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IPM-4-CITRUS

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**D1.4 Progress report M36 / Minute PM2 (JKI,Darmstadt)
/ Consortium meeting (IDB, Sousse)**

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Deliverable no:	D1.4
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Other participants:	BBU, BIPCA, CBS, CTA, INRA, IPT, JKI, Medis, USJ, WSU,
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		Cubero J. (INSAT), ROUIS Souad (CBS)	PM2
1.0	10/01/2019	Fillaudeau L. (INSAT-LISBP)	IDB
2.0	21 et 27/08/2020	Fillaudeau L. (INSAT-LISBP) Souad ROUIS (CBS)	PM3

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1 IPM-4-CITRUS CONTEXT AND MANAGEMENT & COORDINATION

1.1 Executive summary, Milestones and Deliverables & Project structure

IPM-4-Citrus aims to strengthen collaborations between academic and non-academic partners based in 3 European Member States (FR, GER, IT), 2 Associated Countries (Turkey and Tunisia) and 1 Third Country (Lebanon), in order to develop a new bio-pesticide active against citrus pests and scale it up from lab to market (**Figure 1**). The project's research and innovation activities are based on a multidisciplinary approach, which aims at understanding and sensitising stakeholders about the health risk factors related to citrus pests and their treatment by chemical pesticides and developing an alternative Integrated Pest Management (IPM) approach based on biological control (**Figure 2**). *Bacillus thuringiensis* (Bt) based bio pesticides occupy almost 97% of the world's bio pesticide market and their use was estimated to exceed 30,000 tons. Despite this widespread use, the originality of Citrus-IPM is to focus on 2 promising, newly identified strains (Bt kurstaki BLB1 and LIP), which were shown to be more efficient than the commercial (Bt kurstaki HD1). In conjunction with validation through field tests, the project will pave the way for future commercial exploitation of a new biopesticide product by drawing up a feasibility study for future spin-off activities and/or new production lines in partner SMEs.

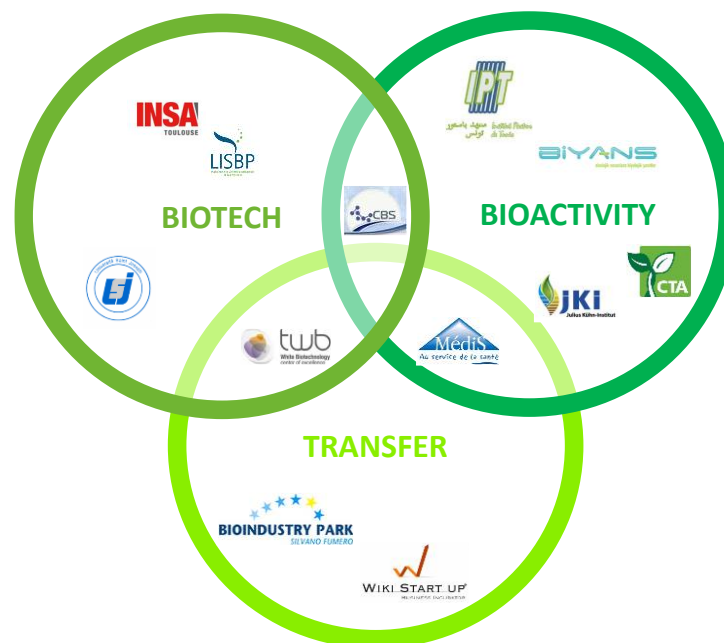


Figure 1: Scientific and technical structuration of IPM-4-Citrus consortium around 3 aims: Biotechnology, Bioactivity and Transfer.

IPM-4-CITRUS will target the whole value chain in 3 main steps. The first 2 steps will deal with the proof of concept and technological maturation (WP2 and WP3) to produce and use



the endotoxin, followed by an economic maturation step (WP4) aimed at bringing the products to the market. These 3 key steps will be supported by dissemination and exploitation (WP6), which guarantees the proper transfer from lab to market through strong IPR management. Parallel to these, WP5 will focus on networking to improve partners' skills, while outreach will contribute to increasing stakeholders' awareness. Milestones and deliverable are then identified as reported in *Table 1 and 2*.

Staff secondments and inter-sector and international mobilities between complementary partners will represent a unique opportunity to optimise bioproduction processes and obtain high added-value bioproducts, while building up the partners' skills and reinforcing the training of early-stage researchers through knowledge sharing and networking. Inter-sectors mobility will bring SMEs and researchers to work conjointly on conditioning procedures for field tests, impact evaluation and product maturation/exploitation. The project will also adopt a concrete RRI approach by favouring public engagement and informal education through the different outreach activities aimed at a variety of target groups.

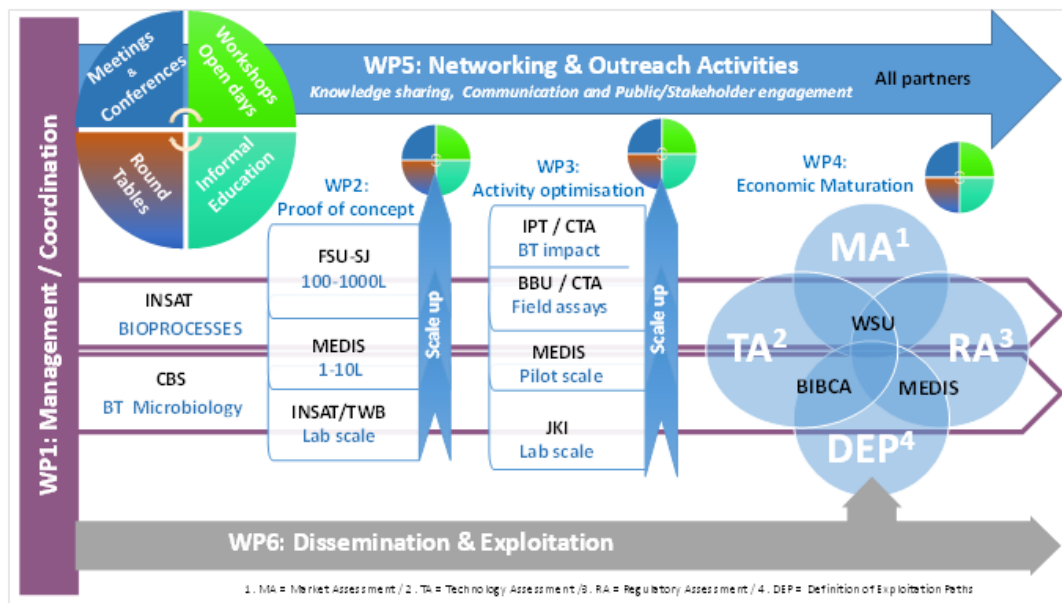


Figure 2: Structuration of IPM-4-Citrus (partners' skills and interdisciplinarity).



Table 1: Milestone (MS) lists

Number	Title	WP	Lead	Due Date	Means of Verification
MS1	Kick-off meeting	1	INSAT	M1	Minutes filed in project repository
MS2	Proof of concept	2	CBS	M18	Proof of concept, from <i>B. thuringiensis kurstaki</i> cultivation to delta-endotoxin production. It includes : - Screening of optimal bioproduction conditions (lab scale) - Bioprocess transposition (scale up 1-10L bioreactor scale) - Production protocol for demonstration scale (Pre-industrial scale)
MS3	Biocontrol activity	3	JKI	M36	Optimisation of the new biocontrol activity on citrus pests It includes : - Lab scale activity testing - Optimisation of the biocontrol formulation and bioavailability of the delta-endotoxin - Field assays
MS4	Economic maturation	4	BIPCA	M42	It includes: - Comparative impact study - Technology assessment - Commercial exploitation analysis - Regulatory requirements and certification issues - Definition of exploitation paths & business plan

