310645

STOICISM

Sustainable Technologies for Calcined Industrial Minerals in Europe

Work Programme Topic Addressed: NMP.2012.4.1-1

New environmentally friendly approaches to minerals processing

D8.2 Publication Materials

Publication materials will be produced throughout the project, including publications in scientific and technical journals, press releases, posters and brochures for conferences.

Verification criteria - Copies of publications available (P12).

Due date of deliverable: June 2016 (M42)

Actual submission date: FINAL version September 2016

Project Start date: 2 JANUARY 2013 DURATION: 4 years

Dissemination level:

PU (PU = Public)

D8.2 Publication Materials

Dissemination and exploitation plan.

The dissemination and exploitation of results from STOICISM is included in WP8 and its objective is to disseminate the outcomes to audiences across the EU and beyond as well as to develop plans for the exploitation of the results for the benefit of EU industry, industrial mineral sector in particular, society in general as well as assess the potential to expand beyond the industrial minerals.

The Dissemination and Exploitation plan is part of **Description of Work (DoW Proposal Part B)** and it is designed to ensure that the societal, environmental, developmental and economic impacts of the project are met within the satisfactory timescale of the STOICISM project.

The Dissemination plan includes the following sections:

1. Dissemination strategy as validated by the steering group in April 2013 and consists of five steps:
    a. Clear rationale and objectives for dissemination and exploitation to multiple target groups (scientific, industry, academia, policy makers, …) Figure 1.
    b. Strategy to identify which results to disseminate and to which audiences.
    c. Determine organisational approaches of different stakeholders and allocate responsibilities and resources within the consortium.
    d. Implement the dissemination strategy by identifying results to be communicated and selecting events to promote the project and network for follow up projects and collecting feedback and fine tune further research.
    e. Monitor and evaluate the effects of the activity and modify dissemination to improve effectiveness.

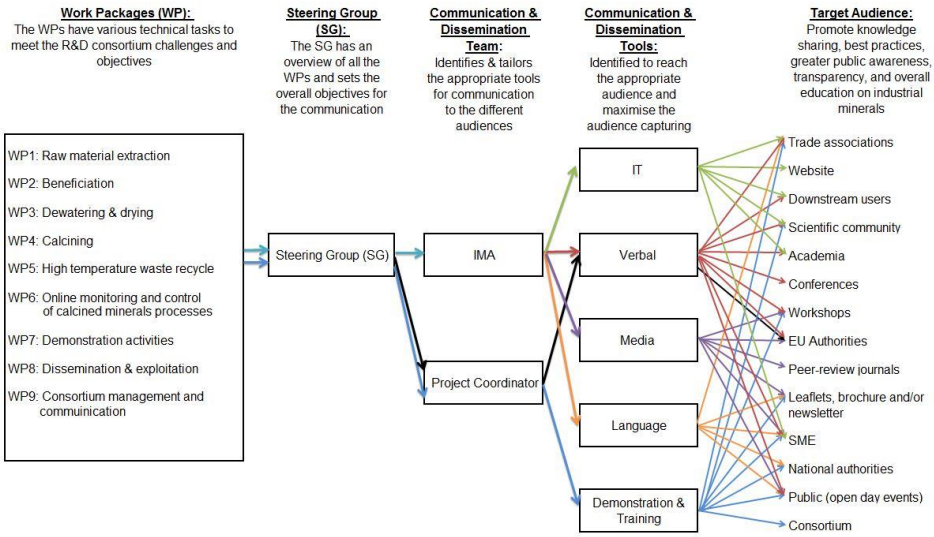

Figure 1. Illustration of the information flow from the various Work Packages to target audiences.

2. Exploitation: a detailed analysis of the exploitation strategies is presented in the DoW. In summary, an Initial Exploitation Plan was formulated and was followed by the Consortium to ensure the impacts of the outputs of STOICISM are maximised. Also, a specific session was organised in the Mid-Term Review consortium meeting to assess the status of exploitation and knowledge management across the various WP of the STOICISM project to optimize and refine the work related to dissemination and further exploitation. David Moseley (from Imerys), has the role of Exploitation Manager and supervises all the tasks supported by the project manager.
3. Intellectual property: IP management lies in the Steering Group and it is consolidated in the Consortium Agreement. A detailed description of the IP management strategies is in the DoW and two consortium meetings were organised with the EC consultant to address any outstanding issues related to IP ownership between consortium partners.
4. Management of knowledge: This is overseen by the Steering Group. Knowledge is captured in tangible forms such as peer-review papers, reports (Master thesis, PhD thesis), literature surveys, position papers, presentations, posters and so on. In order to streamline the sharing of the data generated by consortium members and gathered from the different work packages the steering group has approved all the communications which was publicly presented in scientific, technical meetings/events/congresses which were national or international.

Based on the dissemination strategy described above the following achievements can be reported:

STOICISM findings in ten peer-review papers in multiple International and in one National journal:

13 papers have been submitted in peer-review international journals. Ten papers have been accepted and already published; two are accepted and will be shortly be on-line and another will be submitted in September 2016. University of Lorraine (Lorraine) has submitted 8 papers, followed by University of Exeter (Exeter) with three and University of Aalto (Aalto) and Technical University of Delft (Delft), both with one paper (Fig. 2).

