



## D5.1

# First report on project's governing bodies, KPI and setting up

Luisa Neri, Valerio Lunardelli, Andrea Padovani, Nicola Marzari, Pablo Ordejón,  
Adham Ashibon, Ben Kaczer, Johannes Ocker, and Arrigo Calzolari

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**Authors:** Luisa Neri, Valerio Lunardelli, Andrea Padovani, Nicola Marzari, Pablo Ordejón, Adham Ashibon, Ben Kaczer, Johannes Ocker, and Arrigo Calzolari

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## **D5.1 First report on project's governing bodies, KPI and setting up**

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## 1. Executive Summary

The deliverable D5.1 summarizes the setting up of INTERSECT governing bodies and management staff, the definition of **Key Performance Indicators (KPIs)** and the building up of the project infrastructure.

## 2. INTERSECT Governing Bodies

As defined in the DoA (section B.3.2.1) the organizational structure of this Consortium is composed of:

- **Governing Board (GB)**
- **Management Committee (MC)**
- **Project Coordinator (PC)**
- **Advisory and Exploitation Board (AEB)**

### Governing Board

The **GB** is the ultimate decision-making body of the consortium.

The **GB** has the overall responsibility of the administrative, contractual and financial issues related to the project. It is composed of one representative from each consortium partner and is chaired by the Project Coordinator.

The **GB** will meet twice a year, coinciding with the bi-annual formal consortium meetings of the project to review the overall progress. The main responsibilities of the **GB** are:

- regularly monitor the project and check the progress of the set deliverables and milestones;
- authority to alter the work plan (i.e. shifts in budget, tasks, responsibilities, contract amendments etc.) and develop extra measures by established contingency plans (in case of delays etc.);
- approve/reject changes in the consortium (partner withdrawal and accession of new partners), the consortium agreement and the members of boards/committees;
- define the rules for internal and external communication of knowledge and results;
- formally review and approve the outputs (such as reports and deliverables) to the **MC**;

- promote the dissemination of the project, guide its execution in strategically relevant directions.

The GB first meeting was held during the INTERSECT Kick-off meeting, February 5, 2019 in Modena (IT). All partners of the consortium were represented by at least the PI or by a participant of the group (below the participants list):

- |                                       |                                |
|---------------------------------------|--------------------------------|
| • Arrigo Calzolari                    | CNR Nano                       |
| • Adham Hashibon and Günter Jutz      | FRA                            |
| • Ben Kaczer                          | IMEC                           |
| • Valerio Lunardelli and Luca Larcher | MDLab/Applied Materials Italia |
| • Johannes Ocker                      | FMC                            |
| • Pablo Ordejon                       | ICN2                           |
| • Daniele Tomerini                    | EPFL                           |
| • Luisa Neri                          | CNR Nano (administration)      |

The Governing Board agenda concerned:

1. Consortium Agreement
2. Timing and funding
3. Deliverables
4. Social and communications
5. Advisory and Exploitation Board

The report of the first GB meeting is available in the INTERSECT intranet section at this link <https://intranet.intersect-project.eu/index.php/apps/files/?dir=/5.%20INTERSECT%20Governing%20Board&fileid=85>

The next meeting of the Governing Board will take place during the second INTERSECT meeting scheduled from Thursday September 26 and Friday September 27, 2019 in Barcelona (ES). In the meantime, videoconference meeting has been held every three months:

The 3<sup>rd</sup> month meeting has been held, by teleconference, on Monday April 29th, 16.30.

The main topics on the agenda were:

- 1) update and advancement of the scientific WPs (code implementation and system simulations)
- 2) first set of deliverables due within 31th July 2019;
- 3) update on Consortium Agreement and proposal amendment for beneficiary name change (MDlab/AMAT)

The 6<sup>th</sup> month meeting has been held, by teleconference, on Friday July 19th, 15.00.

