

EUCALL

The European Cluster of Advanced Laser Light Sources

Grant Agreement number: 654220

Work package 1 – Management

Deliverable D1.5

3rd EUCALL Annual Meeting

Lead Beneficiary: European XFEL

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Due date: 30 September 2018

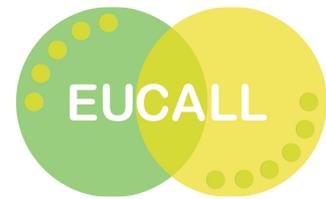
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<i>Deliverable Type</i>	
R = Report DEM = Demonstrator, pilot, prototype, plan designs DEC = Websites, patents filing, press & media actions, videos, etc. OTHER = Software, technical diagram, etc.	OTHER
<i>Dissemination Level</i>	
PU = Public, fully open, e.g. web CO = Confidential, restricted under conditions set out in Model Grant Agreement CI = Classified, information as referred to in Commission Decision 2001/844/EC	PU



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EUCALL Annual Meeting 2018 **30 May - 01 June 2018**

Venue: ELI-Beamlines Auditorium

ELI-Beamlines, Za Radnicí, 835 252 41 Dolní Břežany, Czech Republic

The 3rd EUCALL Annual Meeting was held at ELI-Beamlines, Dolní Břežany, Czech Republic during 30.05-01.06.2018. In total, 63 participants attended the EUCALL Annual Meeting, who all attended the Plenary Session containing presentations about the status of EUCALL and the achievements of three WPs. Michael Prouza, the Director of the Czech Academy of Sciences' Institute of Physics opened the meeting, followed by Thomas Tschentscher, the EUCALL Project Director, welcoming the participants with a coordinator report: EUCALL's highlights, current status and required processes foreseen for finishing the project. Members of Work Packages (WPs) 5-7 presented main achievements and outlook for their WP (20min each).

The participants then divided into the first parallel sessions for their separate WPs which involved presentations and discussions about the current status of each of the members. This was followed by a site tour and then a poster session, at which posters covering developments from all of WPs 3-7 were presented while a buffet dinner was served.

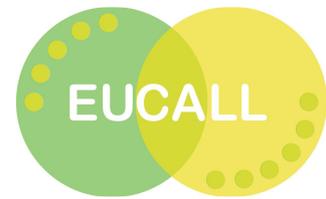
On the morning of Thursday 31 May, the participants divided again into parallel WP sessions, and also the fourth face-to-face meeting of the EUCALL Steering Committee took place.

After a coffee break, the participants reconvened for a series of common presentations which began with the main achievements and outlooks of WP3, and then a presentation of the integration of the EUCALL WP3 spreadsheet of "UV/x-ray instrumentation at ALL-RIs" into the Wayforlight database. The PaNOSC project proposal was then presented, describing the proposed project objectives and activities, as part of it is the further development of the simulation software developed in EUCALL WP4 (SIMEX). The final presentation in this session described the ATTRACT project, which is a pan-EU initiative to accelerate the development of high-performance detector and imaging technologies for market.

A lunch break then took place, during which the ELI-Beamlines PR group made available their virtual reality system which allows guests to explore the ELI-Beamlines scientific infrastructure interactively.

This plenary session was continued with a presentation of the main achievements and outlooks of WP4. This was followed by presentations about the LEAPS initiative, and about the future development of Laserlab-Europe. Thomas Tschentscher then discussed the future possibilities to extend EUCALL's activities beyond its present funding period, which could include bridging activities between LEAPS and LaserLab-Europe, and is likely to include the





formation of the “EUCALL Forum” for regular meetings to discuss possible collaborations and proposals for external funding. Afterwards another set of parallel WP sessions took place, and then the meeting participants were transported to the venue of the Meeting Dinner.

On Friday 01 June the participants divided again into parallel WP sessions and then reconvened for the final plenary session, which involved a summary presentation from each of the WPLs, describing what has been achieved over the past three days (10min each) and a final close-out from Thomas Tschentscher, who thanked the participants for their attendance and wished them all the best for completion of the EUCALL project.

