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Document Abstract

End Used School 2, as part of the activities of WP2 of the EU FT-ICR MS project, was held in presence at the University of Lille, Faculty of Sciences and Technologies on the Cité Scientifique Campus from Monday 12nd December 2022 to Friday 16th December 2022. Altogether, 60 participants attended the school. The event consisted of tutorial lectures, short talks and poster sessions on principles and applications of FT-ICR MS as well as a daily social program for further discussions and participant networking. This deliverable gives a detailed content of this EUS 2. The pdf files of the presentations are available on the EU_FT-ICR_MS website (<https://www.eu-fticr-ms.eu/>). The school was successful with very positive feedback received from the participants during and after the event.



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1. Introduction

End Used School 2 (EUS 2), as part of the activities of WP2 of the EU_FT-ICR_MS project was originally planned on M30. Due to COVID19 pandemic restrictions, End Used School 2 has been postponed to M60 (Dec 2022) to be held in presence. End Used School 2 (EUS 2) was held in presence at the University of Lille, Faculty of Sciences and Technologies on the Cité Scientifique Campus from Monday 12nd December 2022 to 16th December 2022. Altogether, 60 participants attended the school. The event consisted of tutorial lectures, short talks and poster sessions on principles and applications of FT-ICR MS as well as a daily social program for further discussions and participant networking. The school was successful with very positive feedback received from the participants during and after the event. End Used School 2 (EUS 2) constituted also the Closing ceremony of the EU_FT-ICR_MS project.

This deliverable gives a detailed content of this EUS 2. **The pdf files of the presentations are available on the EU_FT-ICR_MS website (<https://www.eu-fticr-ms.eu/>).**

2. EUS 2 detailed timetable

Monday 12 December 2022 (Institut Chevreul)	
13h00-14h00	Registration & welcome
14h00-14h30	EU_FT-ICR_MS EUS opening ceremony Pr Olivier Colot, Vice-President for Research, University of Lille Sandra Dupire, European research project support officer, CNRS Jean-Pierre Simorre, Deputy director, CNRS, Institute of Chemistry
	Chair: M.E. Crestoni (Roma, Italy)
14h30-15h30	MRMS: Ultra-high mass spectrometric technology (M. Witt, Bruker, Bremen, Germany)
15h30-16h00	When paleontology meets proteomics (Young EU_FT-ICR_MS PI, F. Bray, Lille, France)
16h00-16h30	Coffee break
16h30-17h45	Metabolomics: Creating life out of small molecules (C. Cordeiro, Lisbon, Portugal)
	Chairs: M. Sousa Silva (Lisbon, Portugal) & M. van Agthoven (Prague, Czechia)
18h00-19h00	Trash or treasure? Let's find out by FT-ICR MS (A. Laslvia, Roma, Italy) Rosemary BIO oil VS Rosemary oil: Who wins? (M. Soeiro, Lisbon, Portugal) Deciphering the secrets of fine art oil paintings (B. Almasri, Tripoli, Lebanon)
19h30-21h30	Dinner at Ascotel



Tuesday 13 December 2022 (PolyTech Lille, Migeon amphitheater)	
	Chair: C. Afonso (Rouen, France)
9h00-10h15	How to dynamite an ion (G. van der Rest, Orsay, France)
10h15-10h45	Coffee break
10h45-12h00	The French National Infrastructure Infranalytics (NMR, EPR & FTICR) (C. van Heijenoort, Gif-sur-Yvette, France)
12h00-13h30	Lunch break
	Chair: P. O'Connor (Warwick, UK)
13h30-14h45	Open tools for FTICR MS data processing (M.-A. Delsuc, Strasbourg, France)
14h45-16h00	Biomics: biooils (pyro, hydrothermal) and natural extracts (J. Jannis, Joensuu, Finland)
16h00-16h30	Coffee break
16h30-17h40	FTICR MS data visualization (M. Sueur, Rouen, France)
	Processing of ICR transients with non FT Genetic Algorithm (M. Haegelin, Lille, France)
	Chairs: M. Sousa Silva (Lisbon, Portugal) & D. Corinti (Roma, Italy)
17h40-19h	Identifying metal pigments in fine art paintings (F. Salma, Tripoli, Lebanon) Discrimination between isomeric flavonoids? We are asking to MS (L. Rotari, Roma, Italy) Paleoclimate Sediment MALDI (Jannis Viola, Bremen, Germany) Relating VOC to the peatlands health and peated whisky (S. Ferguson, Edinburgh, UK)

