

Guidelines – Formation of Carnegie Mellon University (“CMU”) Spin-Off Companies

I. Objectives

Objectives for CMU’s Technology Transfer and Enterprise Creation Program

1. To facilitate the successful dissemination of technology created at CMU for the benefit of society, the region, and CMU and its creators.
2. To make CMU an attractive environment for highly talented, entrepreneurial faculty and students.
3. To assist in regional economic development.
4. To generate revenues from CMU technology.
5. To generate future CMU revenues in the form of gifts and research partnerships from entrepreneurs and companies who have benefited from technology created at CMU.

Objectives for these Guidelines and their Use

1. To clarify and simplify the process by which inventive and enterprising CMU people may start new companies based on technology they create at CMU.
2. To establish clear, fair and consistent practices and standards for the formation of CMU spin-off Companies.
3. To make these practices and standards widely known and understood throughout the CMU community.

II. Basics of CMU Technology Transfer - Licensing and Spin-off Formations

a. The Initial Disclosure

The first step in working out the arrangements for licensing and/or spin-offs is for the Creators of a technology to complete a CMU Invention Disclosure form (see CTTEC website Resources page) and to discuss that disclosure with the Center for Technology Transfer and Enterprise Creation.

b. The Business Strategy

All spin-off companies should have a defined, plausible business strategy and a plan for its execution as described in their business plan. A business plan is typically most effective if (i) with the help of experienced entrepreneurs and/or qualified professionals, it is created by the Founders themselves and (ii) it defines the objectives and the critical steps required for taking a technology to its commercial implementation, normally including the following elements:

- Spin-off company’s technology and its status;

- Expected spin-off company products and/or services;
- Targeted market(s), customers, distribution channels;
- Size of targeted market(s);
- Competition, both technical and commercial;
- Marketing and sales strategy of the spin-off company;
- Unique advantages of the spin-off company, compared to competition;
- Economics of the business, starting with expected gross margins, i.e. the difference between selling price and product (or service) cost;
- Organization and key people involved, including CEO, key officers, board of directors, advisory board;
- Key staff and consultants; other key employees;
- Operating plans, financial assumptions;
- Financial forecasts;
- Financing objectives and/or plans, including valuations, financing sources and expected spin-off company ownership and governance; and
- Current status of the spin-off company and expected schedule of actions, events, and accomplishments.

An effective and plausible business plan is best be created by the people who will be responsible for accomplishing the plan, namely the prospective CEO and the other key leaders of the business. It should be developed as much for ‘internal’ as for ‘external’ purposes and should essentially become a ‘set of instructions which the spin-off company writes for itself’. Assistance by competent consultants or advisors can often be helpful but should not take the place of the personal involvement and commitment of the prospective key leaders of the spin-off company.

The existence of a plausible business strategy is one of the requirements of the Center for Technology Transfer and Enterprise Creation for engaging in serious licensing and spin-off company-formation discussions with potential creator-founders.

A substantial number of organizations are available in the Pittsburgh region, at CMU, as well as resources and capabilities within CTTEC itself, which can assist entrepreneurs in the planning and execution of new company spin-offs. Links to the websites of such resources are provided on the Resources page of CTTEC’s website. CMU encourages new entrepreneurs to make full use of such resources.

c. License Terms

Transfer of CMU technology will always involve a license from CMU to a licensee whether it is an existing company or a spin-off. Such a license might be exclusive – typically for one or more specific “fields of use” and/or for a specific period of time - if the licensee can meet certain development and product milestones; or non-exclusive with somewhat fewer and less stringent milestones.

Examples of CMU license templates, both exclusive and non-exclusive, can be found on the Resources page of CTTEC's website.

III. License Terms for CMU Spin-Offs

The following two sections cover CMU's normal terms and conditions for the creation of CMU spin-offs. They are intended to encourage entrepreneurship at CMU and the rapid creation of new companies and new jobs, by providing a "standard template" with fair and reasonable conditions for spin-off creation and other services by CMU.

The terms and conditions described herein are intended to be attractive to CMU creator-founders and competitive with those of other leading research universities and other alternatives available. Please note that, in the spirit of these Guidelines, these terms will be the standard that will normally apply; they should **not** be considered starting points for negotiating more favorable terms for creators - founders.

Section IV describes the "Standard Deal" available to creator-founders under normal, average circumstances; it offers moderate and relatively simple terms.

Section V describes "Expanded Deals", with additional options to the Standard Deal, that CMU may make available if desired by CMU creator-founders.