Table 2: Deliverable (D) lists

Scientific Deliverables						
Number	Internal Report & Deliverable Title	WP No.	Lead Beneficiary	Type	Level	Due Date
D2.1	Scientific & technical report for WP2 (T0/T0+12M)	2	CBS	R	CO	M12
D3.1	Scientific & Technical report for WP3 (T0+6, T0+24M)	3	JKI	R	CO	M24
D3.2	Scientific & Technical report for WP3 (T0+24, T0+36M)	3	JKI	R	CO	M36
D4.1	Scientific & technical report for WP4 (M48)	4	BIPCA	R	CO	M42
Management, Training, and Dissemination Deliverables						
Number	Internal Report & Deliverable Title	WP No.	Lead Beneficiary	Type	Level	Due Date
D1.1	Project Management Plan including Consortium Agreement and Kick-off Meeting minutes	1	INSAT	ADM	CO	M1
D1.2	Progress report M12	1	INSAT	ADM	CO	M12
D1.3	Mid-term meeting M18	1	INSAT	ADM	CO	M18
MTR	Reporting period M24 (Official reporting for EC)	1	INSAT	ADM	CO	M24
D1.4	Progress report M36	1	INSAT	ADM	CO	M36
D1.5	Project synthesis (M48)	1	INSAT	ADM	CO	M48
FR	Reporting period M48 (Official reporting for EC)	1	INSAT	ADM	CO	M48
D5.1	Communication & Networking	5	INSAT	R	CO	M24
D6.1	Plan for Dissemination/ Exploitation of Results / Reviews	6	INSAT	R	CO	M6

1.2 Management and Coordination: main objectives (reminder)

Objectives of WP1 are:

- O1.1: Coordination of overall project tasks, activities and secondments
- O1.2: Administrative and financial management of the project following EC and H2020 guidelines
- O1.3: Interface between the EC and the IPM-4-CITRUS consortium
- O1.4: Set up a framework for communication and managing communication flow among partners

7 tasks are associated to WP1. Associated works are briefly described here-below and the objectives achieved/under work within this period are underlined.



- T1.1: Manage Consortium and Grant Agreements and verify their successful implementation (Lead: INSAT)

Following the rules of H2020, prior to the signature of the Grant Agreement, the consortium members will have agreed upon and signed a Consortium Agreement that will internally rule the consortium. The Project Coordinator will verify compliance with all policies therein described during the project lifetime and will ensure all secondments are carried out according to plans and in compliance with Article 32 of the Grant Agreement.

- T1.2: Allocate funds and manage budget (Lead: INSAT).

The Project Coordinator will be in charge of distributing the funds, monitoring the overall budget status of the entire project, collecting relevant administrative documents, elaborating cost statements and day-to-day administrative management.

- T1.3: Quality assurance of project internal and external activities (Lead: CBS)

Under this task a Quality Assurance Plan will be elaborated and implemented, with the following performance indicators and actions: (i) Identify the critical project processes that will be subject to quality review;(ii) Identify the relevant process quality standards for evaluating the quality of the project processes;(iii) Identify stakeholder expectations for project processes; (iv) Describe Quality Assurance activities to be used to ensure quality standards for project processes are met; (v) Determine how often or when quality assurance activities will be performed. The Plan will include a quality assurance procedure on deliverables, including peer review when appropriate as well as an evaluation of the expected impact of problems that might affect the project in terms of delays, quantity of work, inferred repercussions on other activities, and suggestions for contingency measures. Due to the interdisciplinary character of the project, the provider of a deliverable will be responsible for quality assurance according to the agreed specifications. These specifications will be verified before and after transfer to other partners and reported in an ad-hoc form deposited in the project repository.

Non-conformities will be reported to the partner responsible for the Deliverable, the WP leader and Quality manager. Corrective actions will be discussed and implemented. Reports on quality assurance will be included in periodic reports and in the final report.

- T1.4: Interface with European Commission representatives. (Lead: INSAT).

The Project Coordinator will be the sole channel of communication with the EC. All requests will be channelled by INSAT and documented where relevant, to facilitate posterior queries of identical or very similar nature.



- T1.5: Organize project progress meetings. (Lead: INSAT. Other participants: WP leaders)
There will be 5 yearly project meetings to assess progress and make decisions of strategic nature. The Kick-off Meeting will include the finalization of the Project Management Plan and the signature of the consortium agreement. The allocation of funding and secondments over the previous and the next 12-month period will be discussed during each meeting, which will also update the Dissemination and Exploitation Plan (WP6). Each of the meetings will be linked to networking events (WP5) to maximize attendance by consortium members. Additional online meetings will be held between presential meetings, to keep track of project progress while maintaining a more cost-effective and agile managerial structure. The Coordinator will be responsible for the organization, or delegate on the hosting partner, while WP leaders will be responsible for drafting the meeting minutes.
- T1.6: Reporting (Lead: INSAT. Other participants: all partners).
Task 1.6 aims to organise the periodic, mid-term and final progress reporting, both for distribution within the consortium to the EC. Short progress reports will be prepared by each WP Leader to summarize the work progress, the secondments that actually took place within the dates reported and the eligibility of the seconded staff member. Based on these “executive” progress reports, the Project Manager will elaborate the respective “Periodic Reports” and the “Final report” for the whole project. Administrative and financial reporting will be managed at INSAT.
- T1.7: Set up and manage a project platform for internal communication (Lead: INSAT. Other participants: CBS).

A restricted-access Nuxeo platform will be used for data exchange within the consortium. The site will act as repository of documents for internal dissemination, such as protocols, reports, publications and collaborative documents. The project repository will be kept active for at least for two years after project completion while its further continuation will be thoroughly sought and intended.

1.3 Requested information for Deliverable D1.4 (M36)

Number	D9
Title	Progress report M36 (associated with PM2)
Lead Beneficiary	1. INSAT
Type	R: Document, report
Dissemination level	CO: Confidential, only for members of the consortium (including the Commission Services)
Due Date	Month: 36



Description	<p>Delivery D1.4: Progress report M36</p> <p>This report will summarize scientific & technical progress, allocated human resources (secondments) and financial support to all partners over the period [T0+18months, T0+36months] in relation with IMP-4-Citrus.</p> <p>Actions related to WP1, WP5 and WP6 will be described.</p>
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2 OVERVIEW OF ACTIONS UNDERTAKEN FOR IPM-4-CITRUS (NOVEMBER 2018 TO AUGUST 2020) AFTER PM2 (SEPTEMBER 2019), CONSORTIUM MEETING (DECEMBER 2019) AND PM3 (JUNE 2020).

Following MTM, consortium meeting at M18 and Reporting period M24, the objective was to implement consortium strategy after our GO milestone (M28) and 2nd EC funding.

The main stakes were to adjust/define the next secondments (T0+30 up to T0+48months) as a function of scientific and technical priorities (WP3 and WP4). This statement will be considered for the next financial implementation after PO approval.

Table 3: Prospective progress meetings

Meeting	Location	Organiser	Month	Type of Meeting
1	Toulouse, FR	INSAT	M1	Kick-off Meeting
2	Sfax, TUN	CBS	M12	Progress Meeting 1
3	Toulouse, FR	INSAT	M18	Mid Term Meeting
4	Darmstadt, GER	JKI	M24	Progress Meeting 2
5	Turin, IT → Ankara, TUR	BIPCA → BIYANS	M36	Progress Meeting 3
6	Sfax, TUN	MEDIS	M48	Final Meeting

Over the period December 2016 and June 2020, project history and present status can be summarized as follows:

- Jan 2015 Citrus-IPM, invitation letter
- 28/04/2015 1stdeposit
- 21/08/2015 ESR, score 82.8% (reserve list) : excellence, impact and implementation
- March 2016 IPM-4-Citrus, invitation letter
- 10/05/2016 2nddeposit with enlarged consortium, implementation improvement
- **02/09/2016 ESR, score 84.6% (main list) → Project selection**
- 07/09/2016 Guidance on actions to be taken (Administration, description of action, GA (dead-line 02/12/2016) and CA preparation)
- 15/09/2016 Entomotech resignation
- 15/10/2016 Integration of CTA
- Dec 2016 GA validation
- 22/12/2016 1stmeeting between LISBP and Tunisian participants (Sousse) → Working base for CA
- Jan 2017 Consultation of all consortium regarding CA (administrative and funding rules, secondments funding,...)
- Feb/March Financial analysis (budget and real amount), Development of Website and Transcription into MS project
- **02/03/2017 Coordinator's day (Brussels)**
- 25/03/2017 EU prefunding (60%) transfer to INSA
- **27-28/04/2017 Kick-off meeting (INSAT, Toulouse, FR)**
- 01/09/2017 WP5, D5.1
- 01/09/2017 WP7, D7.1, 7.2 and 7.3
- 19/10/2017 WP1, D1.1



