

CALYXT, INC.

Corporate Governance Guidelines

Adopted on July 7, 2017

1. **Size and Composition of the Board and Board Membership Criteria; Director Qualifications**

The Nominating and Corporate Governance Committee of Calyxt, Inc. (the “**Company**”) shall recommend to the Board of Directors (the “**Board**”) criteria for Board membership, which shall include the criteria set forth in these Corporate Governance Guidelines, and shall recommend individuals for membership on the Company’s Board of Directors. In making its recommendations, the Nominating and Corporate Governance Committee shall:

- review candidates’ qualifications for membership on the Board (including making a specific determination as to the independence of the candidate) based on the criteria approved by the Board (and taking into account the enhanced independence, financial literacy and financial expertise standards that may be required under law or NASDAQ rules for audit committee and compensation committee membership purposes);
- evaluate current directors for re-nomination to the Board; and
- periodically review the composition of the Board in light of the current challenges and needs of the Board and the Company, and determine whether it may be appropriate to add or remove individuals after considering issues of judgment, diversity, age, skills, background and experience.

The Nominating and Corporate Governance Committee considers not only an individual’s qualities, performance and professional responsibilities, but also the then composition of the Board and the challenges and needs of the Board at that time. The Nominating and Corporate Governance Committee also considers the impact of any change in the principal occupation of existing directors. The Committee reports to the full Board its conclusions and recommendations for nominations to the Board.

Board Size

The Board intends to have five to eleven members, consistent with the Company’s certificate of incorporation and bylaws. Although the Board considers its present size to be appropriate, it may consider expanding its size to accommodate its needs or reducing its size if the Board determines that a smaller Board would be more efficient. The Nominating and Corporate Governance Committee shall periodically review the size of the Board and recommend any proposed changes to the Board.

Independence

The Board shall make an affirmative determination at least annually as to the independence of each director.

Term Limits

It is the policy of the Board to avoid term limits which have the disadvantage of discontinuing the availability and contributions of directors who have developed experience with, and insight into, the Company and its needs over a period of time.

No Retirement Age

It is the policy of the Board to avoid a mandatory retirement age for directors which would have the disadvantage of discontinuing the availability and contributions of directors who are otherwise capable and valuable members of the Board.

Employee directors may no longer serve on the Board upon resignation, retirement or a change in position if such change results in the employee no longer being an executive, other than the Chief Executive Officer.

Simultaneous Service on Other Public Company Boards

A director must notify the Chairman of the Nominating and Corporate Governance Committee prior to accepting any invitation to serve on another public company board or not-for-profit/tax-exempt board or with a government or advisory group that is expected to require significant commitments of time, in order for the Company to confirm the absence of any actual or potential conflict of interest.

A non-employee director may not serve on more than a specified number of public company boards, including the Company's Board, and a non-employee director who is also the chief executive officer of another public company may not serve on more than a specified number of public company boards, including the Company's Board, in each case as determined by the Company's Board.

Employee directors may not serve on more than a specific number of public company boards, including the Company's Board, as determined by the Company's Board.

Changes in Primary Employment

If a director significantly changes his or her primary employment during his or her tenure, that director must offer to tender his or her resignation to the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee shall evaluate the continued appropriateness of Board membership under the new circumstances and make a recommendation to the Board as to any action to be taken with respect to such offer.

Conflicts of Interest

If an actual or potential conflict of interest develops because of a change in the business of the Company, or in a director's circumstances (for example, significant and ongoing competition between the Company and a business with which the director is affiliated), the director should report the matter immediately to the Compliance Office designated by the Audit Committee for evaluation and appropriate resolution.

If a director has a personal interest in a matter before the Board, the director shall disclose the interest to the full Board, shall recuse himself or herself from participation in the discussion and shall not vote on the matter.

2. Director Responsibilities

The Board acts as the ultimate decision-making body of the Company and advises and oversees management, who are responsible for the day-to-day operations and management of the Company. In fulfilling this role, each director must act in what he or she reasonably believes to be in the best interests of the Company and must exercise his or her business judgment.