IV. The Standard Deal

a. Required Conditions

1. At least one of the creator-founders must be a member of CMU covered by the IP Policy.
2. Creator-founders who wish to be active participants in the spin-off – as permitted under CMU policies - may negotiate their own financial arrangements with the spin-off after waiving their normal net proceeds sharing provisions under the IP Policy.
3. If one or more of the creators do not wish to become creator-founders and to negotiate their own financial arrangements with the spin-off, the arrangements defined under "Special Situations" will apply.
4. The creator-founder(s) must submit an acceptable business plan to CTTEC.
5. The circumstances of the proposed spin-off and the technology(ies) involved must be within CMU's typical circumstances. If the circumstances are exceptional, a Standard Deal will not be available, for example if unusually large prior investments were made in the technology at or by CMU and/or any associated patents/applications and/or if there were unusual research contract terms leading to the disclosed technology that would make the "standard terms and standard pricing" of a Standard Deal unfair and inappropriate. Deals for spin-offs involving such exceptional circumstances will have to be developed and negotiated on a case-by-case basis.

b. CMU Equity Ownership

CMU's equity ownership in the spin-off at the closing of (i) the first major financing (aggregate investment into the company of \$2M) or (ii) of a change of control event (such as a purchase by another entity), whichever comes first, in a Standard Deal shall amount to --

- 5.0% if the license is non-exclusive,
- 6.0% if the license is exclusive.

(Note: The 1% difference represents the premium for exclusivity).

The calculation of such ownership percentages shall include all classes of shares, options, and warrants outstanding at the time of the calculation.

Such ownership percentages are to be accomplished by issuance to CMU, on the effective date of the license, of (i) shares in the spin-off and (ii) a warrant for the acquisition of additional shares by CMU designed to accomplish CMU's equity ownership as defined above.

The securities to be owned by CMU shall have terms, conditions, financial and other provisions that, in addition to rights described below in "Rights with Regard to Future Equity Transactions" are no less favorable than those of the securities to be owned by the creator-founders and other shareholders. Similarly, CMU's rights under the company's shareholders' agreement shall, in addition to rights described below in "Rights with Regard to Future Equity Transactions" be no less favorable than those of the creator-founders and other shareholders.

c. CMU Royalties (% of revenues from sales of products based upon technology licensed)

In recognition of the typical shortage of cash during the initial phases of a spin-off, the license agreement will provide--

1. that **no royalties** shall be due or payable to CMU (and/or any of the creator-founders) for a period of **three (3) years** following the effective date of the license or until the closing of a **change of control event**, whichever may occur sooner;
2. after such time, royalties to CMU for the remaining term of the license shall be payable quarterly in the amount of --
 - 1.0% if the license is non-exclusive,
 - 2.0% if the license is exclusive.

Such royalties will not be shared by CMU with creator-founders.

If one or more of the creators do not wish to become creator-founders and to negotiate their own financial arrangements with the spin-off, the arrangements defined under "Special Situations" will apply.

d. Milestones

An exclusive license will involve milestones that define reasonable progress of the spin-off in order to avoid the possibility of a "dead" or weakly performing license that would block the licensing of a CMU technology to others if an initial, exclusive licensee has not been able to accomplish reasonable commercialization of the technology. If such milestones are not met, an exclusive license may, at CMU's discretion, be made non-exclusive or be terminated in accordance with the provisions of the license agreement.

Reasonable milestones are to be proposed by the founders of a spin-off and must cover at least the following key events and their respective expected completion dates:

1. Completion of an acceptable business plan
2. Initial product development and market testing
3. Initial rounds for financing
4. Commercial product introduction (“first commercial sales”)
5. Minimum revenue targets during the first five years

A nonexclusive license will also involve milestones but less stringent ones that, nevertheless, will be designed to avoid the possibility of a “dead license”. Non-compliance with such milestones will be a cause for terminating the license.

e. Rights with Regard to Future Equity Transactions

As part of any deal under these Guidelines and as is not uncommon for initial shareholders of spin-offs, CMU shall also receive the following rights with regard to future equity transactions, with such rights to be in effect until a change of control event:

1. “Preemptive rights” which are the rights of current shareholders to maintain their fractional ownership of a company by buying a proportional number of shares of any future issue of common stock;
2. “Piggyback Registration Rights” which are the rights of shareholders to register and sell his/her unregistered stock in the event that the company conducts an offering.
3. “Co-Sale Rights” which are the rights of shareholders to participate in any proposed sale of the company’s stock to third parties.

f. Board of Directors

If and for as long as CMU has equity ownership in the spin-off or its successor company of 10% or more, CMU will have the automatic right to appoint a member of the board of directors of the spin-off. Such board representation may otherwise be requested by the spin-off and will in that case be at CMU’s discretion.