- **Nov2017** **FTA signature**
- **Dec 2017** **Funding of all partners**
- **Dec 2017** **Amendment to GA → validation under progress**
- **Jan 2018** **Launch of the first secondments**
- Feb 2018 Arrival of Jerome CUBERO (Project Operational Manager)
- 17/04/2018 WP6, D6.1
- **19-20/04/2018** **Progress Meeting at CBS, Sfax**
- 19/04/2018 CA draft → submit to consortium for signature
- 20/04/2018 Training TP1 & Round Table RT3
- 25/06/2018 : Training TP2 (part 1)
- 15/09/2018 : WP1, D1.2
- 24/10/2018 : Training TP2 (part 2)
- 29-30/11/2018 Mid-Term Meeting at INSA, Toulouse

Since our Mid-Term Meeting at INSA, Toulouse, the main key facts are:

- Feb 2019 : Final signature of CA.
- 06/03/2019 : WP1, D1.3
- Feb/March: TP2 Training: Industrial microbiology, fermentation and scale-up - Cell cultivation in bioreactors (M23) at USJ (repetition – part 1)
- 07/03/2019: WS1: Workshop with external expert (7th March 2019, Lebanon)
- 07/03/2019: RT1 Round table: Scientific roundtable including external scientific experts: state-of-the-art of Bt culture; comparing & sharing experiences (8th March 2019, CBS, Sfax – M22)
- 08/03/2019 : Consortium meeting (at USJ) and visit of Biopesticide Start-up (Taanayel, Lebanon)
- 07/05/2019: WP6, D6.1 → Data management plan resubmitted
- 07/05/2019: WP7, D7.1 → Communication & Networking was updated
- 30/05/2019: WP1, D1.4 (Intermediate report)
- 26/06/2019: requested additional supporting documents
- 17/07/2019: GO approval for next period M24/M48
2nd EC funding (160k€ eq. 20% instead of 30%)
- 26/09/2019 : PM2 (JKI, Darmstadt) : progress per WP, cancelation/reflusing of secondment proposed to our PO
- 14/10/2019 : Approval of secondment reflusing by EC: minor change, no need for amended Grant Agreement
- Nov 2019 : 3rd fund transfer by INSAT to all partners
- December 2020: WP3, D3,1: Scientific & Technical report for WP3 (M24) drafted
- 17/12/2019 : WP7, D7,4 : Authorisations for the supply of the animals and animals experiments (IPT)
- 19-21/12/2019 : IDB2019 including Working meetings dedicated to WP2 and WP3, Scientific communication, Promotion of young scientists and Consortium meeting.
- Jan 2020 : WP1, D1.4 : Progress report M36 was drafted
- March 2020 : Covid-19 sanitary crisis : Cancellation of almost all secondments and outreach activities, Letter of Force Majeure Circumstances (11/03/2020), Exchanges with PO (specific request), Information from coordination to consortium about evolution (13/03, 09/04, 04/05, 10/06 and 23/06)
- May 2020: WP3, D3,2 Scientific & Technical report for WP3 (M36) drafted
- 29/06/2020: PM3 by Visioconference.

2.1 Progress Meeting (PM2) minutes

In this part, the key elements and documents associated with PM2 are briefly summarized.

2.1.1 Date/Place/Audience:

Project Progress Meeting, PM2 IPM-4-Citrus (*Table 3*) has taken place on 26-27th September 2019 at JKI (Darmstadt, Germany) with 11 persons.

Nine partners were represented (JKI, LISBP, USJ, MEDIS, CBS, BIPCA) or by videoconference (IPT, BIYANS, CTA). WSU and TWB were missing but state points have been previously done with each partner.

PM2 was divided in 2 days as described by working program including (i) administrative and scientific progress of the project and (ii) to exchange and evaluate secondments realised, cancelled, maintained but delayed, redeployed or new request. The main stakes were to define the next and/or new secondments (T0+30/T0+48months) highlighted by scientific and technical inputs in order to focus on achievable goals and make the best of the time left on conducting the project / strengthening actions.

2.1.2 Working program:

Day 1 : Thursday 26th September (PM2):

9.00 – 9.30 Welcome Coffee & Welcome foreword

- by Dietrich Stephan, Work Package 3 responsible

- by Project Coordinator – Dr Luc FILLAUDEAU (INSA, LISBP)

9.30 – 12.30: W.P Reporting *

WP 1 – Management (Luc FILLAUDEAU, Souad ROUIS, Jerome CUBERO)

WP 5 – Networking & Outreach - (Jerome CUBERO)

WP 2 – Bioprocess (Souad ROUIS)

WP 3 – Biotech (Dietrich STEPHAN)

WP 4 – Transfer (Sara FALVO, Bernadetta MARESCA)

14.00 – 16.30: Secondment planning and implementation – with Visio conference with IPT, BIYANS and CTA

16.30 – 17.00: Wrap-up and conclusions of 1st day meeting

Day 2 : Friday 27th September (PM2):

9.00 – 10.30: Secondment planning and implementation / Visio conference with IPT, BIYANS and BIPCA → Final validation before proposal diffusion to PO

10.30 – 12.30: Scientific & technical discussion related with formulation and DSP.

Next “IPM4Citrus”: identification of next EC calls (What’s next & Call for action).

14.00 – 16.00: Presentation of agricultural research in Germany, of JKI facilities and Lab tour of JKI (Darmstadt)

16.00 – 17.00: Wrap up & Conclusion

2.1.3 Snapshots of PM2.

In relation with working program, *Figure 3* illustrates the different steps of PM2.

PM2:

Group photo



Lab tour

Figure 3: Snapshots during MTM and Consortium meeting.

2.1.4 Documents and presentations associated with PM2.

Several documents have been prepared and used for this MTM in order to facilitate debates and exchanges (cf. annexes). All these documents are recorded in the common workspace: server\Citrus_IPM_H2020\3-WP-and-Task\01-WP1: Consortium&Managment-IPM-4-Citrus\ 20- PM2-Progres-meeting-27Sept2019, in their respective sub-directories:

- Work program
- Presentations (WP1&5, 2, 3 and 4)
- Gantt and secondments for discussion

2.1.5 Main information related to management and progress statue.

The main elements related to management and project progress were detailed in the document: 1-IPM-4-CITRUS_PM2-Intro-WP1-WP6-Darmstadt-VF.pptx.

As indicated in MTM, 5 indicators have been identified to follow project progress : (1) Milestones, (2) Internal reports (IR) and Deliverables, (3) Scheduled secondments / partner, (4) Secondments /WP and (5) Budget breakdown.



Figure 4 reports the status of Indicator 1 and 2 at T0+30months. The indicators 3, 4 and 5 will be updated after exchanges and discussion during PM within consortium.

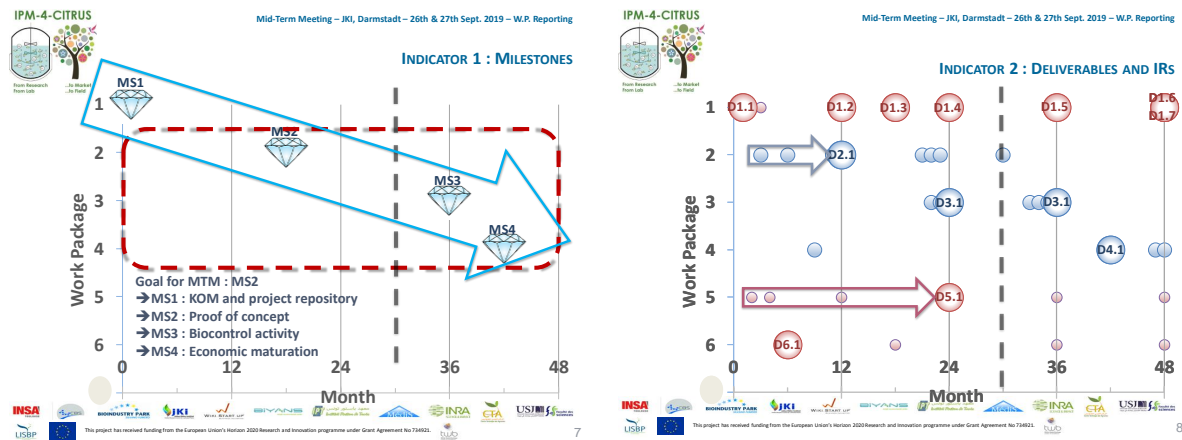


Figure 4: Overview of 2 main indicators and their evolutions since M18

2.1.6 Administrative & scientific tasks

During PM, the pending questions with consortium and information due to PO were prioritized as follows.

