

**RawMaterials Copernicus [RawMATCop]  
Programme 2018-2020  
1<sup>st</sup> Call – May 2018**

**Call for Applications for  
Post-Doctoral Research Scholarship Projects  
&  
Academic Placements to Industry/Authorities**

25 May 2018



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# 1 Introduction

This is a call for applications for RawMATCop Post-Doctoral Research scholarship projects and RawMATCop Placement projects as part of the new RawMATCop Programme 2018-2020 from EIT RawMaterials.

In December 2017, as a result of the call 'Copernicus building skills actions' from the European Commission/DG GROW [DG for Internal Market, Industry, Entrepreneurship and SMEs; Space Data and Societal Challenges and Growth/Space Policy, Copernicus and Defence], EIT RawMaterials was awarded a three-year action named 'RawMaterials Copernicus Programme' [RawMATCop Programme 2018-2020]. The actions of the RawMATCop Programme 2018-2020 will be carried out and coordinated under the RawMaterials Academy.

The aim of the RawMATCop Programme is to develop skills, expertise, demonstrations and applications at the intersection between Earth observation data, specifically Copernicus data, and the raw materials sector.

The Programme covers four activities:

- I. RawMATCop Post-Doctoral Research Projects
- II. RawMATCop Placement Projects
- III. RawMATCop Short Course
- IV. RawMATCop Summit

The activities are focused on three 'Research & Application Areas' of the raw materials sector, these are:

- Copernicus data and related data for raw material prospecting and exploration
- Copernicus data for raw material extraction and mining activities
- Copernicus data for secondary raw material resources

The 'Research/Placement & Application Areas' are explained in more detail in section 1.4.

This call [RawMATCop May 2018 Call] is specifically for:

- 2 Post-Doctoral Research Scholarship Projects, duration 1 year
- 2 Placement Projects, duration up to 1 year (minimum 6 months)

As part of these projects, the successful candidates of the RawMATCop programme 2018-2020 will disseminate the results of their work and carry out a training in the form of two short-courses for professionals in industry but also other end-users, such as those in academia and the research community. The goals of the training will be to demonstrate to the learners how RawMATCop post-doctoral and work placement project results which explore new applications of Earth observation and Copernicus data and

services can be taken up in their host enterprises/organizations (Lifelong Learning activity). The course will train raw materials practitioners, professionals and researchers in how to use Copernicus (Sentinels and contributing missions) data and other related data, tools and products in their respective industries and research ecosystems – and transfer the results and knowledge gained from the post-doctoral research scholarships and placements.

## 1.1 Who can apply

### 1.1.1 Post-Doctoral Research Scholarships

Partners of EIT RawMaterials can apply to host and run the RawMATCop post-doctoral research scholarship projects. (see Annex 1).

Partners may suggest several post-doctoral scholarship projects within one or different 'Research & Application Areas', partners may be involved in both placement and post-doctoral scholarship projects, and partners may participate in multiple combinations of host institutions.

### 1.1.2 Placements

Academic partners of EIT RawMaterials can apply for an individual academic staff member to undertake a temporary placement with an industrial or governmental authority (or similar) which preferably, but not necessarily, is a partner of EIT RawMaterials. (see Annex 2).

Partners may suggest several placement projects within one or different 'Research & Application Areas', partners may be involved in both placement and post-doctoral scholarship projects, and partners may participate in multiple combinations of host institutions.

## 1.2 RawMATCop Post-Doctoral Research Scholarship Projects

**What:** Funding of up to 2 RawMATCop Post-Doctoral Research Scholarship projects.

**Aim:** To develop skills, expertise, demonstrations, and new applications and innovations at the intersection between Earth observation data, specifically Copernicus data, and the raw materials sector.

**Who:** Partners of EIT RawMaterials joining in a consortium applying to host and execute a RawMATCop Post-Doctoral Research Scholarship project. One of the partners in the consortium must be the primary host of the Post-Doctoral Research Scholarship project and the corresponding researcher.

**Research & Application Areas:** The Post-Doctoral Research Scholarship projects should fall within one of the three Application Areas described in section 1.4. The research to be carried out must be clearly described with indications of clear objectives and goals (see Section 3.4 and Annex 1).

**Duration:** Each project will run for 12 months.

**When:** The post-doctoral researcher must be recruited and the projects must commence no later than the end of the third quarter of 2018. Projects must end 12 months after this date.

**Scholarship conditions:** The conditions normally applicable to post-doctoral scholarships at the host institution and in line with the 2016-2017 Marie-Curie Work Programme for 'Individual Fellowship' will apply.

**Applicants and Host Institutions for the research projects:**

It is preferable that the Post-Doctoral Scholarship Projects should be carried out in cooperation with or supported by two or more EIT RawMaterials Partners, preferably a combination of university/research institutions and industry partners, with one partner indicated in the proposal as the primary host institution. The indicated primary host institution will be the beneficiary of the grant from EIT RawMaterials and will be responsible for recruiting, employing, paying the salary of and physically hosting the post-doctoral scholarship researcher. A primary contact person at the host institution must be specified in the proposal. All EIT RawMaterials partners, as well as external partners that are involved in the project, should be stated in the proposal.

