Precious Metals Consortium

PMC Workplan 2017-2021

General Assembly, December 2016, D3

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1. Introduction

The Precious Metals and Rhenium Consortium (PMC) is one of the most complex consortia within the non-ferrous metals industry dedicated to REACH implementation. It covers several precious metals and their compounds (Ag, Au, PM CN, Pt, Pd, Rh, Ru, Ir, Re, PM Refinables). The work of the PMC is organized mainly by group of substances and is currently focused on Registration. However, some of the PMC substances are now impacted by other REACH procedures (e.g.: Substance Evaluation) and this explains the current PMC structure and workplan, as presented below.

The aim of this document is to present a consolidated overview of the different projects managed by the PMC, as the related financial and human resources and the timeline. A consolidated workplan will help to identify synergies and overlaps between the different projects as potential resources issue.

The rolling plan is covering 2017-2021 to ensure better predictability for the PMC members. This plan will be updated on a yearly basis by the PMC Secretariat following this process:

- Early March: PMC Secretariat brainstorming
- End of March: review and input at WG level
- April: review and input at MC level
- June: review and input at Assembly level
- End of August: PMC Secretariat brainstorming and update of the draft WP
- October: review and approval at WG level
- November: review and approval at MC level
- December: final approval by the Assembly

The projects and tasks are based on the following REACH obligations included in the mandate of the PMC:

- Registration (REACH, Title II)
- Maintenance of the Registration Dossiers (REACH, Title II, Chapter 4, article 22)
- Evaluation (REACH, Title VI)
- Authorisation (REACH, Title VII)
- Data Sharing (REACH, Title III)
- Classification & Labelling (REACH, Title XI)

The workplan reflects the best knowledge at the present time of the PMC Secretariat and its members regarding potential regulatory actions as Evaluation or Authorisation.

2. The projects

1. Overall structure

The workplan is structured by group of substances which form a project (e.g.: Silver project). Each project is divided in different sub-projects related to the regulatory obligations (e.g.: Registration, Dossier maintenance…). For sake of consistency, all the regulatory measures have been listed under each project but are not always relevant. Some of the sub-projects could be divided into different phases (e.g.: literature review, data gap analysis, testing, CSR, etc.). In addition, there is a specific project dedicated to SVHC Roadmap and more generally to substances of potential concerns, which are not covered by other projects and for which the Precious Metals industry is mainly DUs.

2. Silver Project

The list of substances included is available in Appendix 1.

1. Ag REACH Registration

The silver dossiers have been submitted in 2010.

2. Ag REACH dossier maintenance

The maintenance of the dossiers started in 2012 and the dossiers have been updated in 2012, 2013 and 2015. The main activity will be related to the literature review and the update of the file accordingly.

3. Ag REACH Evaluation

Silver has been included in the CoRAP (Community Rolling Action Plan) in 2013 by the Netherlands. The identified concerns are related to nanosilver and have been listed as follows: “Substance Characterization / Nanoparticles, toxicity of different forms of the substance”. The Final Decision will be issued in June 2016 for implementation. This means that the requested testing program focusing mainly on environment (water and soil) will continue in 2017, as the program dedicated to the identification of the uses related to the nanoforms and the overall update of the exposure scenarios. The dossier update including the outcome of the Evaluation will be submitted in 2018.

A testing proposal has been submitted for EOGRTs study to fill in the gap related to the reprotox endpoint. It is unlikely that the outcome of the testing proposal will be available before 2018.

4. Ag REACH Classification & Labelling

In 2017, CLH activities are still foreseen under the biocides on several silver and silver compounds but at this stage there is no clarity on timing nor on the substances at stake.

5. Ag REACH Authorisation

Based on the current classification of silver and silver compounds, these substances cannot be considered as relevant SVHC for Candidate Listing (CL).

3. Gold Project

The list of substances included is available in Appendix 2.

1. Au REACH Registration

Gold and some compounds have been registered in 2016. Due to the need to repeat some mandatory testing, the TCA will be registered in 2017. Exposure scenarios should be drafted early 2017 and the dossier should be registered by mid-2017.

2. Au REACH dossier maintenance

Due to the recent registration of Au dossiers, it is suggested to not start the maintenance in 2017 and wait for 2018. In 2018, maintenance will be mainly focused literature review and the update of the file accordingly.

3. Au REACH Evaluation

Based on the current knowledge (classification, tonnage, exposure) on gold and gold compounds, these substances cannot be considered as relevant for Substance Evaluation. However, Dossier Evaluation can be always conducted (compliance check) but this is unlikely that this happens in 2017 due to the fact that these dossiers do not fall under the prioritization criteria (e.g.: substance identification).

4. Au REACH Classification & Labelling

This process is not relevant at this stage.

5. Au REACH Authorisation

Based on the current classification of gold and gold compounds, these substances cannot be considered as relevant SVHC for Candidate Listing (CL).

4. Precious Metals Cyanides project

The list of substances included is available in Appendix 3.

1. *PMCN REACH Registration*

All PMCN registration dossiers will be submitted in Q3 2016. However, additional testing was required on potassium dicyanoargentate in 2016 which will lead to the finalization of this registration dossier Q3 2017. This timeline may be postponed of 6 months to 1 year if a monitoring programme is necessary.

2. PMCN REACH dossier maintenance

Due to the recent registration of PM CN dossiers, it is suggested to not start the maintenance in 2017 and wait for 2018. In 2018, maintenance will be mainly focused literature review and the update of the file accordingly.

3. PMCN REACH Evaluation

Based on the current knowledge (classification, tonnage, exposure) on precious metals cyanides, these substances could be considered as relevant for Substance Evaluation. However, taking into account the CoRAP process and the submission date of the dossiers, it is not expected to see these Substances being evaluated before 2018.

However, Dossier Evaluation can be always conducted (compliance check) but this is unlikely that this happens in in 2017 since these dossiers do not fall under the prioritization criteria (e.g.: substance identification). A testing proposal has been submitted for KAu(CN)2 for in vivo genetic toxicity endpoint but it is unlikely that the test will be performed before 2018.

4. PMCN REACH Classification & Labelling

This process is not relevant at this stage.

5. PMCN REACH Authorisation

Based on the current classification of precious metals cyanides, these substances cannot be considered as relevant SVHC for Candidate Listing (CL).

5. PGM project

The list of substances included is available in Appendix 4.

1. PGM REACH Registration

2016 and 2017 will be fully dedicated to the preparation and the submission of the PGM registration dossiers. The requirements for the substances could vary a lot depending on the tonnage bands (testing and CSR) and hazard profile (Exposure scenarios or not). The sameness discussion in some groups of substances (e.g.: platinum) must be finalized by Q4 2015 at the latest.

Platinum and Platinum compounds

In Q1 2017 all Pt and Pt compounds dossiers will be submitted except (HHPA compound with 2-AE).

Palladium and Palladium compounds

All registration dossiers will be submitted in 2016.

Rhodium and Rhodium compounds

Some of the Rh compounds will be registered in 2016. 2017 will be busy with environmental and human health testing finalisation on Rhodium compounds and completion of IUCLID 5 will be finalized for registration by Q2 2017.

Ruthenium and Ruthenium compounds

In Q3 2017, registration dossiers will be submitted after the completion of the CSR and exposure scenarios in 2017.

Iridium and Iridium compounds

Ir and Ir compounds has been registered in Q2 2016.

2. PGM REACH dossier maintenance

Due to the registration of PGM dossiers in 2016 and 2017, it is suggested to not start the maintenance in 2017 (even for those already registered) and wait for 2018. In 2018, maintenance will be mainly focused literature review and the update of the file accordingly.

3. PGM REACH Evaluation

This process is not relevant at this stage. Please note that after Registration, Dossier and Substance Evaluation will be a risk for some of the PGM (e.g.: the chloroplatinates, some palladium compounds, some rhodium compounds and some ruthenium compounds). Additionally, the substances for which a testing proposal has been submitted (e.g.: dihydrogen hexahydroxyplatinate, compound with 2-aminoethanol) will undergo a Dossier Evaluation for testing proposal. ECHA has no specific deadline to start the process but when started, the process could be resource demanding due to the consultation process. Based on the registration deadlines of these substances, it is not expected to start the Dossier Evaluation on testing proposal before 2019 at the earliest.

4. PGM REACH Classification & Labelling

This process is not relevant at this stage but could become relevant if some skin sensitizers like chloropalladates entire the screening process for further Risk Management Measures.

5. PGM REACH Authorisation

The main group of substances at risk is the group of chloroplatinates. Due to a harmonized classification as respiratory sensitizers and a new self-classification as STOT RE, these substances have a significant risk to be selected as SVHC due to the “equivalent concern” criteria. In 2016, an analysis of alternatives (AoA) has been conducted. In 2017, an update of the existing shadow RMOA can be envisaged depending on the outcome of the AoA but no budget has been allocated to this.

6. Rhenium project

The list of substances included is available in Appendix 5.

1. *Re REACH Registration*

The rhenium dossiers have been submitted in 2013 and 2014.

2. Re REACH dossier maintenance

The main activity will be related to the literature review and the update of the file accordingly.

3. Re REACH Evaluation

Based on the current knowledge (classification, tonnage, exposure) on rhenium and rhenium compounds, these substances could not be considered as relevant for Substance Evaluation.

However, Dossier Evaluation can be always conducted (compliance check) but this is unlikely that this happens since these dossiers do not fall under the prioritization criteria (e.g.: substance identification).