- Progress point regarding the future secondments (M30-M48), especially the long duration ones
- State point related to Deliverable and Internal report,
- Strengthen in priority WP3 and WP4 with secondments reflusing (market strategy and industry transfer could to be comforted)
- Organisation of scientific event in Tunisia next December 2019 (Consortium meeting, communication).

Our consortium should submit to our PO, its final modifications (reflusing, additional secondments) for validation and acceptance.

2.1.6.1 From Milestones to Deliverables

In term of management, project management team (Luc FILLAUDEAU and Souad ROUIS) and administrative staff (Jerome CUBERO and Nadia MARACKCHI) exchange at least every 2 weeks concerning project evolution (identical since January 2018). Then direct exchange with other consortium partners is done in order to work on specific points.

Since January 2019, additional long duration secondments have been initiated (Stephanie EL KHAWAND, Jihane SAAD, Rim EL JEMI, Hazar KRAIEM) Even if administrative problems



(Visa, staff availability, and planning change) are still present and out of our management capacity, all scientific actions related to WP2, WP3 and WP4 have been conducted.

From reporting standpoint (Administrative obligation related to H2020-RISE), several Deliverables have been generated and downloaded on PORTAL website. These documents are associated with internal report, milestones and internal marker as specified in **Table 4**.

Table 4 : Internal Marker (IM) and Milestone (MS) associated with Internal Report (IR) and Deliverable (D) for period M1-M30.

	WP	Delays	Comments
Deliverables & Internal Report	<ul style="list-style-type: none"> ▪ WP1: D1.1 ▪ WP1: D1.2 ▪ WP1 : D1.3 ▪ WP1 : D1.4 (Intermediate report) ▪ WP2: D2.1 with IR2.1, 2.2 and 2.3 ▪ WP3 : D3.1 (including IR2.4, IR2.5, IR3.1) ▪ WP4: D4.1 (not submitted) with IR4.1 and IR4.2 (draft ready) ▪ WP5: D5.1 (including IR5.1) to be implemented by IR5.2 and 5.3 ▪ WP6: D6.1 (revised) ▪ WP7: D7.1, 7.2 and 7.3 (Approved) 	May→Oct'17 March→Aug'18 Nov'18→March'19 March→May'19 April→Aug'18 April'18 → Sep'19 None March→Sep'17 → May'19 Sep'17→April'18→May'19 April→Sep'17	Validated Validated Validated Validated Validated Draft Validated Submitted Submitted Validated
	Milestones	<ul style="list-style-type: none"> ▪ MS1: KOM and project repository ▪ MS2: Proof of concept ▪ MS3 : Biocontrol activity 	None Nov '18→ April'19

We point out two priorities:

- For WP3: Deliverable D3.1 is due since 3 months. At least a draft version should be downloaded by JKI. This D3.1 will integrate the IR2.4/IR2.5 already fused and available on our workspace as well as the minutes from the first incoming secondments at JKI and BIYANS. However DSP (down stream processing) and formulation was the main scientific item of discussion during this PM, and decision should be reported in this D3.1 (including: selected flow sheet for endotoxin separation and extraction at the lowest cost, presentation of formulation conditions with a golden standard, batch to be sent to IPT and BIYANS, condition for toxicological test on pest and LC50 determination,...).
- For WP7: Deliverable D7.4 (Authorisations for the supply of animals and the animal experiments) will be due shortly. A document should be transferred by IPT to consortium management.

In addition, we mentioned that the IR2.2 and IR2.3 have been updated and consequently D2.1 can be also updated.



In association with Consortium meeting organisation, 2 important points were discussed: (i) partner funding for the period T0+30/T0+48months; and (ii) next secondments for period T0+30/T0+24months. Each point is detailed in the next paragraph.

Concerning next PM, the consortium has decided to switch the meeting scheduled at BIPCA to BIYANS. Several arguments were proposed: (i) cost reduction for organisation, (ii) this meeting will focus on WP3 and toxicological test (BIYANS, IPT) and (iii) an external expert specialized on biopesticide EC declaration file will be invited by BIPCA. This meeting will be in June/July 2020 at BIYANS.

2.1.6.2 Realised (M18-M30) and scheduled (M30-M48) actions and secondments

Following GO approval, we have started exchanges within consortium in order to adjust several actions. Our objective was to realise an assessment of realised actions (WP2, WP3 and WP4), to identify new requests for secondment and to verify if secondments could/should be cancelled. Our PM at JKI (Germany) was the opportunity to validate that several secondments (< 15MM) can be cancelled/reflushed. This new proposal will be submitted to PO for approval.

Our propositions/changes are summarized in **Table 7 (annex 1)**. We detail all propositions partner by partner considering outgoing secondments and the associated modification (cancelled, maintained, reflushed, new demands).

- INSAT, Secondment n°35 (12MM, INSAT → MEDIS)
 - maintained 3 MM, INSA → MEDIS (L. Fillaudeau, C. Aceves)
 - reflushed 1 MM, INSAT → BIPCA (J. Cubero) to strengthen WP4.
 - reflushed 2 MM, INSAT → USJ (J. Cubero and/or L. Fillaudeau).
 - The idea being to focus on Market study + Potential market analysis as well as meeting policymakers in order to foresee product placement on the market, both in Tunisia (and surrounding markets) as well as Lebanon (and surrounding markets). A patent and IPR search will also be handled in order to better study competitors. Last but not least, the whole product chain, from research to market and including formulation, will be mapped out in order to identify strengths and weaknesses as well as threats and opportunities (IPR, secret, licensing, regulation tests, etc.)
 - 6 MM could be used by consortium.
- CBS, Secondments n°7 (12 MM, CBS → USJ)
 - maintained 6 MM, CBS → USJ (Technicians)



- reflushed 1 MM, CBS → BIPCA (Nadia Marrakchi) for WP4. Action connected to INSAT → BIPCA.
- 5 MM could be used by consortium
- BIPCA : no change
- JKI, Secondments n° 56, 52, 53, 58 and 49.
 - n°56 maintained 1 MM, JKI → MEDIS (Dietrich STEPHAN)
 - n°52 maintained 1 MM, JKI → CTA (Juliana PETZ)
 - n°53 cancelled by JKI (no staff available)
 - n°58 cancelled by JKI (no staff available)
 - n°49 cancelled by JKI (no staff available)
 - 8 MM could be used by consortium.
- WSU
 - Additional 1 MM, WSU → TWB
- BIYANS : no change
- IPT
 - Additional 1 MM, IPT → BIPCA (Balkiss BOUHAOUALA) For WP3/WP4 in relation with patents review and analysis
 - Additional 5 MM, IPT → BIYANS (Rim EL JENI or Hazar KRAIEM) for animal tests at BIYANS in WP3.
- MEDIS: no change
- INRA: no change
- CTA : no change
- USJ :
 - additional 6MM, USJ → JKI (Gabrielle AL KASSIS) Feb 2020, dedicated to formulation into WP3
 - additional 6MM, USJ → BIYANS (Gabrielle AL KASSIS) Sep 2020, dedicated to toxicological investigation in WP3. Both secondment will be insured by a long duration mobility that will embrace biopesticide formulation and efficiency/toxicological tests with 2 different partners.

In conclusion, 19 MM will be available for consortium and 19 MM could be used to reinforce WP3 and WP4 if accepted. The new secondments are underlined and the modification are realised at constant total MM. This reflushing will be considered for the 2nd payout of partners by INSAT as soon as approved by PO.



Concerning Outreach activity, we got a slot for IPM-4-Citrus during congress IDB2009 (dec 2019), we are going to use it to promote our young scientists and put the light on WP4. Consortium suggests associating 2 secondees in one presentation and an introductory conference delivered by Sara FALVO from BIPCA ("lab to market in health/industrial biotechnology") for WP4.