**Target groups to benefit from the Post-Doctoral Scholarship Projects:** Companies and institutions with expertise in the research and application of remote sensing data and services.

**Budget for the RawMATCop Post-Doctoral Scholarship projects:** The calculation of the costs associated with a RawMATCop post-doctoral research project (including the scholarship grants) should be in line with the 2016-2017 Marie-Curie Work Programme for 'Individual Fellowship' (see [http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016\\_2017/main/h2020-wp1617-msca\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf) using a non Safari web browser).

The calculation of the total budget should include the 'Researcher Cost' (as an 'Individual Fellowship') and the 'Institutional Cost' according to Table 1 here below.

Table 1: Guide-lines and maximum rates for the calculations of the cost of the RawMATCop post-doctoral scholarship project. The costs are subdivided into the maximum cost of the scholarship grant to the post-doctoral researcher recruited under an employment contract/equivalent direct contract and the maximum institutional costs for the host institution hosting the postdoc (which include travel costs for the postdoc).

|                       | 'Individual Fellowship'<br>(Personnel; Post-Doctoral Researcher Costs)<br>(per month) |                    |                  | 'Institutional Cost'<br>(per month)                                                      |                               |
|-----------------------|---------------------------------------------------------------------------------------|--------------------|------------------|------------------------------------------------------------------------------------------|-------------------------------|
| Item                  | Living allowance*                                                                     | Mobility allowance | Family allowance | Research, Training, Networking costs [includes travel costs for the Post-Doc Researcher] | Management and indirect costs |
| Individual fellowship | € 4.650*                                                                              | € 600              | € 500            | € 800                                                                                    | € 650                         |

\*The 'Living allowance' will be subject to the country correction co-efficients (CCC) to calculate final living allowances according to the country of the institution/company that will physically host the post-doctoral researcher. The country correction co-efficients can be seen on page 71 in the 2016-2017 Marie-Curie Work-Programme (see link above).

The above 'Mobility' and 'Family allowance' are both maximum amounts per month; these can be less – see in relation to this the maximum possible amount of financial support to a third party described here below.

Please note, the calculation in the proposal should include the family allowance. If a recruited candidate for the post-doctoral scholarship is not eligible to receive family allowance, this will be subtracted from the grant when the project is initiated. In this context 'family' is defined as persons linked to the researcher by (i) marriage, or (ii) a relationship with equivalent status to a marriage recognized by the legislation of the country or region where this relationship was formalized; or (iii) dependent children who are being maintained by the researcher.

These costs are used as principles for estimating the total budget of the RawMATCop Post-Doctoral Scholarship projects.

Note:

The maximum possible amount of financial support to a third party (in this project being a partner in EIT RawMaterials community, i.e. partner in RawMaterials e.V.) for costs related to 'Individual Fellowship' is limited to EUR 60.000 (personnel costs/Scholarship: living, mobility and family allowances; calculated following the "2016-2017 Marie-Curie Work-Programme principles", see above).

The 'Individual Fellowship' will be paid to the primary host institution according to normal principles and existing guidelines for KAVA projects. A modified form of the normal 'Project Agreements' for KAVA projects between EIT RawMaterials GmbH and partners of EIT RawMaterials, i.e. the host institution of the Post-Doctoral Researcher and the receiver of the RawMATCop Post-Doctoral Research Scholarship project, will be issued. The host institution will be responsible for paying the Post-Doctoral Researcher.

In those cases where the 'Individual Fellowship' and 'Institutional Cost' (project costs related to travel, accommodation during travel, training, participation in conferences, networking etc.; referred to as 'Institutional Costs') exceed EUR 60.000 per annum, all costs (related to 'Institutional Cost' only) above this limit will have to be invoiced to and paid directly by EIT RawMaterials GmbH. These costs will be subject to normal EIT RawMaterials regulations (e.g. Travel Policy); explanation will be provided in the course of preparing the projects.

The limit of EUR 60.000 per annum to support of a third party needs to be kept when applying for several activities within the RawMATCop Programme 2018-2020 (applying for both Post-Doctoral and Placement project).

**Financial reporting:** All costs must be eligible and proven according to EIT RawMaterials standards, in the event of an audit of a RawMATCop post-doctoral scholarship host institution.

**Grant Payment Scheme:** The primary host institution of the RawMATCop post-doctoral scholarships will receive pre-financing based on the existing guidelines for KAVA projects.

### 1.3 RawMATCop Placement Projects

**What:** Funding of up to 2 RawMATCop Placement Projects.

**Aim:** Temporary placements for academic researchers in industry, companies and public authorities (the 'Placed Researcher'). The researcher, representing the academic-oriented partner of EIT RawMaterials, is able to apply their knowledge, transfer skills and develop and/or strengthen the application and use of remote sensing and Earth Observatory/Copernicus data at the host partner of the placement; being the industry/business oriented partner of the proposal (not limited to, but preferable an industry partner from the EIT RawMaterials community).