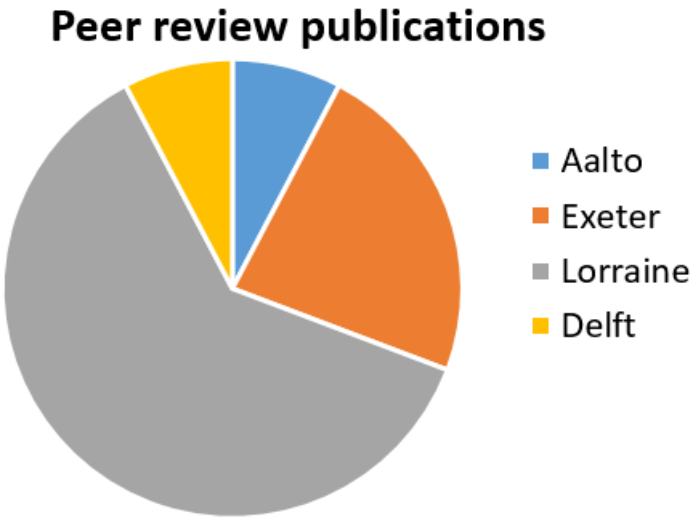

Figure 2: Share of peer-review papers accepted/published and university leadership.

The peer review papers are based on the work of one PhD students from Lorraine University (France) and Delft (the Netherlands), two master students from University of Aalto (Finland)

and University of Exeter UK). To address linguistic barriers and to enlarge the dissemination and boost uptake of STOICISM findings, the University of Lorraine prepared one paper in French for an industry review magazine. In annex 1 a list of the international papers and national paper with their complete references are provided.

STOICISM supports 2 PhD and 33 master students towards breakthrough innovation

Two PhD students and 33 master students across multiple European Universities have generated a wealth of data covering the lifetime of a mine starting with prospection, mining, waste management, raw material processing up to the final end uses. Around 20 contributions in national or international conferences are based on the work of the master students only. 25 master students are from Exeter (5 students in 2013; 8 students in 2014, 5 students in 2015 and 7 students in 2016), Six students from Aalto University and two students from Delft University (Figure 3). The list of their master thesis is provided in Annex 2. STOICISM boosts research at University and closes the gap towards breakthrough innovation.

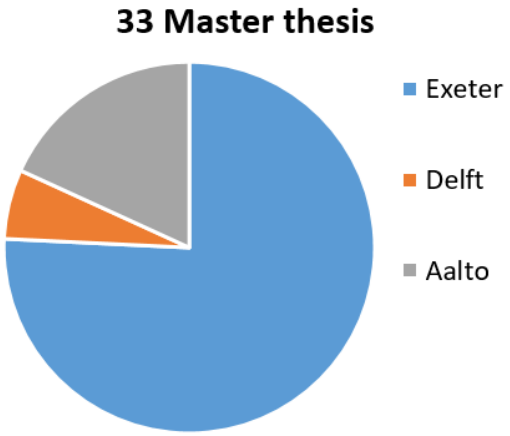

Figure 3: Figure shows the share of the master students between the different Universities.

STOICISM presented in 37 events:

- The results of the different STOICISM partners have been accepted and presented in 36 international/national events/conferences/scientific or industry meetings as shown in Figure 4A. Figure 4B, shows the location of the 36 events where the STOICISM was presented and promoted with a coverage of 12 European countries (27 events in total) and five non-European countries with (nine events in total in Australia, Canada, South Africa, Brazil & Turkey). The selection of the events is carefully made within the consortium for the European events as well as in close collaboration with the project officer for the non-European events. The audience within these events is a mix of mining industry (industry events and exhibitions) researchers/universities, (EU) policy makers, machinery manufacturers, as well as specialists in mining and processing to foster discussion and stir ideas towards a tailored dissemination.

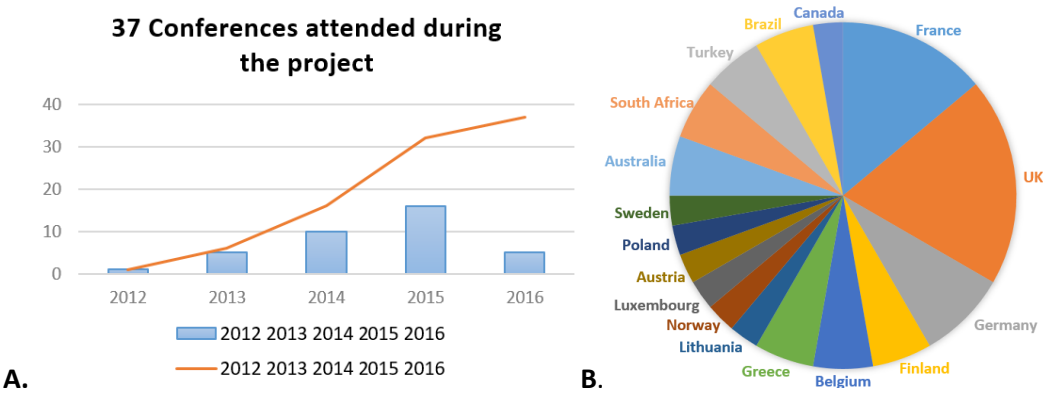

Figure 4A. The number of conferences attended per year as well as the number of cumulating events during the entire STOICISM project; Figure 4B. The location of the events where STOICISM was presented and promoted.

