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Quarterly Activities Report September 2020

Highlights

- Vulcan ensured it is fully funded for its PFS by completion of an agreement for a direct investment by EU-backed EIT InnoEnergy, at a premium to 30-day VWAP. This followed the previous oversubscribed $4.8m institutional and ESG investor equity placement, also completed at a premium to 30-day VWAP.
- Vulcan is now well-funded with cash of $5.1m at 30 September.
- London-based Natural Resources Global Capital Partners Limited ("NRG") was appointed to provide strategic and financial advice in connection with the Zero Carbon Lithium™ Project. NRG will assist Vulcan with financial advice related to potential future transactions surrounding funding for its Definitive Feasibility Study ("DFS") and first commercial lithium hydroxide production plant.
- Direct Lithium Extraction (DLE) testwork was successfully concluded, using commercially available adsorbents, which achieved initial recovery rates in excess of 90%. Optimisation work is underway to achieve enhanced recovery rates.
- Taro license was granted and Vulcan's overall Upper Rhine Valley (URVP) mineral resource estimate was updated. This is now estimated to collectively contain 15.37 million tonnes (Mt) Lithium Carbonate Equivalent (LCE) at a grade of 181 mg/l Li (Indicated & Inferred; 95% of which is in the Inferred Resource category), the largest JORC lithium resource in Europe[1].
- Vulcan's team was bolstered by the following Senior Executive appointments:
    - Former Tesla Director Jochen Rudat and lithium industry expert Vincent Ledoux-Pedailles to the Business Development team, who are now leading discussions with potential lithium hydroxide offtakers.
    - Engineering expert Dr. Thomas Aicher as Chemical Engineering Lead.
    - Lithium chemistry expert Dr. Katharina Gerber to the Executive team.

[1] Refer ASX announcement 31 August 2020

ASX Release
29 October 2020
ASX: VUL
FRA: 6KO

Highlights

Aiming to be the world's first **Zero Carbon Lithium™** producer.

Large, lithium-rich geothermal brine project, in the Upper Rhine Valley of Germany.

Europe's **largest** JORC-compliant lithium resource.

Located at the heart of the EU Li-ion battery industry.

Fast-track development of project under way towards production.

Corporate Directory

Managing Director
Dr Francis Wedin

Chairman
Gavin Rezos

Executive Director
Dr Horst Kreuter

Non-Executive Director
Ranya Alkadamani

Non-Executive Director
Dr Katharina Gerber

CFO-Company Secretary
Robert Ierace

Fast Facts

Issued Capital: 73,418,958
Market Cap (@$1.20): $88.1m

Contact

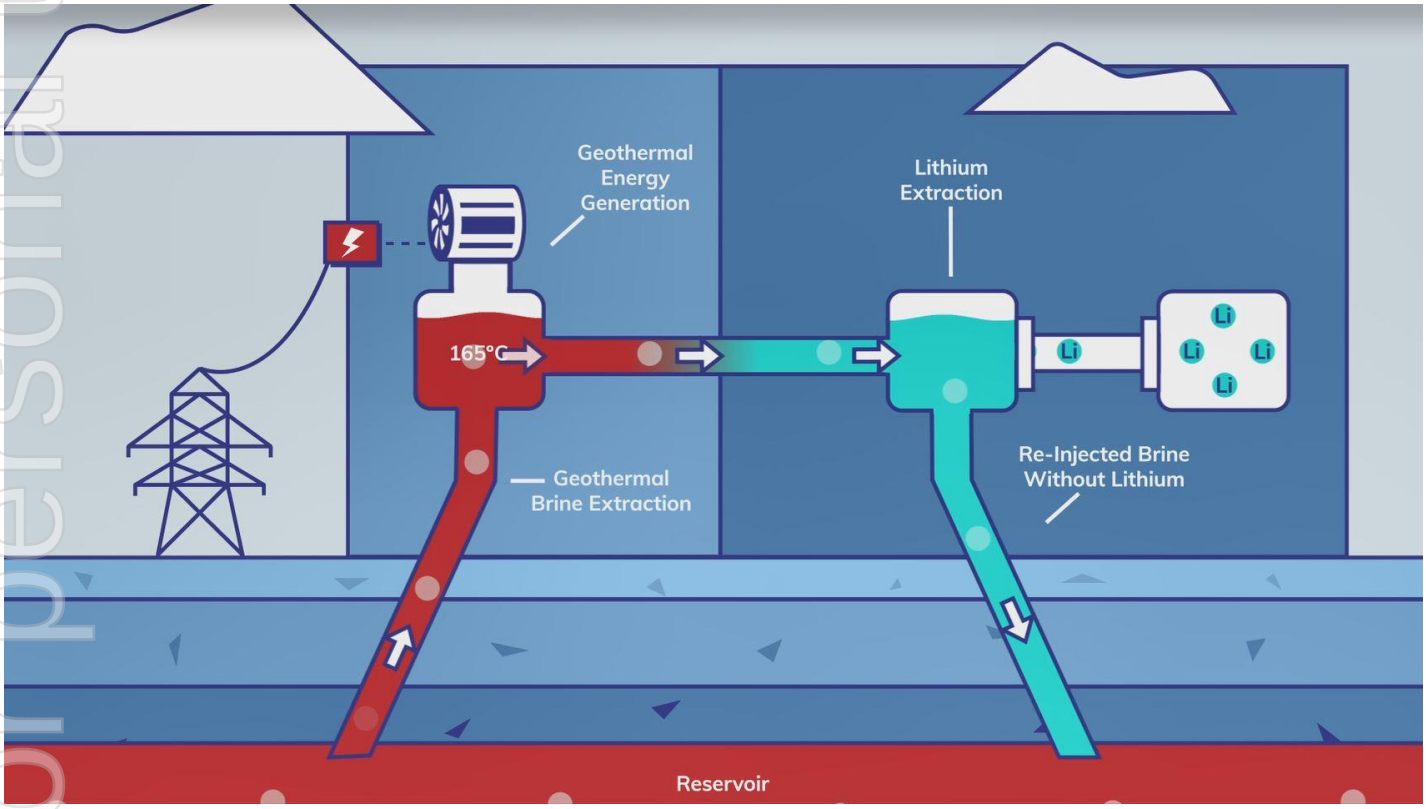
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About Vulcan

