DRAFT MINUTES

AP refer to Action Points listed at the end of this document.

1. Welcome and introduction.

1.1. Confidentiality and Competition Law. Participants were reminded on their obligation to comply with Confidentiality and Competition Law.

1.2. Tour de table and apologies. The list of participants is available in Annex 1.

1.3. Approval of the agenda. The agenda is available in Annex 1. No remarks / additions; agenda approved.

1.4. Approval of the minutes of the last meeting (6 November 2013) – including status of action items. A table with the status of the action points from the last meeting is available in Annex 2 – slides 5-6. Several action items are on the agenda for discussion today.

The minutes from the 19 June 2013 meeting will be revised following some comments on the scope of the ES work and cannot be approved yet. They will be approved by e-mail. AP1

Several questionnaires were circulated to the PGM WG over the last few months, to collect information on:

1. the uses of Pt substances;
2. the environmental emissions of Pt, Rh and Ru substances;
3. the occupational exposure to Pt substances; and
4. the production of PGM nano-forms.

A list of collated uses of the Pt substances will be circulated so Members and their downstream users can check if all uses are covered. For the other questionnaires, Members were requested to return outstanding questionnaires asap, or to inform the PMC Secretariat why one or more of the questionnaires cannot be completed. AP2

2. Substance identification and sameness of PGMs *(Cf. slides 8-16 in Annex 2)*

2.1. ID cards

ID cards have been drafted for most of the PGMs in the testing programme and updated versions will be circulated end 2014, along with ID cards for the remaining PGMs. AP3

2.2. Sameness: Update on diammonium hexachlororuthenate (AHCRu)

Additional analytical work was conducted to confirm the substance identity of AHCRu, as the substance received by the lab did not match the MSDS. Based on the additional data, the sameness expert group concluded that the substance thought to be AHCRu is actually the oxo-bridged dimer tetraammonium decachloro-mu-oxodiruthenate.

The impact on the testing requirements / testing programme is currently being reviewed (some tests have been performed already on AHCRu but actually, the oxo-bridged dimer was tested) and impurities in the samples from the different manufacturers are being checked to confirm that the oxo-bridged dimer is a mono-constituent substance and to check sameness between manufacturers. AP4-5

2.3. Karstedt concentrate: Update on discussions with Reconsile

It was agreed with the Reconsile consortium that they will be the Lead Registrant for Karstedt concentrate. A MoU with them is currently being finalised. AP6

Discussions with the Reconsile consortium are ongoing regarding the substance type (multi-constituent or UVCB) and the process definition. It was noted that we will probably need to perform additional analysis to confirm substance sameness for Karstedt concentrate, as ECHA seems to put a lot of attention on the analytical confirmation of identity for UVCBs.

2.4. Consideration of PGM nano forms *(cf. Annex 3)*

- The EC recommendation on the definition of a nanomaterial is based on the number of particles, not their mass, meaning that a very small mass percentage of nanoparticles can already make a material fall into the nano range. Furthermore, also unintentionally produced nanoparticles should be taken into account.
- A questionnaire was circulated to check which PGM substances are produced in the nano-form and to check the availability of measured data (PSD, surface area, composition). Almost no production of nanomaterials was reported, and no measured data were provided. Granulometry data on the PGM blacks are available but these are mass based rather than particle based.
- Experience from the Ag registration shows that most registrants underestimated the production of nano-Ag. It is the company's responsibility to consider PGM nano-forms in their registration if relevant, and PGM members are recommended to perform further characterisation steps as outlined in Annex 3. Some companies stated that they will follow a pragmatic approach and on the basis of the recommended definition, analyse 1 or 2 PGM samples. **AP7-8**
- The importance of the composition was stressed (e.g. oxide content).
- Information on tonnage is needed, even if lower than 1 t/a. If a PGM nano form is covered in the same dossier as the PGM, each gram of nano-form produced counts.
- For the Ag dossier, a literature search was done on the nano-form and a report was produced comparing the effects of Ag and nano-Ag. The General Assembly then decided by vote to cover both forms in the same dossier. The hazard properties of both forms are in principle the same and a worst-case approach was used (i.e. nano-Ag not more toxic than soluble Ag).
- It is suggested to perform a literature search on nano-PGMs for those PGMs where we know they are produced in the nano-form. This will be further discussed during the afternoon PGM Tox Expert Group meeting. **AP9**
- Nano-PGMs are used for very specific applications, e.g. automatic catalyst systems.