4. Re REACH Classification & Labelling

This process is not relevant at this stage.

5. Re REACH Authorisation

Based on the current classification of rhenium and rhenium compounds, these substances cannot be considered as relevant SVHC for Candidate Listing (CL).

7. Precious Metals Refinables project

The list of substances included is available in Appendix 6.

1. Refinables REACH Registration

The Refinables dossiers have been submitted in 2010 as SCC intermediates dossiers and most of them have been upgraded to full registration dossiers in 2014.

2. Refinables REACH dossier maintenance

An update of the Refinables dossiers was foreseen in Q4 2016, to include the results of the substance identity check and subsequent classification updates, and to refine the Exposure Scenarios (e.g.: combined toxicity assessment, reducing uncertainties, …). However, due to ongoing discussions with ECHA, it is very likely that these updates will only be feasible in 2017. Additional (speciation/validation) testing will only be performed if required by ECHA but due to the uncertainty in the timing, the related budget has been included in 2017. After the 2017 dossier updates, dossier maintenance is anticipated to be limited to regular classification checks/updates and updates following ECHA requests.

3. Refinables REACH Evaluation

Based on the current knowledge on Refinables, these substances could be considered as relevant for Dossier and Substance Evaluation, but since they are only used as intermediates, they do not fall under the prioritization criteria.

4. Refinables REACH Classification & Labelling

This process is not relevant at this stage.

5. Refinables REACH Authorisation

Since the Refinables are only used as intermediates, they are exempt from Authorisation.

8. SVHC (Substances of Very High Concern) Roadmap project

This project is not dedicated to a specific substance. The aim is to monitor the activities related to the SVHC Roadmap published by the Commission in February 2013. This project will focus on following the screening and selection process of potential SVHC and on the CoRAP (Community Rolling Action Plan) publication to ensure that PMC substances or substances which are critical for the Precious metals industry are not prioritized for Authorisation without proper consideration of industry's arguments (scientific and economic). The first actions will be to contribute to the different public consultations and to advocacy activities conducted by Eurometaux.

In addition, activities related to substances of interest like hydrazine and RCF will be included under this project (but with specific budget) while specific activities related to PMC substances (e.g.: chloroplatinates) will be included under the relevant project.

3. Budget and human resources

The draft figures of the 2017-2019 budget are available below.

YEAR	2017			2018			2019		
	PMC 2017	PMC 2017	PMC 2017	PMC 2018	PMC 2018	PMC 2018	PMC 2019	PMC 2019	PMC 2019
	Budget *to be spent*	Budget *to be invoiced*	HR	Budget *to be spent*	Budget *to be invoiced*	HR	Budget *to be spent*	Budget *to be invoiced*	HR
Administrative costs	*567.250 €*	*567.250 €*	*2,2*	*572.550 €*	*572.550 €*	*2,2*	*612.000 €*	*612.000 €*	*2*
Ag-specific costs	*897.550 €*	*862.550 €*	*1,027*	*1.526.555 €*	*1.251.555 €*	*1*	*350.647 €*	*350.647 €*	*0,5*
Au-specific costs	*355.200 €*	*201.200 €*	*0,1*	*170.524 €*	*170.524 €*	*0,1*	*165.529 €*	*165.529 €*	*0,1*
PM CN- -specific costs	*72.700 €*	*64.200 €*	*0,1*	*225.345 €*	*225.345 €*	*0,4*	*181.309 €*	*181.309 €*	*0,2*
Platinum-specific costs	*763.900 €*	*738.400 €*	*0,3*	*281.621 €*	*281.621 €*	*0,4*	*1.263.618 €*	*1.263.618 €*	*0,6*
Palladium-specific costs	*25.200 €*	*25.200 €*	*0,1*	*574.095 €*	*574.095 €*	*0,4*	*362.309 €*	*362.309 €*	*0,3*
Rhodium-specific costs	*171.050 €*	*153.550 €*	*0,6*	*334.624 €*	*334.624 €*	*0,3*	*267.750 €*	*267.750 €*	*0,3*
Ruthenium-specific costs	*501.700 €*	*435.200 €*	*0,6*	*236.674 €*	*236.674 €*	*0,4*	*112.279 €*	*112.279 €*	*0,4*
Iridium-specific costs	*13.850 €*	*13.850 €*	*0,1*	*18.050 €*	*18.050 €*	*0,1*	*18.250 €*	*18.250 €*	*0,1*
Re-specific costs	*7.400 €*	*7.400 €*	*0,02*	*8.400 €*	*8.400 €*	*0,02*	*8.400 €*	*8.400 €*	*0,02*
Refinables-specific costs	*772.700 €*	*75.200 €*	*0,3*	*405.548 €*	*405.548 €*	*0,2*	*405.559 €*	*405.559 €*	*0,2*
SVHC Roadmap-specific costs	*91.250 €*	*61.250 €*	*0,5*	*91.964 €*	*91.964 €*	*0,5*	*92.250 €*	*92.250 €*	*0,5*
Volume per use	*50.000 €*	*50.000 €*		*20.000 €*	*20.000 €*		*20.000 €*	*20.000 €*	
TOTAL	4.289.750 €	3.255.250 €	5,947	4.465.950 €	4.190.950 €	6,02	3.859.900 €	3.859.900 €	5,22

Detailed budget is available in annex 8

4. Timeline

Individual project timelines are available in Appendix 7.

5. Outlook after 2018 and beyond

1. The obligations related to the Registration dossiers after 2018

Article 22.1 of REACH requires the registrant to update his registration dossier without undue delay with relevant new information and to submit it to ECHA. The main changes which need to be submitted to ECHA are related to changes in status of the Registrant, in tonnage bands, in the composition of the substance, in the identified uses or uses advised against, in the knowledge regarding the risk of the substance to human health or environment, and in the classification. Some changes can also be needed due to changes in the law (REACH review is foreseen in 2017) or in the guidance documents.

In addition, Article 22.2 states that a registrant can be requested by ECHA to update his dossier following Dossier or Substance Evaluation or Authorisation procedures by a deadline specified in the decision.

Lastly, in case of Evaluation (Article 42) or Authorisation (Article 65), it is worthwhile to always have available an up-to-date registration dossier reflecting the most accurate and recent knowledge of the substance.

Therefore, after 2018, an important part of the PMC workplan will be dedicated to the maintenance of the registration dossiers.

2. The data sharing

When there is a request for data sharing regarding substances registered less than 12 years earlier, Article 27 of REACH requires potential registrants to request previous registrants to share existing data, especially data involving tests on vertebrate animals. In this situation, it is also recommended to the previous registrant to allow the potential new registrant a right to refer to the existing dossier and to join the Joint Submission. This legal requirement imposes the burden on the previous registrants to keep the SIEF running and the existing data sharing process ongoing after registration.

Data sharing will be part of the work to be done by PMC after 2018, to comply with this legal requirement ensuring data sharing for newcomers on the market for all the Precious Metals and Rhenium substances.

3. Other REACH regulatory tools

1. Evaluation

Evaluation of dossier

Following REACH, dossier Evaluation is split in two main tasks examination of testing proposal (Article 40) and compliance check of registrations (Article 41). The PMC submitted some testing proposals during the registration process. This means that some testing and update of the dossiers will have to

be done after 2018 when ECHA will have finalized the Dossier Evaluation linked to the testing proposals.

The other aim of dossier Evaluation is the compliance check, verifying if information submitted in the Technical dossier is compliant with REACH requirements, if adaptations of the standard information requirements and the related justifications comply with the rules set up in REACH annexes, and if the CSR complies with REACH requirements of Annex I. For transported isolated intermediates under Strictly Controlled Conditions (SCC), compliance with the definition of SCC can be checked.

According to ECHA, 5% of the dossiers received by ECHA for each tonnage band must be checked for compliance. The following criteria will be taken into account to prioritize dossier Evaluation: opt-out from Joint Submission, if doubts exist that requirements linked to Technical dossiers are not met (e.g.: information needed vs. tonnage band), or the dossier is for a substance listed in the Community rolling action plan. However, the previous list is not exhaustive and other criteria can be taken into account.

This means that any PMC dossiers can be selected during the coming year and be faced with a dossier Evaluation requesting informal and/or formal reactions from the registrants in a short period of time. And this on the top of the dossiers which contain already a testing proposal.

Evaluation of substance

Following REACH Article 44, the prioritization for substance Evaluation shall be on a risk-based approach. The criteria shall consider hazard information, exposure information and tonnage (including aggregated tonnage from the registrations submitted by several registrants). The Community Rolling Action Plan (CoRAP) is updated every year by the 28th of February. Silver is already undergoing a Substance Evaluation for the nanoforms. There is a risk for other PMC substances to be selected for Evaluation or due to their nano-forms (e.g.: blacks PGM) or due to other criteria linked to the risk-based approach (e.g.: high Risk Characterisation Ratio).

Warning: for on-site isolated intermediates under SCC, neither dossier nor substance evaluation shall apply. However, where a CA of a MS in whose territory the site is located considers that risk to human health or the environment, equivalent to the level of concern arising from the use of substances of very high concerns, arises from the use of an on-site isolated intermediate and that risk is not properly controlled, it may:

Require the registrant to submit more information and shall justified this request by written

Examine any information submitted and recommend any appropriate RMM.

It means that after 2018, PMC can be faced to other Substance Evaluations than the one on silver. Silver is a good example demonstrating the extensive resources needed to address this regulatory process.