Vulcan Energy Resources is aiming to become the world's first Zero Carbon Lithium™ producer, by producing a battery-quality lithium hydroxide chemical product with net zero carbon footprint from its combined geothermal and lithium resource, which is Europe's largest lithium resource, in the Upper Rhine Valley of Germany. Vulcan will use its unique Zero Carbon Lithium™ process to produce both renewable geothermal energy, and lithium hydroxide, from the same deep brine source. In doing so, it will fix lithium's current problems for the EU market: a very high carbon and water footprint of production, and total reliance on imports, mostly from China. Vulcan aims to supply the lithium-ion battery and electric vehicle market in Europe, which is the fastest growing in the world. With a resource of 15.37 Mt contained lithium carbonate equivalent (LCE), Vulcan has a resource which can satisfy Europe's needs for the electric vehicle transition, from a zero carbon source, for many years to come.



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Activities During the Quarter

EU Backed Investment & Project Support Agreement

Investment agreement signed with EU-backed EIT InnoEnergy for staged cash investments of €250,000 into Vulcan, with initial tranche of €150,000 valued at A$0.51/share, equivalent to the 15-day VWAP and at an 8.5% premium to 30-day VWAP, subject to shareholder approval.

Direct investment by EIT InnoEnergy marks a vote of confidence in the Vulcan Zero Carbon Lithium™ Project by a prominent EU-backed body mandated to lead the European Battery Alliance.

The Company has agreed to grant Warrants to EIT InnoEnergy on payment of each Tranche of funding, in the following amounts: (a) Tranche 1: 479,519 Warrants (being the Australian dollar amount of the Tranche 1 funding, divided by $0.512, which was the volume weighted average price (VWAP) for Shares over the last 15 days on which Shares were traded immediately prior to execution of the funding agreements; and (b) Tranches 2 and 3: the number equal to the Australian dollar amount of the relevant Tranche of funding, divided by the VWAP for Shares over the last 15 days on which Shares were traded immediately prior to EIT InnoEnergy paying the relevant Tranche of the funding

Tranche 1 warrants were issued on 16 September 2020 following shareholder approval at a General Meeting held on 10 September. Tranche 1 funds were received during the quarter.

Appointment of Natural Resources Global Capital Partners Limited ("NRG")

London-based NRG was appointed to provide strategic and financial advice in connection with the Vulcan's Zero Carbon Lithium™ Project.

NRG, an independent advisory firm and merchant bank focused on the global metals and energy industries, is led by Julian Vickers, ex-Global Co-Head of Natural Resources Investment Banking for Barclays.

NRG will assist Vulcan with financial advice related to potential future transactions surrounding funding for its Definitive Feasibility Study ("DFS") and first commercial lithium hydroxide production plant.