- Multiple STOICISM partners have been very active to disseminate the findings of the STOICISM. University of Lorraine and Exeter have been the most active disseminators with 9 events each, followed by Delft, IMA-Europe 6 events, IMERYS presented in 5 events and Alto with 3 events as shown in Figure 5.

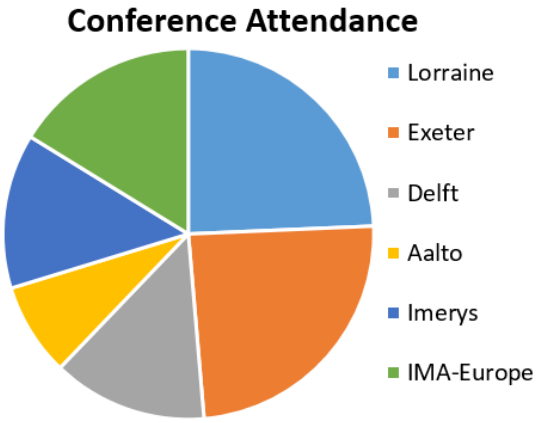

Figure 5: Conferences attended by each of the STOICISM partner.

- From 37 events in total, 27 were as platform presentation and 10 as poster presentations. The audience in multiple events is a mix of industry, researchers/universities, EU policy makers, machinery manufacturers, as well as various industry events and exhibitions. The share of efforts in communication and dissemination for each partner is presented in Figure 6 under Platform (Oral) presentations and Poster presentations. In annex 3 a full list of all the events and the references as well as the presenter (in bold) is provided for transparency and completeness.

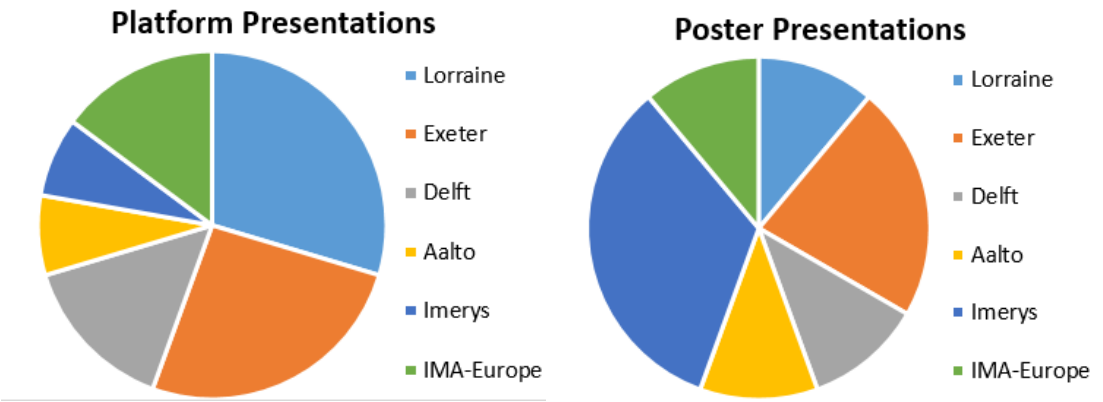

Figure 6: Presentation type (platform or poster) in international events and the consortium lead presenter.

During the dissemination plan and in order to overcome the barriers which were identified which are linked to language, some of the STOICISM introductory web pages are already translated in German, French and Spanish in addition to the all website which is in English and regularly updated especially in relation to the dissemination activities. In addition, Dr. Dehaine from the University of Lorraine has prepared multiple presentations and one paper in French which was published in a French industry magazine (see annex 1 under national publications).

STOICISM Awards for PhD and Master student:

Breakthrough findings and novel technologies used during the STOICISM project are awarded by two awards by two different Jury's.

1. Dehaine Q.,2014. Métaux critiques (LREE, Nb, W) et Sn comme co-produit de la production de kaolin (UK). Congrès de la Société de l'Industrie Minérale (SIM14), Prix jeune de la SIM in the category PhD student at Lorraine University (France). 8-10 Octobre 2014, Bordeaux (France).
   Platform presentation made by Quentin Dehaine (Université de Lorraine, France) entitled: "Critical metals (La-Ce-Nd-Nb, W) and Sn as co-products from the production of Kaolin in Cornwall, UK: Identification and characterisation of the most valuable fractions" received the SIM 2014 award in the category «PhD student». Societé de l'Industrie Minérale SIM2014 Congress is the event of the Industrial minerals sector in Europe. 500 experts in charge of the exploitation of a mine, quarry, industrial mineral, cement factory and recycling plant, and more than 4000 visitors took place in Bordeaux (France) from 7-10 October 2014 is an annual event.

2. Tierney R. 2014. Targeting Kaolin Deposits with Discrete Fracture Networks. First prize of the 2014 Midland Valley Digital Field Mapping competition. Master thesis at the University of Exeter (Camborne School of Mines) in UK.
   Rachael Tierney's master dissertation "Targeting Kaolin Deposits with Discrete Fracture Networks", which was supervised by Prof. Hylke Glass (University of Exeter, UK), was awarded the first prize of the 2014 Midland Valley Digital Field Mapping competition. Application of Midland Valley Move software with appropriate geological inputs addressed the prediction of the degree of kaolinisation of granite

in the shallow subsurface. Reconciliation of simulated kaolinisation with actual data measured by Imerys showed a promising correlation, suggesting that the chosen approach is efficient at identifying exploration targets.

