD SECURITY / FP7 SME ACTIONS UNDER THE H2020 WORK PROGRAMME.

2022: ASSISTING THE EUROPEAN COMMISSION, TO EVALUATE PROPOSALS UNDER THE CALL HORIZON-CL6-2022-BIODIV

HE HAS ALSO ASSISTED THE SERBIAN MINISTRY OF RESEARCH, THE CZECH SCIENCE FOUNDATION AND THE ROMANIAN MINISTRY OF RESEARCH IN EVALUATING NATIONAL RESEARCH PROJECT PROPOSALS; ASSISTING THE BARD (BINATIONAL AGRICULTURAL RESEARCH AND DEVELOPMENT FUND US-ISRAEL) FOR PROJECT EVALUATION; ASSISTING THE COMPLUTENSE UNIVERSITY OF MADRID IN PROJECT EVALUATION WITHIN THE UNA4CAREER PROGRAMME; PROJECT EVALUATOR FOR REGIONE EMILIA-

BIBLIOMETRICS

(APRIL 2020)

ORGANIZATION OF CONFERENCES AND WORKSHOPS

OTHER INFORMATION

ANTONIO MASI

PUBLICATIONS IN PEER-REVIEWED INTERNATIONAL JOURNALS

ROMAGNA , "PIANI DI INNOVAZIONE 2020"

GOOGLE SCHOLAR: scholar.google.com/citations?user=HX-s9LUAAAAAJ&hl=it
Google Scholar: H-INDEX: 23; i10-index: 35; citations: 1576 (as of 07/07/2022)

Scopus: H-INDEX: 21

Supervisor of 7 Ph.D. students

<http://orcid.org/0000-0003-0536-5984>

Coordinator in the organization of

- VIII ITPA (Italian Proteomic Association) Congress, Padova 18-21 June 2013

- Interdisciplinary workshop: "Droni e tecnologie innovative: prospettive di impiego in sistemi agroforestali e per la tutela dell'ambiente e del territorio", Legnaro, Agripolis Campus, 13 november 2014

- III INPPO (International Plant Proteomics Organization) Conference, 10-12 October 2018, Padova, University Botanical Garden

- Translator of the Chapter 19: "Plants as Chemical and Pharmaceutical Factories" of the book "Plants, Genes and Crop Biotechnology" – Chrispeels-Sadava.
- Editor of the book: "Neglected and Underutilized Crops - Towards Nutritional Security and Sustainability" – Sajad Majeed Zargar, Antonio Masi, Romesh Kumar Salgotra Eds. Springer Nature (2021), ISBN 978-981-16-3875-6 DOI: 10.1007/978-981-16-3876-3
- Frontiers in Plant Science – Guest Associate Editor for Plant Proteomics and Protein Structural Biology
- Member of Steering Committee – University of Padova Proteomic Center
- Member of Steering Committee – Master in GIScience

1. Ebinezer L.B., Battisti I., Sharma N., Ravazzolo L., Ravi L., Trentin A.R., Barion G., Panozzo A., Dall'Acqua S., Vamerli T., Quaggiotti S., Arrigoni G., **Masi A.** (2022). Perfluorinated alkyl substances affect the growth, physiology and root proteome of hydroponically grown maize plants. *Journal of Hazardous Materials*, doi: 10.1016/j.jhazmat.2022.129512
2. Mamun Mandal, Manisha Sarkar, Azmi Khan, Moumita Biswas, **Antonio Masi**, Randeep Rakwal, Ganesh Kumar Agrawal, Amrita Srivastava, Abhijit Sarkar, Reactive Oxygen Species (ROS) and Reactive Nitrogen Species (RNS) in Plants–maintenance of structural individuality and functional blend. *Advances in Redox Research* (2022), doi: 10.1016/j.arres.2022.100039
3. Kaiser Ahmad Bhat, Reetika Mahajan, Mohammad Maqbool Pakhtoon, Uneeb Urwat, Zaffar Bashir, Ali Asghar Shah, Ankit Agrawal, Basharat Bhat, Parvaze A Sofi, **Antonio Masi**, Sajad Majeed Zargar (2022). Cold stress tolerance: an insight into the omics approaches for legume crops Low Temperature Stress Tolerance: An Insight Into the Omics Approaches for Legume Crops. *Frontiers in Plant Science*, 13:888710 doi: 10.3389/fpls.2022.888710
4. Satyajit Saurabh, Dinesh Prasad, **Antonio Masi**, Ambarish S. Vidyarthi (2022). Next generation sequencing and transcriptome analysis for identification of ARF and Aux/IAA in pointed gourd (*Trichosanthes dioica* Roxb.), a non-model plant. *Scientia Horticulturae*. DOI: 10.1016/j.scienta.2022.111152
5. Marija Vidović, Ilija Battisti, Ana Pantelić, Filis Morina, Giorgio Arrigoni, **Antonio Masi**, Sonja Veljović Jovanović (2022). Desiccation tolerance in Ramonda serbica Panc.: an integrative transcriptomic, proteomic, metabolite, and photosynthetic study. *Plants*. DOI: 10.3390/plants11091199
6. Uneeb Urwat, Syed Mudasir Ahmad, **Antonio Masi**, Nazir Ahmad Ganai, Imtiyaz Murtaza, Imran Khan, Sajad Majeed Zargar (2021). Fe and Zn stress induced gene expression analysis unraveled mechanisms of mineral homeostasis in common bean (*Phaseolus vulgaris* L.). *Scientific Reports*, 11:24026. DOI:10.1038/s41598-021-03506-2.
7. Sajad Majeed Zargar, Rakeeb Ahmad Mir, Leonard Barnabas Ebinezer, **Antonio Masi**, Ammarah Hami, Madhiya Manzoor, Romesh Kumar Salgotra, Najeebul Rehman Sofi, Roohi Mushtaq, Jai Singh Rohila, Randeep Rakwal (2021). Physiological and multi-omics approaches for explaining drought stress tolerance and supporting sustainable production of rice. *Frontiers in Plant Science* 12:803603. DOI: 10.3389/fpls.2021.803603.