V. Expanded Deal

The Standard Deal will not include any services by CMU other than normal services provided by CTTEC, with expenses thereby incurred to be charged to the relevant CTTEC docket. Such normal services may include (1) the completion of normal License and Split agreements, (2) providing Enterprise Creation services which may be helpful to the spin-off, and/or (3) continued prosecution of any patents associated with technologies licensed to the spin-off (with the expenses to be reimbursed by the spin-off).

If, however, the creator-founders wish to use some or all of the additional services which CMU may be able to make available, they may negotiate with CTTEC for an Expanded Deal that may include one or more of the following additional services, to be paid for by additional increments of equity ownership, as applicable, to CMU beyond a Standard Deal, as follows:

a. Access to CMU Space

The creator-founders may request permission for the use of CMU space, equipment and certain other physical services (such as computer resources and computer networks) on or off CMU premises. After review of the spin-off's business plan, such services may, at the discretion of CMU, be made available to the spin-off if (i) reasonably available and (ii) approved by the relevant department head(s) or dean, for a defined period normally not to exceed two years.

Price –

- (1) No charge for minimal use of such services within the limits defined by the IP Policy.
- (2) For more than minimal use, up to 400 square feet of space including utilities and certain other services: 1% additional equity for up to 1 year's services; 2% for up to 2 years.

b. Deferral of Reimbursement of Patenting Expenses

Patenting expenses incurred by CTTEC for the patenting of the technology(ies) related to the spin-off must normally be reimbursed by the spin-off as incurred, payable quarterly. If requested by the creator-founders, CMU may agree to the deferral of such patenting expenses (i) for up to 3 years from the start date of the license agreement or (ii) until the closing date of a change of control event or (iii) for international patents, until the start of expenses for the "national phase" of patenting (as described below) -- whichever may occur sooner. After such a date the spin-off will be responsible for promptly reimbursing CMU for all deferred and ongoing expenses in the normal manner.

Price – per patent application filed:

Filing and prosecution of a US provisional patent application and the filing of a US non-provisional patent application or a PCT international patent application (but not including any "National" phase filings or prosecution for international patent applications, other than for the US) – 1% additional equity for CMU for each patent, up to a maximum of 2%.

c. Gap Funding Programs

From time to time, gap funding programs may be available through CTTEC or other entrepreneurship centers on campus. Such programs will each have their own requirements and terms which will be separate/ in addition to the license terms. Generally, these programs are aligned with the goals of the Technology Transfer and Enterprise Creation program and are designed to work complementarily with the Standard Deal.

VI. Special Situations

a. More than One Technology Licensed to a Spin-off

The question may arise if the equity percentage (and the royalty rate) for CMU should differ from the norm (i) if the CMU license to the spin-off covers more than one technology or (ii) if CMU concludes more than one license with a spin-off.

Assuming that the combining of more than one technology into one spin-off company makes good business sense, the answer is that **the percentages should remain the same.**

This is based on the following logic:

Assuming that CMU is entitled to x of any “package”, a larger package should produce greater dollar returns than a smaller one. For example, 5% of two “single-sized packages” should produce the same dollar amount as 5% of one “double-size package” – assuming that the business merits, expenses, etc. of the two alternatives are comparable.

The commercialization analysis and business planning for a spin-off program involving more than one technology should, however, concentrate on developing the optimum business strategy and business economics and the relative business merits of creating one or more than one spin-off company.

For example, if two technologies are related and together can create a more powerful product and marketing offering, the combining of the two technologies into one spin-off company may have obvious benefits – not only in marketing but also by saving the spin-off effort, time and expenses, having to carry overhead expenses for only one versus two operations, having to recruit only one executive team, etc.

*On the other hand, if the two technologies are **not** closely related and/or if each addresses a different market or type of customer, it may improve the odds of their combined business success if separate spin-offs are created for each of these technologies, each with a dedicated management team with a single mission and with a sales and marketing program aimed at the specific customers of each technology.*

b. Not all Creators are Members of CMU or Wish to Participate in the Financial Structure of the Spin-off

Under any Deal covered by these Guidelines the creators who wish to participate in a Standard Deal, i.e. the creator-founders must negotiate their own financial arrangements with the spin-off company after waiving their normal gain sharing provisions under the IP Policy. There may be cases, however, where *some* of the creators may not wish to negotiate their own financial arrangements with the spin-off and instead wish to rely on the provisions of IP Policy.

Since the IP Policy provides for a 50/50 Split of net proceeds between CMU and the creators, such a case will require that the spin-off assign additional equity percentages to the creator(s) who do not wish to participate directly in the spin-off. The amount of royalties payable by the spin-off will also need to be adjusted.