STOICISM Identity:

Creation of a visual identity (logo) for STOICISM was finalized in consultation with all consortium partners back in March 2013 and the logo and acknowledgement statement has been used in all external and internal communication.

Project website:

The STOICISM project website www.stoicism.eu has been operational since June 2013 and includes two sections:

1. Public section dedicated to general non-confidential information (project description, consortium information, links to project dissemination events, non-confidential information about results exploitation, relevant European events and project area useful links etc.); All press releases for each of the events were STOICISM was promoted/presented can be found under 'Past events' for the previous years (2012-2015), and under 'News' for the ongoing year.

2. Member Area dedicated to the exchange of project documents, reports, meeting minutes, progress results, internal training sessions, forum, etc. In addition, a research archive area (member area) contains raw data and supplementary results to be preserved and accessed as necessary beyond the closure of the project. All events related to member activities and internal consortium meetings are being regularly updated in the sections "Events"; "News".

Ensure STOICISM visibility within STOICISM partners and industry:

Apart from the website, to gain visibility the website is already linked to multiple other websites working in the field of innovation and technological break-through so that search engines can lead newcomers to the project website. The main channels used to achieve high visibility are the following: Industrial minerals-producing companies, downstream manufacturing industries (e.g., coatings, plastic, rubber, brewing, construction, etc.) and their trade associations, consumers, the EU Institutions, EU innovation initiatives and cross sectoral initiatives (e.g. A- SPIRE, the European

Innovation Partnership (EIP) on Raw Materials), national authorities, specialised media, academia, technological institutes, regulatory bodies, potential customers, SME.

- STOICISM Partners promotion:
  - CTech Innovation: http://ctechinnovation.com/projects/project-STOICISM.pdf
  - Exeter: http://emps.exeter.ac.uk/csm/staff/lp337
  - University of Aalto http://kepo.hut.fi/index.php?current_page_1=Research&current_page_2=Projects&current_page_3=STOICISM&id=36
  - University of Lorraine: http://www.iceel.eu/UserFiles/File/ateliers-scientifiques/as-2015/communications-orales/09-filippov-pf-steval-ra-iceel.pdf
  - University of Lorraine: http://en.calameo.com/read/00464732620da12a6dac8
  - IMA-Europe: http://www.ima-europe.eu/eu-policy/industrial-affairs/innovation
- Industry Journals or machinery suppliers:
  - **Minerals Engineering International:** http://www.min-eng.com/environmental/289.html
  - Industry supplier: http://www.ntvsbedcollege.org/13039/and-calcination-of-minerals/
- Website of policy makers: The communication channels of policy makers or conference organizers (CORDIS, European Bureau for Conservation and Development, …) are also promoting the STOICISM project).

ANNEX 1: Peer review publications

International Journals:

1. Guatame-Garcia A., Buxton M., 2016. In pit estimation of pollutants in the mining of perlite ore using infrared spectroscopy. To be submitted in Ore Geology Reviews.
2. Filippova I.V., Filippov L.O., J. Machault, Severov V.V., Korobelnik C. 2016. Beneficiation of high carbonate diatomaceous earth by flotation (To be submitted to Minerals Engineering).
3. Dehaine Q., Filippov L.O., Joussemet R., 2016. Rare earth (La, Ce, Nd) and rare metals (Sn, Nb, W) as by-product of kaolin production, Cornwall: Part 2: Gravity processing of micaceous residues. *Minerals Engineering* (Accepted). pp. XXX–XXX.
4. Tierney R.L., Glass H.J., 2016. Modelling the structural controls of primary kaolinite formation. Geomorphology. Vol. 268. Pp. 48–53. http://dx.doi.org/10.1016/j.geomorph.2016.05.022
5. Filippov L.O., Dehaine Q., Filippova I.V. 2016. Rare earth (La, Ce, Nd) and rare metals (Sn, Nb, W) as by-product of kaolin production, Cornwall: Part 3: Processing of fines using gravity and flotation. Minerals Engineering 95: Pp. 96–106. http://dx.doi.org/10.1016/j.mineng.2016.06.004
6. Dehaine Q., Filippov L.O., 2016. Modelling heavy and gangue mineral size recovery curves using the spiral concentration of heavy minerals from kaolin residues. Powder Technology 292, Pp. 331–341. doi.org/10.1016/j.powtec.2016.02.005
7. Kanari N., Diot F., Gauthier C. and Yvon J. 2016. Use of residual materials for synthesis of lightweight granulates by thermal treatment process. Applied Clay Science 123, Pp. 259-271. DOI 10.1016/j.clay.2015.12.027
8. Dehaine Q., Filippov L.O., 2015. Rare earth (La, Ce, Nd) and rare metals (Sn, Nb, W) as by-product of kaolin production, Cornwall: Part 1: Selection and characterisation of the valuable stream. Minerals Engineering 76, Pp. 141–153. http://dx.doi.org/10.1016/j.mineng.2014.10.006
9. Dehaine Q., Filippov L.O., Royer, J.J., 2016. Comparing univariate and multivariate approaches for process variograms: A case study. Chemometrics and Intelligent Laboratory Systems. 152, Pp. 107-117 doi: http://dx.doi.org/10.1016/j.chemolab.2016.01.016
10. Eskelinen A., Zakharov A., Hearle J., Jämsä-Jounela S-L., 2015. Dynamic modelling of a multiple hearth furnace for kaolin calcination. American Institute of Chemical Engineers (AIChE) Journal 61: 11. Pp. 3683–3698. DOI: 10.1002/aic.14903
11. Dehaine Q., Filippov L.O., 2015. A multivariate approach for process variograms, in: Esbensen, K.H, Wagner, C. (Ed.), *TOS Forum* 4, IM Publishers, Chichester, Pp. 169–174. doi:10.1255/tosf.76
12. Tierney R.L., Glass H.J., Scrivener, R.C. 2015. Using structural features to target kaolin deposits in South-West England. Geoscience in South-West England, 13, 450-453. http://www.ussher.org.uk/journal/00s/2015/10%20Tierney%20et%20al%20450-453%201.pdf
13. Palmer L.W., Glass H.J. 2015. Comparison of grade modelling methods at Blackpool china clay pit, Cornwall. Geoscience in South-West England, 13, 454-458. http://www.ussher.org.uk/journal/00s/2015/11%20Palmer%20&%20Glass%20454-458%201.pdf