2. Harmonized Classification & Labelling

Harmonization of Classification & Labelling is part of CLP Regulation (Title V). Harmonized classification is mandatory for the substances fulfilling certain criteria in Annex I (e.g.: carcinogenicity cat 1A, 1B and 2; respiratory sensitizer cat. 1). Substances fulfilling criteria for other hazard classes may receive a harmonized classification on a case-by-case basis. Currently, only a few substances carry harmonized classifications (e.g.: chloroplatinates). However, the generation of new data to prepare registration dossiers could influence the classification of some PMC substances. It is possible that new classification

could emerge and trigger some harmonisation under CLP. Additionally, other regulatory procedures like the one in the biocides could impact the classification of some precious metals and especially of silver and silver compounds and could require significant resources.

3. Authorisation/Restriction

Authorisation and Restriction are two risk management options offered by the REACH Regulation to address substances of very high concern (REACH article 57) or manage unacceptable risk at EU level (Title VIII, Chapter 2). These regulatory process are part of a broader EU strategy issued in 2013 by the European Commission, the SVHC Roadmap, to ensure a safe production and use of chemicals in the EU. Based on the current knowledge, only few PMC substances could be impacted by Authorisation or Restriction but this could change with the ongoing development of new data in preparation of the Registration. On the top, key substances for the precious metals industry like borates, hydrazine or lead compounds are already under scrutiny for prioritization under Authorisation. It means that in the coming years Authorisation and Restriction will become more and more important for the PMC and will require relevant resources to address these new challenges. As mentioned previously, these processes are part of a broader EU strategy related to SVHC. Eurometaux developed a RMM strategy to be implemented by the REACH Consortia and the companies in the coming years (see next paragraph).

4. A Risk Management Measures strategy

In general metals have been extensively regulated, often because of existing harmonized classification and the easiness to measure them. From a regulatory efficiency point of view, Member States still see Authorisation as the solution to address the diverse implementations and lukewarm enforcement (e.g. OSH legislation) that undermine the key EU objectives. Alternatively other Risk Management Measures may tackle identified concerns more appropriately and more efficiently. This is increasingly recognized by ECHA and ECHA Committees, but regulatory instruments are not clear enough and practical tools are missing to address this. The Risk Management Options Analysis (RMOA) is a pivotal tool that has the potential to change this in a favorable way for metals. RMOAs by Member States are however a voluntary tool and still lack standardisation and robustness. There are also questions on their quality (due e.g. to a lack of industry input).

Therefore, it is critical to identify and assure better and more effective Risk Management Measures. The main aim of a RMM strategy is to anticipate the implementation of the SVHC Roadmap and authorities' concerns and influence decision-making to achieve relevant and effective Risk Management Measures. So far, Precious Metals have not yet been directly or deeply impacted by strong regulatory measures. However, this could change in the future with the generation of new data which could trigger more stringent classification. It is therefore very important for the Precious metals industry to be proactive developing a tailor-made RMM based on the Eurometaux ongoing activities. It is important also to underline that even if some of the precious metals substances do not carry usual targeted classifications (e.g.: CMR cat. 1A or 1B), these substances could be impacted. Indeed, companies are affected by authorisation when they manufacture or use materials listed on Annex XIV (high collateral damage potential like with hydrazine). The scope of SVHC Roadmap is larger than a 'simple' reading of Article 57 and 59 (Authorisation title VII) of the REACH Regulation: Substances of equivalent level of concern (skin or respiratory sensitisers, STOT-RE, …). ECHA search tool for 'potential Risk Management concerns (ACROSS) focuses on additional criteria like high Risk Characterisation Ratio, Wide Dispersive Use and high ecotoxicity. The outcome of Substance Evaluation (e.g. as the one

ongoing on silver) often leads to an RMOA to identify Risk Management Measures. RMOAs search for Risk Management Measures inside and outside REACH, including: CLP, Workplace legislation, Water Framework Directive, etc.

An important part of the PMC workplan after 2018 will be dedicated to these issues and to the anticipation and the mitigation of the risks related to Risk Management Measures.

4. Conclusions

In conclusions, the first generic analysis presented above clearly demonstrates that 2018 is just the beginning and not the end of the REACH process. The registration is only one step in the REACH legislation. Several obligations will remain after May 2018: maintenance of the dossier, data sharing, follow-up of the testing proposals submitted during the registration process. On the top, the regulatory environment for some PMC substances could evolved and Risk Management Measures could be selected in or outside REACH to address potential concerns identified during the registration process. It means that the work of the PMC will continue after 2018 with significant human and financial resources needed. This rolling workplan will be updated on a regular basis to ensure the best possible predictability and anticipate accurately the resources needed.

Appendix 1 – Silver project

Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band to be registered*	Registration submission deadline**	Volunteer Lead Registrant	Nano form
	CAS	EC						
Silver (Powder <0.0001.mm)***	7440-22-4	231-131-3	Mono-constituent	Substance	> 1000 t/a	2010	Aurubis	Yes
Silver (Powder <1mm)								
Silver (Massive > 1mm)								
Silver nitrate (Solid <250µm)	7761-88-8	231-853-9	Mono-constituent	Substance	100-1000 t/a	2010	Ames Goldsmith	No
Silver nitrate (Solid > 250 µm)								
Silver nitrate (> = 5% AgN03 solution)								
Silver nitrate (3-5% AgNO3 solution)								
Silver nitrate (< 3% AgNO3 solution)								
Disilver oxide	20667-12-3	243-957-1	Mono-constituent	Substance	100-1000 t/a	2010	Ames Goldsmith	No
Silver carbonate	534-16-7	208-590-3	Mono-constituent	Substance	1-10 t/a	2018	Johnson Matthey	No
Disilver(1+) sulphate	10294-26-5	233-653-7	Mono-constituent	Substance	1-10 t/a	2018	Johnson Matthey	No
Silver chloride	7783-90-6	232-033-3	Mono-constituent	Substance	100-1000 t/a	2013	Agfa Gevaert	No
Silver bromide	7785-23-1	232-076-8	Mono-constituent	Substance	100-1000 t/a	2013	Agfa Gevaert	No
Silver iodide	7783-96-2	232-038-0	Mono-constituent	Substance	1-10 t/a	2018	Agfa Gevaert	No

Appendix 2 – Gold project

Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band*	Registration submission deadline**	Volunteer Lead Registrant	Nano form
	CAS	EC						
Gold	7440-57-5	231-165-9	Mono-constituent	Substance	10-100 t/a	2018	C. Hafner	No
Tetrachloroauric acid	16903-35-8	240-948-4	Mono-constituent	Substance	10-100 t/a	2018	Johnson Matthey	No
Aurio(1+) 2,6,6-trimethylbicyclo[3.1.1]heptanethiolate	68365-87-7	269-858-3	Mono-constituent	Substance	1-10 t/a	2018	Johnson Matthey	No
Balsams, copaiba, sulfurized, mixed with turpentine, gold salts	68990-27-2	273-589-7	UVCB	Non-SCC Intermediate	1-10 t/a	2018	Heraeus	No

Appendix 3 – PM Cyanides - project

Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band*	Registration submission deadline**	Volunteer Lead Registrant	Nano form
	CAS	EC						
Potassium dicyanoargentate	506-61-6	208-047-0	Mono-constituent	Substance	10-100 t/a	2018	Saxonia Holding GmbH	No
Silver cyanide	506-64-9	208-048-6	Mono-constituent	Substance	10-100 t/a	2018	Saxonia Holding GmbH	No
Potassium dicyanoaurate	13967-50-5	237-748-4	Mono-constituent	Substance	10-100 t/a	2018	Umicore Galvanotechnik GmbH	No

Appendix 4 – PGM project

Platinum and Platinum compounds

Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band to be registered *	Registration submission deadline**	Lead Registrant	Nano form
	CAS	EC						
Platinum	7440-06-4	231-116-1	Mono-constituent	Substance	10-100 t/a	2018	Vale	No
Hexachloroplatinic acid	16941-12-1	241-010-7	Mono-constituent	Substance	10-100 t/a	2018	Johnson Matthey	No
Tetraammineplatinum dichloride	13933-32-9	237-706-5	Mono-constituent	Substance	1-10 t/a	2018	Johnson Matthey	No
Tetraammineplatinum dinitrate (in solution)	20634-12-2	243-929-9	Mono-constituent	Substance	10-100 t/a	2018	Umicore AG&Co.KG	No
Diammineplatinum (II) nitrite	14286-02-3	238-203-3	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Dipotassium tetrachloroplatinate	10025-99-7	233-050-9	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Platinum dioxide	1314-15-4	215-223-0	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Dihydrogen hexahydroxyplatinate, compound with 2-aminoethanol (1:2) (in solution)	68133-90-4	268-717-3	Mono-constituent	Substance	10-100 t/a	2018	BASF	No
Dipotassium hexachloroplatinate	16921-30-5	240-979-3	Mono-constituent	Substance	10-100 t/a	2018	Heraeus	No
Platinum dinitrate	18496-40-7	242-383-9	UVCB	Substance	10-100 t/a	2018	Heraeus	No
Platinum, 1,3-diethenyl-1,1,3,3-tetramethyldisiloxane complexes / Karstedt concentrate (in solution)	68478-92-2	270-844-4	UVCB	Substance	10-100 t/a	2018	Heraeus	No
Diammonium hexachloroplatinate	16919-58-7	240-973-0	Mono-constituent	Non-SCC intermediate	10-100 t/a	2018	Johnson Matthey	No
Dihydrogen hexahydroxyplatinate	51850-20-5	257-471-2	Mono-constituent	Non-SCC intermediate	10-100 t/a	2018	Johnson Matthey	No