2.5. Scope update

- Based on feedback from the questionnaires, there are no more registrants for 4 PGM substances (cf. slide 14 in Annex 2). It is proposed to delete them from the PMC scope. **There are no objections from the WG.** The Management Committee will be informed next, followed by the General Assembly and the SIEF.
- ECHA released a new practical guide on SCC (cf. Annex 4). This document does not impact our scope; the definition of SCC has not changed.
- Some PGM substances have changed tonnage band (cf. slide 16 in Annex 2). The most important change is that dipotassium hexachloropalladate is now in the 100-1000 t/a tonnage band, which changes the registration deadline to ASAP. The impact of this and other tonnage changes on the ITS will be discussed during the afternoon PGM Tox Expert Group meeting.

AP10-13

3. PGM testing programme *(Cf. slides 18-31 in Annex 2)*

A short overview of the PGM testing programme was presented. This will be discussed in more detail during the afternoon PGM Tox Expert Group meeting.

3.1. PGM ecotoxicity testing

The current status of the ecotoxicity testing programme is summarised on slides 19-21 in Annex 2.

3.2. PGM genotoxicity testing

- The current status of the genotoxicity testing programme is summarised on slides 22-23 in Annex 2.
- Tests are done in a phased manner. Most tests are completed and negative, except for the *in vitro* micronucleus test for dihydrogen hexahydroxyplatinate.

3.3. PGM sensitisation testing

The current status of the sensitisation testing programme is summarised on slide 24 in Annex 2.

3.4. PGM acute/repeated dose testing

- The current status of the acute/repeated dose testing programme is summarised on slides 25-30 in Annex 2.
- Studies are being conducted for 10 PGM substances at 2 laboratories (CiToxLAB and LPT). Most studies have been completed. The histopathology evaluation is currently ongoing.
- It was stressed that each RDT study takes a lot of work and a lot of decisions. WG members thank Klaus for his efforts on this.

3.5. Need for acute dermal toxicity tests

It was agreed by Caracal in July 2014 that no acute dermal toxicity tests are required for substances that are not toxic in acute oral toxicity tests (limit dose 2000 mg/kg). Reach Annex VIII will be amended. This is in-line with our testing approach, i.e. no changes are required.

4. Current status of PNEC and DNEL refinement *(Cf. slides 32-37 in Annex 2)*

4.1. PNEC derivation DDP and other PGMs

- The WCA PNEC summary report for Pd substances was circulated in August (cf. Annex 5). Read-across from DDP was confirmed and revised PNECs were agreed in August 2014
- Pt ecotoxicity studies are to be completed in Q4 2014, as scheduled. PNECs will be derived once the studies are completed and results are available.
- Ru ecotoxicity testing was put on hold until the substance ID was clarified and will be restarted now.
- For Rh, an additional study (algae) was proposed to confirm read-across. This will be further discussed during the afternoon PGM Tox Expert Group meeting.

AP14-16

4.2. DNEL derivation DDP and other PGMs

For the DNEL derivation, the testing programme is ongoing as scheduled (except for AHCRu as clarification was needed on substance ID). Timing of the testing programme is until 2017 as we still need data for the Ru compounds. As soon as the data are available, DNELs will be derived.

AP17

4.3. CLP update

- PGM classification changes since February 2012 are summarised on slides 35-37 in Annex 2. These changes are the result of new available testing data / read-across.
- For tetraamminepalladium (II) nitrate, tetraamminepalladium(2+) dichloride and tetraamminepalladium(2+) diacetate, the M-factors changed from 1 to 10 due to a clerical error in the previous version.
- For several PGMs, the skin corrosion classification was refined from Cat 1A to Cat 1B based on corrositex test results. It was noted that for platinum dinitrate, the skin corrosion classification was not refined because one company tested skin corrosion Cat 1A (so the 1A classification remains for this substance).

AP18

5. Identified uses

5.1. Pd and Pd substances *(Cf. Annex 6.1 and slides 41-65 in Annex 2)*

- IUCLID has been updated since the Pd uses were originally collected and WCA has updated the declared Pd uses accordingly. The updated list was circulated to the PGM WG on 6 Oct, is available in Annex 6.1 and will be further updated with today's input and re-circulated. **AP19**
- For several uses, additional input is needed (e.g. use descriptors for separated uses). **AP20**