8. Azmi Khan, Manisha Sarkar, Moumita Biswas, **Antonio Masi**, Randeep Rakwal, Ganesh Kumar Agrawal, Amrita Srivastava, Abhijit Sarkar (2021). Reactive Oxygen Species (ROS) and Reactive Nitrogen Species (RNS) in Plants – maintenance of structural individuality and functional blend. *Advances in Redox Research* (accepted).
9. Pristeri, G.; Peroni, F.; Pappalardo, S. E.; Codato, D.; **Masi, A.**; De Marchi, M. (2021). Whose Urban Green? Mapping and Classifying Public and Private Green Spaces in Padua for Spatial Planning Policies. pp.1-28 - In *ISPRS INTERNATIONAL JOURNAL OF GEO-INFORMATION* vol. 10 (8) DOI:10.3390/ijgi10080538.
10. Battisti I, Ebinezer LE, Lomolino G, **Masi A**, Arrigoni G. (2021). Protein profile of commercial soybean milks analyzed by label-free quantitative proteomics. *Food Chemistry*. DOI: 10.1016/j.foodchem.2021.129299
11. Srivastava V, Squartini A, **Masi A**, Sarkar A, Singh RP. (2020). Metabarcoding analysis of the bacterial succession during vermicomposting by the earthworm *Eisenia fetida* on municipal solid waste. *Science of The Total Environment* (in press). DOI: 10.1016/j.scitotenv.2020.144389
12. Vidović M, Franchin C, Morina F, Veljović-Jovanović S, Masi A, Arrigoni G (2020). Efficient protein extraction for shotgun proteomics from hydrated and desiccated leaves of resurrection *Ramonda serbica* plants. *Analytical and Bioanalytical Chemistry*. DOI: 10.1007/s00216-020-02965-2
13. Millan S, Jeffery DW, Dall'Acqua S, Masi A (2021). A novel HPLC-MS/MS approach for the identification of biological thiols in vegetables. *Food Chemistry*, 339:127809, DOI:10.1016/j.foodchem.2020.127809
14. Mir RA, Bhat KA, Rashid G, Ebinezer LB, Masi A, Rakwal R, Shah AA, Zargar SM (2020). DNA barcoding: a way forward to obtain deep insights about the realistic diversity of living organisms. *Nucleus* DOI: 10.1007/s13237-020-00330-3
15. Ebinezer LB, Franchin C, Trentin AR, Carletti P, Trevisan S, Agrawal G, Rakwal R, Quaggiotti S, Arrigoni G, Masi A (2020). Quantitative Proteomics of Maize Roots Treated with Protein Hydrolysate: A Comparative Study with Transcriptomics Highlights the Molecular Mechanisms Responsive to Biostimulants. *Journal of Agricultural and Food Chemistry*, 68:7541-7553. DOI: 10.1021/acs.jafc.0c01593
16. Pristeri, G.; Peroni, F.; Pappalardo, S.E.; Codato, D.; Castaldo, A.G.; Masi, A.; De Marchi, M. Mapping and Assessing Soil Sealing in Padua Municipality through Biotope Area Factor Index (2020). *Sustainability*, 12:5167; DOI:10.3390/su12125167
17. Sharma N., Barion G., Shrestha I., Ebinezer L.B., Trentin A.R., Vamerli T., Mezzalira G., Masi A., Ghisi R. (2020). Accumulation and effects of perfluoroalkyl substances in three hydroponically grown *Salix L.* species. *Ecotoxicology and Environmental Safety*. DOI: 10.1016/j.ecoenv.2019.110150
18. Sharma N.; Arrigoni G.; Trentin A.R.; Franchin C.; Giarretta S.; Carletti P.; Thiele-Bruhn S.; Ghisi R.; Masi A. (2019). A proteomic and biochemical investigation on the effects of sulfadiazine in *Arabidopsis thaliana*. *Ecotoxicology and Environmental Safety* 178:146-158. DOI: 10.1016/j.ecoenv.2019.04.008