Participation at and Preparation for Board Meetings

The Company expects directors to be active and engaged in discharging their duties and to keep themselves informed about the business and operations of the Company. Directors are expected to attend all Board meetings and the meetings of the committees on which they serve and to prepare themselves for these meetings. Directors are also encouraged to attend the Company's annual meeting with shareholders.

In order for the Board to exercise fully its oversight functions, management provides the Board with access to information regarding the Company and the markets in which the Company operates. This information comes from a variety of sources, including management presentations and reports about the performance and operations of the business, security analysts' reports, competitive and peer companies' information, interaction with senior management at Board meetings and visits to Company facilities. Any written materials that assist directors in preparing for a Board or committee meeting shall be distributed to the directors in advance of the meeting, to the extent possible, and directors are expected to review such materials prior to the meeting.

Company Performance and Corporate Strategy

The Board reviews the Company's financial performance on a regular basis at Board meetings and through periodic updates, with a particular focus on peer and competitive comparisons. These reviews include the views of management as well as those of investors and securities analysts.

The Board also conducts an annual meeting to review and approve the Company's long-term strategy, and assess its strategic, competitive and financial performance.

3. Board Agenda

The Chairman of the Board, in conjunction with the CEO, shall determine the frequency and length of Board meetings and shall set the agenda for each Board meeting. Board members are encouraged to suggest the inclusion of additional items on an agenda, and any director may request that an item be placed on an agenda.

4. Chairman of the Board and CEO

The Board believes it is important to retain its flexibility to allocate the responsibilities of the offices of the Chairman and CEO in any way that is in the best interests of the Company at a given point in time. The Board may make a determination as to the appropriateness of its current policies in connection with the recruitment and succession of the Chairman of the Board and/or the CEO.

5. Presiding Director

The Board notes that all directors are elected by the shareholders and all have an equal voice. The Board, therefore, does not believe it appropriate or necessary in serving the best interests of the Company to designate a lead director. The Chairman of the Board and the CEO are free, as is the Board as a whole, to call upon any one or more directors to provide leadership in a given situation should a special need arise. The Board may designate a director as the presiding director to lead the meetings of the non-management, or independent, directors. The appointment of a presiding director may also be rotated among the chairs of the independent committees of the Board.

6. Meetings of Non-Management Directors

The Company's non-management directors shall hold executive sessions after every regularly scheduled Board meeting in which management does not participate. If this group includes directors who are not considered independent, the independent directors must also meet in executive session at least once a year.

The Presiding Director shall preside at each executive session. The Company's annual proxy statement will identify the Presiding Director and the method for interested parties to communicate directly with the Company's Presiding Director or non-management directors as a group.

7. Board Committees

The Board shall have at all times an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. Subject to any changes that the Board may make from time to time:

- the Audit Committee shall generally be responsible for overseeing the integrity of the Company's financial statements, its independent auditor, its internal audit function and compliance by the Company with legal and regulatory requirements;
- the Compensation Committee shall generally be responsible for overseeing the Company's executive compensation and benefits policies, evaluating executive officer performance and compensation and reviewing the Company's management succession plan; and
- the Nominating and Corporate Governance Committee shall generally be responsible for identifying qualified Board candidates, recommending director nominees and appointments to Board committees, evaluating Board performance, overseeing director compensation and overseeing the Company's Corporate Governance Guidelines.

Each of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee shall operate pursuant to its own written charter. These charters shall, among other things, set forth the purpose, goals and responsibilities of the particular committee, the procedures for committee member appointment and removal and committee structure and operations, as well as reporting to the Board. The charters shall also provide for an annual evaluation of each committee's performance.