**Who:** One partner of the proposal has to be a research-oriented partner of the EIT RawMaterials community (University or RTO partner). Another has to be an Industry partner or an applied- or policy-oriented RTO partner of, preferable but not limited to, the EIT RawMaterials community.

The individual academic staff member from the research-oriented partner of EIT RawMaterials, who will carry out the temporary placement itself, must be identified and is required to co-sign the proposal.

The proposal is being submitted by the research oriented partner of EIT RawMaterials.

**Placement & Application Areas:** The placements should fall within one of the three Application Areas described in section 1.4. The placement to be carried out by the placed researcher must be clearly described according to the 'Application Areas' with indications of planned work and the foreseen application and transfer of knowledge and skills (see section 3.4 and Annex 2). This description should also include how the knowledge and experience acquired during the placement will benefit the placed researcher, as well as how the placement will benefit the researcher's academic institution.

**Duration:** Preferably, each placement will run for 12 months. The duration may be shorter, but must be a minimum of 6 months.

**When:** The placement must commence no later than the end of the third quarter of 2018.

**Placement conditions:** The conditions normally applicable to the temporary transfer of academic staff to temporary positions in industry (if these exist and are applicable, e.g. in form of sabbatical leave, temporary attachment to a company, etc.) at the institution will apply.

**Physical location:** At least half of the period covered by the placement project should be spent at the industry/public authority site.

**Applicant and Host:**

It is necessary that the placement projects are carried out in cooperation and supported by:

- an research-oriented partner of the EIT RawMaterials community, either university or research-technology organisation (RTO), which is a partner of EIT RawMaterials and the employer of the placed researcher
  - The placed researcher must be specified in the proposal by name and position at the research oriented partner of the EIT RawMaterials community; the placed researcher must co-sign the proposal.
  - This partner will be the beneficiary of the grant from EIT RawMaterials.
- an Industry partner or an applied- or policy-oriented RTO partner which preferably, but not necessarily, is a partner of EIT RawMaterials.
  - The placed researcher will be hosted by this organisation for the duration of the project; this partner also has to co-sign the proposal.

**Cost of RawMATCop Placement project:**

Calculation of the costs associated with a RawMATCop placement (including the salary of the 'Placed Researcher') should be in line with the 2016-2017 Marie-Curie Work-Programme for 'Individual Fellowship' (see [http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016\\_2017/main/h2020-wp1617-msca\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf)).

The calculation of the total cost should include a 'Placement Cost' and a 'Company Cost' according to Table 2 here below (maximum costs eligible).

**Table 2:** Guidelines and maximum rates for the calculations of the cost of the RawMATCop Placement Project. The costs are subdivided into the maximum cost of placement (grant/salary to the ‘placed researcher’ which include maximum cost of travel/accommodation under the project and the maximum company costs for the host of the placed researcher during the project.

|                       | ‘Placed Researcher Cost’<br>(per month) |                    |                  | ‘Host Cost’<br>(per month)                                                |                |
|-----------------------|-----------------------------------------|--------------------|------------------|---------------------------------------------------------------------------|----------------|
| Item                  | (salary to placed researcher’)          |                    |                  | Travel and networking costs<br>[funding to support the Placement project] | Indirect costs |
|                       | Living allowance*                       | Mobility allowance | Family allowance |                                                                           |                |
| Individual fellowship | € 4.650*                                | € 600              | € 500            | € 800                                                                     | € 650          |

\*The ‘Living allowance’ will be subject to the country correction co-efficients (CCC) to calculate final living allowances according to the country of the institution/company that physical will host the placement (‘the placed researcher’). The country correction co-efficients can be seen on page 71 in the 2016-2017 Marie-Curie Work-Programme (see link above).

The above ‘Mobility’ and ‘Family allowance’ are both maximum amounts per month; these can be less – see in relation to this the maximum possible amount of financial support to a third party described here below.

Please note, the calculation in the proposal should include the family allowance. If a recruited candidate for the placement is not eligible to receive family allowance this will be subtracted from the grant when the project is initiated. In this context ‘family’ is defined as persons linked to the researcher by (i) marriage, or (ii) a relationship with equivalent status to a marriage recognized by the legislation of the country or region where this relationship was formalized; or (iii) dependent children who are being maintained by the researcher.

The ‘Host Costs’ are divided into ‘Travel and networking costs’ and ‘Indirect costs’. The ‘Travel and networking costs’ covers project related costs of travel, accommodation during travel, training, participation in conferences, networking etc. The ‘Indirect costs’ covers any costs that occur to the organisation that physical are hosting the placed researcher during the projects; e.g. insurance, IT and other necessities, laboratory costs, costs associated with managing the placement, etc.

These costs are used as principles for estimating the total budget of the RawMATCop Placement projects.

**Note:**

The maximum possible amount of financial support to a third party (in this project being a partner in EIT RawMaterials community, i.e. partner in RawMaterials e.V.) for costs related to ‘Placed Researcher Costs’ is limited to EUR 60.000 (personnel costs/Scholarship: living, mobility and family allowances; calculated following the “2016-2017 Marie-Curie Work-Programme principles”, see above).