19. Jenne A., Soong R., Bermel W., Sharma N., Masi A., Anaraki M. T., Simpson A. (2019). Focusing on “the important” through targeted NMR experiments: An example of selective ¹³C-¹²C bond detection in complex mixtures (in press). DOI: 10.1039/C8FD00213D
20. Roomi S., Masi A., Conselvan G.B., Trevisan S., Quaggiotti S., Pivato M., Arrigoni G., Yasmin T., Carletti P. (2018). Protein Profiling of *Arabidopsis* Roots Treated With Humic Substances: Insights Into the Metabolic and Interactome Networks. *Frontiers in Plant Science*, DOI: 10.3389/fpls.2018.01812
21. Trevisan S., Trentin A.R., Ghisi R., Masi A., Quaggiotti S. (2018). Nitrate affects transcriptional regulation of UPBEAT1 and ROS localisation in roots of *Zea mays L.* *Physiologia Plantarum* (DOI:10.1111/ppl.12839).
22. Ashwin N. M. R., Barnabas L., Sundar A.R., Malathi P., Viswanathan R., Masi A., Agrawal G.K., Rakwal R. (2018). CfPDIP1, a novel secreted protein of *Colletotrichum falcatum*, elicits defense responses in sugarcane and triggers hypersensitive response in tobacco. *Applied Microbiology and Biotechnology*, DOI:10.1007/s00253-018-9009-2
23. Berardi L, Pivato M, Arrigoni G, Mitali E, Trentin AR, Olivieri M, Kerdelhue´ C, Dorkeld F, Nidelet S, Dubois E, Battisti A, Masi A (2017). Proteome analysis of urticating setae from *Thaumetopoea pityocampa* (Lepidoptera: Notodontidae). *Journal of Medical Entomology*, 2017, 1–7. DOI: 10.1093/jme/tjx144
24. Ashwin NMR, Barnabas L, Ramesh Sundar A, Malathi P, Viswanathan R, Masi A, Agrawal GK, Rakwal R. (2017). Comparative secretome analysis of *Colletotrichum falcatum* identifies a cerato-platanin protein (EPL1) as a potential pathogen-associated molecular pattern (PAMP) inducing systemic resistance in sugarcane.

- Journal of Proteomics, DOI: 10.1016/j.jprot.2017.05.020
25. Sajad Majeed Zargar, Reetika Mahajan, Muslima Nazir, Preeti Nagar, Sun Tae Kim, Vandna Rai, Antonio Masi, Syed Mudasir Ahmad, Riaz Ahmad Shah, Nazir Ahmad Ganai, Ganesh K. Agrawal, i, Randeep Rakwal (2017). Common bean proteomics: Present status and future strategies. *Journal of Proteomics*, 169:239-248. DOI:10.1016/j.jprot.2017.03.019.
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and Procedures for Full Participation in the European Higher Education Area - FUSE", "Reforming Foreign Language Studies in Serbia - REFLESS", "Governance and Management Reform in Higher Education in Serbia - GOMES", "Modernization of Masters courses in Chemistry and Chemistry related programs - MCHEM" and "Strengthening Student Role in Governance and Management at the Universities of Serbia in line with the Bologna Process-SIGMUS"; 3) H2020 MSCA-NIGHT project: "Science in motion for Friday night commotion (SCIMFONICOM2018-19)"; and 4) the Council of Europe project: "Strengthening Higher Education Reforms in Serbia". He is also involved in science popularization projects: Science around us and Science Festival.