Palladium and Palladium compounds

Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band to be registered*	Registration submission deadline**	Lead Registrant	Nano form
	CAS	EC						
Palladium	7440-05-3	231-115-6	Mono-constituent	Substance	10-100 t/a	2018	Umicore NV/SA	No
Palladium dichloride	7647-10-1	231-596-2	Mono-constituent	Substance	10-100 t/a	2018	BASF	No
Dihydrogen tetrachloropalladate(2-) (in solution)	16970-55-1	241-047-9	Mono-constituent	Substance	10-100 t/a	2018	Heraeus	No
Diamminedichloropalladium	14323-43-4	238-269-3	Mono-constituent	Substance	10-100 t/a	2018	Heraeus	No
Dichlorobis(triphenylphosphine)palladium	13965-03-2	237-744-2	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Palladium (II) di(4-oxopent-2-en-2-oate)	14024-61-4	237-859-8	Mono-constituent	Substance	10-100 t/a	2018	Heraeus	No
Palladium(II) acetate	3375-31-3	222-164-4	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Palladium monoxide	1314-08-5	215-218-3	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Tetraamminepalladium (II) nitrate	13601-08-6	237-078-2	Mono-constituent	Substance	1-10 t/a	2018	Johnson Matthey	No
Tetraamminepalladium(2+) dichloride	13815-17-3	237-489-7	Mono-constituent	Substance	10-100 t/a	2018	Umicore AG&Co.KG	No
Tetraamminepalladium(2+) dihydroxide	68413-68-3	270-241-6	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Tetrakis(triphenylphosphine)palladium	14221-01-3	238-086-9	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Palladium sulphate	13566-03-5	236-957-8	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Tetraamminepalladium(2+) diacetate	61495-96-3	262-819-1	Mono-constituent	Substance	10-100 t/a	2018	Umicore AG&Co.KG	No
Disodium tetrachloropalladate	13820-53-6	237-502-6	Mono-constituent	Substance	10-100 t/a	2018	BASF	No
Palladium dinitrate	10102-05-3	233-265-8	UVCB	Substance	10-100 t/a	2018	Heraeus	No
Palladium dihydroxide	12135-22-7	235-219-2	Mono-constituent	Non-SCC intermediate	10-100 t/a	2018	Umicore AG&Co.KG	No
Diammonium hexachloropalladate	19168-23-1	242-854-9	Mono-constituent	Non-SCC intermediate	10-100 t/a	2018	Johnson Matthey	No
Dipotassium hexachloropalladate	16919-73-6	240-974-6	Mono-constituent	Non-SCC intermediate	10-100 t/a	2018	C. Hafner	No

Rhodium and Rhodium compounds

Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band to be registered*	Registration submission deadline**	Lead Registrant	Nano form
	CAS	EC						
Rhodium	7440-16-6	231-125-0	Mono-constituent	Substance	10-100 t/a	2018	Johnson Matthey	No
Carbonyl(pentane-2,4-dionato-O,O')(triphenylphosphine)rhodium	25470-96-6	247-015-0	Mono-constituent	Substance	1-10 t/a	2018	Johnson Matthey	No
Carbonylhydrotris(triphenylphosphine)rhodium	17185-29-4	241-230-3	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Dicarbonyl(pentane-2,4-dionato-O,O')rhodium	14874-82-9	238-947-9	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Rhodium tris(2-ethylhexanoate) (in solution)	20845-92-5	244-079-1	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Rhodium trichloride (hydrate)	10049-07-7	233-165-4	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Di-μ-chloro-bis(hapto-1,5-cyclooctadiene)dirhodium(I)	12092-47-6	235-157-6	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Tris(triphenylphosphine) rhodium (I) chloride	14694-95-2	238-744-5	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Rhodium triiodide	15492-38-3	239-521-5	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Dirhodium trisulphate	10489-46-0	234-014-5	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Dirhodium trioxide	12036-35-0	234-846-9	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Rhodium (III) acetate	42204-14-8	255-707-9	UVCB	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Rhodium trinitrate	10139-58-9	233-397-6	UVCB	Substance	1-10 t/a	2018	Johnson Matthey	No
Rhodium trihydroxide	21656-02-0	244-508-2	Mono-constituent	Non-SCC intermediate	1-10 t/a	2018	Heraeus	No
Triammonium hexachlororhodate	15336-18-2	239-364-2	Mono-constituent	Non-SCC intermediate	1-10 t/a	2018	Vale	No
Diammonium sodium hexakis(nitrito-N)rhodate	64164-17-6	264-713-0	Mono-constituent	Non-SCC intermediate	10-100 t/a	2018	Vale	No

Ruthenium and Ruthenium compounds

Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band to be registered*	Registration submission deadline **	Lead Registrant	Nano form
	CAS	EC						
Ruthenium	7440-18-8	231-127-1	Mono-constituent	Substance	10-100 t/a	2018	Heraeus	No
Ruthenium trichloride (hydrate)	10049-08-8	233-167-5	Mono-constituent	Substance	10-100 t/a	2018	Heraeus	No
Ruthenium (IV) oxide	12036-10-1	234-840-6	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Tris(nitrato-O)nitrosylruthenium	34513-98-9	252-068-8	Mono-constituent	Substance	1-10 t/a	2018	Umicore AG&Co.KG	No
Hexakis[mu-(acetato-O:O')]-μ3-oxo-triangulo-triruthenium acetate / Ruthenium acetate	55466-76-7	259-653-7	Mono-constituent	Substance	1-10 t/a	2018	Johnson Mattey	No
Tetraammonium decachloro-mu-oxodiruthenate(4-)	85392-65-0	286-924-7	Mono-constituent	Non-SCC intermediate	10-100 t/a	2018	Heraeus	No
Ruthenium trihydroxide	12135-42-1	235-221-3	Mono-constituent	Non-SCC intermediate	1-10 t/a	2018	Umicore NV/SA	No

Iridium and Iridium compounds

Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band*	Registration submission deadline**	Lead Registrant	Nano form
	CAS	EC						
Iridium	7439-88-5	231-095-9	Mono-constituent	Substance	1-10 t/a	2018	Johnson Matthey	No
Hexachloroiridic acid, Hydrogen hexachloroiridate (IV)	16941-92-7	241-012-8	UVCB	Substance	1-10 t/a	2018	Heraeus Deutschland GmbH and Co. KG	No
Diammonium hexachloroiridate	16940-92-4	241-007-0	Mono-constituent	Non-SCC Intermediate	1-10 t/a	2018	Johnson Matthey	No

Appendix 5 – Rhenium project

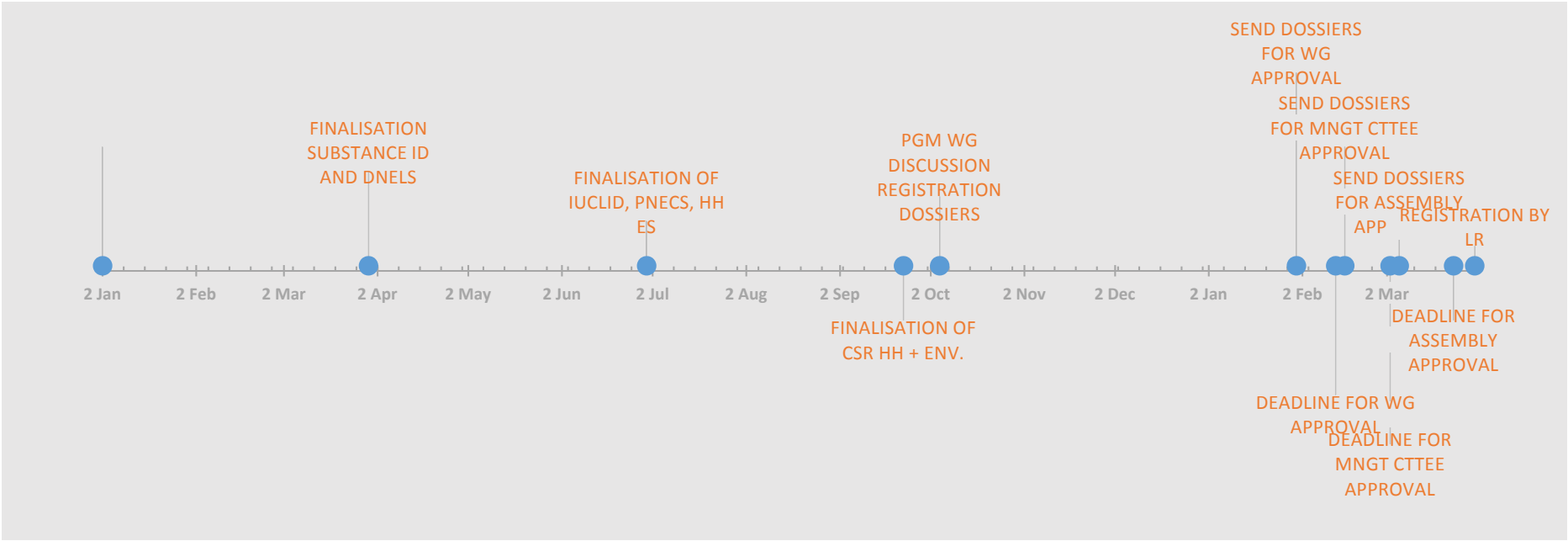
Name of the substance	Identification numbers		REACH Category	Type of registration dossier prepared by PMC	Highest tonnage band*	Registration submission deadline**	Volunteer Lead Registrant	Nano form
	CAS	EC						
Rhenium	7440-15-5	231-124-5	Mono-constituent	Substance	1-10 t/a	2018	KGHM Metraco	No
Perrhenic acid (in solution)	13768-11-1	237-380-4	Mono-constituent	Substance	1-10 t/a	2018	Heraeus	No
Ammonium perrhenate	13598-65-7	237-075-6	Mono-constituent	Substance	10-100 t/a	2018	Heraeus	No
Sodium rhenate (in aq. solution)	13472-33-8	236-742-9	Mono-constituent	SCC Intermediate	1-10 t/a	2018	Climax Molybdenum	No
Potassium perrhenate	10466-65-6	233-953-8	Mono-constituent	Non-SCC Intermediate	1-10 t/a	2018	Heraeus	No
Dirhenium heptasulphide	12038-67-4	234-882-5	Mono-constituent	SCC Intermediate	1-10 t/a	2018	Johnson Matthey	No