After the official end of the Annual Meeting, a combined meeting of the Synergy Board and Executive Board was held, where possible commercial exploitation of EUCALL’s technical developments was discussed in detail.

WP3 – Synergy of Advanced Light Sources:

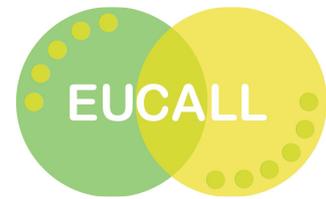
Achievements and Outlook: The highlights of WP3 were presented as the formation of the Synergy Board, the compilation of the spreadsheet “UV/x-ray instrumentation at ALL-RIs”, its analysis by expert users, and extension into the Wayforlight database; a study of the innovation potential of European light sources, an analysis of “cross-community projects” between x-ray and laser groups, and a series of experience exchange and joint-foresight topics workshops. The major deliverable D3.2 “Synergy and Innovation Potential of EUCALL” was submitted in month 30 and two more deliverables describing the remaining work are under preparation. The final workshop “Future Strategies for RI Operation” is currently being planned and will be the topic of most of the discussions for the WP3 sessions at this meeting.

Summary session: The WPL reported that the WP3 discussions about the “Future Strategies for RI Operation” workshop had involved a refocus of the event, to define the key outcomes of EUCALL and the messages to be conveyed to the European Commission. The WPL presented what the WP3 group members consider to be the key outcomes of EUCALL and said that the redefined agenda for this workshop are under development.

WP4 – Simulation of Experiments (SIMEX)

Achievements and Outlook: It was reported that all of SIMEX’s Milestones and Deliverables to date have been successfully completed and that the group is on track to complete the remaining tasks within time. SIMEX’s online software repository was presented, and it was emphasized that this will remain as a software hub for collaborative developments. The simulation platform was presented with an overview of which individual component modules have been integrated, and of the scientific case studies to which SIMEX has been applied. A concept to make SIMEX more user-friendly (in response to the EUCALL SAC report) was reported – involving use of DESY’s Jupyter hub, and finally an example simulation was demonstrated, to show how SIMEX is actually used in practice. Finally it was noted that collaborations with the LUME project at LCLS will ensure that SIMEX is used by a





broadening community in the future, while incorporation of SIMEX into the under-evaluation PaNOSC project proposal could lead to significant development of SIMEX beyond the EUCALL project period.

Summary session: During the internal WP sessions at the EUCALL AM2018, all SIMEX partners presented their activities and progress, while several guests (from LCLS, CLPU (Spain), LULI) also presented their related work and expressed desire to collaborate. A precise timeline for the completion of all remaining project tasks was agreed upon.

WP5 – Ultrafast Data Acquisition (UFDAC)

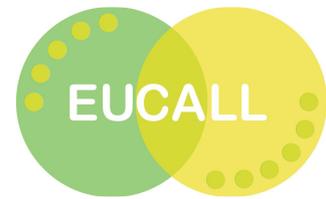
Achievements and Outlook: The WPC presented the defined tasks of UFDAC and emphasized that UFDAC differs from the other EUCALL WPs in that all UFDAC Deliverables are reports which are due in Month 36. All of the UFDAC Milestones have been completed on schedule, and two open experience exchange workshops, held at European XFEL in November 2016 and at PSI in April 2018 have been particularly successful (both ~50 participants). The WPC highlighted achievements of European XFEL, ELI-ALPS, ESRF, HZDR, PSI in high speed data transfer and pointed out their intra-WP collaborations with PUCCA and SIMEX, in particular UFDAC's support of data transfer for PUCCA's wavefront sensor. The WPC stated that UFDAC will now prepare for completion of the three WP deliverables and that the group is looking ahead to future collaboration beyond the end of EUCALL's funding period.