- WP2, screening of operating conditions and mass balance (Jihane)
- WP2, Bt cultivation in bioreactor (Nouha, Johana)
- WP3, Formulation (Tayssir, Stephanie)
- WP3, Toxicological test (Hazar, Rim)

In addition, our consortium has identified two EC calls:

- SFS-04-2019-2020 Integrated health approaches and alternatives to pesticide use (Circular Economy) Single-stage - Opening Oct. 15th 2019 - Deadline Jan. 22nd 2020.
<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/sfs-04-2019-2020;freeTextSearchKeyword=;typeCodes=0,1;statusCodes=31094501;programCode=null;programDivisionCode=null;focusAreaCode=null;crossCuttingPriorityCode=null;callCode=Default;sortQuery=openingDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState>
- SFS-06-2018-2020 Stepping up integrated pest management (Climate) Single-stage - Opening Oct. 15th 2019 - Deadline Jan. 22nd 2020
<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/sfs-06-2018-2020;freeTextSearchKeyword=;typeCodes=0,1;statusCodes=31094501;programCode=null;programDivisionCode=null;focusAreaCode=null;crossCuttingPriorityCode=null;callCode=Default;sortQuery=openingDate;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState>

Both calls will be considered for a next application.



2.2 Consortium meeting – minutes (IDB, Sousse, Tunisia) – December 2019

2.2.1 Date/Place/Audience:

International Days of Biotechnology 2019, has taken place on 18-21th December 2019 at Palace el Kantaoui (Sousse, Tunisia). A special session dedicated to IPM-4- Citrus was programmed in the IDB general program. Four oral and three poster presentations were presented during this session. Two Consortium meetings gathering 20 persons were organised in the frame of the event. All partners were represented (JKI, LISBP, TWB, WIKI, BIYANS, MEDIS, CBS, IPT & CTA) or by videoconference (USJ, BIPCA). IPM-4-Citrus activities during IDB were divided in 4 days as described by working program including (i) administrative and scientific progress of the project and (ii) dissemination and outreach activities.

The IDB2019 brought together about 300 scientists. About 80 conferences were presented.

2.2.2 Working program:

Day 1 : Wednesday 18th Dec. 2019

12h30 Arrival & Registration to IDB 2019

Day 2 : Thursday 19th Dec. 2019

10.50-12.25 Room 2: Industrial Biotechnology (IPM-4-Citrus)

Oral communications:

10.50-11.10 Sara FALVO Visio conference: Exploitation of scientific results in the biotech field: the crucial role of intellectual property rights

11.10-11.25 Jihane SAAD: Mass balance and cells, spores and δ -endotoxin distributions during *Bacillus thuringiensis kurstaki* bioproduction with wheat bran based medi

11.25-11.40 Nouha ABDELMALEK/Johanna Abboud: Monitoring of *Bacillus thuringiensis kurstaki* (Btk) growth, sporulation and δ -endotoxin production: insight of on-line alternative measurements with semi-synthetic and industrial media

11.40-11.55 Tayssir HAMMAR/Stephanie EL KHAWAND : Development of Biopesticide Formulations for New Strains of *Bacillus thuringiensis* Spores and Crystals to control citrus pests

11.55-12.10 biocontrol activity / Exchange about biopesticides efficiency and innocuity (around the 3 IPM-4-Citrus posters)

Posters:

Hazar KRAIEM: Environmental toxicity assessment of NEW *Bacillus thuringiensis kurstaki* - based biopests on non-target organisms using ISO Standards and OECD Guidelines
 Zakaria BENLASFAR: Strategy for biosafety assessment of new strain-based biopests using laboratory animal toxicity models.

Jerome CUBERO: Project IPM-4-Citrus at a glance

17.00 – 18.00 IPM-4-Health new project presentation & round table

Day 3: Friday 20th Dec. 2019

17.00 – 18.30 IPM-4-CITRUS update & meeting

Day 4: Saturday 21th Dec. 2019



10.00 – 12.00
in Akouda, Sousse
12.30 – 14.00

Visit of the Plant Oil Mill & Factory « Huilerie KHALFALLAH”
Networking & Business Lunch

On Tuesday 17/12/2019, a preliminary working meeting at IPT focussing on WP3 was organised with IPT, JKI, TBI.

2.2.3 Snapshots of PM2.

In relation with working program, **Figure 5** illustrates the different steps of Consortium meeting – minutes (IDB, Sousse, Tunisia).

IDB 2019

Scientific presentations



Figure 5: Snapshots during Consortium meeting (IDB, Sousse, Tunisia).

2.2.4 Main information related to Consortium meeting during IDB2019.

On Tuesday 17/12/2019, a working meeting at IPT focussed on WP3 with the participation of IPT, JKI, TBI. The objectives were to make a progress point on WP3 by considering formulation and sample production, risk assessment, eco-toxicology, efficacy and field assays. The discussion was enlarged to results of WP2 and the drafting of a realistic PID.



This brainstorming was also the way to identify the existing and missing information for our project as well as to structure the Deliverable D3.1 and D3.2.

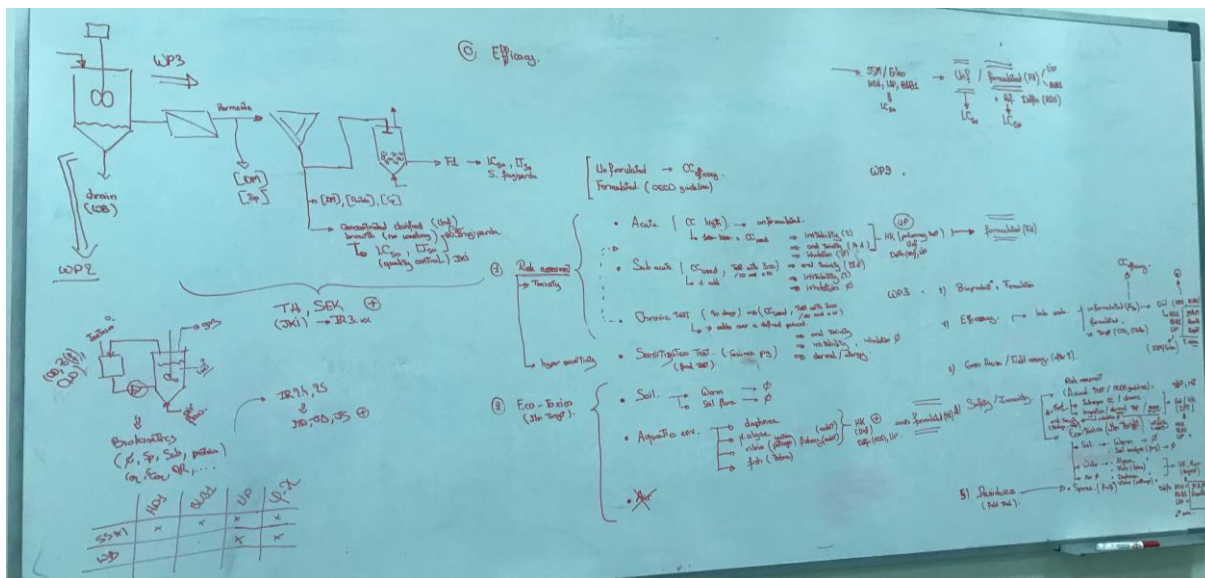


Figure 6 : Overview of actions realised, under progress and to conduct in relation with WP2 and WP3.

On Thursday 19th Dec. 2019, a discussion was realised about IPM-4-Health. Different EC calls were identified during PM2. The idea was to brainstorm with our consortium about the next step for IPM-4-Citrus. This future and potential project was identified, a new project presentation & round table including potential additional partners.

On Friday 20th Dec. 2019, a consortium meeting was organized. Our main observation and remarks par WP are as follows :

- WP1 Management (secondment and funding). For global funding, the 1st EC pre-funding (1st and 2nd transfer from INSAT) enabled to fund the project up to 60%. This 2nd intermediate funding (3rd transfer from INSAT) enabled to get an extra 20% to fund the project (159450€). This is less than initially planned by EU because of the delays within the project and the % of completion of secondments up to this date. The last instalment from EU (balance) will be sent at project's completion (at the end of the projects - 31st March 2021).
- WP2 Biotechnology. Secondments refreshing and funding have been validated by our PO and EC! Long duration secondments (Joanna, Jihane, Nouha) are under progress and will end by July 2020.
- WP3 Bioactivity. Long duration secondments (Tayssir, Stephanie, Gabrielle, Gül) have been launched. Approval for animal test was validated and associated D7.4 was submitted into PORTAL. Deliverable D3.1 and D3.2 are under progress, their content and structure were discussed during a meeting with JKI, TBI and IPT.
- WP4 Transfer. The organisation of 2 trainings with BIPCA (2020) has been validated.
- WP5 Communications. Communication tools (flyer + poster + website) have been updated.
- WP6 Dissemination. A Review article is presently submitted (1st IPM-4-Citrus publication) and IDB2019 was organized including a session dedicated to IPM-4-Citrus (4 presentations, 3 posters, 2 internal meeting)



2.3 Progress Meeting (PM3) minutes

In this part, the key elements and documents associated with PM3 are briefly summarized.