- Intermediate professional use cannot be reported in IUCLID. If not needed, this use should be removed.
- Use of Pd dinitrate containing catalyst: Pd dinitrate is a raw material for automotive catalysts and is transformed.
- The article service life was not included in the original use collection, but has now been added for several uses:
    - Article service life added for handling and use of Pd containing metals and alloys e.g. in jewellery, ingots, coins. Use descriptors are still required.
    - Automotive catalysts: article service life added for Pd. The PGM WG indicated this should also be added for Pd oxide, Pt and Rh.
    - Surface treated articles:
        - It is recommended to include an article service life for surface treated articles, even if the substance is transformed into another substance during surface treatment. It is noted that if a substance is transformed during the production of articles, this is by definition incompatible with the intermediate definition under REACH and the service life of these articles should be considered during registration of the parent substance (cf. ECHA guidance on intermediates, p40: "*Any substance formed either during the production of an article and not intended to be released or in any activity other than the manufacturing of a substance on its own is not subject to registration. The risks associated with such a substance should be addressed in the registration of the substances from which it originates (the parent substances).*").
          Note: this statement is applicable to all substances and should therefore be considered for all PGMs.
        - An exposure assessment is required for surface treatment. There was discussion on what risk assessment needs to be performed if the parent (original) substance is transformed during surface treatment. If the transformed substance has no hazard potential, a qualitative statement should suffice. If not, a risk assessment is needed. This risk assessment could be substantial depending on the substance to be assessed but for most substances, a qualitative assessment is anticipated to be sufficient. This implies we need to know the speciation of the substance deposited on the article. For the vast majority of cases, the metal form can safely be assumed. It was suggested by JM to consult the Umicore handbook on PGM chemistry and available plating references for this. **AP21**
        - A precise and comprehensive coverage of the entire life cycle tree according to ECHA guidance is of particular relevance in authorisation/restriction and SVHC discussions to distinguish risks from the potential SVHC substance from those of the (likely) non-hazardous transformation product in/on an article.
    - Catalyst:
        - Article service life required only for automotive catalysts.
        - An ES is being developed for loading/ unloading of industrial catalysts by the European Catalyst Manufacturers Association (ECMA). We may need dialogue with them later to avoid double effort.
        - Clarification is needed on which and how substances are used as bulk catalysts to know how to cover the occupational assessment / whether an article service life or a use-scenario is required. **AP22**
    - If an article service life is relevant, an extra ES has to be included. For worker's health, this is not an extensive ES for the metal form, other forms of the substance being present and/or released from the article may require more efforts. For environmental emissions from automotive catalysts, there is already a considerable amount of literature available. **AP23**
      Note: article service life may also be relevant for consumers, which was not addressed in the meeting.
    - Example of production of an automotive catalyst: Pd dinitrate is used as precursor and is totally transformed into Pd and PdO. Emissions will not be Pd dinitrate but Pd and PdO. In which dossier should this assessment be covered: Pd dinitrate and/or Pd metal?

- If no Pd is used in the production of the automotive catalyst, there is no need to cover this in the Pd dossier.
- If Pd dinitrate is used in the production of the automotive catalyst, and is totally transformed in Pd, this is considered downstream use or service life of Pd dinitrate and should be covered in the Pd dinitrate dossier (transformation into article, not into substance).
- It is noted that the risk assessment has to be conducted for the Pd substance being present and/or emitted from the article regardless of the parent substance into which dossier the assessment will be included. As indicated before, for non-hazardous substances being present and/or emitted, a rather short qualitative statement substantiating this claim could be made rather than a complete risk assessment.

5.2. Pt and Pt substances *(Cf. Annex 6.2 and slides 66-84 in Annex 2)*

- Questionnaires were received for all Pt substances and WCA has grouped uses wherever possible. The list of Pt uses was circulated to the PGM WG on 6 Oct, is available in Annex 6.2 and will be further updated with today's input and re-circulated. **AP19**
- For several uses, additional input is needed. **AP20**
- When Intermediate use is mentioned, this can be an on site and/or transported intermediate. This information is available at secretariat level.
- For hexachloroplatinic acid, PROC 27b should be added for use as an intermediate – industrial.
- It is noted that Karstedt concentrate is used as a catalyst in dentistry (professional use).