Appendix 6 – PM Refinables project

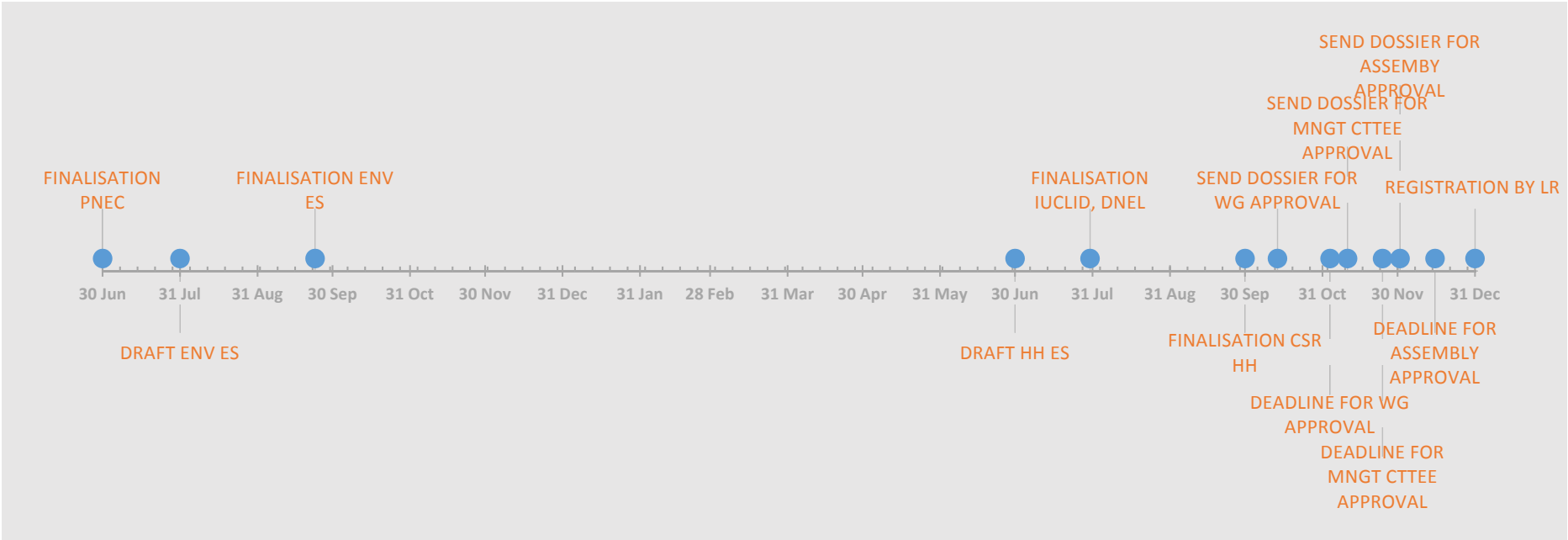
Group	Name	EC and CAS numbers	Covering	EC and CAS numbers	Type of registration dossier prepared by PMC	Highest tonnage band	Registration deadline*	Lead Registrant
1	Doré	273-793-6; 69029-47-6	Residues, silver refining	308-309-5; 97926-88-0	Non-SCC intermediate	> 1000	2010	Aurubis
			Black metal, copper electrolytic slime smelting	266-974-6; 67711-97-1				
2	Matte, PM	308-506-6; 98072-52-7	N/A	N/A	Non-SCC intermediate	100-1000	2010	Glencore Nikkelverk AS
3	Slags, PM refining	308-515-5; 98072-60-7	Slags, silver-smelting	308-315-8; 97926-95-9	Non-SCC intermediate	> 1000	2010	Umicore
			Slags, dore furnace	266-975-1; 67711-98-2				
			Slags, precious metal recovery lead refining	273-826-4; 69029-85-2				
4	Slimes and sludges, PM refining	308-516-0; 98072-61-8	Residues, silver sludge-electrolysis zinc-pptd., precious metal-contg.	309-641-3; 100656-52-8	Non-SCC intermediate	> 1000	2010	Aurubis
			Slimes and sludges, copper pickling wastewater treatment	293-678-4; 91081-71-9				
			Leach residues, precious metal smelting scrap	309-770-5; 100995-79-7				
5.1	Matte leaching residue	310-050-8; 102110-49-6	N/A	N/A	Non-SCC intermediate	> 1000	2010	Umicore
5.2	Speiss leaching residue	309-643-4; 100656-54-0	N/A	N/A	REACH exempt	-	2010	Umicore
6.1	Ag electrolyte	911-538-9; none	N/A	N/A	SCC intermediate	> 1000	2010	KGHM
6.2	Au electrolyte	913-584-5; none	N/A	N/A	SCC intermediate	10-100	2013	Aurubis
7	Flue dust, PM refining	308-496-3; 98072-44-7	Flue dust, silver-refining	308-276-7; 97926-57-3	Non-SCC intermediate	100-1000	2010	Johnson Matthey
8	Residues cementation and reduction, PM refining	310-051-3; 102110-50-9	N/A	N/A	Non-SCC intermediate	100-1000	2010	Heraeus
9.1	Materials for reclaim, PM with or without support	308-526-5; 98072-70-9	N/A	N/A	Non-SCC intermediate	100-1000	2010	Johnson Matthey
9.2	Materials for reclaim, PM in bricks, crucibles, trays, etc.	931-674-2; None	N/A	N/A	Non-SCC intermediate	100-1000	2010	Johnson Matthey
9.3	Materials for reclaim, PM production by-products	931-663-2; None	N/A	N/A	Non-SCC intermediate	100-1000	2010	Johnson Matthey
10	Lead bullion, PGM rich	931-607-7; none	N/A	N/A	Non-SCC intermediate	10-100	2010	Vale

Appendix 7 – Individual project timelines for 2017 registration

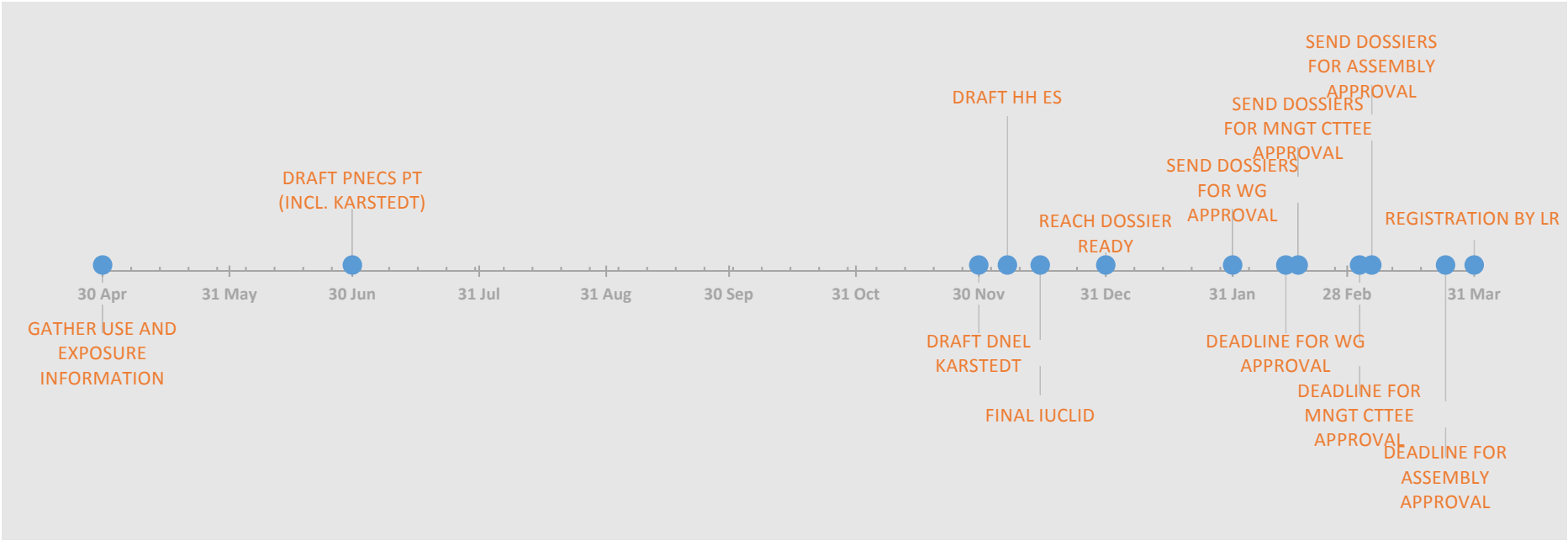
2016 - 2017 Registration of Pt and compounds except HHPA-2A and Karstedt



