
INTEGRANO Executive Committee Meeting

11th September 16:00-17:00

Meeting Link: <https://meet.google.com/woz-kzbq-bji>

Agenda

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| 1 | WP leaders (and task leaders if/when in attendance) - brief presentation on the progress of WP's and tasks.
WP1 – 15 minutes
WP2 – 15 minutes
WP3 – 10 minutes | <i>CNR-ISSMC</i>
<i>CENTI</i>
<i>UNIMIB</i> |
| 2 | Updates on recent and upcoming deliverables. <ul style="list-style-type: none">• D7.1 – Quality Control Plan (M6).• D6.9 - IT platform for stakeholders engagement - SSbD Think tank (M8).• D7.2 - Tools for operational, technical and contractual management periodic reporting (M9). | <i>UNIMIB</i>
<i>PRJ</i>
<i>UNIMIB</i> |
| 3 | Integrano advisory board: status update and nominated candidates. | <i>UNIMIB</i> |
| 4 | Status of the amendment adding the JRC to the consortium. | <i>PRJ</i> |
| 5 | INTEGRANO 12 AGM | <i>UNIMIB/PRJ/UNITO</i> |
| 6 | Next Executive Committee meeting. | <i>All</i> |
| 7 | Any other business | <i>All</i> |

Attendees: Alessia Nicosia (AN), Anna Costa (AC), Bruno Marco (BrM), Ilaria Zanoni (IZ), Irantzu Garmendia, Ivonne Tonani (IT), Joonas Koivisto, Laura Boggioni, Letizia Verdolotti (LV), Lorena Coelho (LC), Andreia Monteiro, Massimo Perucca (MP), Maurizio Gualtieri (MG), Maxime Eliat, Paride Mantecca (PM), Rossella Daniela Bengalli (RB), Sara Marchetti, Stefania Truffa, Valeria La Parola, Ben Murray (BM)

Meeting Minutes

BM welcomed attendees and summarised the agenda, highlighting the main points of focus.

PM emphasised the main goal of the meeting is to provide an update on the work packages already underway. In particular to have a clear picture about the advancement of materials, synthesis and characterisation, in the different case studies, hence the presence of case study representatives at the meeting. PM asked that before the end of September that partners inform one another about their requirements of materials, for materials and data to be shared, so that there is two or three months in which case studies can make progress before the INTEGRANO 12M AGM.

WP1

IZ presented slides related to WP1 (the presentation is available from the INTEGRANO private area).

Overview provided of WP objectives and their associated tasks, and where the WP is relative to the GANTT and deliverables. D1.1 submitted, D1.4 and D1.2 due in June 2025.

Overview of each of the design case studies – their specific goals and scope.

IT contributed that CS6 would focus on $\text{SiO}_2@ \text{TiO}_2$ from CENTI. The case study will try to create a product with UV function. Product would use a known TiO_2 raw material as a benchmark to enable comparisons with the raw material from CENTI and the capsules produced by Venus Roses (using raw material from CENTI).

PM asked if there was any further information on CS5. MP responded that BIU already has the synthesis of carbon dots available – they can provide the materials to be integrated into other matrices. PRJ have not analysed the synthesis process yet. Suggested to contact BIU to ask about the status and provision of data for sustainability profile assessments.

PM – all case studies have been defined.

AC – Within case studies some progress has been made over what was defined at the 6M GA in terms of synthesis (batches of some materials have been prepared). Case studies are at different stages e.g. some case studies have built on earlier work, others are newer. A case study meeting is required to understand better and distribute the workflow for studies such as ecotox. At the present there is not a completely clear idea of all case studies so a meeting will clarify the various workflow aspects.

MP – PRJ have the GANTT diagrams for all studies. These will be made available via the INTEGRANO Data Management System so case study leaders and all participants can keep track of workflows. The IT implementation of this will be ready by the end of the year (provisional date). In the meantime, an Excel version of the GANTT can be made available so partners involved in characterisation studies know which samples are coming first and to avoid overlaps. This can be updated offline.

The material preparation and sample preparation forms will be ready by 26th September – implemented in the INTEGRANO DMT.

AC – Presented a visual overview of the life cycle stages of each CS. CS3 not placed in synthesis box as campaign focuses on exposure in incorporation step.

MP – Three out of five case studies already addressing three life cycle stages – well advanced compared to other earlier projects. CS3 – not addressing synthesis as all CS completed so all data can be integrated into the analysis.

AN – CS4 use phase functionality – 6 samples sent to BIU for analysis of antimicrobial properties.

LV – CS3, joint campaign concluded in May. Only now need to characterise materials after redesign. Preparation, design and alternative design of the case study then concluded.

WP2

LC – focus has been on managing information between WP1 and WP2 as well as information collected by PRJ and CENTI.

Proposal presented on how to codify the samples – ensure consistency across all case studies. Simplify description of perovskite materials, surface modifications also considered.

PM – asked if codification is for materials at synthesis phase. LC responded yes.

LC – proposal to share code with all materials owners to try and implement the desired consistency across materials.