2.3.1 Date/Place/Audience:

Project Progress Meeting3 (PM3, scheduled at M36 in the project Grant Agreement) IPM-4-Citrus has taken place on Monday 29th June 2020, from 9h30 up to 17h30 (FR) by Visio conference with 19 persons. Ten partners out of eleven were represented (JKI, LISBP, USJ, MEDIS, CBS, IPT, BIYANS, CTA, WSU and TWB) with at least one participant. BIPCA was missing but a state point has been previously done with them.

The confirmed attendees were as follows:

- BIYANS : Zeynep YURTKURAN, Gül AYYIDIZ
- JKI : Dietrich STEPHAN,
- TBI-INSAT: Luc FILLAUDEAU, César ACEVES,
- CBS: Souad ROUIS, Slim TOUNSI, Nadia MARRAKCHI
- IPT : Balkiss BOUHAOUALA, Hazar KRAIEM, Zakaria BENLASFAR
- USJ: Mireille KALLASSY, Stéphanie AL KHAWAND
- TWB: Julien CESCUT, Jihane SAAD
- WSU : Nadra DHAOUDI,
- MEDIS : Nadia BENS Aid, Nouha ABDELMALEK
- CTA : Ridha RAHMOUNI,

PM2 was divided in 2 parts as described by working program including (i) administrative and scientific progress of the project and (ii) to exchange and evaluate secondments realised, cancelled, maintained but delayed, redeployed or new request. PM3 was the opportunity to report several administrative and management elements, to report the impact of Covid-19 crisis and to focus on WP3 - Bioactivity activities within the IPM-4-CITRUS Consortium. This important milestone was to gather consortium members in order to confirm the secondments needed for the implementation of the project after Covid-19 crisis, as well as to discuss our scientific results and the next steps of our collaboration.

2.3.2 Working program:

WP 1 – Management (Luc FILLAUDEAU) → by LF & SR

- Reminder about funding and human resources (last fund transfer).
- Consequence of Covid-19 crisis, letter for “Force majeure circumstances”, exchanges with our PO, FAQ, secondments in stand-by, specific situation
- Scheduled and pending secondments (for next planning), possible scenario
- Administrative control of each partner (Portal, Workspace and EC questionnaire)



- Deliverables overview

WP 5 – Networking & Outreach - (Luc FILLAUDEAU)

- Scientific papers under progress or submitted: WP2 (4 papers, CBS, USJ, MEDIS, TWB, TBI-INSAT), WP3 (?) and WP4 (?). → by LF (WP2), DS (WP3) and SF (WP4)
- IDB2020 : free scientific propositions for all partners) → by LF & SR
- IDB2021: specific session for IPM-4-Citrus associated with final meeting (Laboratoires MEDIS, Nabeul). → by LF & SR

WP 2 – Bioprocess (Souad ROUIS, Luc FILLAUDEAU)

- Update and last actions (progress status of secondments, scientific works) → by SR
- Biokinetics analysis and modelling (JS, NA, CAAL, JC) → by CAAS, JS
- Process & Instrumentation Diagram (PID) → by LF

WP 3 – Biotech (Dietrich STEPHAN)

- Update and last actions (progress status of secondments, scientific works) → by DS
- Production and formulation (JKI, USJ, MEDIS, BIYANS, BIPCA) → by DS, GY
- Risk assessment and Eco-toxicology (IPT, BIYANS) → by BB, HK, ZB
- Efficiency : Lab and Field assays (JKI, CBS, CTA, BIYANS) → by ZY, GY, SR

WP 4 – Transfer (Sara FALVO)

- Update and last actions (progress status of secondments, transfer works) → by SF
- Business plan (MEDIS, WSU, TWB/TBI-INSAT, BIPCA, JKI) → by MK, Laurie...

Discussion & exchanges:

- around “last & new” secondment planning and implementation
- Overdue and next Deliverables
- Technological choice & scale-up (capacities, pending questions) → all

2.3.3 Snapshots of PM3.

In relation with working program, **Figure 6** illustrates the different steps of PM3.

Consortium meeting



Figure 7: Snapshots during PM3

2.3.4 Documents and presentations associated with PM2.

Several documents have been prepared and used for this PM3 in order to facilitate debates and exchanges (cf. annexes). All these documents are recorded in the common workspace: server\Citrus_IPM_H2020\3-WP-and-Task\01-WP1:Consortium&Managment-IPM-4-Citrus\ 23- PM3-Remore-29June2020, in their respective sub-directories: (i) Program, (ii) Presentations and (iii) Up-dated documents.

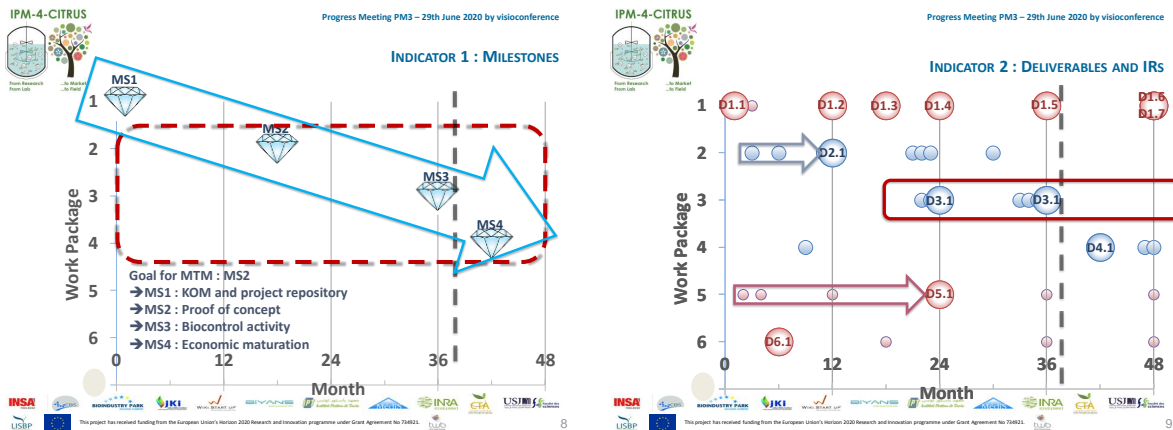
2.3.5 Main information related to management and progress statue.

The main elements related to management and project progress were detailed in the document: 1-IPM-4-CITRUS_PM2-Intro-WP1-WP6-Darmstadt-VF.pptx. As indicated in MTM and reminded in PM2 and Consortium meeting, 5 indicators have been identified to follow project progress : (1) Milestones, (2) Internal reports (IR) and Deliverables, (3) Scheduled secondments / partner, (4) Secondments /WP and (5) Budget breakdown.

Evolution of Secondments / Missions / Months demonstrate a significant deviation between realised and scheduled secondments. Several secondments (including long duration) are under progress. However the impact of Covid-19 crisis is not predictable.



Figure 4 reports the status of Indicator 1 and 2 at T0+36months.