5.3. Draft CHESAR life cycle tree *(Cf. Annex 7 and slides 86-102 in Annex 2)*

- In the absence of a finalised use map, EBRC developed and presented an example CHESAR life cycle tree to demonstrate the appearance, format, structure and possibilities.
- CHESAR is considered the most appropriate tool to report occupational exposure. In addition, if there is no hazard identified for a specific endpoint, CHESAR will indicate that a risk characterisation is not required.
- EBRC participates in the core development group of CHESAR and the ECHA consultation group. The latter group is also discussing the chemical entity concept. EBRC was asked whether there is any potential conflict of interest for EBRC when promoting the use of CHESAR. EBRC confirmed that there is no such conflict of interest.
- A life cycle tree will be developed for all substances to be registered, i.e. at or above 1 t/a.
- The use of CHESAR for the life cycle tree to be imported in IUCLID Section 3.5 has already been agreed.
- During the meeting, the question was asked if the occupational exposure assessment should also be reported by using CHESAR. By doing so, occupational exposure scenarios could automatically be generated with CHESAR for their use in the CSR. In addition, Section 3.7 of IUCLID could be filled automatically and an eSDS could also be generated using CHESAR, using standard phrases (once a final set of standard phrases is agreed on in the metals' industry).
- IUCLID Section 3.7 - conditions of safe use: are anticipated to become mandatory in the future in order to pass the technical compliance check but not before 2016 when IUCLID version 6 will be released.
- With CHESAR you would be able to easily generate an eSDS in different languages as a standard phrase catalogue for the eSDS is currently under development.
- The Co consortium has already done their ES with CHESAR. There is still a problem with the layout, meaning some manual editing is still necessary. The ES will be shorter in the next version of CHESAR, as repetition will be avoided.
- It is noted that the use of CHESAR will never become compulsory. CHESAR will be used by EBRC as a reporting tool, not an assessment tool.
- BASF noted that they are currently using the easyTRA software for their ES as it currently has a better connectivity with import/export in SAP. However, the easyTRA software does not address specifics of metal exposure assessments.

- It is noted that in the current version of CHESAR, you cannot set up an environmental assessment for inorganics, but this may improve in the next version. However, you can decide to use CHESAR only for reporting of the occupational and environmental exposure assessments or to not use it for the environmental reporting, and then manually merge occupational and environmental parts later.
- There will be no additional costs incurred by using CHESAR, only a potential reduction of future costs because less work will be required for doing an update.
- **The PGM WG decided in a vote to use CHESAR for the occupational exposure reporting.**

6. Environmental emissions PGMs

6.1. Site-specific monitoring programme *(Cf. slides 103-111 in Annex 2)*

- The site-specific monitoring programme to demonstrate safe production/use for those sites where aquatic and/or sediment RCRs >1 (or close to 1) is currently ongoing.
- The first results indicate that the lab is able to achieve the promised LoD.
- Supporting parameters such as pH, dissolved organic carbon, calcium and conductivity are being measured as these data may be useful in the future to perform a bioavailability correction.
- Sediment monitoring programme:
  - We can reasonably expect that the remaining PGMs will have low sediment PNECs so sediment monitoring is desirable across all sites. Sampling should be done in the main receiving water body, and two programmes would be sufficient.
  - It is noted that not all companies accepted that sediment monitoring is needed. However, the RCRs for sediment are the higher ones.
  - **The PGM WG agrees that we should continue with the sediment monitoring programme on a majority basis, wherever practically possible.** Some companies have their reasons not wanting to participate (e.g. difficulties in getting permission from the local authorities to perform sampling, practical difficulties to take the sediment samples downstream of discharge to the receiving water body).
  - The costs of the sediment monitoring programme will be paid by the participating companies. The overall cost impact is estimated at about 3.5 k€ per site but all PGMs can be monitored in one go; the sampling itself is the most expensive part of the programme. The analysis cost is only 6€ per additional metal. Au is also being analysed at sites where it is processed.
- Current status:
  - Several companies are taking part to the site-specific monitoring programme.
  - There are two companies that have not provided a satisfactory response yet.
  - Some companies are performing their own monitoring.
  - Companies that are not taking part yet, are still welcome to participate. **AP24**

6.2. STP monitoring programme *(Cf. slides 112-113 in Annex 2)*

- We currently have the two most important STPs signed up for the monitoring programme. Discussions with a third STP are ongoing.
- It is noted that the STPs may be able to do the sampling themselves.
- **The PGM WG agrees to share the STP monitoring results with STP operators.**

6.3. Preliminary results environmental emission questionnaire *(Cf. slides 113-120 in Annex 2)*

- A limited and variable number of responses were received on the PGM environmental emissions questionnaire compared to Pd (although there are indications that there are more responses to come). **AP2**
- The majority of the respondents provided estimates of emissions to water (measured and <LoD) although there is little data on emissions to air. In absence of stack emission data we will have to use the SpERC value. It is anticipated that using the SpERC value is conservative for PGMs but it would be good to validate this and ECHA may request us to demonstrate the applicability

of SpERCs to PGM processing.

