

SENATE, No. 1921

STATE OF NEW JERSEY

218th LEGISLATURE

INTRODUCED FEBRUARY 22, 2018

Sponsored by:

Senator TROY SINGLETON

District 7 (Burlington)

Senator STEPHEN M. SWEENEY

District 3 (Cumberland, Gloucester and Salem)

SYNOPSIS

Establishes Edison Innovation Science and Technology Fund in EDA to provide grants for certain science and technology-based university research; appropriates \$5 million.

CURRENT VERSION OF TEXT

As introduced.



1 AN ACT establishing the Edison Innovation Science and
2 Technology Fund, supplementing P.L.1974, c.80 (C.34:1B-1 et
3 seq.), and making an appropriation.
4

5 **BE IT ENACTED** by the Senate and General Assembly of the State
6 of New Jersey:
7

8 1. This act shall be known and may be cited as the “Edison
9 Innovation Science and Technology Fund Act.”
10

11 2. As used in P.L. , c. (C.) (pending before the
12 Legislature as this bill):

13 “Advanced materials,” “life sciences,” “mobile communications
14 technology,” and “renewable energy technology” shall have the
15 same meaning as provided in section 2 of P.L.1997, c.349
16 (C.54:10A-5.29).

17 “Artificial intelligence” means the development of computer
18 systems that are able to perform tasks normally requiring human
19 intelligence, including, but not limited to, visual perception, speech
20 recognition, decision-making, and translation between languages.

21 “Authority” means the New Jersey Economic Development
22 Authority established pursuant to section 4 of P.L.1974, c.80
23 (C.34:1B-4).

24 “Commission” means the New Jersey Commission on Higher
25 Education and Business Partnerships established pursuant to section
26 1 of P.L.2017, c.17 (C.52:9ZZ-1).

27 “Early stage technology company” means a technology-based
28 company located on a New Jersey campus of an institution of
29 higher education that is at a stage of existence where the company
30 is developing its products or services and business operations and is
31 not yet at the stage where the company is able to sell or market its
32 products or services.

33 “Fund” means the “Edison Innovation Science and Technology
34 Fund,” established pursuant to section 3 of P.L. , c. (C.)
35 (pending before the Legislature as this bill).

36 “Individual investigator” means a faculty member of an
37 institution of higher education engaged in a research project or
38 program seeking to receive from the authority a grant from the
39 fund.

40 “Institution of higher education” shall include a public institution
41 of higher education and a private institution of higher education.

42 “Machine learning” means a type of artificial intelligence that
43 provides computers with the ability to learn without being explicitly
44 programmed and includes a focus on the development of computer
45 programs that can change when exposed to new data inputs.

46 “Private institution of higher education” means an independent
47 college, university, or institute incorporated and located in New
48 Jersey, which by virtue of law, character, or license is a nonprofit

1 educational institution authorized to grant academic degrees and
2 provide a level of education which is equivalent to the education
3 provided by the State's public institutions of higher education as
4 attested by the receipt of and continuation of regional accreditation
5 by the Middle States Association of Colleges and Schools, and
6 which is eligible to receive State aid under the provisions of the
7 Constitution of the United States and the Constitution of the State
8 of New Jersey, but does not include any educational institution
9 dedicated primarily to the education or training of ministers, priests,
10 rabbis, or other professional persons in the field of religion.

11 "Public institution of higher education" means a "public research
12 university" and a "State college" as those terms are defined in
13 section 3 of P.L.1994, c.48 (C.18A:3B-3).

14 "Sustainability innovation" means technologies that mitigate
15 negative environmental impacts, promote environmentally-friendly
16 development, and the resiliency of ecosystems, infrastructure, and
17 systems engineering.

18 "Systems engineering" means an interdisciplinary field of
19 engineering and engineering management that focuses on how to
20 design and manage complex systems over their life cycles.

21 "Technology transfer" means the process of commercialization
22 of technology or of bringing technology to the marketplace.