The 'Placed Researcher Costs' will be paid to the placed researcher applicant institution according to normal principles and existing guidelines for KAVA projects. A modified form of the normal 'Project Agreements' for KAVA projects between EIT RawMaterials GmbH, the applicant institution and the host of the Placed Researcher will be issued. The applicant institution will be responsible for paying the Placed Researcher's salary (Placed Researcher Costs).

In those cases where the 'Placed Researcher Costs' and 'Host Cost' exceed EUR 60.000/a will all costs (related to 'Placed Researcher Costs' only) above this limit has to be invoiced to and paid directly via EIT RawMaterials GmbH. These costs will be subject to normal EIT RawMaterials regulations (e.g. Travel Policy), explanation will be provided in the course of preparing the projects.

The limit of EUR 60.000 per annum to support of a third party needs to be kept when applying for several activities within the RawMATCop Programme 2018-2020 (applying for both Post-Doctoral and Placement project).

**Financial reporting:** All costs must be eligible and proven according to EIT RawMaterials standards, in the event of an audit of a RawMATCop post-doctoral scholarship host institution.

**Grant Payment Scheme:** The indicated host of the RawMATCop placement will receive pre-financing based on existing guidelines for KAVA projects.

## 1.4 RawMATCop Application Areas

EIT RawMaterials' partners are invited to propose content related to the application and research of Copernicus and related data within the following three Application Areas described in the following.

### 1.4.1 Area 1 - Raw material prospecting and exploration

*Aim:* To develop new, efficient and innovative methods and applications or detecting raw material deposits or targeting areas with high mineral potential using Copernicus data.

Accessible and high-grade deposits in Europe are mostly exhausted or currently mined, meaning exploration must focus on remaining, more remote locations or penetrate much deeper into the Earth's crust. Sustaining mining activities in Europe would allow both the development of key technologies and the sustainable and ethical resource exploitation.

Space-borne data enables large-scale studies in prospecting, vegetation and land-use (change). However, new methods are needed for geological applications because the development of space-borne sensors with

adequate spectral and spatial resolution has stagnated and/or there are none available. Hyperspectral mapping, currently the tool of choice in mineral exploration, cannot be used in Europe until the EnMap satellite is launched in a few years. Airborne data acquisition provides a much higher resolution and better signal-to-noise ratios, but is long and complex in terms of preparation and data processing. There is also a gap between the scales of airborne and ground-based data in terms of spatial resolution. Unmanned Aerial Systems (UAS) are flexible, easy to use, and can overcome this gap and provide multi-temporal data at cm-scale resolution. However, they are not yet used in exploration.

*Suggested topics (not exhaustive):*

- Advances in multi-scale and multi-sensor remote sensing-based Earth integration techniques. Scale should range from satellite to air- and drone-borne systems and include ground validation. The successful proposal should demonstrate that the integration of different sensors, at different scales and including data provided by Copernicus, allows the accurate detection of potential zones with critical raw materials (as defined by the EU).
- Multi-sensor downscaling methods involving SAR and optical data are particularly in demand, but any initiatives within the scope of this call are welcome.
- Integration with other sensors and or measures such as geophysical/geochemical data are of interest, as well as non-conventional uses of remote sensing data content (texture, geometry, geomorphometry etc.).

#### 1.4.2 Area 2 - Raw material extraction and mining activities

*Aim:* to concentrate on the innovative use and application of Copernicus data in connection with other relevant datasets in already identified deposits and/or in current or abandoned mine sites.

Copernicus data and services allow users to plan, delineate, monitor and evaluate various factors associated with the mining and extraction of raw materials. The data provides cost-effective solutions to complex and important issues which have a significant impact on extraction and the optimization of mining.

*Suggested focus topics (not exhaustive):*

- Optimisation of mining activities in specific mine site(s), monitoring water quality around and/or at mine site(s), monitoring ground movement (subsidence and uplift) due to underground mining or vegetation changes during mining /post mining.
- Monitoring of mine dumps and tailings concerning slope and dam stability, movements, erosion, vegetation changes and water management.
- Development of new applications or instrumentation that applies Copernicus data for raw material extraction and mining.

### 1.4.3 Area 3 - Secondary raw material resources

*Aim:* to explore innovative use and application of Copernicus Sentinel-2 data or higher resolution data from Copernicus contributing missions in the field of secondary raw materials.

Copernicus data can be used to evaluate the environmental impact of waste and residue management activities. Knowledge collected on the basis of mine tailings etc. can be applied to residue stocks of (metal) production and processing industries.