The main topics on the agenda were:

- 1) update and advancement of the scientific WPs (code implementation and system simulations)
- 2) revision of first set of deliverables;
- 3) update on final acceptance of Consortium Agreement
- 4) update on the formal amendment for beneficiary name change (MDlab/AMAT)
- 4) update on first AEB meeting and definition of KPIs.

**NOTE:** During the first project period we asked an amendment (17/07/2019) to the Consortium composition as beneficiary MDLab srl became an indirect wholly-owned subsidiaries of Applied Materials, Inc (Short name: AMAT). All the employees of MDLab S.r.l became employees of Applied Materials Italia S.r.l, an indirect wholly-owned subsidiary of Applied Materials, Inc. located in Italy. This change will not delay the implementation of the INTERSECT action or affect compliance with the associated Grant Agreement 814487, and the MDLAB SRL contributions and obligations to the INTERSECT action will be transferred to Applied Materials Italia.

## Management Committee

The MC is the supervisory body for the execution of the Project which shall report to and be accountable to the Governing Board.

The MC is composed of the WP leaders and has the operational control of the project.

The MC focuses on operational aspects such as:

- i) action plan for the next period;
- ii) exchange of information, experience and tools;
- iii) collaborative problem solving for R&D and demonstration challenges.

In summary, the tasks of the MC are:

- technical control of the proper execution of the tasks related to their WP;

- organizes a detailed WP schedule, monitors the work in progress & identifies possible risks;
- appoints task leaders;
- reports to the **PC** on the progress and possible deviations from the work plan
- ensures extensive exchange of knowledge and expertise between the different WP

Its composition is:

WP1 Leader	Adham Hashibon (Fraunhofer)
WP2 Leader	Nicola Marzari (EPFL)
WP3 Leader	Andrea Padovani (MD Lab/Applied Materials Italia)
WP4/5 Leader	Arrigo Calzolari (CNR Nano)

The PIs are invited to the **MC** meetings.

The **MC** first met on Monday April 29, 2019 at 4:30PM via skype call. As resulting from the skype call, two internal working groups were set up for study of:

- 1) Chalcogenides
- 2) Ferroelectrics

The aim of the division is to distribute the overall work effort and avoid overlaps, to organize and collect the theoretical/experimental activity on the two separate topics. Andrea Padovani (AMAT) is in charge to coordinate these sub-groups, as leader of WP3.

The **MC** met again on Monday July 19th, 2019 at 3:00PM via skype call. Each PI described the last advancements within the WPs activities, the most relevant include: code implementation (CNR, EPFL, ICN2, AMAT), physical systems under investigation (IMEC, FMC, CNR, AMAT, ICN2) and ontology development (FRA). All activities resulted to be in line with the time schedule set in the DoA.

### Project coordinator

The **PC** is the legal entity acting as an intermediary between the Parties and the Funding Authority.

The Project Coordinator is Dr. Arrigo Calzolari (CNR Nano), he is supported by the administrative and financial department of the CNR Nano Institute.

The **PC** is responsible for the coordination of the financial, administrative, technical and scientific activities and monitors day-to-day, operational progress on the project objectives,

deliverables, and milestones. The **PC** supervises the overall work program and delegation of work packages and ensures good communication between the teams. Moreover, he reports to the **GB** on project status and progress supported by the **MC**.

### Advisory and Exploitation Board

The **AEB** consists of the **Innovation Manager**, and external representatives with significant know-how of the market and the bottlenecks for the uptake of innovation in this domain by industry. Additionally, a number of external business advisors will advise the **AEB** on potential exploitation strategies, as described above. The overall role of the **AEB** is to design the dissemination and exploitation strategies and to monitor and manage the generated innovation and IP related issues of the project. The **AEB** will report to the **GB**. The **AEB** will establish strategic relationships with relevant organizations outside of the project consortium. The Innovation Manager maintains these contacts to promote dissemination of the project and maximise the uptake of the results.