Summary session: During the Annual Meeting, the UDFAC group presented within their work package the latest progress and achievements of each partner, discussed their findings and results, structured and coordinated the preparation of the three deliverables and planned the remaining/ongoing activities within UFDAC. Follow-up activities are developing between partners, with a plan to continue with yearly meetings for an active exchange of knowledge. There is particular interest in developing an ATTRACT project proposal between UFDAC members at ESRF, European XFEL and PSI.

WP6 – High Repetition Rate Sample Delivery (HIREP)

Achievements and Outlook: The WPL reminded the audience of the overall objectives of HIREP and the distribution of tasks over the participating facilities. It was reported that all of HIREP's Milestones and Deliverables to date have been successfully completed and that the group foresees no difficulty in completing the remaining tasks within time. Prototypes of HIREP's developed sample positioning hardware were presented, and the software and workflow of HIREP's sample pre-investigation tools were shown. An overview of HIREP's approach towards an automatic scanning procedure was demonstrated, and platform architecture for exchange of data between EUCALL institutes (initiated by ELI-NP) was introduced. The WPL concluded that standards and solutions developed within HIREP will help users to bring their samples into high repetition rate facilities and that a fully integrated system will be functionally demonstrated and will be shared with users to be reproduced. HIREP members have already agreed to remain in contact after the end of the EUCALL funding period, and could already list possible topics for future collaborations. These are





foreseen initially as self-funded joint research activities; however possibilities for grant applications will be explored.

Summary session: During the parallel HIREP sessions, each participating partner facility presented their latest progress and a possible collaboration with PUCCA regarding the microfluidic sheet jets (ELI-Beamlines) was also discussed. The roles of each HIREP partner in completion of the final Deliverables and timelines for their submissions have been defined, and it was agreed that all components will be integrated in a single instrument, which will be at the SPB/SFX instrument of European XFEL. The WPL reiterated HIREP's commitment to continuing its collaboration beyond EUCALL, with a suggested involvement in one of Laserlab-Europe's joint research activities (JRAs) on topics related to WP3's "Target Network" activities.

WP7 – Pulse Characterisation and Control (PUCCA)

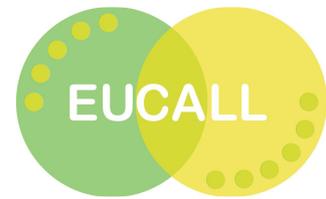
Achievements and Outlook: The WPL illustrated a pump-probe experiment incorporating PUCCA's x-ray intensity monitor, its timing tools and the wavefront sensor, then presented the contribution of each partner facility to PUCCA's success. It was highlighted that each device has already been tested at various light sources, and results of the measurements were presented. Testing at optical laser facilities such as ELI has not yet been possible, but this is foreseen for after the end of EUCALL's funding period. PUCCA has five Deliverables due in Month 36 but is well on track to successfully complete these.

Summary session: During the Annual Meeting, PUCCA participants formulated a clear plan for compilation of the first drafts of the remaining Deliverables already during June 2018, and highlighted eight publications which have been generated within the collaboration, and six more publications which are foreseen. PUCCA members plan to continue working together beyond the end of EUCALL, with experiments already planned and further cooperation with UFDAC and HIREP members under discussion.

Summary

The EUCALL Annual Meeting 2018 was another successful meeting and clearly demonstrated that EUCALL's tasks and objectives will be successfully completed by all WPs. The participants unanimously agreed that this collaboration between accelerator and laser based light sources has been highly beneficial to scientists from both communities. All WPs demonstrated a desire to continue their collaboration beyond the end of EUCALL's funding period and different avenues are already being considered for these differing ideas. A key outcome is that most of the WPs stated their willingness to continue their activities even as self-funded collaborations, while the proposed "EUCALL forum" can be expected to provide a structured platform for development and support of future collaborations arising out of the work of WPs 3-7, and could eventually lead to new cooperation between the laser and accelerator communities.