*Suggested focus topics (not exhaustive):*

- Historical and new tailings from mining operations, residues from industrial processes, or stocks and flows of waste and (used) products (landfill mining and urban mining). New applications may be developed to evaluate and track materials through the value chain and the assessment of demand-supply scenarios.
- Vegetation indices derived from Earth Observation data can indicate plant health by showing spectral differences caused by changes in leaf pigments and internal leaf structure because of vegetation stress.
- Uncontrolled landfills and dumpsites of municipal solid waste are considered a main threat to public health in many countries. Impacts on drinking water bodies, air pollution through uncontrolled fires and direct exposure to hazardous compounds cause high risks to the surrounding communities. Earth observation data may be applied to investigate the causes, impacts and effects of landfills.
- A sustainable circular economy requires information about material and product volumes and movements, both in the use and waste phases. Earth observation can be used to inventory solar panels, air coolers, car stocks, oil reserves, etc., which typically requires the use of high resolution images. New applications can be developed to support elements for a circular economy: the study of socio-economic trends and the evaluation of material use and supply.
- If airborne hyperspectral images of the same test site are also available, they can be compared to Sentinel-2 MSI images to determine their potential for the assessment of waste and residue management activities. This could lead to recommendations for future satellite missions.

## 2 Lifelong Learning activity – RawMATCop Short Course

The results of the RawMATCop 2018-2020 Post-Doctoral Research projects and Placement projects, along with Copernicus data and services, will be disseminated through a Lifelong Learning activity, tentatively entitled the 'RawMATCop Short Course'.

Both the post-doctoral researchers and the individuals carrying out the placements will play an active role in developing the material for the short course, including results from their research projects in the content. They will also be responsible for the organization and delivery of the entire short course, with advising from the RawMaterials Copernicus Committee and support from the RawMATCop Project Manager.

**Description:** Short course targeting professionals and existing as well as potential end-users of Earth observation data, especially Copernicus data. Participation in the short-courses will be publicly open and will be offered to partners of other Knowledge and Innovation Communities (KICs) which will facilitate knowledge, skills and technology transfer.

**When:** As suited according to the post-doctoral scholarship and placement schedules

**Duration:** 3–4 days

**Organised and managed by:** The RawMATCop Post-Doctoral Scholarship researchers, RawMATCop Placement researchers and EIT RawMaterials via its RawMaterials Academy

**Target group:** This group will be defined more precisely depending on the results of the post-doctoral research and placement projects, but is likely to include geologists, geophysicists, geotechnical staff, geodata and satellite data users, geotechnical engineers, regulators, land-use managers, etc. from authorities, industry and academia.

**Content and delivery:** Teaching, lectures and hands-on exercises will focus on the application of Copernicus Earth observation data. Recipients of the RawMATCop projects and experts from their host institutions will organize and deliver the course with support from the RawMaterials Academy and technical advising from RawMaterials Copernicus Committee. Experts from other EIT RM partners or external sources will also contribute if required.

**Recruitment of participants:** Via EIT RM partner network and public announcements.

## 3 Organisation & How to Apply

### 3.1 RawMATCop Manager and the RawMaterials Copernicus Committee (RMCC)

EIT RawMaterials will have a RawMATCop Manager under its RawMaterials Academy. The RawMATCop Manager will facilitate, coordinate and support the RawMATCop Post-Doctoral Scholarship and Placement projects for the entire RawMATCop Programme 2018-2020. EIT RawMaterials will form a RawMaterials Copernicus Committee (RMCC), consisting of EIT RawMaterials staff and representatives from the European Commission and/or Copernicus.

The Committee will be led and steered by the RawMATCop Manager who shall be responsible for coordinating the technical, scientific and institutional advising by the RMCC to the RawMATCop Programme 2018-2020. Moreover, the RawMATCop Manager, will support the organization and initiation of (estimated maximum) **three** workshops internally per 12 months, whereby the RawMATCop post-doctoral researchers and recipients of placements, as well as the RMCC, will be present. These workshops will be used to monitor progress and ensure dialogue between the different projects, whilst also sharing interim and final results to enable the 'RawMATCop Short-Course' to be developed. The workshops should also ensure that all projects are delivering wanted end-user products/services and disseminating the results amongst the RawMATCop Projects and to a wider user group.

Researchers who receive the RawMATCop post-doctoral scholarships and the RawMATCop placements should participate in all workshops. Additionally, virtual meetings will be planned, especially to establish an ongoing cooperation with the RawMaterials Academy.

The RawMaterials Copernicus Committee (RMCC), led by the RawMATCop Manager, will facilitate the following content in the workshops:

**Content related to Initial Phase of Projects:** Planning and initiation of RawMATCop Post-Doctoral Scholarship Project and Placement Project activities. It will provide a platform to network and learn from ongoing RawMATCop activities/projects, exchange experience and know-how, discuss the needs of potential end-users/key target groups within the RM sector to develop viable products and services. The 'RawMATCop Short Course' curriculum and potential participants will be addressed.

**Content related to Middle Phase of Projects:** Focus on the exchange of experiences and preliminary results of the RawMATCop projects and activities. Experts in Earth observation data who are not directly involved in the RawMATCop Programme 2018-2020 can, on a need to/wanted basis, be invited to support this content. At this stage, the 'RawMATCop Short Course' curriculum will be further developed, complemented by programme structure, short-list of expert speakers and definition of group work activities.

**Content related to Final Phase of Projects:** Focus on summarising the results and ensuring dissemination of the new applications and services produced by the RawMATCop Programme 2018-2020. It will also be used to finalise the programme and logistics for the 'RawMATCop Short Course'.

