**פרסום קול קורא בעברית/אנגלית – נא למלא את המידע הבא:**

\*אם יש משבצת לא רלוונטית נא לא למלא

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| **פרטי האירוע / קול קורא** | | **Details of Event / Call for Proposals** | |
| שם הכנס | קול קורא ראשון לשת"פ עם התאגיד האוסטרלי VISY | Israel-Visy 1st Call for Proposals under R&D Collaboration with MNC Program | Title of Call for Proposal (CfP) |
|  | 6/1/2019 | January 6, 2019 | Date the CfP is launched |
| תאריכי הרשמה  **תאריך אחרון להגשת הצעות** | 31/1/2019 | January 31, 2019 | Deadlines for submission |
| קהלי יעד | חברות בשלב –  Initial Growth & Revenue Growth | Entrepreneurs / Companies / Academia / Government Agencies / Venture Capital | Designated Audience |
| שותפים מהעולם | Visy, התאגיד המוביל בעולם בתחום האריזות, הנייר והמיחזור, מספק מוצרים ופתרונות אריזה חדשניים ועמידים באיכות הגבוהה ביותר. הם מובילים בחדשנות בתחום האריזה מזה 60 שנה. | Visy is a global leader in the packaging, paper and resource recovery industries, providing high quality, innovative and sustainable packaging products and solutions. It has been leading packaging innovation in Australia for over 60 years | Participating Agencies [please include logo in JPEG/PNG format) |
| תקציר הארוע/ק"ק | Visy, התאגיד האוסטרלי המוביל בעולם בתחום האריזות, הנייר והמיחזור, משיק יחד עם רשות החדשנות את הקול הקורא הראשון במסגרת הסכם השת"פ במו"פ בין הגופים. הקול הקורא מתמקד בשני תחומים – אנרגיה ומים. | Visy is a global leader in the packaging, paper and resource recovery industries, will launch for the first time a Call for Proposal under the MNC’s agreement with Israeli Innovation Authority, calling to Israeli companies to offer their solutions for 2 main challenges in the fields of water and energy. | Program Summary |
| מידע על האירוע | ראו את הפירוט למטה – הוא באנגלית כי זה מה שקיבלנו מהחברה. אני לא רוצה לתרגם את זה כדי לא לטעות במונחים המקצועיים וכו' | See the description below | Prog. / Event Description |
| תקציב / מימון |  |  | For CfP: Budget / Funding scheme |
| קריטריונים להגשה | מופיעים בתיאור למטה | See the description below | Criteria (for selection - CfP) |
| אופן הגשת הבקשה | על חברות המעוניינות בהגשת בקשה לשלוח הצעת פרוייקט הכוללת את טופס ההצעה (לינק להורדת הטופס) ותקציר מנהלים אודות החברה (Company’s profile/Executive Summary) במייל אל: [rachelibo@innovationisrael.org.il](mailto:rachelibo@innovationisrael.org.il) | Companies that are interested in applying to the Call for Proposal should send a summary proposal, including information about the company (Deck/Company's Profile/ Executive Summary) to: [rachelibo@innovationisrael.org.il](mailto:rachelibo@innovationisrael.org.il) | Application Process |
| מגזר טכנולוגי רלוונטי |  |  | Relevant Technology sectors |
| שם הזירה שהאירוע נעשה במסגרתה |  |  | Relevant Authority Division |
| האם יש מייל ליצירת קשר? לשאלות, קבלת פרטים | [rachelibo@innovationisrael.org.il](mailto:rachelibo@innovationisrael.org.il) | [rachelibo@innovationisrael.org.il](mailto:rachelibo@innovationisrael.org.il) | Mail for contacts / questions / more information : Name / Position / Division / Telephone / eMail |

Attachments for Calls for Proposals:

All attachments'' file name should use the following structure:

Name of CfP-Name of file (**Israel-Visy 1st Call for Proposals under R&D Collaboration with MNC Program**

- [1st Call Israel-Visy \_ Eng)](http://www.matimop.org.il/uploads/attachments/48727/6th_call_israel_shanghai_eng__final.pdf)

Visy is seeking companies that develop technologies and services in the following areas:

**Energy:**

Paper mills typically have high energy demands in the range of 10MWh/day and many of the Visy paper mills have onsite electricity and steam generation to supplement purchased electricity.  The onsite generators do not produce sufficient electricity to power the mill directly and are mixed fuel fed.

Visy is interested in solutions to energy problems which are created during higher electricity demands in summer periods.  The issues arise when peak summer demand for electricity push prices upwards by two orders of magnitude from approximately $100MWh to $10,000MWh.  At these prices it is not economical to operate paper machines and this forces mill into temporary down periods.

The scope of the project is to find and evaluate technologies which would fit Visy's electricity usage requirements either through storage or generation.  The project will cover, but is not limited to, solar, wind, thermal, energy storage (batteries) and other novel technologies.  Visy has a source of waste low value heat which could be utilized if there is a suitable process.

The first stage is to identify suppliers and manufacturers of these technologies followed by an economic assessment to determine the benefits compared to temporarily stopping a paper machine.

**The criteria for these technologies are:**

  Must integrate into existing sites for example small foot print, as most of our sites are in urban areas

  Can be roof mountable as we have significant roof space at our sites

  Able to sustain a paper machine for 2-3hrs

  Produce three phase electricity at 11kV

  Generate and store the energy for and use on demand is optional

**Water:**

Fresh (potable) water is one of the major production process inputs for Visy's Kraft and recycled paper manufacture. Visy Paper mills run at very low levels of fresh water consumption per tonne of paper produced, when compared to similar mills elsewhere in the world.

While the high level of water recycling within Visy mills minimises fresh water usage, the presence of high levels of suspended and dissolved materials in the mill process water has a negative impact on mill mechanical processes such as screening, filtering etc. and also increases the consumption of the process chemicals added as part of the paper production.

Visy is interested in novel solutions to remove both suspended and dissolved materials from the mill process waters.     The suspended materials (cellulosic fibre (< 1mm length) and calcium carbonate / kaolin clay fillers) are a particular challenge, as they block MF, UF RO membranes often used in other industries to remove dissolved materials from water. The typical dissolved materials in the paper mill process waters are CaCO3, CaSO4, NaCl, NaSO4 etc. The Kraft mill process water also has colloidal and dissolved wood derived organic compounds.

R&D trials have been run previously at Visy to assess MF, UF and RO membranes. While these conventional processes could remove the dissolved salts, they could not tolerate the suspended solids present, which lead to membrane contamination. So an effective method to remove suspended solids is a key unmet need.

The second challenge for treatment is the very large volume in circulation within the mill process, which is the order of 2 megalitres/day for each mill. There is the possibility to target particular water flows within the mills which could be of the order of 50 kl/day.

Large footprint ponds for water treatment is not an option for the Visy due to the urban location of the mills. There is not sufficient on site space for large scale treatment ponds.

The scope of the project is to find and evaluate new technologies which can tolerate high suspended solids in the in-feed and then remove both suspended and dissolved solids. The project needs to first address the suspended solids component., as this is the key unmet need that does not have a current technical /economic solution.

The first stage is to identify suppliers and manufacturers of technologies that can deal with process waters containing a high level of suspended solids which can then be followed by a second process to remove the dissolved salts.

**The criteria for these technologies are:**

* Must integrate into existing sites with a small foot print due to urban mill locations.
* Able to treat volumes in the 50 kl to 2 Ml/day.
* Generate and store the energy for and use on demand is optional
* Effective suspended solids removal needs to be demonstrated first, but can be combined with second stage conventional membrane  processes to remove the dissolved solids