23

24 3. a. The New Jersey Economic Development Authority, in
25 consultation with the Secretary of Higher Education and the
26 commission, shall establish an "Edison Innovation Science and
27 Technology Fund" within the authority for purpose of awarding
28 grants to investigators at institutions of higher education engaged in
29 research projects or programs in this State that involving science,
30 technology, engineering, or mathematics in fields of strategic
31 importance to the State. Those fields of importance shall include,
32 but not be limited to, advanced materials, artificial intelligence,
33 healthcare, life sciences, machine learning, manufacturing
34 technology, mobile communications technology, nanotechnology,
35 renewable energy technology, and sustainability innovation.

36 b. Eligible applicants seeking to receive a grant from the
37 "Edison Innovation Science and Technology Fund" shall be:

38 (1) an individual investigator sponsored by an institution of
39 higher education who is engaged in the field of science, technology,
40 engineering, or mathematics pursuing research having the potential
41 for commercial application that will contribute to the economic
42 vitality of the State; or

43 (2) an individual investigator who submits an application on
44 behalf of a research team sponsored by two or more institutions of
45 higher education working in partnership with or in the process of
46 forming an early-stage technology company.

47 c. Grants from the fund shall be made available to eligible
48 applicants for projects or programs that:

1 (1) promote strong ties between institutions of higher education
2 and industry in order to accelerate the commercialization of new
3 technologies;

4 (2) financially support the emergence and incubation of science
5 and technology-based businesses of strategic importance to the
6 State located on a New Jersey campus of an institution of higher
7 education;

8 (3) spur collaboration between institutions of higher education,
9 technology incubators, and other research centers to create
10 economic opportunities and advance job growth;

11 (4) expand the pipeline of commercially-viable research at
12 institutions of higher education in order to increase the potential for
13 federal funding and private investment in New Jersey;

14 (5) support technology transfer activities that assist institutions
15 of higher education in developing the commercial potential of their
16 research; and

17 (6) accelerate the commercialization of technology developed at
18 institutions of higher education in this State.

19
20 4. Grants awarded from the “Edison Innovation Science and
21 Technology Fund” shall be in the form of an individual
22 investigator-initiated grant or an institution of higher education-
23 based center grant. The purpose of an individual investigator-
24 initiated grant shall be to advance concepts in order to generate
25 intellectual property that can be formed or licensed to an early stage
26 technology company. An individual investigator-initiated grant
27 shall be funded for one year at \$100,000 per grant recipient. The
28 purpose of an institution of higher education-based center grant
29 shall be to fund the work of groups of full-time faculty at
30 institutions of higher education focused on a shared problem or
31 opportunity that has significant commercial potential. An
32 institution of higher education-based center grant recipient shall
33 have formed a partnership with a commercial entity or have
34 launched an early stage technology company. An institution of
35 higher education-based center grant shall be funded at \$250,000 to
36 \$500,000 per year for a five-year period per grant recipient.

37
38 5. a. An applicant seeking to receive a grant from the “Edison
39 Innovation Science and Technology Fund” shall submit an
40 application in a form and manner as the authority shall require. The
41 application shall include information the authority determines is
42 necessary to administer grants from the fund. An applicant seeking
43 to receive a grant from the fund shall submit to the authority
44 documentation that receiving a grant from the fund will be a
45 contributing factor towards the success of the research project or
46 program that is consistent with the purposes of P.L. ,
47 c. (C.) (pending before the Legislature as this bill).

48 b. The authority shall review and may approve an application
49 for a grant from the fund. The authority shall issue payment of the

1 grant amount pursuant to a grant agreement with a grant recipient as
2 the authority may determine and subject the approval of the
3 agreement to the submission of proof by an approved grant recipient
4 of the expenditures contributing to the success of a research project
5 or program that is consistent with the purposes of P.L. ,
6 c. (C.) (pending before the Legislature as this bill). A grant
7 recipient who fails to comply with a grant agreement made as a
8 condition of a grant award shall repay any grant amount received
9 and, if so determined by the authority, shall pay a penalty not in
10 excess of 10 percent of the grant amount.