Participants in workshops:

- Members of the RawMaterials Copernicus Committee (RMCC)
- RawMATCop Manager
- Representatives from the RawMaterials Academy
- Recipients of the RawMATCop post-doctoral scholarships
- Other senior experts from the host institutions

## 3.2 How to apply

The proposals for either RawMATCop Post-Doctoral Research Projects or RawMATCop Placement Projects **should be sent as a PDF file to [academy@eitrawmaterials.eu](mailto:academy@eitrawmaterials.eu).**

**The deadline for proposals is 15 July 2018 at 16:00:00 CET.**

The proposals should be written according to the template/headings and guidance in the appropriate Annex 1 or Annex 2 of the Call.

The proposal should include a cost calculation according to the earlier stated rules for travel, accommodation and subsistence costs.

## 3.3 Evaluation and awarding of proposals

Proposals for this call will be evaluated by an external expert Evaluation Panel.

Based on the results from the Evaluation Panel, EIT RawMaterials will award the RawMATCop Post-Doctoral Research Scholarships Projects to the primary host institutions and the RawMATCop Placement Projects to the partners named in the proposal.

The primary contact person stated in the proposal will be informed of the outcome. **The outcome of the evaluation is planned to be announced by August 2018.**

A Partnership Agreement between EIT RawMaterials GmbH and the partner who will receive the funds will be signed when a project is awarded.

The Evaluation Panel is appointed and established by EIT RawMaterials and will consist of relevant available experts who are not from an EIT RM partner institution.

### 3.4 Award criteria, scores and weighting

#### 3.4.1 RawMATCop Post-Doctoral Research Scholarship Projects

1. Proposals for RawMATCop Post-Doctoral Research Scholarship Projects will be evaluated by the Evaluation Panel, on the basis of the award criteria 'excellence', 'impact' and 'quality and efficiency of the implementation'. The aspects to be considered and the weighting is as set out in the table here below.

| RawMATCop Post-Doctoral Scholarship Projects<br>Award criteria                                                                             |                                                                                                                                                                                                                    |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Excellence                                                                                                                                 | Impact                                                                                                                                                                                                             | Quality and efficiency of the implementation                                          |
| Quality and credibility of the research/innovation project; level of novelty, appropriate consideration of inter/multidisciplinary aspects | Relevance and impact for the Research & Application area; enhancing the potential and future career prospects of the researcher                                                                                    | Coherence and effectiveness of the work plan                                          |
| Quality and appropriateness of the training and of the two-way transfer of knowledge between the researcher and the host                   | Quality of the proposed measures to exploit and disseminate the project results; relevance for the RawMATCop Short-Course and for EIT RawMaterials' vision, mission and objectives (see EIT RawMaterials Strategy) | Appropriateness of the allocation of tasks and resources                              |
| Quality of the supervision and of the integration in the team/institution                                                                  | Quality of the proposed measures to communicate the project activities to different target audiences                                                                                                               | Appropriateness of the management structure and procedures, including risk management |
| Capacity of the researcher to reach or re-enforce a position of professional maturity/independence                                         | Potential for new innovative applications/products/services created from the project. Entrepreneurial components included/potential in the project.                                                                | Appropriateness of the institutional environment (infrastructure)                     |
| 50%                                                                                                                                        | 30%                                                                                                                                                                                                                | 20%                                                                                   |
| Weighting                                                                                                                                  |                                                                                                                                                                                                                    |                                                                                       |
| 1                                                                                                                                          | 2                                                                                                                                                                                                                  | 3                                                                                     |
| Priority in case of ex aequo                                                                                                               |                                                                                                                                                                                                                    |                                                                                       |

2. Evaluation scores will be awarded for each of the criteria, and not their individual elements. Each criterion will be scored from 0 to 5. Scores with a resolution of one decimal place may be awarded. The total score will be subject to a threshold of 70%.

3. If necessary, the panel will determine a priority order for proposals which have been awarded the same score within a ranked list. When the total scores are equal, priority will be based on scores for individual award criteria. For each action, the priority order of the criteria is detailed in the table below.

4. If necessary, any further prioritisation will be based on other appropriate characteristics, to be decided by the panel, by the RMCC and the management team at EIT RawMaterials. Further prioritisation will be related to e.g. the contribution of the proposal to the objectives and scope of the EIT RawMaterials, thematic balance, diversity of partners/location of execution, etc.

### 3.4.2 RawMATCop Placement Projects

1. Proposals for RawMATCop Placement Projects will be evaluated by the Evaluation Panel, on the basis of the award criteria 'excellence', 'impact' and 'quality and efficiency of the implementation'. The aspects to be considered and the weighting is as set out in the table here below.