PFS Progress

Lithium extraction test work results show excellent lithium recoveries

Vulcan successfully completed initial bench-scale test work on Upper Rhine Valley geothermal brine, using adsorbent-type direct lithium extraction (DLE) technological approaches. Vulcan was able to quickly identify and test the best DLE technology options for the Upper Rhine Valley brine by leveraging the experiences of its in-house chemical engineering team and external consultants, who have worked on multiple geothermal lithium projects with numerous DLE technologies. Lithium

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chloride (LiCl) concentrates were produced from real geothermal brine that was supplied at ambient pressure from Vulcan's area of focus in the Upper Rhine Valley.

Materials and techniques used during the extraction process are similar to those already used in other commercial and near-commercial lithium brine projects. The produced LiCl concentrate is an industry standard precursor used for conversion into battery-quality lithium hydroxide using conventional, off the shelf processes. This initial test work campaign was performed on the 10L scale and showed >90% lithium recovery. This is an important first step to demonstrate that LiCl can be extracted from the geothermal brine without the need to evaporate the water, or remove the calcium, sodium, or large quantities of other salts. This is required in evaporative processes in South America, which creates major waste streams, and also may disturb freshwater aquifers connected to brine aquifers if brine is not reinjected. The Upper Rhine Valley brine is a unique geothermal brine which contains both high grades of lithium and lower impurities compared to other lithium-rich geothermal brines. The concentration of LiCl concentrate produced from geothermal brine will be further increased using reverse osmosis and mechanical evaporation. The power and heat needed for these processes will come from renewable geothermal energy which Vulcan will co-produce alongside lithium chemicals. Different, industry-standard downstream process flowsheets are then available to produce battery grade lithium hydroxide, with a focus on carbon-neutral processing and minimal environmental and physical footprints. Results from this test work will be used in Vulcan's Pre-Feasibility Study.

Completion of acquisition of 3D seismic package to accelerate project development

Vulcan completed the acquisition data package over several of its license application areas, within the Vulcan Zero Carbon Lithium™ Project in the Upper Rhine Valley, Germany, consisting of:

- A 3D seismic survey of approx. 50km^2 size.
- Eight 2D seismic lines of a total length of 80 km.
- Several reports and studies on the geology of the explored area.

With this acquisition Vulcan can save over a year of exploration time and approximately 70% of the survey cost. Under the agreement there is an upfront option payment of €30,000 paid during the previous quarter, with final €570,000 purchase payment made during this quarter.

The data is to be used as part of modelling and estimation work to grow Vulcan's resource and target selection for production test well drilling as well as selection of additional 3D seismic exploration areas based on the 2D seismic lines acquired. Production test well drilling could commence 12 months after internal data evaluation.

Taro License grant

Vulcan announced the grant of its Taro license in the Vulcan Zero Carbon Lithium™ Project area in the Upper Rhine Valley, and maiden Taro licence Inferred Mineral Resource Estimate. In conjunction with

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this, the collective Mineral Resource estimations for the Upper Rhine Valley Project (URVP) area within the Zero Carbon Lithium™ Project were re-totalled.

The Taro license area was granted to Global Geothermal Holding UG (GGH), with which Vulcan has an agreement to earn a 51% interest by spending €500,000 within two years of the license grant (Initial Expenditure).

Vulcan is pleased to advise that pursuant to the Heads of Agreement between Vulcan's wholly-owned subsidiary Vulcan Energy Resources Pty Ltd ("VER") and Global Geothermal Holding UG ("GGH") dated 25th April 2019, Vulcan advises that it has met the initial expenditure requirement of 500,000 Euro within the Initial Earn In Period.

As per the Heads of Agreement, upon meeting the Initial expenditure requirement within the Initial Earn in period, Vulcan has been assigned a 51% interest of the project equity, and a new Joint Venture entity will be established, initially owned 51% by Vulcan and 49% by GGH. With a further project expenditure of 500,000 Euro, Vulcan will earn in to 80% of project equity. From that point, GGH can elect to co-fund pro rata to maintain a 20% interest or dilute to a 2% net royalty.

The JORC Inferred Mineral Resource Estimation[2] at Taro is 1.42 Mt contained LCE at a grade of 181 mg/l Li. Vulcan's total, combined URVP resource is now estimated at 15.37 Mt LCE at a grade of 181 mg/l Li (Indicated & Inferred; 95% of which is in the Inferred category), the largest JORC lithium resource in Europe and growing. Works will now commence to upgrade the category of the Taro resource from Inferred to Indicated status, involving the sourcing and interpretation of new data. It is intended that Taro will form part of an expanded PFS at the Vulcan Zero Carbon Lithium™ Project.