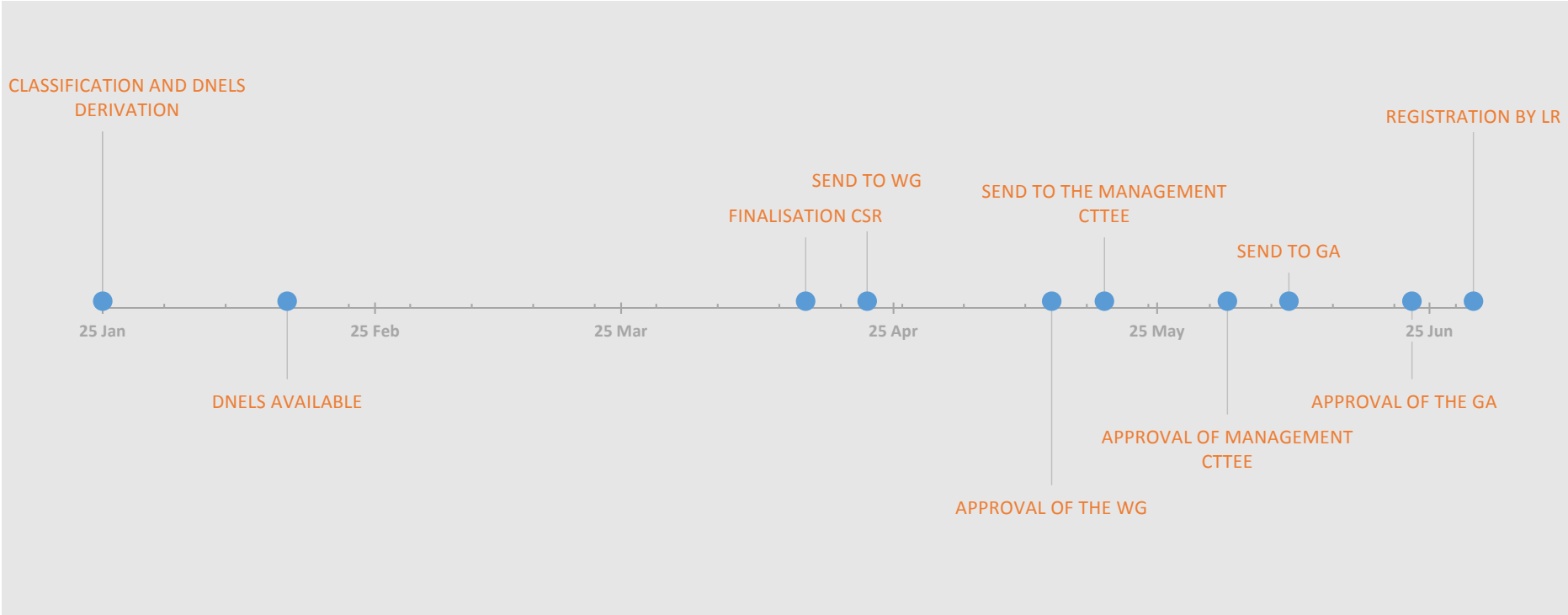
2016 - 2017 Registration of HHPA-2A



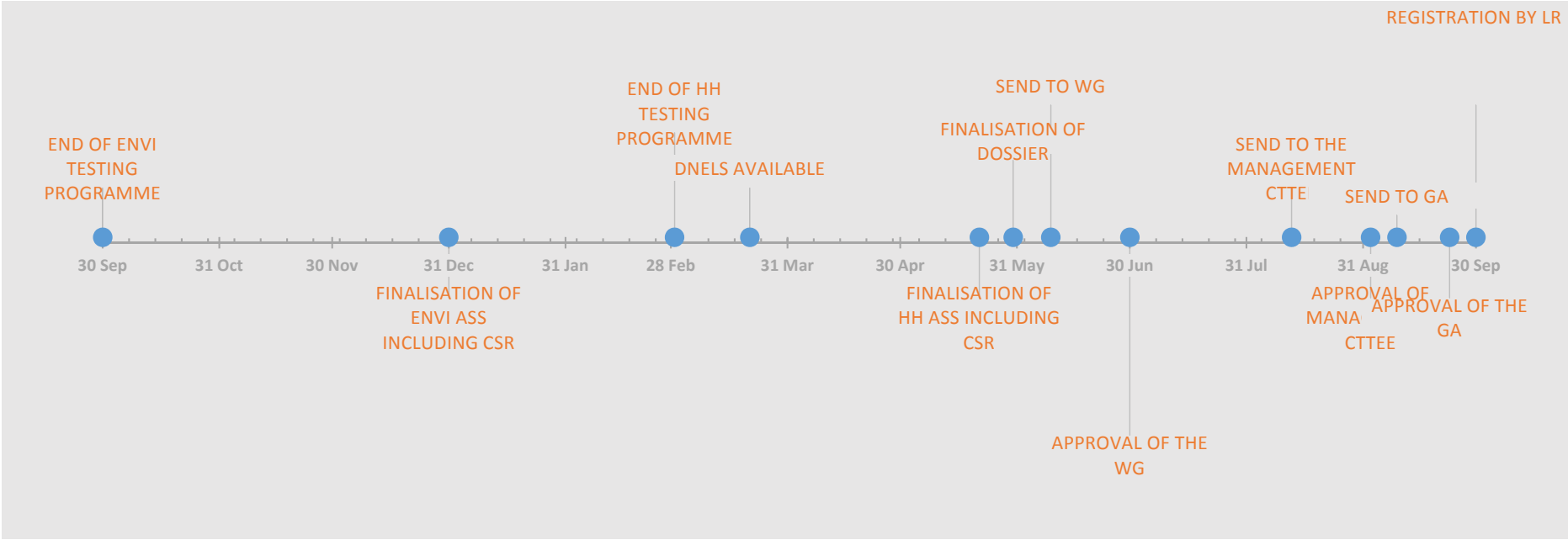
2016 - 2017 Registration of Karstedt



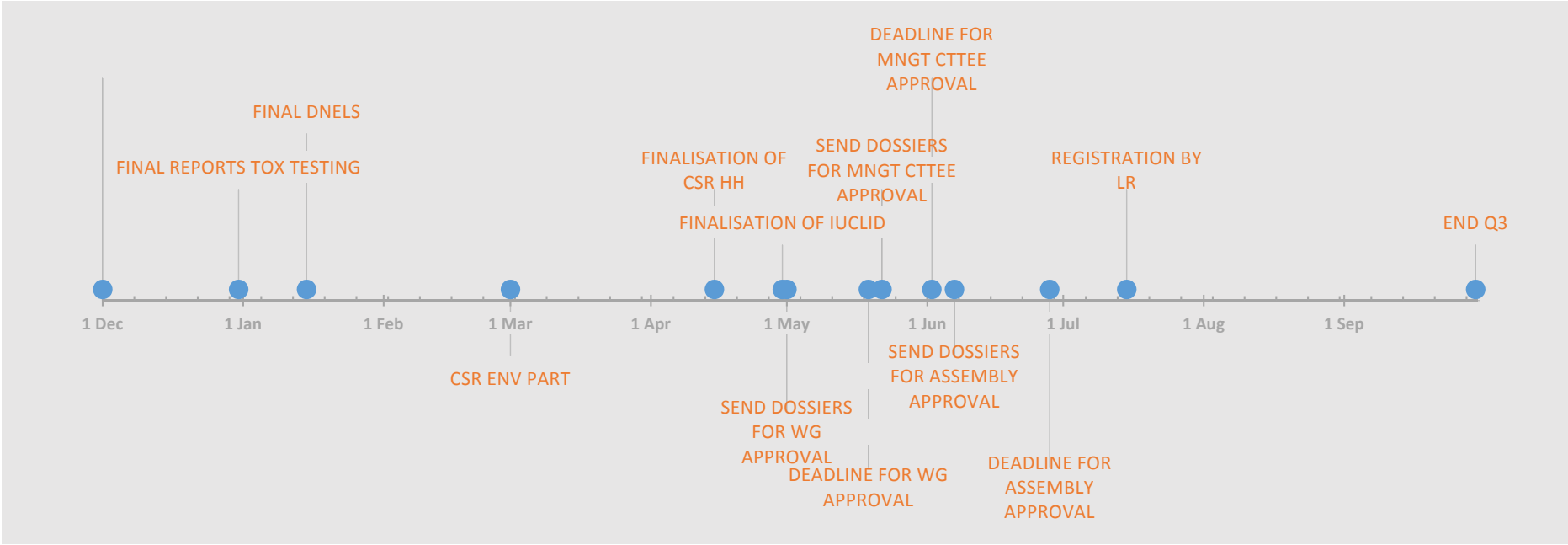
2017 Registration of Rh and Rh(III) compounds