| RawMATCop Placement Projects<br>Award criteria                                                                                                               |                                                                                                                                                                                                                       |                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Excellence                                                                                                                                                   | Impact                                                                                                                                                                                                                | Quality and efficiency of the implementation                                                                                                                                         |
| Quality, credibility and appropriateness of the know-how/technology transfer                                                                                 | Relevance and impact of the know-how/skills/experience/technology transfer – for all partners involved in the Placement                                                                                               | Coherence and effectiveness of the planned work during the Placement, quality of the proposed measures to exploit and disseminate know-how/skills/experience/technologies bi-lateral |
| Quality and relevance of individual academic researcher that will be placed at the host of the Placement (industrial partner/governmental authority partner) | Quality, experience and skills of the researcher involved in the Placement                                                                                                                                            | CV and experience of the researcher involved in the Placement, earlier bilateral work/cooperation, etc.                                                                              |
| Level of novelty, creation of new applications/skills/utilization of data at the host of the Placement (industrial partner/governmental authority partner)   | Evolve, build competencies and develop new utilization within involved partners in the Placement; enhancing the potential and future career prospects of the researcher                                               | Coherence and effectiveness of the work plan                                                                                                                                         |
| Quality and appropriateness of the training and of the two-way transfer of knowledge through the RawMATCop Short-Course                                      | Quality of the proposed measures to exploit and disseminate the project results and relevance for the RawMATCop Short-Course and for EIT RawMaterials' vision, mission and objectives (see EIT RawMaterials Strategy) | Appropriateness of the allocation of tasks and resources, implementation/                                                                                                            |
| Quality of the integration in the team/institution                                                                                                           | Quality of the proposed measures to communicate the project activities to different target audiences                                                                                                                  | Appropriateness of the management structure and procedures, including risk management                                                                                                |
| Capacity of the researcher/partners to reach or re-enforce a position of professional maturity/independence                                                  | Potential for new innovative applications/products/services and skills/tech. transfer created from the project. Entrepreneurial components included/potential in the project.                                         | Appropriateness of the environments of partners involved in the Placement (infrastructure)                                                                                           |
| 50%                                                                                                                                                          | 30%                                                                                                                                                                                                                   | 20%                                                                                                                                                                                  |
| Weighting                                                                                                                                                    |                                                                                                                                                                                                                       |                                                                                                                                                                                      |
| 1                                                                                                                                                            | 2                                                                                                                                                                                                                     | 3                                                                                                                                                                                    |
| Priority in case of ex aequo                                                                                                                                 |                                                                                                                                                                                                                       |                                                                                                                                                                                      |

## Contact details

For more information about the RawMATCop Programme and the Call for RawMATCop Post-Doctoral Scholarship and Placement projects, please contact:

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# Annex 1

## Template for RawMATCop Post-Doctoral Research Project Proposals

The proposal for the RawMATCop Post-Doctoral Research Projects should contain the following sections.

**Project Title** [max ca 20 words]

- The title of your project must reflect the content.
- Short and precise

**Executive summary** [max 300 words]

- A short, general summary of the proposed project.

**Aims and Objectives** [max 1 page]

- Describe the overall aim and objectives; what know-how, skills, experience, applications, technology will be transferred laterally between the partners involved.

**Relevance to 'Research & Application Area' and the governmental/business/industrial area** [max 1 page]

- In terms of new applications/use of remote sensing/Copernicus data/services.

**Bridging of research and practice** [max 1 page]

- How and why the proposed project bridges and evolves academic knowledge and practice and/or contributes to new understanding in the professional field.

**Approach and Methodology** [max 1 page]

- Describe the approaches and methods that will be used to achieve the objectives, including appropriate consideration of multi/interdisciplinary aspects.
- Outline of planned work/developments – including foreseen dissemination actions
- Gantt chart of the work plan, describing deliverables, outputs and milestones, also taking into consideration the organizational parameters described in the RawMATCop 2018-2020 Call (this document)

**Expected impact (if possible quantify the expected impact)** [max 2 pages]

- Exploitation and dissemination of project results, including target groups addressed by dissemination activities
- Communication to external stakeholders
- Impact of the research results and the applicability of Copernicus data and services in corresponding raw materials sectors, including follow-up actions and recommendations

- Potential for the creation of new innovative applications, products and services from the project.
- Entrepreneurial and innovation opportunities or potential arising from the project.

**Expected Outcomes** [max 1 page]

- Summarise the expected outcomes from the project.

**Potential Risks and Issues** [max 1 page]

- Identify possible risks/issues that could adversely impact the project and mitigation/ remediation strategies to address them accordingly

**Relation to the RawMATCop Short Course and relation to EIT RawMaterials** [max 1 page]

- Summarise the expected deliverables/teaching activities that the project can provide to the RawMATCop Short Course.
- Summarise how the content delivered in the RawMATCop Short Course contributes to the EIT RawMaterials' vision, mission and objectives.