National journals:

14. Dehaine, Q., Filippov, L.O., 2015. Métaux critiques (terres rares légères, niobium, tungstène) et étain comme coproduits de la production de kaolin. Mines & Carrières, hors série 16 (225) pp. 99-111. In French

ANNEX 2: List of PhD and Master thesis (grouped by university recent submission year, first)

PhD thesis:

1. **Guatame-Garcia A.** (Adriana). 2017. The use of sensors for material characterisation of kaolinite, diatomite and perlite for in pit mapping, characterisation of calciner feed and monitoring of calciner products. To be submitted for the title Doctor of Sciences in Q2 2017.
2. **Dehaine, Q**. (Quentin), 2016. Rare Earths (La, Ce, Nd) and rare metals (Sn, Nb, W) as potential by-product of kaolin production, St Austell, UK. Submitted for the title Doctor of Sciences at the Université de Lorraine. Pp. 1-268. In English with French abstract and foreword. Defense March 2016.

Master thesis Aalto

1. **Eskelinen A.** (Aleksei), 2014. Dynamic modelling of a multiple hearth furnace. Master thesis at Aalto University, Presented 18 March 2014. Pp. 1-219.
2. **Gomez Fuentes J.V.,** 2016. Simulation environment for advanced control development of a multiple hearth furnace. Master thesis at Aalto University, Presented 25 April 2016. Pp. 1-95.
3. **Ogunsola M.,** (Moses). 2015. Data-based modelling of a multiple hearth furnace. 2015, Submitted for the title Master of Sciences at Aalto University, Presented 26 October 2016. Pp. 1-129.
4. **Solovyev A.** (Anatoly). 2016. Industrial internet and its role in process automation. To be submitted in 2016, for the Title Master of Sciences at Aalto University, Presented March 2016. Pp. 1-107.
5. **Tajuddin I**. (Ibrahim). 2016. Soft Sensor for monitoring energy balances in the multiple hearth furnace. To be submitted in 2016, for the Title Master of Sciences at Aalto University. Presented October 2016. Pp. XX-XX.
6. **Timsina T.** (Tekendra), 2016. Temperature profile control of a multiple hearth furnace for kaolin calcination. To be submitted in 2016, for the Title Master of Sciences at Aalto University. Presented October 2016. Pp. XX-XX.

Master thesis Delft University

7. **Groenheide S** (Stefan). 2016. Mapping the granite to kaolin transition and kaolin mineralisation in the St. Austell Granite (SW England) using drill-core hyperspectral imaging. To be submitted for the title Master of Sciences in December 2016 at Technical University of Delft. Pp. X-XX.
8. **Klifman E.H.A.,** 2016. Characterisation of the ore from the Elche de la Sierra mine, Spain. Submitted for the title Master of Sciences in June 2016 at Technical University of Delft. Pp. 1-106.

Master thesis Exeter University

2016

9.
10. **Cordner** D. (Dominic). 2016. A geostatistical investigation of the relationship between kaolin geochemistry and the optical quality of the associated calcined products. MSc thesis, University of Exeter. Presented: October 2016. Pp. 1-72.
11. **Heude** A. (Antoine). 2016. Assessment of the Kaolin quality in Wheal-Remfry, IMERYS UK kaolin platform. MSc thesis, University of Exeter. Presented: October 2016. Pp. 1-120.

12. **Kehoe** L. (Lily). 2016. Ore characterisation techniques for granular and classical perlite from the Sulubahce deposit, Western Turkey, within the context of expansion recovery, process optimisation, and the generation of fines. MSc thesis, University of Exeter. Presented: October 2016. Pp. 1-152.
13. **Sacco,** A (Ariberto). 2016. Investigation of rotary air blast drilling for resource estimation and grade control. MSc thesis, University of Exeter. Presented: October 2016. 79 pages.
14. **Scott** O. (Oliver). 2016. A geotechnical design review of excavated faces in highly decomposed granites within the St Austell kaolin deposits. MSc thesis, University of Exeter. To be Presented: October 2016. Pp. 99 pages.
15. **Walker** C. (Christopher). 2016. The Effects of Composite Length and its optimisation for resource estimation. Submitted MSc thesis, MSc thesis, University of Exeter. Presented: October 2016. Pp. 1-65.