19h30-21h30	Dinner at Ascotel
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Wednesday 14 December 2022 (PolyTech Lille, Migeon amphitheater)	
	Chair: J. Jannis (Joensuu, Finland)
9h00-10h15	How to mine complex spectrum (C. Rüger, Rostock, Germany)
10h15-10h45	Coffee break
10h45-12h00	Complex organic matter (C. Afonso, Rouen, France)
12h00-13h30	Lunch break
	Chair: C. Cordeiro (Lisbon, Italy)
13h30-14h00	In a flash of light: Combining native MS with X-ray free electron lasers (A. Kadek, Prague, Czechia & XFEL, Schenefeld, Germany)



	() (Alan Kadek, Prague, Czech Republic)
14h00-14h45	Software Tool for Uncommon Cross-Linking Chemistry (L. Dlabolova , Prague, Czechia)
14h45-16h00	Search for site specific ion-molecule reactions (M.-E. Crestoni, Roma, Italy)
16h00-16h30	Coffee break
16h30-17h45	The in and the out of a protein (P. Novak, Prague, Czechia)
	Chairs: J. Far (Liege, Belgium) & A. Kadek (Prague, Czechia)
18h00-19h00	Hydroxyl radical footprinting of protein/DNA complex (M. Polak, Prague, Czechia)
	The metabolic side of glycation (M. Louro, Lisbon, Portugal)
	How sweet watercolours are (M. Yamine, Lille, France)

19h30-21h30	Dinner at Ascotel
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	Thursday 15 December 2022 (IEMN)
	Chair: P. Novak (Prague, Czechia)
9h00-10h15	Better than your eyes: MALDI imaging (E. de Paw, Liege, Belgium)
10h15-10h45	Coffee break
10h45-12h00	2D FTICR & advance MS/MS (P. O'Connor, Warwick, UK)
12h00-12h45	Kendrick's Plots for FTICR MALDI imaging (E. de Paw, J. Far, Liege, Belgium)
12h45-13h30	Lunch break
13h30-15h00	Visit of the NMR (including 1.2 GHz) and EPR centers
16h00-19h00	Travel by bus and surprise visit

19h00-22h00	Dinner
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Friday 16 December 2022 (Institut Chevreul)	
Chair: C. Rüger (Rostock, Germany)	
9h00-9h45	Two-dimensional Mass Spectrometry for Biomolecules (Young EU_FT-ICR_MS PI, M. van Agthoven, Prague, Czechia)
9h45-10h30	HRMS and FT-ICR for experimental physical chemistry (Young EU_FT-ICR_MS PI, J. Far, Liege, Belgium)
10h30-10h45	Coffee break
10h45-11h30	Metals elective affinities, an MS-based tale (Young EU_FT-ICR_MS PI: D. Corinti, Roma, Italy)
11h30-12h15	The wine tale told through FT-ICR-MS (Young EU_FT-ICR_MS PI, M. Sousa Silva, Lisbon, Portugal)
12h15-12h45	EU_FT-ICR_MS closing ceremony Pr Yan Pennec, Vice-Dean for Research, Faculty of Sciences & Technologies, University of Lille Pr Mehran Mostafavi, Deputy director, CNRS, Institute of Chemistry Dr Christian Rolando, EU_FT-ICR_MS PI
12h45-13h30	Lunch break



3. Picture of the participants wearing the EU_FT-ICR_MS sweatshirt





Figure 1. EU_FT-ICR_MS EUS 2 participants Tuesday 13rd December 2022 (PolyTech Lille, Migeon amphitheater) after the talk The French National Infrastructure Infranalytics (NMR, EPR & FTICR) (C. van Heijenoort, Gif-sur-Yvette, France) and discussions during the coffee break.