Team Appointments

Vincent Ledoux-Pedailles

Vincent Ledoux-Pedailles was announced to have joined Vulcan as VP – Business Development. Vincent was previously Executive Director - Corporate Strategy at Infinity Lithium Corporation, where Vincent led the project to become the first to secure EU funding. Vincent was also appointed as a Lithium Expert by the European Commission.

He previously worked at IHS Markit where he led the lithium and battery materials research team covering the entire industry's supply chain from raw materials to E-mobility. When he joined IHS Markit he first focused on chemical trading and led the EMEA Chlor-alkali team.

Earlier in his career, he worked for Talison Lithium located in Perth, Australia, tracking the lithium industry in China and Europe. He also worked for Roskill, an international metals and minerals

[2] Refer ASX announcement 31 August 2020. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed

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research and consulting company. Mr Ledoux-Pedailles is a regular speaker at various industry events across the world presenting at chemical, mining, and energy related conferences.

Mr. Ledoux-Pedailles holds a Business Masters in Risk Management and International Purchasing from ESDES Business School in France. He wrote his master's thesis on the development and deployment of electric vehicles powered by lithium-ion batteries. He has also studied at Copenhagen Business School, Denmark and Marshall University, US.

Dr Thomas Aicher

During the Quarter, Vulcan announced the appointment of expert chemical & mechanical engineer Dr. Thomas Aicher to the Vulcan Zero Carbon Lithium™ team, as Chemical Engineering Lead.

Dr. Aicher has 25 years' experience in chemical process innovation and industrial scale-up across a range of industries. Awarded a PhD and MSc in Chemical Engineering from the world-renowned Karlsruhe Institute of Technology (KIT), Dr. Aicher was also a visiting scientist at the Massachusetts Institute of Technology (MIT). Dr. Aicher was Head of Group at Fraunhofer Institute, one of the most prestigious organisations of applied sciences in Europe, and Process Engineer at Fortune 500 engineering company Fluor Inc.

Dr Katharina Gerber

Vulcan also announced the appointment of lithium chemistry expert Dr. Katharina Gerber to the Vulcan Zero Carbon Lithium™ Executive Team, as Lithium Product Manager. Katharina holds a Ph.D., M.S., and B.S. degrees in chemistry from University of Bonn. She is fluent in German, English and Russian. Katharina was previously a Project Manager at the California Energy Commission (CEC) where she provided scientific & technical leadership in determining research priorities for R&D programs with focus on emerging energy storage technologies and lithium extraction from geothermal brine. In her role at the CEC Katharina directed and executed requests for proposals (RFPs) and led evaluation of project applications & contract bids. In addition, Katharina participated in multiple interagency working groups, such as the "California Lithium Valley" initiative, conducting complex technological and market assessments on future availability of critical minerals used in lithium-ion battery technology, and developed recommendations for policymakers and stakeholders. Prior to joining the CEC, Katharina conducted research developing and characterizing new electrode materials for lithium-ion battery as a part of her postdoctoral studies at the University of California, Davis, as well as a part of her doctoral thesis at the University of Bonn.

Katharina resigned from her position as Non-Executive Director to join the Vulcan Executive Team, and moved with family to Germany to focus fully on the project.

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Jochen Rudat

During the quarter Vulcan announced the appointment of ex-Tesla Director for Central Europe, Mr. Jochen Rudat, as Sale and Marketing Consultant.

Mr. Rudat was Tesla's first marketing employee in Europe. He built a team of 250 employees and was responsible for the launch of Tesla's various models in the region. He spent ten years with Tesla, during part of which time he reported directly to Elon Musk.

Prior to Tesla, Mr. Rudat worked for BMW, Kia and Porsche. Most recently, he worked as Chief Sales Officer with Italian luxury car maker Automobili Pininfarina to launch their Electric Hypercar Battista. He is the founder of Electric Ventures, a consultancy focused on investments in sustainable transport.

Zero Carbon Lithium™ Intellectual Property Update

The Company was recently granted a utility patent in Germany for its system of direct lithium extraction and production of low carbon intensity lithium chemicals from geothermal brines. An international Patent Cooperation Treaty (PCT) application has been submitted and is pending.

Update on Norwegian Projects

The Company continued to review its extensive energy metals mineral exploration portfolio located in the Trøndelag region of Norway. Vulcan is reviewing options to best extract value for shareholders for these projects, with a focus on developing carbon neutral forms of battery raw materials.