11
12 6. The authority may adopt rules and regulations, pursuant to
13 the “Administrative Procedure Act,” P.L.1968, c.410 (C.52:14B-1
14 et seq.), necessary for the implementation of P.L. , c. (C.)
15 (pending before the Legislature as this bill), including, but not
16 limited to, a procedure for recapturing grants awarded pursuant to
17 P.L. , c. (C.) (pending before the Legislature as this bill) in
18 cases in which the authority determines that a grant recipient failed
19 to meet any condition or requirement attached by the authority to
20 the receipt of the grant included in rules and regulations adopted by
21 the authority governing the implementation of the “Edison
22 Innovation Science and Technology Fund.”

23
24 7. There is appropriated \$5,000,000 from the General Fund to
25 the authority for the provision of that amount to the “Edison
26 Innovation Science and Technology Fund” for the purposes of
27 P.L. , c. (C.) (pending before the Legislature as this bill).
28 The fund shall also be credited with:

- 29 a. any additional monies made available by the authority for
30 the purposes of the fund; and
31 b. monies received by the authority from any public or private
32 sources for the purpose of the fund.

33
34 8. This act shall take effect immediately, but shall remain
35 inoperative for 90 days following the date of enactment.

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38 STATEMENT

39
40 This bill, entitled the “Edison Innovation Science and
41 Technology Fund Act,” establishes the Edison Innovation Science
42 and Technology Fund (fund) in the New Jersey Economic
43 Development Authority (EDA) to award grants to investigators at
44 public and private institutions of higher education engaged in
45 research projects or programs in this State that involving science,
46 technology, engineering, or mathematics in fields of strategic
47 importance to the State. Those fields are to include, but not limited
48 to, advanced materials, artificial intelligence, healthcare, life
49 sciences, machine learning, manufacturing technology, mobile

1 communications technology, nanotechnology, renewable energy
2 technology, and sustainability innovation.

3 The bill requires that eligible applicants seeking to receive a
4 grant from the fund are to be: 1) an individual investigator
5 sponsored by an institution of higher education who is engaged in
6 the field of science, technology, engineering, or mathematics
7 pursuing research having the potential for commercial application
8 that will contribute to the economic vitality of the State; or 2) an
9 individual investigator who submits an application on behalf of a
10 research team sponsored by two or more institutions of higher
11 education working in partnership with or in the process of forming
12 an early-stage technology company.

13 Grants from the fund are to be made available to eligible
14 applicants for projects or programs that: 1) promote strong ties
15 between institutions of higher education and industry in order to
16 accelerate the commercialization of new technologies; 2) financially
17 support the emergence and incubation of science and technology-
18 based businesses of strategic importance to the State located on a
19 New Jersey campus of an institution of higher education; 3) spur
20 collaboration between institutions of higher education, technology
21 incubators, and other research centers to create economic
22 opportunities and advance job growth; 4) expand the pipeline of
23 commercially-viable research at institutions of higher education in
24 order to increase the potential for federal funding and private
25 investment in New Jersey; 5) support technology transfer activities
26 that assist institutions of higher education in developing the
27 commercial potential of their research; and 6) accelerate the
28 commercialization of technology developed at institutions of higher
29 education in this State.

30 The bill provides that grants awarded from the fund are to be in
31 the form of an individual investigator-initiated grant or an
32 institution of higher education-based center grant. The purpose of
33 an individual investigator-initiated grant is to advance concepts in
34 order to generate intellectual property that can be formed or
35 licensed to an early stage technology company. An individual
36 investigator-initiated grant is to be funded for one year at \$100,000
37 per grant recipient. The purpose of an institution of higher
38 education-based center grant is to fund the work of groups of full-
39 time faculty at institutions of higher education focused on a shared
40 problem or opportunity that has significant commercial potential.
41 An institution of higher education-based center grant recipient is to
42 have formed a partnership with a commercial entity or have
43 launched an early stage technology company. An institution of
44 higher education-based center grant is to be funded at \$250,000 to
45 \$500,000 per year for a five-year period per grant recipient.

46 There is to be appropriated \$5,000,000 from the General Fund to
47 the authority for the purposes of this bill.