The logic for calculating appropriate financial participation by such non-founder creators is as follows:

1. Since CMU's equity participation in the deals under these Guidelines does not include a split for creators, the equity participation of CMU + creators "under the IP Policy" would be twice the percentage defined in these Guidelines; for example, for a nonexclusive license the combined equity participation per IP Policy would be 5% times 2 = 10%.
2. The additional equity percentage to be assigned by the spin-off to non-founder creators will be proportionate to the split percentages of the non-founder creators.
3. The amount of royalties payable by the spin-off will be similarly adjusted.

Example

Assumptions: Standard Deal, nonexclusive license, CMU equity participation = 5%, royalties (after 3 years or after change of control event.) = 1%

creator-founders and their splits:

<i>Creator 1</i>	<i>40.0%</i>
<i>Creator 2</i>	<i><u>25.0%</u></i>
<i>Total</i>	<i>65.0%</i>

non-founder creators and their splits:

<i>Creator 3</i>	<i>20.0%</i>
<i>Creator 4</i>	<i>10.0%</i>
<i>Creator 5</i>	<i><u>5.0%</u></i>
<i>Total</i>	<i>35.0%</i>

Equity Participation:

Additional equity participation to be assigned to CMU to account for the non-founder creators: 5% times 35% = 1.75%

Total equity to be issued by the spin-off to CMU (including equity to account for the non-founder creators): 5% + 1.75% = 6.75%.

Equity split to be attributed by CMU to individual non-founder creators:

Creator 3: 5% times 20% = 1%; etc.

Royalty Participation:

Additional royalties (in addition to the standard 1%) to be payable to CMU for distribution to non-founder creators: Total: 1% times 35% = .35%;

Creator 3: 1% times 20% = .2%; etc.

Total royalties payable to CMU (including royalties attributable to non-founder creators = 1% + .35% = 1.35%

c. Sharing of Proceeds from Royalties for all Creator-Founders

As a modification to the Standard Deal, all creator-founders shall be eligible to share in net proceeds received by Carnegie Mellon from royalties (although not any net proceeds from equity) through CMU's IP Policy (i.e. they will not be required to waive their rights to share in net proceeds from royalties) provided that; (a) all creator-founders agree to the modification at the time the license is executed, (b) a creator receiving a share of net proceeds from royalties, at the time such royalties are received by Carnegie Mellon; (1) is not a full time or substantially full time employee, consultant, or subcontractor of licensee, (2) is not being paid by Licensee under any type of non-compete or other arrangement, and (3) the creator's equity position in licensee is below 5%, and (c) the royalty rate will be 4% instead of 2% for an exclusive license and 2% instead of 1% for a non-exclusive license.

VII. Other Relevant CMU Policies

The encouragement and support of spin-off company formation by CMU does not change CMU's other policies which remain fundamental to the university and its governance, such as the policies on Conflict of Interest, Compliance with Financial Conflict of Interest Requirements in Research, Consulting and other policies contained in the Faculty Handbook and elsewhere.

The positions of an operating officer, particularly in a spin-off, is normally considered to be "all-consuming" and therefore may create a conflict of commitment with the university appointment. Such operating positions include those of president, vice president, chief executive officer (CEO), chief operating officer (COO), chief financial officer (CFO) and chief technical officer (CTO). Such roles and associated conflict of commitment issues should be discussed with the relevant CMU dean/s and department head/s.

Recommended positions include part-time employment (other than operating officers' positions) in such a company which does not interfere with the CMU appointment, consulting within the provisions of CMU's Consulting Policy, membership or chairmanship of a technical advisory board, or membership or chairmanship on a company's board of directors.

CMU employees wishing to start a company therefore face a choice :

- (a) An employee who wishes to see the creation of a spin-off company but wishes to remain primarily committed to his/her CMU appointment should arrange for the employment of a CEO or other operating officer to take on the task organizing and managing the spin-off company.
- (b) An employee who wishes to become an officer or assume some other very substantial role in a spin-off company should take a leave of absence from CMU, normally not to exceed two-years.

Upon return to CMU, he/she would need to conduct him/herself in regard to the spin-off company so as to avoid/ manage any conflict of interest.

Note : Depending on the employee's personal background, interests and skills, the employment of an experienced CEO for the spin-off company may be a good idea even in cases where an employee decides to become heavily involved.

VIII. Implementation of these Guidelines

These Guidelines provide only the general principles of the provisions and contractual requirements which will need to be established and negotiated in detail in each specific case.

These Guidelines may be changed in the future. They are not a contract nor an offer to enter an agreement on these or other terms. Whether CMU will enter any agreement or license will depend upon the licensee, the technology, and other aspects of the possible arrangements. Each technology and each transaction must be independently analyzed. The University may determine that other terms are appropriate for a particular transaction.

If you have questions, please contact the CMU Center for Technology Transfer and Enterprise Creation.