The **AEB** and the Innovation Manager, together with the **PC**, will have the following responsibilities:

- ☐ establishing contacts with relevant stakeholders;
- ☐ proposing targeted dissemination actions such as workshops or webinars;
- ☐ identifying the potential of the results and suggests protection tools and exploitation strategies;
- ☐ preparing and updating the yearly exploitation plan of the project;
- ☐ preparation of the dissemination plan and reports;
- ☐ checking the valorisation potential of papers prepared by scientists into IP before publications;
- ☐ supporting the **PC** in reporting about dissemination and exploitation to the **GB**

To ensure a strong and continued focus on successful implementation of project outputs and knowledge, the consortium has created a strategic structure for managing the innovation activities, led by the Innovation Manager Valerio Lunardelli (MDLab/AMAT).

The whole Innovation Management process will leverage the successful track record of all partners innovation manager and technology transfer offices in identifying, collecting, describing and working towards turning creative ideas into innovative value propositions arising from the INTERSECT solutions for the target markets. The innovation strategy is focused on providing creative solutions from an R&D project that are also useful solutions for project end users.



According to the EU guidelines the innovation cycle in INTERSECT will be a continuous iterative process with several loops connecting all steps from research to industrialization. All the key factors for successful innovation management like combination of technology push and market pull, human factor, financial support and high complexity of innovation will be monitored and used as KPI during the project. The Innovation Manager will periodically report and monitor the innovation status of the project measuring the KPI.

Members of AEB:

Name	Affiliation	Title/Experties
<b>Valerio Lunardelli</b>	MDLab (now AMAT) (IT)	Innovation manager
<b>Tibor Grasser</b>	Institute for Microelectronics, Wien (AU)	Head of Institute
<b>Teodoro Laino</b>	IBM Zurich Research Lab, Zurich (CH)	Technical leader for Molecular Simulation, RSM
<b>Alexandr Fonari</b>	Schrödinger software, New York (USA)	Senior Scientist
<b>Jennifer Rupp</b>	Massachusetts Institute of Technology - Dept. Materials Science and Engineering (USA)	Professor and Leader of the Electrochemical Materials Laboratory
<b>Markus Ganser</b>	Computational Materials Engineering, Robert Bosch GmbH, Stuttgart (DE)	Research Engineer

Table 1: AEB composition

The AEB has been formally appointed through personal invitation letters signed by the PC, the CNR LEAR and by each AEB member (or his/her legal office). AEB members are requested to respect confidentiality rules regulated by a Non-disclosure agreement signed by each member (or his/her legal office).

The first AEB meeting has been held (via Skype) on Wednesday, June 26, 2019 at 4PM (CET).

The agenda of the first AEB meeting was:

- Presentation of the consortium to AEB members
- Short description of the project and main objectives
- Discussion of KPIs: suggestion and validation of the most relevant Key Performance Indicators (KPIs) of the project.

A working document, with the initial **KPIs** list inserted in the proposal, has been shared among the **AEB** members before the meeting, in order to facilitate the discussion. The final KPI list is described in detail and included in Sec. 4.

### 3. INTERSECT Governing Bodies

The Management team (composed of persons belonging to the Coordinator's node - CNR NANO) goal is to assist and facilitate the work of the Coordinator and the Consortium day-to-day management of the project. It is in charge of supporting activities of the previous project bodies, ensuring an efficient internal communication; overseeing reporting deadlines and quality control; collecting and (e-)archiving the project documents.

Management procedures are targeting the effective implementation of the work plan and the successful completion of INTERSECT deliverables and milestones.

The Management team is monitoring the critical risks for implementation and the project **KPIs**, in order to identify any unexpected problems and opportunities and take any necessary actions.

Several activities have been performed since the beginning of the project in 3 specific domains:

1. Governance, monitoring and quality;
2. Administrative, legal and financial management;
3. Knowledge and communication management.