**Organisation of the project** [max 1 page]

- Contact person for the proposal.
- Which EIT RawMaterials partner is hosting?
- Specify the primary host institution (beneficiary of the grant) and roles of partners (partner organisations) involved.
- Specify the individual academic researcher that will undertake the post-doctoral research, if already known – include a short description of expertise, experience and former work. Attach a full CV of the researcher.
- Specify individuals from host institutions who will support the project/the post-doctoral researcher [name, position, short description of the support/cooperation, max 100 words per individual] as well as describe the two-way knowledge transfer between the researcher and primary host institution and partner organizations

**Calculation of cost of the proposed RawMATCop post-doctoral research project** [max 2 pages]

- See also Table 1 in the Call.
- The proposal should include a cost calculation for the post-doctoral research project. The cost calculation of each post-doctoral research project should be in line with the 2016-2017 Marie-Curie Work-Programme for 'Individual Fellowship' (see [http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016\\_2017/main/h2020-wp1617-msca\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf)).
- Value of the grant should include the 'Researcher Cost' (as an 'Individual Fellowship') and the 'Institutional Cost' according to Table 1 in this document and found in the Marie-Curie 2016-2017 Work-Programme link above.
- Cost calculation should contain the researcher full-time equivalent person month costs as well as his/her foreseen travel/accommodation/subsistence costs related to the monthly mobility allowance.

- The travel and related accommodation/subsistence costs should consider the three 1-day workshops/review meetings and the 4-day RawMATCop short-course.
- The workshops/review meetings and the RawMATCop short-course will, most likely, be held at EIT RawMaterials GmbH in Berlin, at participating host institutions and/or in Brussels (Copernicus facilities).

## Annex 2

# Template for RawMATCop Placement Project Proposals

The proposal for the RawMATCop Placement Projects should contain the following sections.

**Project Title** [max ca 20 words]

- The title of your project must reflect the content.

**Executive summary** [max 300 words]

- A short, general summary of the proposed project.

**Aims and Objectives** [max 1 page]

- Supply an overall aim and objectives that the research will address.

**Relevance to 'Research & Application Area'** [max 1 page]

- Should include relevance to the research area, the development of new applications/use of remote sensing/Copernicus data/services and relevance for the business and industrial sector related to the area.

**Previous research and development related to the project** [max 1 page]

- How the proposed research addresses the existing body of academic knowledge and practice in the professional field.
- How the research project will enhance knowledge or contribute to new understanding in the subject.

**Research Approach and Methodology** [max 1 page]

- Describe the approaches and methods that will be used to achieve the objectives, including appropriate consideration of multi/interdisciplinary aspects.

- How will know-how/skills/experience and technology be transferred laterally between the partners involved?
- Outline of planned work/developments – including foreseen dissemination actions
- Gantt chart of the work plan, describing deliverables, outputs and milestones, also taking into consideration the organizational parameters described in the RawMATCop 2018-2020 Call (this document)

**Expected impact (where possible, please quantify the expected impact)** [max 1 pages]

- Exploitation and dissemination of project results, including target groups addressed by dissemination activities.
- Communication to internal and external stakeholders.
- Impact of the research results and the applicability of Copernicus data and services in corresponding raw materials sectors, including follow-up actions and recommendations
- Potential for the creation of new innovative applications, products and services from the project; potential for the development of new utilisation of Copernicus data and services; potential of building up new governmental services & application or new business area/services.
- Entrepreneurial and innovation opportunities or potential arising from the project.

**Expected Outcomes** [max 1 page]

- Summarise the expected outcomes from the project.

**Potential Risks and Issues** [max 1 page]

- Identify possible risks/issues that could adversely impact the project and mitigation/ remediation strategies to address them accordingly

**Relation to the RawMATCop Short Course and relation to EIT RawMaterials** [max 1 page]

- Summarise the expected deliverables/teaching activities that the project can provide to the RawMATCop Short Course.
- Summarise how the content delivered in the RawMATCop Short Course contributes to the EIT RawMaterials' vision, mission and objectives.

**Organisation of the project** [max 2 page]

- Contact person for the proposal.
- Specify the partner currently employing the individual academic researcher that will carry out the Placement – a short description of this partner, its excellence and its support to/interest in the Placement.
- Specify the governmental authority / industry / company that will take part in the Placement– and be the primary host of the academic researcher. Include a short description of this partner, its excellence, why the Placement will evolve and add to the partner's competencies. Specify a contact person at this partner.

- Specify the individual academic researcher that will undertake the Placement – include a short description of expertise, experience and former work. Describe any former work and cooperation with industry/governmental authorities. Attach a full CV of the researcher.

**Calculation of cost of the proposed RawMATCop post-doctoral research project [max 2 pages]**

- See also Table 2 in the Call.
- The proposal should include a cost calculation for the Placement Project. The cost calculation should be in line with the 2016-2017 Marie-Curie Work-Programme for ‘Individual Fellowship’ (see [http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016\\_2017/main/h2020-wp1617-msca\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf) ).
- Value of the grant should include the ‘Placement Cost’ and a ‘Company Cost’ according to Table 2 in the Call.
- Cost calculation should contain the researcher full-time equivalent person month costs as well as his/her foreseen travel/accommodation/subsistence costs related to the monthly mobility allowance.
- The travel and related accommodation/subsistence costs should consider participation in internal RawMATCop coordination meetings (estimated three 1-day workshops/review meetings per 12 months) and participation in the 4-day RawMATCop short course. All other travel and related accommodation/subsistence costs related to the Placement needs also to be considered.
- The workshops/review meetings and the RawMATCop short course will, most likely, be held at EIT RawMaterials GmbH in Berlin, at participating host institutions and/or in Brussels (Copernicus facilities).