Evolution of Secondments / Missions / Months

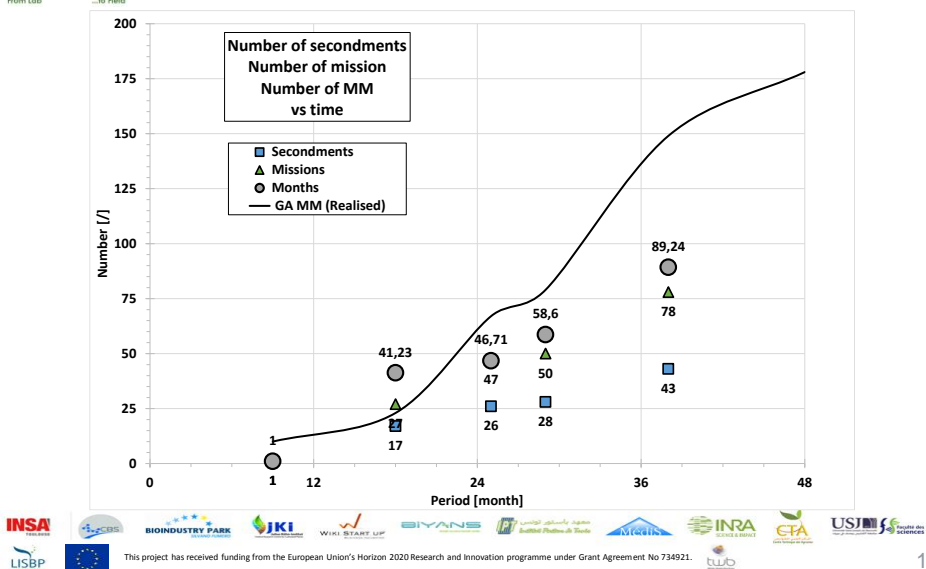


Figure 8: Overview of 2 main indicators and their evolutions

An internal administrative control of each partner (date 07/05/2020) was realised by controlling the information and documents reported into Portal, Workspace and EC questionnaire. It was reminded that secondments declaration in EU Portal and Nuxeo Workspace should be verified by each partner before EC control. In order to anticipate a financial and administrative control of our project by EC, we remind that all secondment declaration and attached document should be saved in Nuxeo workspace. With a partial control of several secondments, at present time several documents are missing. It is mandatory to fill out these criteria and to ensure that the information is reported for all secondments under your supervision. All elements have to be



checked with the help of the attached file (IPM4Citrus_Deliverable-and-Secondmentdeclaration-May2020-NM-24062020.xlsx).

Line B2 (Consortium management)

Regarding line B2 dedicated to Consortium, the financial consumption was presented for 2017, 2018 and 2019. Considering Covid-19 crisis and cancellation of PM3 in Turkey, it was proposed to use it to support potential additional actions (open-access, training...), to organise an "additional PM3" at BIYANS in March/April 2021 and to participate to IDB2020 (maybe associate with a WS2 in Tunis) and IDB2021 (associated to Final Meeting).

Global budget B2		124 600 €		
80% allow		99 680 €		
20 % blocked funding		24 920 €		
Real expense par year				
	Operation	Personnal	Total	
2017	7 908,67 €	0,00 €	7908,67	
2018	17 274,39 €	9 362,21 €	26636,6	
2019	11 880,20 €	8 281,79 €	20161,99	
Subtotal (realised)		37 063,26 €	17 644,00 €	54 707,26 €
Previsionnal per year				
	Operation	Personnal	Total	
2020	13 000,00 €	15 000,00 €	28 000,00 €	
2021	13 000,00 €	3 000,00 €	16 000,00 €	
Subtotal (previsional)		26 000,00 €	18 000,00 €	44 000,00 €
Total (real + previsionnal)		63 063,26 €	35 644,00 €	98 707,26 €

Table 5 : Consumption and previsionnal use of line B2 (Consortium management)

Impact of Covid-19 sanitary crisis:

Since March 2020, Covid-19 sanitary crisis have strongly impacted our project with :

- Cancellation of almost all secondments and outreach activities,
- Letter of Force Majeure Circonstances (11/03/2020),
- Exchanges with PO (specific request),
- Information from coordination to consortium about evolution (13/03, 09/04, 04/05, 10/06 and 23/06)

Exchanges and follow-up with our PO and Consortium was maintained. The main information reported by Tiphane Spanier were:

- Specific requests for remote Work → rejected by EC
- Specific situation for BIPCA → JKI :
 - accepted but under “Covid-19 crisis condition”



- final decision taken by Authorised officer only after reviewing our documentation
- final reporting period will describe this deviations
- IPM-4-Citrus extension until December 2021 :
 - Decision in September 2020 by EC.
- Secondments will restart in September 2020 →
 - Provide reflushed planning until December 2021 for all secondments
 - Argumentation to provide (reason, secondment period)

Scientific valorisation

If Covid-19 sanitary crisis was damageable for secondments, it was an opportunity to work on data treatment and to valorise results. As indicated in table 6, several scientific articles are under progress.

Article	WP (Lead)	Drafted	Submitted	Revised	Accepted
1. Review Bt kurstaki	WP2 (CBS)	✓	✓	✓	
2 Optimal culture (flask)	WP2 (USJ)	✗			
3 LIP / sieved WB (flask)	WP2 (USJ)	✓			
4 LIP / granulo (flask)	WP2 (USJ)	✓			
5 BLB1 / WB / Bioreactor	WP2 (MEDIS)	✗			
5 Btk / MSS / Bioreactor	WP2 (INSAT)	✗			
7 Development of formulations of BLB1 and LIP	WP3 (MEDIS)	✗			
8 Efficacy of LIP and BLB1	WP3 (JKI)	✗			
9 Environmental stability of formulations of BLB1 and LIP	WP3 (BIYANS)	✗			

Table 6 : Listing of articles under work and their progress status.

2.3.6 Main information related to management and progress statue.

As mentioned at the end of the day, our consortium was congratulated for input, availability and open-discussion atmosphere. Zoom experience with 20 persons, 7 presentations and associated discussions is a nice experience but a face-to-face meeting is definitely to be preferred. Our consortium is sharing the same level of information regarding all WPs. In the workspace, all presentations introduced during the day can be downloaded (Citrus_IPM_H2020 \ Workspace \ [3- WP-and-Task \ 01- WP1 : Consortium & Management \ 23- PM3-Remote-29June2020](#)).

Key points of our exchanged are :



- For next secondments: to provide a potential calendar per partner (sending/hosting, secondment, period) by the end of the week==> an argumentation should be given in order to justify project extension until December 2021. A major argument remains both periods for citrus treatment (flowering and leaf) corresponding to spring and summer seasons.
- For completed secondments: to control that all administrative and financial documents are available in workspace, to control that EC questionnaires were filled out (check message from 07 May)
- For WP2 : actions to prioritise are
 - to finalise biochemical analysis (organic acids, sugars),
 - to model biokinetics (macroscopic approach and not metabolic description) and to develop the process control/command ==> estimators
 - to up-scale and up-grade production unit (Taanayel)
 - to finalise PID (WP2, WP3) for Business plan (WP4)
 - to organise training with CBS/MEDIS and USJ associated with JKI (WP3) and TBI (WP2).
 - to continue on scientific valorisation of results.
- For WP3 : actions to prioritise are
 - to go ahead with formulation and efficacy (associated with Gül and Gabrielle, Dietrich and Rida)
 - to go ahead with risk assessment (associated with Sayda, Hazar, Gabrielle, Gül and Zakaria) ==> timing should be clearly identify. Formulation without API (endotoxin) has to be considered.
 - to work on scientific valorisation of results.
- For WP4 : prioritised actions are
 - to propose a Business plan development under the supervision of BIPCA considering MEDIS specifications.
 - to organise secondments between WSU ==> JKI and TWB before April 2021.
 - to identify possible patents or protection around the engineered process (under BIPCA and MEDIS control),
 - For MEDIS ==> land is available, production line scaling is requested, target market and size, timing...
- For WP1 / WP5 :
 - capacity to use line B2 to support potential additional actions (open-access, training...)
 - to organise an "additional PM3" at BIYANS in March/April 2021
 - to participate to IDB2020 (maybe associated with a WS2 in Tunis) and IDB2021 (associated to Final Meeting).

2.4 External events affecting IPM-4-Citrus working planning (August 2020).

Following reporting about PM2 (September 2019), Consortium Meeting (December 2019) and PM3 (June 2020), it is important to report special circumstances affecting our Lebanon partner (USJ) and its consequences into IPM-4-Citrus.

Several elements require our PO position and advices. The explosion in Beirut has impacted our project since our last PM on 29th June and its conclusion. It affects our reflushed secondments another time... our consortium need to adapt. The situation at USJ (Lebanon) has completely changed the in-coming secondments scheduled in October/December 2020, as you can understand.

For the explosion in Beirut's freight port, IPM-4-Citrus coordinators (Souad ROUIS and Luc FILLAUDEAU) exchanged with Mireille KALLASSY. The social, economic, material and political situations are collapsing in Lebanon and especially in Beirut. The different USJ establishments were strongly affected by the blast, but the site of Mansourieh (Biopesticide lab) was lessly affected (mainly windows and ceiling were destroyed – cf. pictures). The Lebanon and USJ priorities will be to rebuild or to rehabilitee the infrastructure as soon as possible.