Activities performed:

- consortium Agreement discussion and definition
- amendment procedure for beneficiary change MDLab/AMAT
- day-to-day coordination of the project activities and of the secretariat activities;
- monitoring of WPs thematic work and deadlines respect;
- monitoring of the internal periodic report in order to have a complete overview of the project status of advance;
- definition of the guidelines, internal procedures and templates for deliverables and other project documents;
- support for Consortium meetings, Governing Bodies meetings and WPs meetings;

- overall legal, administrative and financial management (budgeting and financial reporting, distribution of the EU financial contribution among partners, support to partners regarding financial and administrative issues and duties);
- organization of the internal repository









The INTERSECT management team is composed of CNR-NANO staff:

- Luisa Neri (management coordination)
- Paola Corezzola (administration and finance)
- Maria Grazia Angelini (administration and finance)
- Davide Calanca (IT support)

### 3.1 Management tools and repository structure

We organized an intranet space to allow a better interaction among the partners and share information and documents about the INTERSECT project. Each person involved in the INTERSECT project received a personal account to access the intranet area.

The intranet space is the project repository, it is organized in folders aiming to help us collecting, sharing and archiving all INTERSECT-related materials. The whole structure is described in the table below.

	Name	Contents
	1. INTERSECT Official Documents	Contains documents for all members: - Grant Agreement - Consortium Agreement (asap)
	2. INTERSECT Continuous Reporting	- Open Access - INTERSECT Publication file - INTERSECT Events file - INTERSECT Communication - Press file
	3. INTERSECT Events	- related to INTERSECT-organized events
	4. INTERSECT Deliverables	- Templates for deliverables - Collection of final deliverables
	5. INTERSECT Governing Board	- Minutes - List of meetings - Any Official Docs issued or needed
	6. INTERSECT WPs	- Minutes - List of meetings - ....
	7. INTERSECT Partners	- Minutes - List of meetings - ....
	8. INTERSECT Advisory and Exploitation Board	- Minutes - List of meetings - ....

### 3.2 Kick-off meeting

The Kick-off meeting took place in Modena (IT) on February 4 and 5, 2019.

The program (see below) included both internal working sessions and public sessions, devoted to the general presentation of the project and of the single WP activities. Program also included contributions by Dr. Anne de Baas (EU Officer of INTERSECT Project), Dr. Massimo Rontani (Director of the hosting CNR-NANO Center) and Prof. Elisa Molinari (Director of the MaX European Centre of Excellence). Public sessions have been attended also by researchers and PhD students of CNR-NANO and the local Università di Modena and Reggio Emilia.

<b>Monday February 4, 2019 - Afternoon Session</b>	
14:00-14:30	Opening and get together
14:30-14:45	Project Officer presentation
14:45-16:30	Internal preliminary meeting part1 - IM2D set up
16:30-17:00	<i>Coffee break</i>
17:00-18:30	Internal preliminary meeting part2 - Test cases
20:00	<i>Social Dinner</i>

<b>Tuesday February 5, 2019 - Morning Session - Public session</b>	
09:00 - 09:10	Welcome (M. Rontani CNR Nano)
09:10 - 10:00	Introduction and general presentation of the project
10:00 - 10:10	Presentation of MaX Centre of Excellence (E. Molinari CNR Nano & Unimore) Presentation of Marketplace Project (A. Hashibon Fraunhofer)
10:10 - 10:40	WP1- IM2D box architecture (A. Hashibon Fraunhofer)
10:40 - 11:10	WP2 - Interconnection and interoperability implementation (P. Ordejon ICN2)
11:10 - 11:40	<i>Coffee break</i>
11:40 - 12:10	WP3 - Testing and piloting (L. Larcher MDLab)
12:10 - 12:45	WP4 and WP5 - Exploitation and communication, Management (A. Calzolari CNR Nano)
12:45 - 13:00	Closing Remarks
13:00 - 15:00	GOVERNING BOARD + <i>Lunch</i>

All the info about the Kick-off meeting are still available in the dedicated webpage <http://intersect-project.eu/intersect-kick-off-meeting/>

25 persons attended the meeting, all the project partners were represented and the first meeting of the Governing Board took place at the end of the kick-off.