General Meeting

On 10 September 2020 the Company held a General Meeting of shareholders to approve the following resolutions:

- Ratification of Placement shares under Listing Rule 7.1 & 7.1A,
- Issue of Broker Options to Merchant Group
- Issue of Milestone 1 Deferred Introducers Shares
- Issue of Tranche 1 Warrants to EIT InnoEnergy (refer above),
- Introducer shares related to the acquisition of the Vulcan Zero Carbon Lithium Project,
- Issue of Performance rights to Directors

All resolutions were passed at the meeting. For further details of the resolutions please refer to ASX announcement on 7 August 2020 "Notice of General Meeting".

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Additional ASX Disclosure Information

1. **ASX Listing Rule 5.3.1**: Exploration and Evaluation Expenditure during the quarter was $2,231k. The majority of this expenditure was predominately spent on Taro data acquisition, lithium extraction testwork as well as engineering studies towards the PFS on the Vulcan Lithium Project.
2. **ASX Listing Rule 5.3.2**: There was no substantive mining production and development activities during the quarter.
3. **ASX Listing Rule 5.3.5**:
   Payments to related parties of the Company and their associates during the quarter per Section 6.1 of the Appendix 5B total $83k. This is comprised of an allocation of the Managing Director remuneration of $13k, Non-Executive Director fees of $37k as well as corporate advisory and capital raising fees to Viaticus Capital Ltd of $33k, a company related to the Non-Executive Chairman. Please see the Remuneration Report in the Annual Report for further details on Director's Remuneration.

   Payments to related parties of the Company and their associates during the quarter per Section 6.2 of the Appendix 5B total $290k. This is comprised of Executive Director remuneration of $47k as well as to payments to GeoThermal Engineering GmbH of $189k, a company related to an Executive Director, for engineering consulting carried out by contractor geologists, geochemists and geophysicists. Also included in this amount is an allocation of the Managing Director's remuneration of $54k for work done on exploration activities associated with the Vulcan Lithium Project. Please see the Remuneration Report in the Annual Report for further details on Director's Remuneration.

This announcement has been approved for release by the Board

Robert Ierace

Chief Financial Officer - Company Secretary

For further information visit www.v-er.com

Zero Carbon Lithium™

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Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Vulcan operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-

looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Vulcan's control.

Vulcan does not undertake any obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of Vulcan, its Directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement. This announcement is not an offer, invitation or recommendation to subscribe for, or purchase securities by Vulcan. Nor does this announcement constitute investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.

Competent Person Statement

The information in this report that relates to Mineral Resources for the Vulcan Geothermal-Lithium Project is extracted from the ASX announcements "Taro License Grant & Updated Mineral Resource Estimate" released on the 31st of August 2020, and the information in this report that relates to Vulcan's Scoping Study is extracted from the ASX announcement "Positive Scoping Study" released on the 21st of February 2020, which are available on www.v-er.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

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Appendix One: Vulcan Zero Carbon Lithium™ Project License Summary

Name	Area (ha)	Status	Date Granted / Applied for	Ownership at Start of Quarter	Change in Ownership
Ortenau	37,360	Granted	03/2019	100%	N/A
Mannheim	14,427	Granted	06/2019	100%	N/A
Taro	3,268	Granted	08/2020	Earn-in to 80%	51%
Ludwig	17,716	Application	04/2019	Earn-in to 80%	N/A
Heßbach (formerly Rheinaue)	5,848	Application	04/2019	Earn-in to 80%	N/A
Rheinland-Pfalz MoU Area[3]	1,900	Granted		MoU to earn in to 80% after formation of formal JV	N/A

Appendix Two: Norwegian Projects License Summary

Name	Area (km2)	Status	Date Granted	Permit Type	Ownership at Start of Quarter	Change in Ownership
Grimsdalen	9.86	Granted	7/07/2017	Exploration	100%	N/A
Tverrfjellet	9.99	Granted	7/07/2017	Exploration	100%	N/A
Undal 101	10.0	Granted	5/07/2018	Exploration	100%	N/A
Undal 102	10.0	Granted	5/07/2018	Exploration	100%	N/A
Nyberget 101	10.0	Granted	5/07/2018	Exploration	100%	N/A
Nyberget 102	10.0	Granted	5/07/2018	Exploration	100%	N/A
Innerdalen 104	10.0	Granted	5/07/2018	Exploration	100%	N/A
Vangrofta 102	9.8	Granted	27/08/2018	Exploration	100%	N/A
Tverrfjellet 102	10.0	Granted	27/08/2018	Exploration	100%	N/A
Tverrfjellet 103	9.02	Granted	23/01/2019	Exploration	100%	N/A
Grimsdalen 101	9.0	Granted	5/03/2019	Exploration	100%	N/A
Grimsdalen 102	10.0	Granted	7/09/2018	Exploration	100%	N/A

[3] Refer ASX announcement 19/11/2019