Figure 9 : Illustration of damages generated by the blast (6th August 2020) at USJ.

From Mireille KALLASSY feedback, her laboratory was weakly affected (broken glassware and ceiling), no staff injured and damages are limited to benchtop material. Everything as to be cleaned up and some materials repaired. The return of students to USJ is another challenge and will be chaotic (students registration and fees, accommodation capacity in university, deepening Covid-19 crisis...). This aspect is still unclear.

In spite of this exceptional situation, we decided to continue our scientific and technical collaboration and to go ahead with our Lebanese colleagues into IPM-4-Citrus. Different reasons sustain our decision : (i) united consortium with USJ, (ii) realised outgoing



secondments from USJ to TBI, TWB and JKI have been fruitful and successful, (iii) secondments will restart in September (ex. Gabrielle to JKI), (iv) scientific valorisation is under progress (benefit of confined period), (v) USJ laboratories will be active by 2021 and (vi) the production unit in Beeka area is operating (not concerned).

At present time (17th August), we agree with Mireille to host another Lebanon scientist to TBI instead of moving to USJ. Of course, all these modifications will be minor (change TBI==>USJ into USJ==>TBI for 2MM), we already start the administrative procedure for D. Nancy FAYAD. The same strategy will be done with CBS (change CBS==>USJ into USJ==>CBS for 5MM). These changes have to be validated by our PO.

To conclude, IPM-4-Citrus coordinators do not want to depict a too "black" dashboard because all events affecting IPM-4-Citrus were 100% external events. Meantime, we would like to remind that we benefit from an active and united consortium. Consortium capitalized scientific and technical results within WP2 and WP3 which lead to define a PID for scale-up (patenting and industrial transfer are under discussion). It achieved a pertinent communication to the different stakeholders, it organised *ad hoc* trainings and intend to persevere both aspects. Consortium presently restart the secondments, it got our 1st accepted publication (Process Biochemistry) and 5 others papers are under progress and it succeed in promoting several young scientists (Nouha and Tayssir to MEDIS, Joanna to TWB and Jihane to a PhD position).



3 RISK MANAGEMENT & CONCLUSION

3.1 Conclusion from PM2 (September 2019, Darmstadt, GER)

Our discussion leads to identify the following points:

1. Consortium management:
 - Partner evolution (BIYANS, BIPCA)
 - Statement about secondments has been done with each partner
 - Reflushings and new demands are identified
 - Proposal will be submitted to our PO for approval.
 - Funding of all partners (T0+24, T0+48months) will be done consequently.
2. Administrative obligation related to EU (H2020-RISE)
 - WP3: Deliverable 3.1 to be submitted → by JKI
 - WP7: Deliverable 7.4 to be submitted (Authorisations for the supply of animals and the animal experiments) → by IPT
3. Communication and dissemination: Website <http://www.ipm-4-citrus.insa-toulouse.fr/>
 - IPM-4-Citrus website should be updated to integrate all events (2018, 2019: 7 events to report). → by INSAT
 - Next Consortium meeting will be realised during IDB2019 (Sousse, Tunisia). After call identification, positioning and strategy for next EC call will be discussed.
 - PM3 will be realised at BIYANS in June 2020.

3.2 Conclusion from PM3 (June 2020, Remote)

Covid-19 sanitary crisis strongly affect our project. Since March 2020, Covid-19 sanitary crisis have strongly impacted our project with :

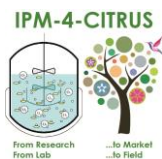
- Cancellation of almost all secondments and outreach activities,
- Letter of Force Majeure Circonstances (11/03/2020),
- Exchanges with PO (specific requests between March and June 2020),
- Monthly information from coordination to consortium about IPM-4-Citrus evolution (13/03, 09/04, 04/05, 10/06 and 23/06)

Even if all actions will be maintained, the agreement for a final date in December 2021 is requested. At present, we reflushed several secondment considering that situation will be back to normal by September 2020. This proposal has to be discussed with our PO.

Annex 1

Table 7 : Synthesys of modified secondments and proposal for reflushing M30-M48 after PM2.

Sec No.	Res No.	Researcher Category	Sending Partner	Sending Country	Sending Country	Sending Sector Academic	Seconded to Partner	Seconded to Country	Seconded Country	Seconded Sector Academic	Sec No.	Res No.	Starting Month	Duration MM	Proposition	Available MM for consortium		
INSAT																		
35	19	ESR	1. INSAT (BEN)	France	EU/AC (MS)	Yes	8. MEDIS (BEN)	Tunisia	EU/AC (AC)	No	35	19	18	12	maintained 2 MM, INSA==> MEDIS (L. Fillaudeau, C. Aceves) reflushed 1 MM, INSAT ==> BIPCA (J. Cubero) reflushed 2 MM, INSAT ==> USJ (J. Cubero and/or L. Fillaudeau)	6		
CBS																		
7	5	ESR	2. CBS (BEN)	Tunisia	EU/AC (AC)	Yes	11. USJ (OPE)	Lebanon	TC (OCAF)	Yes	7	5	25	12	maintained 6 MM, CBS ==> USJ (Fatem, Wafa) reflushed 1 MM, CBS ==> BIPCA (Souad ROUIS)	5		
BIPCA																		
JKI																		
56	29	ER	4. JKI (BEN)	Germany	EU/AC (MS)	Yes	8. MEDIS (BEN)	Tunisia	EU/AC (AC)	No	56	29	19	3	maintained 1 MM, JKI ==> MEDIS (Dietrich STEPHAN)	2		
52	28	ESR	4. JKI (BEN)	Germany	EU/AC (MS)	Yes	10. CTA (BEN)	Tunisia	EU/AC (AC)	No	52	28	22	2	maintained 1 MM, JKI ==> CTA (Juliana PETZ)	1		
53	27	Technical_staff	4. JKI (BEN)	Germany	EU/AC (MS)	Yes	6. BIYANS (BEN)	Turkey	EU/AC (AC)	No	53	27	25	2	cancelled by JKI (no staff available)	2		
58	29	ER	4. JKI (BEN)	Germany	EU/AC (MS)	Yes	5. WIKI START UP (BEN)	Tunisia	EU/AC (AC)	No	58	29	30	1	cancelled by JKI (no staff available)	1		
49	26	ER	4. JKI (BEN)	Germany	EU/AC (MS)	Yes	6. BIYANS (BEN)	Turkey	EU/AC (AC)	No	49	26	35	2	cancelled by JKI (no staff available)	2		
WSU																		
73	39	ADM	5. WIKI START UP (BEN)	Tunisia	EU/AC (AC)	No	9. INRA (BEN)	France	EU/AC (MS)	Yes	73	39	42	2	additional 1 MM, JKI ==> TWB (Mondher KHAMFIR)	-1		
BIYANS																		
IPT																		
44	24	ER	7. IPT (BEN)	Tunisia	EU/AC (AC)	Yes	6. BIYANS (BEN)	Turkey	EU/AC (AC)	No	44	24	25	1	additional 1 MM, IPT ==> BIPCA (Balkiss BOUHAOUALA) 1 For WP3/WP4 - Patent verview and analysis	-1		
46	24	ER	7. IPT (BEN)	Tunisia	EU/AC (AC)	Yes	6. BIYANS (BEN)	Turkey	EU/AC (AC)	No	46	24	30	1				
47	24	ER	7. IPT (BEN)	Tunisia	EU/AC (AC)	Yes	6. BIYANS (BEN)	Turkey	EU/AC (AC)	No	47	24	35	1	additional 5 MM, IPT ==> BIYANS (Rim EL JENI or Hazar KRAIEM) for animal tests at BIYANS	-5		
MEDIS																		
INRA																		
CTA																		
USJ																		
30	16	ER	11. USJ (OPE)	Lebanon	TC (OCAF)	Yes	5. WIKI START UP (BEN)	Tunisia	EU/AC (AC)	No	30	16	30		additional 6MM, USJ ==> JKI (Gabrielle Gabrielle AL KASSIS) Feb 2020, formulation additional 6MM, USJ==> BIYANS (Gabrielle AL KASSIS) 1 Sep 2020, toxicological investigation	-12		
															40	Balance		0



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To be done following PM3