2015:

16. **Ashaolu**, S. 2015. An evaluation of volume variance effect for multivariate primary kaolin deposits. MSc thesis, University of Exeter. Presented: September 2015. Pp. 1-138.
17. **Carter**, L.C. 2015. Preliminary geotechnical assessment of the proposed life of mine excavation design for Melbur pit, MSc thesis, University of Exeter. Presented: September 2015. Pp. 1-129.
18. **Colgan**, B.L. (Bethany). 2015. The ore characterisation of the goltepe and sulubahce erlite deposits, Western Turkey, within the context of expansion recovery, process optimisation and the generation of fines, MSc thesis, University of Exeter. Presented: September 2015. Pp. 1-201.
19. **Laporte** C. 2015. Development of a Free-fall triboelectric model to separate CaCO3 impurities from diatomaceous earth. Report, University of Exeter. Research conducted between April - July 2015. Pp. 1-43.
20. **Morgan** D. 2015. Integrated Process Analysis: Kaolin Processing at IMERYS UK. MSc thesis, University of Exeter. Presented: September 2015. Pp. 1-93.

2014:

21. **Horsley-Kozajian**, S. 2014. Preliminary geotechnical assessment of the proposed life of mine excavation design for Wheal Remfre pit. MSc thesis, University of Exeter. Presented: October 2014. Pp. 1-36.
22. **Keverne**, B. (Ben). 2014. Remediation of a geotechnically hazardous section of quarry bench at Imerys Minerals' Melbur Pit, Cornwall, MSc thesis, University of Exeter. Presented: September 2014. Pp. 1-109.
23. **Manda**, E. (Ebelia). 2014. Slope stability analysis in Melbur Pit based on 3D laser mapping, incorporated with photographic imaging, MSc thesis, University of Exeter. Presented: August 2014. Pp. 1-103.
24. **Rahmady**, A. (Arisnaldo). 2014. Integrated process analysis of Imerys kaolin refining operation, MSc thesis, University of Exeter. Presented: June 2014. Pp. 1-87.
25. **Riggs**, W.H. (William). 2014. Applications of thermal imaging in mining and coastal slope stability analysis, MSc thesis, University of Exeter. Presented: September 2014. Pp. 1-131.
26. **Roberts**, D. (Daniel). 2014. The use of soft data to estimate kaolin resources at higher Moor China Clay pit. MSc thesis, University of Exeter. Presented: September 2014. Pp. 1-90.

27. **Stockdale**, L.M. (Luke). 2014. Sequential indicator simulation of granite decomposition grades at higher Moor China Clay Pit, St Austell, Cornwall, UK and the potential consequences for mine planning. MSc thesis, University of Exeter. Presented: September 2014. Pp. 1-106.
28. **Tierney**, R.L. (Rachael). 2014. Targeting kaolin deposits with Discrete Fracture Networks (DFNs) an analysis of 3D modelling software Move™ in resource estimation, MSc thesis, University of Exeter. Presented: September 2014. Pp. 1-83.

2013:

29. **Allvey**, P. (Philip). 2013. The Feasibility of Resuming Mining Operations in the Northern Area of Blackpool China Clay Pit, MSc thesis, University of Exeter. Presented: August 2013. Pp. Pp. 1-82.
30. **Gold**, W. (Will). 2013. Dry Mining at Imerys' Central Area kaolin operations: feasibility and potential benefits in comparison to the existing wet extraction process, MSc thesis, University of Exeter. Presented: August 2013. Pp. 1-59.
31. **Goodman**, D. (Daniel). 2013. Statistical investigation and flowsheet simulation of the UK Imerys kaolin refining operation, MSc thesis, University of Exeter. Presented: September 2013. Pp. 1-95.
32. **Hooper**, R.H. (Richard). 2013. An evaluation of resource estimation techniques for multivariate primary kaolin deposits. MSc thesis, University of Exeter. Presented: September 2013. Pp. 1-117.
33. **Deptford** J. (John) 2013. The effect of high voltage pulse fragmentation on China Clay Matrix. An investigation into the effect of different levels of applied energy and voltage in the form of high voltage pulses into the comminution and product quality of china clay matrix. Report, University of Exeter. Presented: May 2013. Pp. 1-29.