Group photo at the Kick-off meeting



Some moments of the Kick-off presentations

The whole meeting was covered with specific communication through the project social network:

- twitter account [@intersect. eu](https://twitter.com/intersect_eu)
- instagram [https://www.instagram.com/intersect\\_eu/](https://www.instagram.com/intersect_eu/)

#### 4. Key Performance Indicators

INTERSECT-KPIs are intended to be a set of qualitative and quantitative measurable indicators aimed at describing the impact of INTERSECT actions. They are focused on INTERSECT objectives. INTERSECT-KPIs are designed to be easily measurable and will be used to gauge the project performance in terms of achievement of our strategic and operational goals.



Starting from the list of general **KPIs** reported in the DoA (ANNEX 1), the AEB validated and indicated to the **GB** a short list of high-priority **KPIs** for any exploitation areas of interest for INTERSECT and the associated stakeholders: **Research, Innovation management, Stakeholder management, Market opportunities, IP management, Prototyping and industrial demonstration, Industrial exploitation, Dissemination.**

Proposed **KPIs** are summarized in Table II, along with a synthetic description of the expected actions, the required data the relative quantitative target indicators.

Area	KPI	Actions	Type of data required	Target at the end
<b>Research</b>	Deeper understanding	Provide understanding of quantum mechanical electronic and atomistic phenomena	n° of known models validated using INTERSECT	3
<b>Innovation management</b>	Investment on innovation and project management	INTERSECT partners enroll innovation and project managers as a catalyst and coach to overcome the powers/inertia that hold back the innovation.	n° of innovation or project manager amount invested on innovation or project management training courses	2
<b>Stakeholder management</b>	Measure of the interaction with users, designers and engineers	Early adopters and first potential customer are engaged to collect valuable feedback further improvement of the product.	n° of early adopters and potential customers engaged	3
<b>Market opportunities</b>	Measure of market penetration	Segmentation of competitors is performed before entering the market. Exploring a new synaptic electronics field or completely new field	n° of segments performed	2
<b>IP management</b>	New IP agreements	Clear agreements are made with suppliers and manufacturers (e.g., restricting the agreement to a certain technology field; restricting the agreement to a certain application or market field; restricting the agreement in time).	n° of IP agreements	1

<b>Prototyping and industrial demonstration</b>	Prototype impact	A broader user and engineer community is involved in advancing the prototype.	n° of active contacts industrial and academic	2
	More efficient and targeted exploration	<ul style="list-style-type: none"> <li>- Reducing of screening by experiment (cost, time)</li> <li>- A target performance is easy to reach</li> <li>- Minimization of lab tests</li> </ul>	Time-saving estimation (%) R&D Cost- saving estimation (%)	30%
	Industrial demonstrator impact	An industrial demonstrator allows to understand, identify, and prevent failures before the manufacturing stage is reached.	n° of early adopter feedback	5
<b>Industrial exploitation</b>	Costs saving	Modelling used to increase R&D efficiency, and reduce product costs	Cost saving by cutting development time and saving of experiments	20%
	Return on Investment (ROI)	Revenue generated from a project involving modelling / investment	Revenue generated from a project involving modelling / investment	Too early to set
	Jobs created	Investment into staff carrying out the materials modelling projects	Recruitment of new translators in R&D staff	3
<b>Dissemination</b>	Dissemination activities impact	Maximization of the communication to the stakeholder through scientific publications and conference participations.	No. of press releases, Impact of social media..., participation to exhibits	3

Table 2: List of INTERSECT primary KPIs

## Acronyms

AEB Advisory and Exploitation Board. [5-11](#)

GB Governing Board. [5-9](#)

KPI Key Performance Indicator. [5-17](#)

MC Management Committee. [5-9](#)

PC Project Coordinator. [5-10](#)