2016 - 2017 Registration of Ru and compounds



2017 Registration of KAg(CN)2



Appendix 7 – 2017-2019

	PMC 2017 Budget *to be spent*	PMC 2017 Budget *to be invoiced*	PMC 2017 HR
2.1 Administrative costs	***567.250 €***	***567.250 €***	***2,2***
2.1.1 Salaries and salary-related costs	**285.750 €**	**285.750 €**	
2.1.2 Office costs	**65.000 €**	**65.000 €**	
2.1.3 Meeting, travel and accommodation costs	**55.000 €**	**55.000 €**	
2.1.4 External costs	**161.500 €**	**161.500 €**	
2.1.4 Eurométaux REACH package	65.000 €	65.000 €	
2.1.4 Online database	3.000 €	3.000 €	
2.1.4 Liability Insurance	8.500 €	8.500 €	
2.1.4 Legal support	35.000 €	35.000 €	
2.1.4 Accountancy and audits	30.000 €	30.000 €	
2.1.4 ETAP membership + project	15.000 €	15.000 €	
2.1.4 HETAP membership + project	5.000 €	5.000 €	
2.2 Ag-specific costs	***897.550 €***	***862.550 €***	***1,027***
2.2.1 Ag REACH registration	**0 €**	**0 €**	
2.2.1.1 Phase 1: Literature search, data gap analysis, and recommendations	0 €	0 €	
2.2.1.2 Phase 2: In-depth data gap analysis, integrated testing strategy	0 €	0 €	
2.2.1.3 Phase 3: Experimental studies (enabling, main and supporting studies)	0 €	0 €	
2.2.1.4 Phase 4: Generation of Chemical Safety Reports	0 €	0 €	
2.2.1.5a Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers	0 €	0 €	
2.2.1.5b Phase 5b: IUCLID 5 Hosting System	0 €	0 €	
2.2.2 Ag REACH dossier maintenance	**111.000 €**	**111.000 €**	
2.2.2.1 Phase 1: Literature search, data gap analysis and recommendations	60.000 €	60.000 €	
2.2.2.2 Phase 2: In-depth data gap analysis and integrated testing strategy	0 €	0 €	
2.2.2.3 Phase 3: Experimental studies (testing programme including cost of samples)	0 €	0 €	
2.2.2.4 Phase 4: Generation of Chemical Safety Report	50.000 €	50.000 €	
2.2.2.5a Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers	0 €	0 €	
2.2.2.5b Phase 5b: IUCLID 5 Hosting System	1.000 €	1.000 €	
2.2.3 Ag REACH evaluation	**594.500 €**	**594.500 €**	
2.2.3.1 Dossier evaluation	4.500 €	4.500 €	
2.2.3.2 Substance evaluation	590.000 €	590.000 €	
2.2.4 Ag REACH classification & labelling	**50.000 €**	**15.000 €**	
2.2.5 Ag REACH authorisation *(not relevant)*	**0 €**	**0 €**	
2.2.6 Ag internal and external fixed Scientific Managers	**142.050 €**	**142.050 €**	
2.2.7 Ag Building reserves	**0 €**	**0 €**	

2.3 Au-specific costs	***355.200 €***	***201.200 €***	***0,1***
2.3.1 Au REACH registration	**275.000 €**	**121.000 €**	
2.3.1.1 Phase 1: Literature search, data gap analysis and recommendations	0 €	0 €	
2.3.1.2 Phase 2: In-depth data gap analysis and integrated testing strategy	0 €	0 €	
2.3.1.3 Phase 3: Experimental studies (testing programme including cost of samples)	210.000 €	56.000 €	
2.3.1.4 Phase 4: Generation of Chemical Safety Reports	59.000 €	59.000 €	
2.3.1.5a Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers	5.000 €	5.000 €	
2.3.1.5b Phase 5b: IUCLID 5 Hosting System	1.000 €	1.000 €	
2.3.2 Au REACH dossier maintenance	**5.000 €**	**5.000 €**	
2.3.2.1 Phase 1: Literature search, data gap analysis and recommendations	0 €	0 €	
2.3.2.2 Phase 2: In-depth data gap analysis and integrated testing strategy	0 €	0 €	
2.3.2.3 Phase 3: Experimental studies (testing programme including cost of samples)	0 €	0 €	
2.3.2.4 Phase 4: Generation of Chemical Safety Report	5.000 €	5.000 €	
2.3.2.5a Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers	0 €	0 €	
2.3.2.5b Phase 5b: IUCLID 5 Hosting System	0 €	0 €	
2.3.3 Au REACH evaluation	**0 €**	**0 €**	
2.3.3.1 Dossier evaluation	0 €	0 €	
2.3.3.2 Substance evaluation	0 €	0 €	
2.3.4 Au REACH classification & labelling *(not relevant)*	**0 €**	**0 €**	
2.3.5 Au REACH authorisation *(not relevant)*	**0 €**	**0 €**	
2.3.6 Au internal and external fixed Scientific Manager	**14.200 €**	**14.200 €**	
2.3.7 Au Building reserves	**61.000 €**	**61.000 €**	
2.4 PM CN- -specific costs	***72.700 €***	***64.200 €***	***0,1***
2.4.1 PM CN- REACH registration	**16.500 €**	**8.000 €**	
2.4.1.1 Phase 1: Literature search, data gap analysis and recommendations	0 €	0 €	
2.4.1.2 Phase 2: In-depth data gap analysis and integrated testing strategy	0 €	0 €	
2.4.1.3 Phase 3: Experimental studies (testing programme including cost of samples)	0 €	0 €	
2.4.1.4 Phase 4: Generation of Chemical Safety Reports	13.000 €	7.000 €	
2.4.1.5a Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers	2.500 €	0 €	
2.4.1.5b Phase 5b: IUCLID 5 Hosting System	1.000 €	1.000 €	
2.4.2 PM CN- REACH dossier maintenance	**5.000 €**	**5.000 €**	
2.4.2.1 Phase 1: Literature search, data gap analysis and recommendations	0 €	0 €	
2.4.2.2 Phase 2: In-depth data gap analysis and integrated testing strategy	0 €	0 €	
2.4.2.3 Phase 3: Experimental studies (testing programme including cost of samples)	0 €	0 €	
2.4.2.4 Phase 4: Generation of Chemical Safety Report	0 €	0 €	
2.4.2.5a Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers	5.000 €	5.000 €	
2.4.2.5b Phase 5b: IUCLID 5 Hosting System	0 €	0 €	
2.4.3 PM CN- REACH evaluation	**2.000 €**	**2.000 €**	
2.4.3.1 Dossier evaluation	2.000 €	2.000 €	
2.4.3.2 Substance evaluation	0 €	0 €	
2.4.4 PM CN- REACH classification & labelling (Possible impact of Ag evaluation)	**0 €**	**0 €**	
2.4.5 PM CN- REACH authorisation *(not relevant)*	**0 €**	**0 €**	
2.4.6 PM CN internal and external fixed Scientific Manager	**14.200 €**	**14.200 €**	
2.4.7 PM CN Building reserves	**35.000 €**	**35.000 €**	

2.5.A	***Platinum-specific costs***	***763.900 €***	***738.400 €***	***0,3***
2.5.A.1	**Pt REACH registration**	**325.650 €**	**310.150 €**	
2.5.A.1.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.A.1.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	31.000 €	31.000 €	
2.5.A.1.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	160.500 €	145.000 €	
2.5.A.1.4	*Phase 4: Generation of Chemical Safety Reports*	133.150 €	133.150 €	
2.5.A.1.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	0 €	0 €	
2.5.A.1.5b	*Phase 5b: IUCLID 5 Hosting System*	1.000 €	1.000 €	
2.5.A.2	**Pt REACH dossier maintenance**	**0 €**	**0 €**	
2.5.A.2.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.A.2.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.5.A.2.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	0 €	0 €	
2.5.A.2.4	*Phase 4: Generation of Chemical Safety Report*	0 €	0 €	
2.5.A.2.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	0 €	0 €	
2.5.A.2.5b	*Phase 5b: IUCLID 5 Hosting System*	0 €	0 €	
2.5.A.3	**Pt REACH evaluation**	**10.000 €**	**10.000 €**	
2.5.A.3.1	*Dossier evaluation*	10.000 €	10.000 €	
2.5.A.3.2	*Substance evaluation*	0 €	0 €	
2.5.A.4	**Pt REACH classification & labelling**	**0 €**	**0 €**	
2.5.A.5	**Pt REACH authorisation**	**10.000 €**	**0 €**	
2.5.A.5.1.	*Chloroplatinates*	10.000 €	0 €	
2.5.A.6	**Pt internal and external fixed Scientific Managers**	**40.250 €**	**40.250 €**	
2.5.A.7	**Pt Building reserves**	**378.000 €**	**378.000 €**	
2.5.B	***Palladium-specific costs***	***25.200 €***	***25.200 €***	***0,1***
2.5.B.1	**Pd REACH registration**	**10.000 €**	**10.000 €**	
2.5.B.1.1	*Phase 1: Literature search, data gap analysis and recommendations*			
2.5.B.1.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.5.B.1.3	*Phase 3: Experimental studies (testing programme including cost of samples)*			
2.5.B.1.4	*Phase 4: Generation of Chemical Safety Reports*	5.000 €	5.000 €	
2.5.B.1.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	5.000 €	5.000 €	
2.5.B.1.5b	*Phase 5b: IUCLID 5 Hosting System*	0 €	0 €	
2.5.B.2	**Pd REACH dossier maintenance**	**1.000 €**	**1.000 €**	
2.5.B.2.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.B.2.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.5.B.2.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	0 €	0 €	
2.5.B.2.4	*Phase 4: Generation of Chemical Safety Report*	0 €	0 €	
2.5.B.2.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	0 €	0 €	
2.5.B.2.5b	*Phase 5b: IUCLID 5 Hosting System*	1.000 €	1.000 €	
2.5.B.3	**Pd REACH evaluation**	**0 €**	**0 €**	
2.5.B.3.1	*Dossier evaluation*	0 €	0 €	
2.5.B.3.2	*Substance evaluation*	0 €	0 €	
2.5.B.4	**Pd REACH classification & labelling**	**0 €**	**0 €**	
2.5.B.5	**Pd REACH authorisation**	**0 €**	**0 €**	
2.5.B.6	**Pd internal and external fixed Scientific Managers**	**14.200 €**	**14.200 €**	
2.5.B.7	**Pd Building reserves**	**0 €**	**0 €**	
2.5.B.8	**Chloropalladates**	**0 €**	**0 €**	