ANNEX 3: List of events sorted by year and alphabetic order within the year. In bold presenter

2016:

1. **Shtiza** A., Dehaine, Q., Filippov, L.O. 2016. Recovery of rare earth from kaolin waste: case study from a UK quarry. 6th EU-US-Japan Trilateral Conference on Critical Raw Materials (CRMs) on 29 November 2016 Brussels (Belgium). Raw Materials Week organised by the European Commission.
2. **Dehaine, Q.,** Filippov, L.O., Filippova I.V. 2016 Rare earth and rare metals recovery from the micaceous residue using combined gravity/flotation processing route. 28th International Mineral Processing Congress (IMPC) in Quebec (Canada). 11-15 September. Pp. 11. Platform presentation.
3. **Glass** H., 2016. Geometallurgy: driving innovation in the mining value chain. 3rd AusIMM International Geometallurgy conference. 15 - 17 June, Perth (Australia). Pp. 20. Keynote speech.
4. **Guatame-García** A., Buxton M. 2016. Integrating LIBS and NIR for detection of heavy metals in perlite ores. Sensor Based Sorting and Control Conference. 23-24 February, Aachen, (Germany). Pp. 195-209. Platform presentation.
5. **Gomez Fuentes** J.V., Zakharov A., Jämsä-Jounela S.-L. 2016. Simplified mechanistic model of the Multiple Hearth Furnace for control development. 20th Nordic Process Control Workshop. 25 - 26 August, Stockholm (Sweden). Poster presentation.

2015:

6. Dehaine Q., **Filippov** L. 2015. A multivariate approach for process variograms, in: Esbensen K.H, & Wagner C. Eds. TOS Forum. Proceedings of the World Conference on Sampling and Blending. IM Publishers, Chichester. 10-12 June 2015 Bordeaux (France). No 5: Pp. 169–174. Platform presentation. doi:10.1255/tosf.76. http://www.impublications.com/subs/tosf/v15/S05_0169.pdf
7. **Dehaine** Q., Filippov L. 2015. From plant to mine: a reverse approach to help resource estimation and geometallurgical modelling. Proceedings of 13th Biennial SGA Meeting "Mineral Resources in a Sustainable World". 24-27 August 2015, Nancy (France). Pp. 1399-1403. Poster presentation. https://www.researchgate.net/publication/281289098_From_plant_to_mine_a_reverse_approach_to_help_LREE_and_rare_metals_by-product_resource_estimation_and_geometallurgical_modelling
8. Eskelinen A., **Zakharov** A., Hearle J. and Jämsä-Jounela S-L. 2015. Dynamic modelling of a multiple hearth furnace for kaolin calcination, Proceedings of the 19th Nordic Process Control Workshop, Ed. S. Skogestad, 15-16 January in Trondheim (Norway). Pp. 86-94. Platform presentation.
9. Eskelinen A., **Zakharov** A., Hearle J., Jämsä-Jounela S-L. 2015. Dynamic modelling of a multiple hearth furnace for kaolin calcination. 21st Finnish Automation Society Seminar. Finland. Platform presentation.
10. Eyre M., Pascoe D., **Coggan** J., 2015. Digital data acquisition for effective slope management. Cornish Institute of Engineers (CIE) conference. 26 February in (UK). Platform presentation.

11. Filippov L. and **Dehaine** Q. 2015. Gravity Processing of a Low Grade Kaolin Residue for the Recovery of Rare Earth Elements (La,Ce, Nd) and Rare Metals (Sn,W,Nb). Proceedings of the 13th Biennial Society for Geology Applied to Mineral Deposits (SGA) Meeting. 24-27 August 2015, Nancy (France). Pp. 1359-1360. Platform presentation.
12. **Filippova** I.V., Filippov L.O., Severov V.V., Machault J. 2015. Beneficiation of high carbonate diatomaceous earth by flotation. Flotation'15. 16-19 November, Cape Town (South Africa). Platform presentation.
13. **Glass** H. 2015. Towards sustainable mining practice. 24th International Mining Congress and Exhibition of Turkey (IMCET2015). 14 – 17 April in Antalya (Turkey). Keynote speech.
14. **Guatame-Garcia A.,** & Buxton, M. 2015. Visible and Infrared Reflectance Spectroscopy for Characterization of Iron Impurities in Calcined Kaolin Clays. In Beyerer J., Puente Leon F., & Langle T. (Eds.), 2nd International Conference on Optical Characterization of Materials (OCM 2015). pp. 215-226. Karlsruhe (Germany). Platform presentation.
15. **Guatame-García A**., Buxton M. 2015. Determination of the origin of fine particles generated during the processing of perlite ore. IOM3 conference "Minerals and Metals Production from Mine to Market"; 15-16 December 2015, Cambridge (UK). Platform presentation.
16. Keverne B., Howe J., Pascoe D., Eyre M., **Coggan** J., 2015. Remediation of a hazardous legacy slope face using pre-split blasting. In: Proceedings of the International Society for Rock Mechanics (ISRM) Regional Symposium EUROCK 2015 & 64th Geomechanics Colloquium - Future Development of Rock Mechanics, Schubert W., Kluckner A. Eds. 7-10 October in Salsburg (Austria). Pp. 6. Poster presentation.
17. **Moradi** S., Moseley D., Baricot M., Prall B., Coe A., Chauhan P., 2015. STOICISM and Sustainable Technologies for Calcined Industrial Minerals in Europe. 9th International Industrial Minerals Symposium (INDMIN-2015) 14-15 May in Izmir (Turkey). Poster presentation.
18. **Palmer** L., Colgan B.L., Glass H.G. 2015. Ore characterisation of perlite for process optimisation. IOM3 conference "Minerals and Metals Production from Mine to Market"; 15-16 December in Cambridge (UK). Platform presentation.
19. **Palmer** L., Glass H., 2015. Comparison between implicit and explicit modelling at Blackpool china clay pit in St. Austell. 54th conference of the USSHER society meeting, 2-5 January. Devon (UK). Platform presentation.
20. **Shtiza A**. 2015. Responding societal needs through STOICISM an industrial mineral focused FP7 project. Manufuture 23-24 November, Luxembourg (Grand Duche of Luxembourg). Platform presentation.
21. **Tierney** R., Glass H., Scrivener R., 2015. Targeting Kaolin deposits with discrete fracture networks. 54th conference of the USSHER society meeting, 2-5 January. Devon (UK). Platform presentation.