- It is noted that we do not only need exposure data for substances > 10 t/a. A more robust dataset and GES will be representative for the whole sector, so data from companies with low tonnages are also welcomed.
- If a CSA is not needed for a site (all substances < 1 t/a), that site is not strictly required to provide a completed questionnaire but it would be nice to have it to strengthen the dataset.
- When creating the questionnaire, WCA assumed that the annual tonnage manufacture and used should be the same at individual sites. However, this is not the case as the PGM flow system is not continuous. It is therefore suggested to provide the **input** tonnage of each PGM in the questionnaire. **AP25**
- The GES will be developed using the input tonnage. The emission factor (EF) will be calculated as annual emission of PGM / input tonnage of PGM per annum. The calculation of a sufficiently conservative EF for each metal would then be applicable to all substances of that PGM. **The PGM WG agrees this is a conservative approach.**

7. Occupational exposure PGMs *(Cf. slides 122-128 in Annex 2)*

7.1. Status occupational exposure questionnaire Pt substances

- EBRC presented an overview of the status of the occupational exposure questionnaire: cf. slides 122-128 in Annex 2. A first screening of the returned questionnaires indicate that the level of detail is already quite good. **AP26-27**
- Contact with IPA is ongoing and will be further followed up. Data may not be adequate for REACH. **AP28**
- For DDP, dustiness data have been generated for different moisture contents. There are also dustiness data available on some Pt substances. **AP29**
- Exposure in the workplace can be to poorly soluble or soluble Pt compounds, to chloroplatinates or any combination of these: how to develop relevant exposure scenarios adequately addressing the varying hazard potential? In a standard REACH approach, one would have a situation where the same workplace is evaluated for the three types of substances (more precisely for each substance) separately. In such substance-specific assessments, the associated RMMs would be different although they would be prescribed for the same physical workplace. It is therefore suggested to reflect the actually required RMMs by considering all handled/emitted Pt-forms instead of conducting assessments for each substance separately. This would result in more relevant exposure scenarios and realistic risk assessments.

8. AOB, next meetings/calls and closing remarks

The water solubility paper has now been accepted for publication.

8.1. RMO for chloroplatinates

- Respiratory sensitisers are on the Candidate List of SVHC substances for Authorisation. The chloroplatinates are among the most potent respiratory sensitisers and they are already on Annex VI to the CLP Regulation, meaning they can be prioritised even if no REACH dossier has been submitted yet.
- Before her departure, Caroline already requested a proposal from a consultant (Michel Vanderstraeten) who could help with the development of RMOs for the chloroplatinates.
- Due to other priorities and considering that the RMO development would only take 10,5 days, **the PGM WG agrees that we should postpone this work and wait for an additional sign that it is needed.** It is noted that there is no wide dispersive use of the chloroplatinates so they are unlikely to be picked up for Authorisation.

AP30

8.2. Budget update

A PGM budget update is presented on slide 133 in Annex 2. About 60% of the 2014 budgeted expenses had been spent by end August 2014. It is noted that several testing invoices (e.g. for the

repeated dose testing) are still to be received before the end of this year.

8.3. Project plan update

A PGM project plan update is presented on slides 134-136 in Annex 2:

- A fast track plan needs to be developed for the dipotassium hexachloropalladate registration given the tonnage band / registration deadline change. **AP13**
- The testing programme has been extended to end 2015, due to the Ru compounds (testing programme is on track for the other PGM compounds).
- The exposure data collection has been postponed by 6 months because of availability issues (PM Refinables project).
- At this point there are no major delays for the PGM project.

Annexes

1. Agenda & list of participants
2. Slides presented at the meeting
3. Characterisation of (inorganic) nanomaterials under REACH (PMC Sec, 19 Feb 2014)
4. Short analysis of ECHA Practical Guide 16 on: How to assess whether a substance is used as an intermediate under SCC and how to report the information for the intermediate registration in IUCLID (Eurométaux, Aug 2014)
5. Summary of the derivation of PNECs for Pd substances (WCA, Jun 2014)
6. Identified uses:
   6.1. Updated list of declared uses of Pd and Pd compounds (WCA, 3 Oct 2014)
   6.2. List of declared uses of Pt and Pt compounds (WCA, 3 Oct 2014)
7. Accompanying information for EBRC's presentation (EBRC, 30 Sep 2014)

Actions

Table 1. Actions agreed at the 9 October PGM Working Group + Exposure Scenario meeting in Brussels