PM – asked if codification could be applied to the polymeric materials.

AC – Yes, if the polymer is the support. Code shared with PRJ for implementation in the DMT.

MG – Instead of material can we use core so there is no confusion between material and particle.
MP suggested nanoform.

AC – feedback welcome and improvements will be considered.

MP – information regarding material owner will be embedded within the DMT.

LC – Summary of nanomaterials already optimised apart from nano-silica from CS3 which will be optimised after the results of the measurement campaign. Materials highlighted in orange are under development. Q to AN. Egyptian blue - micro-metric material is optimised with material prepared to try to reach nano-metric form. The bio material will be used to create both forms?

Presentation divided by the state of the nanomaterials.

Ag NMs:

MG – if no changes in production/synthesis phase then we should already have ecotox characterisation. Need to check if we have everything for all NMs. Main ecotox characterisation is there – some endpoints may need to be obtained.

LC and BrM - CS 4.2 – material supplied to AITEX and is being incorporated into nanofibers.

CNR starting case study with essential oil involving silica. In NM synthesis phase. This week will send biosilic this week.

Silica functionalised with titania – discussion with MG as necessary to repeat ecotox properties as the materials are different to those previously characterised but this is not required to start the incorporation phase.

Discussion on where to conduct trials for textile coating.

CS6 – CENTI to send materials to start tests whilst biosilica functionalised with titania is optimised.

AC – CS2 – query about titania presence in the study. Confirmation received about titania being incorporated here.

LC – was ecotox already considered for CuO and ZnO? Batch reproducibility has been checked; synthesis and incorporation steps are combined MG – should have some ecotox data but not human tox data. RB – ecotox data present for CuO with zebrafish and some data with textile, human tox data on lung cells for CuO and ZnO. LC – for textile coating need data to confirm with BIU about parameters. PM – as synthesis and incorporation are combined the tox data for ‘free’ particles may not be representative, but should think about end of life such as the water solution used for washing etc. Ecotox part of the project run by CNR is almost completely new with no data about any of the particles being utilised within the project (related mainly to WP3).

LC – carbon dots are under optimisation. Some synthesis made.

CS3. biosilica – optimisations of silica phase and exposure campaign has already been carried out.

Perovskite materials – material is under characterisation. End September some results expected to start the incorporation phase, or if necessary, some changes in the synthesis conditions.

Egyptian Blue – will be discussed in the next few days, discussions between CNR and UNITO for all the materials for bio-based EB. Best way forward regarding using the bio-silica.

Summary – last month all partners to complete the circulated Excel file, information was summarised for each case study. KPIs and KDFs, selection of characterisations already done, ongoing etc.

CENTI aims to have a brief summary of the results for each material by the 12M general assembly.

PM – asked if we have a place where to store raw characterisation data that is accessible to all partners. BM confirmed this is possible via the INTEGRANO website private area. LC stated for CENTI materials a presentation was shared summarising the results. MG – requested that an email is sent around to WP leaders when an update is made on the private area, so that they can login and view the update.

LC summarised that with PRJ results and data will be organised.

WP3 (the presentation is available from the INTEGRANO private area)

MG – ecotox and human hazard toxicity presented. Now 4 months from the start of the WP. Data is currently being collected on the ecotox and human tox – will then discuss about whether what we already have is applicable (has anything changed during material production). Lots of data on AgHEC, AgCUR if nothing has changed.

The GANTT is needed to indicate what and when will be delivered for analysis. If such a tool is available online it will be very useful.

As of now the data set is being completed (finalised by the end of Sep).
By the middle of Oct the data will be shared to identify any data gaps. What is needed – e.g. release in water, air, so that specific endpoints can be selected. Discussions ongoing with CS leaders.

At the moment we do not yet know how many new materials and particles need to be tested.

PM – nice in the next couple of months would be nice for a couple of case studies to be pushed for WP3 activities. Roadmap on what is possible and feasible to be done in WP3.

MG – We need to be sure that there will be no changes afterwards. No more changes will be accepted afterwards

Updates on recent and upcoming deliverables.

BM updated that Deliverables 7.1 and 6.9 were delivered on time. D7.2 is under preparation with UNIMIB.

Integrano advisory board: status update and nominated candidates.

BM showed a list of nominees who informally accepted to join; PM - Lya Hernandez who was listed has not yet been contacted as we need to decide if five or six is the best number of AB members. Most likely the five already contacted will be the final number.

Status of the amendment adding the JRC to the consortium.

BM reported that all approvals are now in place and we are just waiting for the project officer's signature.
PM – The PO informally told us that there is now no problem and we are just waiting for the formal acceptance.

INTEGRANO 12 AGM

BM – the 12 AGM will be hosted by UNITO and PRJ in Turin. Request that partners complete the circulated doodle by the end of the week.

Next Executive Committee meeting.

BM – proposed meeting week commencing 9th December.

Any other business.

PM requested WP leaders and CS owners coordinate to ensure WP3 activities commence and for the GANTT tools to be progressed.

No other issues raised.