2.5.C	***Rhodium-specific costs***	***171.050 €***	***153.550 €***	***0,6***
2.5.C.1	**Rh REACH registration**	**90.550 €**	**73.050 €**	
2.5.C.1.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.C.1.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	10.000 €	10.000 €	
2.5.C.1.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	17.500 €	0 €	
2.5.C.1.4	*Phase 4: Generation of Chemical Safety Reports*	40.000 €	40.000 €	
2.5.C.1.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	22.050 €	22.050 €	
2.5.C.1.5b	*Phase 5b: IUCLID 5 Hosting System*	1.000 €	1.000 €	
2.5.C.2	**Rh REACH dossier maintenance**	**0 €**	**0 €**	
2.5.C.2.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.C.2.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.5.C.2.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	0 €	0 €	
2.5.C.2.4	*Phase 4: Generation of Chemical Safety Report*	0 €	0 €	
2.5.C.2.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	0 €	0 €	
2.5.C.2.5b	*Phase 5b: IUCLID 5 Hosting System*	0 €	0 €	
2.5.C.3	**Rh REACH evaluation**	**0 €**	**0 €**	
2.5.C.3.1	*Dossier evaluation*	0 €	0 €	
2.5.C.3.2	*Substance evaluation*	0 €	0 €	
2.5.C.4	**Rh REACH classification & labelling**	**0 €**	**0 €**	
2.5.C.5	**Rh REACH authorisation**	**0 €**	**0 €**	
2.5.C.6	**Rh internal and external fixed Scientific Managers**	**80.500 €**	**80.500 €**	
2.5.C.7	**Rh Building reserves**	**0 €**	**0 €**	
2.5.D	***Ruthenium-specific costs***	***501.700 €***	***435.200 €***	***0,6***
2.5.D.1	**Ru REACH registration**	**183.550 €**	**117.050 €**	
2.5.D.1.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.D.1.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	10.000 €	10.000 €	
2.5.D.1.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	87.500 €	21.000 €	
2.5.D.1.4	*Phase 4: Generation of Chemical Safety Reports*	63.000 €	63.000 €	
2.5.D.1.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	22.050 €	22.050 €	
2.5.D.1.5b	*Phase 5b: IUCLID 5 Hosting System*	1.000 €	1.000 €	
2.5.D.2	**Ru REACH dossier maintenance**	**0 €**	**0 €**	
2.5.D.2.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.D.2.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.5.D.2.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	0 €	0 €	
2.5.D.2.4	*Phase 4: Generation of Chemical Safety Report*	0 €	0 €	
2.5.D.2.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	0 €	0 €	
2.5.D.2.5b	*Phase 5b: IUCLID 5 Hosting System*	0 €	0 €	
2.5.D.3	**Ru REACH evaluation**	**0 €**	**0 €**	
2.5.D.3.1	*Dossier evaluation*	0 €	0 €	
2.5.D.3.2	*Substance evaluation*	0 €	0 €	
2.5.D.4	**Ru REACH classification & labelling**	**0 €**	**0 €**	
2.5.D.5	**Ru REACH authorisation**	**0 €**	**0 €**	
2.5.D.6	**Ru internal and external fixed Scientific Managers**	**78.150 €**	**78.150 €**	
2.5.D.7	**Ru Building reserves**	**240.000 €**	**240.000 €**	

2.5.E	***Iridium-specific costs***	***13.850 €***	***13.850 €***	***0,1***
2.5.E.1	**Ir REACH registration**	**0 €**	**0 €**	
2.5.E.1.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.E.1.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.5.E.1.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	0 €	0 €	
2.5.E.1.4	*Phase 4: Generation of Chemical Safety Reports*	0 €	0 €	
2.5.E.1.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	0 €	0 €	
2.5.E.1.5b	*Phase 5b: IUCLID 5 Hosting System*	0 €	0 €	
2.5.E.2	**Ir REACH dossier maintenance**	**2.000 €**	**2.000 €**	
2.5.E.2.1	*Phase 1: Literature search, data gap analysis and recommendations*	0 €	0 €	
2.5.E.2.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.5.E.2.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	0 €	0 €	
2.5.E.2.4	*Phase 4: Generation of Chemical Safety Report*	0 €	0 €	
2.5.E.2.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	1.000 €	1.000 €	
2.5.E.2.5b	*Phase 5b: IUCLID 5 Hosting System*	1.000 €	1.000 €	
2.5.E.3	**Ir REACH evaluation**	**0 €**	**0 €**	
2.5.A.3.1	*Dossier evaluation*	0 €	0 €	
2.5.A.3.2	*Substance evaluation*	0 €	0 €	
2.5.E.4	**Ir REACH classification & labelling**	**0 €**	**0 €**	
2.5.E.5	**Ir REACH authorisation**	**0 €**	**0 €**	
2.5.E.6	**Ir internal and external fixed Scientific Managers**	**11.850 €**	**11.850 €**	
2.5.E.7	**Ir Building reserves**	**0 €**	**0 €**	
2.6	***Re-specific costs***	***7.400 €***	***7.400 €***	***0,02***
2.6.1	**Re REACH registration**	**0 €**	**0 €**	
2.6.1.1	*Phase 1: Literature search, data gap analysis and recommendations (e.g. CLP update)*	0 €	0 €	
2.6.1.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.6.1.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	0 €	0 €	
2.6.1.4	*Phase 4: Generation of Chemical Safety Report*	0 €	0 €	
2.6.1.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	0 €	0 €	
2.6.1.5b	*Phase 5b: IUCLID 5 Hosting System*	0 €	0 €	
2.6.2	**Re REACH dossier maintenance**	**7.400 €**	**7.400 €**	
2.6.2.1	*Phase 1: Literature search, data gap analysis and recommendations*	3.200 €	3.200 €	
2.6.2.2	*Phase 2: In-depth data gap analysis and integrated testing strategy*	0 €	0 €	
2.6.2.3	*Phase 3: Experimental studies (testing programme including cost of samples)*	0 €	0 €	
2.6.2.4	*Phase 4: Generation of Chemical Safety Report*	0 €	0 €	
2.6.2.5a	*Phase 5a: Generation of IUCLID 5 Files and Registration Dossiers*	3.200 €	3.200 €	
2.6.2.5b	*Phase 5b: IUCLID 5 Hosting System*	1.000 €	1.000 €	
2.6.3	**Re REACH evaluation *(not relevant)***	**0 €**	**0 €**	
2.6.3.1	*Dossier evaluation*	0 €	0 €	
2.6.3.2	*Substance evaluation*	0 €	0 €	
2.6.4	**Re REACH classification & labelling**	**0 €**	**0 €**	
2.6.5	**Re REACH authorisation *(not relevant)***	**0 €**	**0 €**	
2.6.6	**Re internal and external fixed Scientific Manager**	**0 €**	**0 €**	
2.6.7	**Re Building reserves**	***0 €***	***0 €***	

2.7 Refinables-specific costs	*772.700 €*	*75.200 €*	*0,3*
2.7.1 Refinables REACH registration	**0 €**	**0 €**	
2.7.2 Refinables REACH dossier maintenance	**701.500 €**	**4.000 €**	
2.7.2.1 Phase 1: Scoping	5.000 €	0 €	
2.7.2.2 Phase 2: Substance identification	87.500 €	0 €	
2.7.2.3 Phase 3: Effects assessment and classification	348.000 €	3.000 €	
2.7.2.4 Phase 4: Exposure and risk assessment	140.000 €	0 €	
2.7.2.5a Phase 5a: Compilation of IUCLID 5 file & Registration Dossiers	120.000 €	0 €	
2.7.2.5b Phase 5b: IUCLID 5 Hosting System	1.000 €	1.000 €	
2.7.2.6 Ref Rolling maintenance (as from 2018)			
2.7.2.7 Ref Further improvement (as from 2018)			
2.7.2.8 Ref Testing proposal (as from 2018)			
2.7.3 Refinables REACH evaluation	**0 €**	**0 €**	
2.7.3.1 Dossier evaluation	0 €	0 €	
2.7.3.2 Substance evaluation	0 €	0 €	
2.7.4 Refinables REACH classification & labelling	**0 €**	**0 €**	
2.7.5 Refinables REACH authorisation	**0 €**	**0 €**	
2.7.6 Refinables internal and external fixed Scientific Manager	**49.200 €**	**49.200 €**	
2.7.7 Refinables Building reserves	**22.000 €**	**22.000 €**	
2.8 SVHC Roadmap-specific costs	*91.250 €*	*61.250 €*	*0,5*
2.8.1 Authorisation work programme	**20.000 €**	**0 €**	
2.8.2 Monitoring and advocacy	**0 €**	**0 €**	
2.8.3 Prioritization on authorisation	**10.000 €**	**0 €**	
2.8.4 Internal Regulatory Affairs Manager	**61.250 €**	**61.250 €**	
2.9 Volume per use	*50.000 €*	*50.000 €*	
TOTAL	**4.289.750 €**	**3.255.250 €**	**5,947**