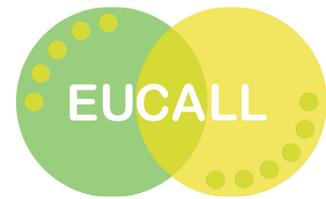
EUCALL Annual Meeting 2018
30 May - 01 June 2018

Venue: ELI-Beamlines Auditorium
ELI-Beamlines, Za Radnicí, 835 252 41 Dolní Břežany, Czech Republic

Wednesday 30 May 2018

Time	Programme
11:30	Bus departure from Occidental Praha Hotel to ELI-Beamlines
12:15	Registration and light lunch
13:00	<i>Welcome to ELI-Beamlines</i> – M. Prouza, Director, Institute of Physics, Czech Academy of Sciences
13:10	<i>Coordinator Report</i> – T. Tschentscher / European XFEL
13:30	<i>HIREP: Achievements and Outlook</i> – D. Margarone / ELI-Beamlines
13:50	<i>PUCCA: Achievements and Outlook</i> – K. Tiedtke / DESY
14:10	<i>UFDAC: Achievements and Outlook</i> – P. Gessler / European XFEL
14:30	Coffee Break
15:00	<i>Parallel Work package meetings: WP3, WP4, WP5, WP6, WP7</i>
17:00	Tour of ELI-Beamlines
18:30	Poster session + buffet dinner
20:30	Bus transfer to Occidental Praha Hotel

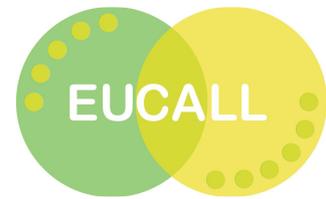




Thursday 31 May 2018

Time	Programme
08:15	Bus departure from Occidental Praha Hotel to ELI-Beamlines
09:00	<i>Parallel Work package meetings: WP4, WP5, WP6, WP7</i>
09:00	Steering Committee Meeting
11:00	Coffee Break
11:30	<i>SYNERGY: Achievements and Outlook – F. Gliksohn / ELI-DC</i>
11:50	<i>EUCALL / wayforlight database – C. Blasetti / Elettra</i>
12:10	<i>PaNOSC project proposal – T. Gaizer / ELI-ALPS</i>
12:30	<i>Status/Outcomes of ATTRACT project – T. Tschentscher / European XFEL</i>
13:00	Lunch
14:00	<i>Status/Outcomes of EuPRAXIA project – A. Walker / DESY</i>
14:30	<i>SIMEX: Achievements and Outlook – C. Fortmann-Grote / European XFEL</i>
14:50	<i>Development of Laserlab-Europe – C.-G. Wahlström / Lund University</i>
15:10	<i>Development of LEAPS – A. Harrison / Diamond Light Source</i>
15:30	<i>Beyond EUCALL - Coordinator Team</i>
16:00	Coffee break
16:30	<i>Parallel Work package meetings: WP3, WP4, WP5, WP6, WP7</i>
18:30	Bus transfer to Restaurant "Villa Voyta" - (K Novému dvoru 124/54, 142 00 Praha)
19:30	Exchange of information during Meeting Dinner at "Villa Voyta"
22:00	Bus transfer to Occidental Praha Hotel





Friday 1 June 2018

Time	Programme
08:15	Bus departure from Occidental Praha Hotel to ELI-Beamlines
09:00	<i>Parallel Work package meetings: WP3, WP4, WP5, WP6, WP7</i>
11:00	<i>Summaries from work package meetings – WP leaders</i>
11:50	<i>Closing Remarks – T. Tschentscher / European XFEL</i>
12:00	End of Meeting
12:00	Light Lunch
12:30	Bus transfer to Prague Train Station (Praha hlavní nádraží)
13:30	Bus transfer to Prague airport

Only for EUCALL Executive Board and Synergy Board members

Executive Board and Synergy Board Meeting

01 June 2018

Time	Programme
12:30	Meeting of the EUCALL Executive Board and Synergy Board
13:30	End of Meeting
13:30	Bus transfer to Prague airport