	What?	Who?	When?
1.	Revise minutes 19 June 2013 PGM WG + ES meeting and circulate for approval	PMC Sec	ASAP
2.	Return outstanding questionnaires on: • the environmental emissions of Pt, Rh and Ru substances; • the occupational exposure to Pt substances; and • the production of PGM nano-forms. Or inform the PMC Sec why one or more of the questionnaires cannot be completed	PGM WG	By 30 Nov 2014
Substance identification and sameness			
3.	Circulate (updated) PGM ID cards to PGM WG	PMC Sec	By end 2014
4.	Review the impact of the diammonium hexachlororuthenate substance identity issue on the PGM testing requirements / testing programme	PMC Sec	Nov 2014
5.	Decide on type of registration (mono-constituent substance or UVCB) and sameness between registrants for the substance tetraammonium decachloro-mu-oxodiruthenate based on additional analysis	PGM Sameness Expert Group	Nov 2014
6.	Finalise MoU with the Reconsile Consortium	PMC Sec (+ input from registrants)	Nov 2014
7.	Check PMC document on recommended characterisation steps to be performed by each legal entity for each type of nanomaterial (cf. Annex 3)	PGM WG	Nov-Dec 2014
8.	Recommend laboratory for nanomaterial characterisation and coordinate analysis	PMC Sec	Nov-Dec 2014
9.	Perform a literature search to compare effect levels of nano-PGMs versus 'bulk' PGMs	PMC Sec / Consultants	Q1 2015

10.	Send updated substance and tonnage band declarations	Companies that have declared tonnage band changes in the PGM questionnaires	ASAP
11.	Update PGM indicative list following scope / tonnage band changes once confirmed by companies through updated substance and tonnage band declarations	PMC Sec	Oct-Nov 2014
12.	Inform Management Committee / General Assembly / SIEF of PGM scope / tonnage band changes	PMC Sec	Nov-Dec 2014
13.	Develop a fast track plan for the dipotassium hexachloropalladate registration given the tonnage band / registration deadline change	PMC Sec	ASAP
Testing programme, PNEC/DNEL refinements and CLP update			
14.	Derive Pt PNECs	PMC Sec / WCA	Q1 2015
15.	Initiate Ru ecotoxicity testing and additional Rh algae study (if approved)	PMC Sec / Labs	ASAP
16.	Derive Ru and Rh PNECs once ecotoxicity testing data are available	PMC Sec / WCA	Q1/2 2015
17.	Derive DNELs once acute / repeated dose / reprotox testing data are available	PMC Sec / Consultants	2015-2017
18.	Follow up with the corresponding LRs regarding required updates of the CLP notifications	PMC Sec	Nov-Dec 2014
Identified uses			
19.	Further update the list of Pd/Pt uses following input from the meeting and re-circulate	WCA / EBRC / PMC Sec	Oct-Nov 2014
20.	Review updated list of Pd/Pt uses and provide further input/comments	PGM WG + DUs	Nov-Dec 2014
21.	Check the Umicore handbook on PGM chemistry and available plating references for information on speciation for surface treated articles	Umicore / Johnson Matthey	Nov-Dec 2014
22.	Nominate substances used as bulk catalysts to know how to cover the occupational assessment / if an article service life is needed.	Johnson Matthey	Nov-Dec 2014
23.	Review literature on environmental emissions from automotive catalysts	WCA	Q1 2015
Environmental emissions of Pd and Pd compounds			
24.	Inform the PMC Sec / WCA of wish to participate in the site-specific monitoring programme	PGM WG	ASAP
25.	Check if companies provided the right tonnage number in the environmental emissions questionnaire (= input tonnage), for all PGMs (including earlier questionnaire on Pd)	PMC Sec	Nov 2014
Occupational exposure of Pd/Pd compounds and Pt/Pt compounds			
26.	Check which companies will still send the Pt occupational exposure questionnaire	PMC Sec	ASAP
27.	Clarify outstanding issues with companies regarding the Pt occupational exposure questionnaires	EBRC	Once all questionnaires are available
28.	Follow up IPA dataset Provide recent IPA publication to EBRC	EBRC PMC Sec	Q4 2014-Q1 2015 ASAP
29.	Check available dustiness data on DDP / Pt substances	EBRC	Q1 2015
Other			
30.	Inform Michel Vanderstraeten that we realize the importance of developing RMOs for the chloroplatinates but that due to prioritisation, this work will not be picked up now	PMC Sec	ASAP