2014:

22. **Dehaine** Q., Filippov L. 2014. Rare Earth (La, Ce, Nd) and rare-metal (Sn, Nb, W) recovery from wastes of a kaolin production plant, Cornwall: Definition and characterisation of the most valuable waste stream. 3rd International Symposium on Sustainability through Resource Conservation and Recycling (SRCR 2014), 12-14 June in Falmouth (UK). Platform presentation.

23. **Dehaine** Q., 2014. Métaux critiques (LREE, Nb, W) et Sn comme co-produit de la production de kaolin, Cornouailles, Royaume-Uni: Identification et caractérisation du flux le plus valorisable. Congrès de la Société de l'Industrie Minérale (SIM14), 8-10 Octobre in Bordeaux (France). Platform presentation.
24. **Dehaine**, Q., Filippov, L. 2014. Distribution of critical raw materials (LREE Nb, Ta, W) and Sn within waste streams of china clay production plants, Cornwall, in: Nzihou A., Guerreiro S., Lora E.S., (Eds.), Proceedings of the 5th International Conference on Engineering for Waste and Biomass Valorisation. Rio de Janeiro (Brazil). pp. 1264–1275. ISBN: 979-10-91526-03-6. Platform presentation.
25. **Filippov**, L. 2014. Distribution of critical raw materials (LREE Nb, Ta, W) and Sn within waste streams of china clay production plants in Cornwall, in: Nzihou A., Guerreiro S., Lora E.S., (Eds.), 5th International Conference on Engineering for Waste (WasteEng2014), Rio de Janeiro (Brazil). Keynote speech.
26. **Glass** H.J. 2014. Unlocking value through integrated process analysis. Mineral Engineering Conference (MEC2014). 15-18 September, Istebna (Poland). Platform Presentation.
27. **Guatame-García A.,** Buxton M. 2014. Determination of $CaCO_3$ content in diatomite ores. Geometallurgy. 9-10 June in London (UK). Platform presentation.
28. **Guatame-García A.,** 2014. Determining iron impurities in calcined kaolin clays. An approach using short and long wavelength infrared spectroscopy. International Mineralogical Association – (IMA 2014) meeting in Johanesbourg (South Africa). Pp. 121. Poster presentation.
29. Palmer L.W., **Glass** H.J. 2014. Risk associated with rock type prediction using simulation techniques. 9th International Mining Geology Conference. 18-20 August in Adelaide (Australia). Keynote speech.
30. **Shtiza** A., Moseley D., Baricot M. 2014. Is high performance mining sufficient to meet sustainability goals along the value chain? Case study of STOICISM, the holistic approach. 6th Aachen International Mining Symposium (AIMS2014). 11-12 June in Aachen (Germany). Proceedings Pp. 415-422. Platform presentation.
31. **Shtiza** A., Moseley D., Palmer L., Jämsä-Jounela S-L., Buxton M., Filippov L., Muller O., 2014. Addressing societal challenges and opportunities through STOICISM: an industrial mineral focused FP7 project. Minerals in Circular Economy conference (MINCE). 26 - 27 November in Espoo in Aalto (Finland). pp. 43-44. Platform presentation.

2013:

32. **Baricot** M., 2013. STOICISM: Research, development and innovation technologies for the processing of and along the value chain of some industrial minerals. MANUFUTURE 6-8 October, Vilnius (Lithuania). Platform presentation.
33. Jouffret F., Moseley D., Baricot M., Coe A., Chauhan P., **Moradi S**. 2013. STOICISM project and physical separation methods. Physical Separation '13 Conference. 20-21 June, Falmouth, Cornwall (UK). Poster Presentation.
34. Jouffret F., Moseley D., Baricot M., Coe A., Chauhan P., **Moradi S.** 2013. Stoicism project and sustainable development in industrial minerals. 6th International Conference on Sustainable Development in the Minerals Industry (SDIMI), 30 June – 3 July, Milos (Greece). Poster presentation.

35. **Shtiza A.** R. Doome and M. Wyart. 2013. Reducing the environmental footprint in the industrial mineral sector: Case studies and industry innovation initiatives. 6th International Conference on Sustainable Development in the Minerals Industry (SDIMI), 30 June – 3 July, Milos (Greece). Proceedings Pp. 527-531. Platform presentation.
36. STOICISM banner at the European Parliament Exhibition 'The European mineral raw materials sector – an essential, innovative industry throughout the value chain'. 6-8 May in Brussels (Belgium). Poster Presentation.

2012:

37. **Ansari D.,** Mosley D., Hamer B. 2012. Introducing Project: STOICISM (Sustainable Technologies for Calcined Industrial Minerals) in Europe. Industrial Minerals Association Europe (IMA-Europe) Conference. 14 November in Brussels (Belgium). Platform Presentation.