Only independent directors meeting the independence requirements of NASDAQ and, Rule 10A-3 of the Securities Exchange Act of 1934 and any related rules promulgated by the Securities and Exchange Commission, may serve on the Audit Committee. At such time when the Company is no longer a "controlled company" as defined in NASDAQ's listing rules, only independent directors meeting the independence requirements of NASDAQ may serve on the Compensation Committee and Nominating and Corporate Governance Committee. Committee members shall be appointed by the Board based upon the recommendation of the Nominating and Corporate Governance Committee, except for the Nominating and Corporate Governance Committee, which is directly appointed by the Board. The Board may, from time to time, establish or maintain additional committees as it deems appropriate and in the best interests of the Company.

While the rotation of committee members at certain set intervals should be considered periodically, rotation is not required because the Board believes there are significant benefits attributable to continuity and experience gained in service on a particular committee over time.

8. Board Member Access to Management and Independent Advisors

Board members shall have access to the management and employees of the Company and to its internal and outside counsel and auditors. Any meetings or contacts that a director wishes to initiate may be arranged through the Chief Executive Officer or the Secretary.

Executive officers and other members of senior management are expected to be present at Board meetings at the invitation of the Board. The Board encourages senior management to make presentations and to invite to Board meetings managers and other employees who can provide additional insight into the items being discussed. The Board also encourages senior management to include in Board meetings individuals that the senior management believes may become prospective leaders of the Company.

The Board and each of its committees in accordance with its charter is authorized to hire independent legal, financial or other advisors as they may consider necessary, without conferring with or obtaining the approval of management or, in the case of committees, the full Board in accordance with its charter, for which the Company shall pay the fees and expenses.

9. Director Communications with Third Parties

Unless otherwise indicated in these Guidelines or the Company's policies, all requests for communications with individual directors or the Board by shareholders, analysts, or media outlets shall initially be made to the Corporate Secretary. Generally, management speaks for the Company, and the Chairman speaks on behalf of the Board. Other communications between individual directors and interested parties may be held, at the request of the Board or the CEO and Chairman.

10. Director Compensation

The Compensation Committee shall review and approve compensation (including equity-based compensation) for the Company's directors. In so reviewing and approving director compensation, the Compensation Committee shall, among other things:

- identify corporate goals and objectives relevant to director compensation;
- evaluate the performance of the Board in light of such goals and objectives and set director compensation based on such evaluation and such other factors as the Compensation Committee deems appropriate and in the best interests of the Company (including the cost to the Company of such compensation); and
- determine any long-term incentive component of director compensation based on the awards given to directors in past years, the Company's performance, shareholder return and the value of similar incentive awards relative to such targets at comparable companies and such other factors as the Compensation Committee deems appropriate and in the best interests of the Company (including the cost to the Company of such compensation).

11. Director Orientation and Continuing Education

All new members of the Board are required to participate in the Company's orientation program for directors. The orientation program will include discussions with and presentations by senior management and visits to the Company's facilities, and provide new directors with a review of the Company's financial position, an overview of the industry in which the Company operates and competes and an introduction to the regulatory and legal environment that affects the Company's business, as well as governs directors' fiduciary duties.

All directors will be offered the opportunity, and are encouraged, to participate in continuing education programs with any associated expenses to be reimbursed by the Company.

12. Management Evaluation and Management Succession

The Compensation Committee shall evaluate the performance of the senior management of the Company and shall present its findings to the full Board. The Board shall review the Compensation Committee's report in order to ensure that management's performance is satisfactory and that management is providing the best leadership for the Company in the long and short-term.

The Compensation Committee shall review and report to the Board on the Company's succession planning, including succession planning in the case of the incapacitation, retirement or removal of the CEO. The CEO shall provide a report to the Compensation Committee recommending and evaluating potential successors, along with a review of any development plans recommended for such individuals. The CEO shall also provide to the Board, on an ongoing basis, his or her recommendation as to a successor in the event of an unexpected emergency.

13. Annual Performance Evaluation

The Board, led by the Nominating and Corporate Governance Committee, shall establish and conduct an annual self-evaluation to determine whether it and its committees are functioning effectively. The collective evaluation shall be presented by the Chairman of the Nominating and Corporate Governance Committee to the full Board for discussion. This process shall also include annual self-assessments by each Board committee, relying on a review process similar to that used by the Board.