

Sponsored Program Summary

3rd Quarter FY17

April, 2017

David Reed
Vice President for Research



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Outline

- Sponsored Awards, 3rd Quarter FY17
- Research Expenditures, 3rd Quarter FY17
- Intellectual Property/Commercialization, 3rd Quarter FY17
- Corporate Sponsorship, 3rd Quarter FY17
- “The Next Level”

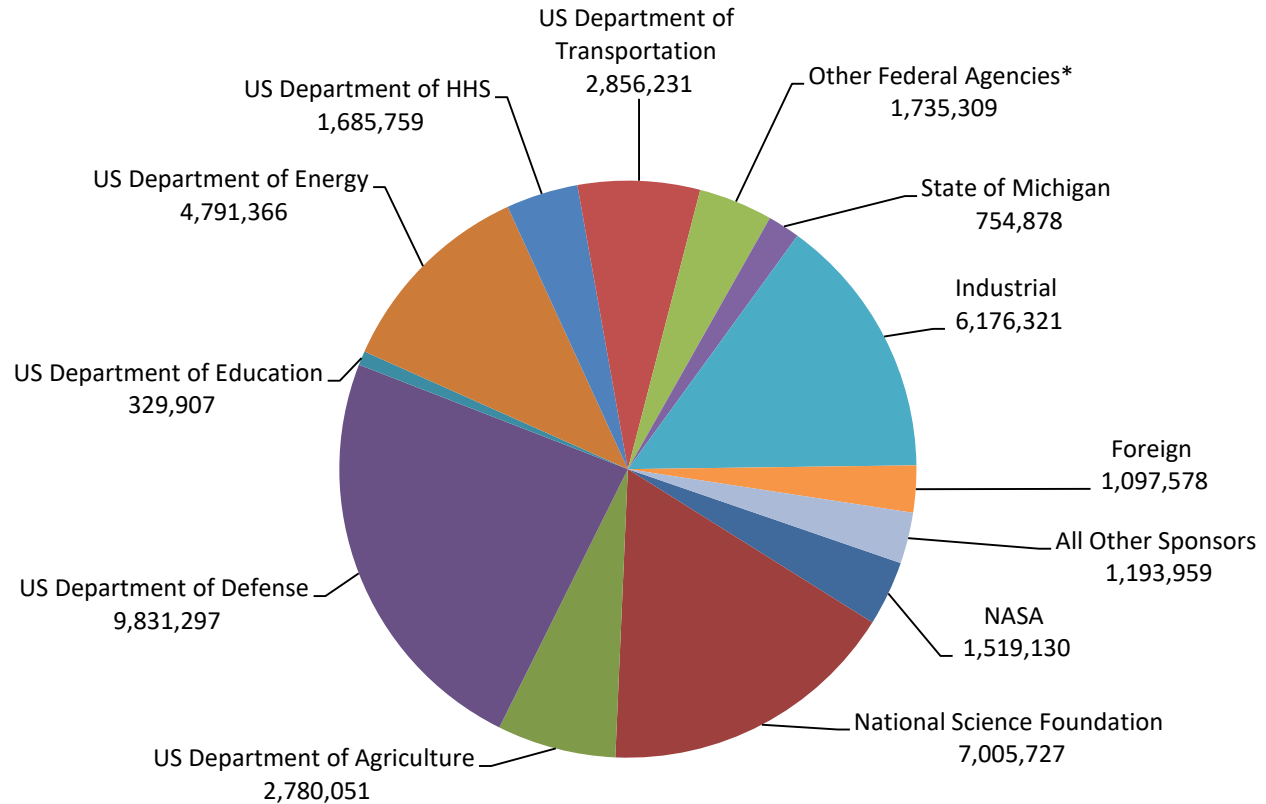


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Sponsored Awards, 3rd Quarter FY17

Sponsored Awards
 Fiscal Year 2017
 3rd Quarter
 Ended March 31, 2017
 TOTAL: \$44,137,186

Pre-Proposals Submitted
 (excluded from Proposals Submitted figures below)
 FYTD 2016: 55



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Sponsored Awards, 3rd Quarter FY17

Sponsor	Proposals Submitted		Awards Received		Awards Received (\$)		Variance \$	Variance %
	FY '17 as of 3/31	FY '16 as of 3/31	FY '17 as of 3/31	FY '16 as of 3/31	FY '17 as of 3/31	FY '16 as of 3/31		
NASA	47	61	19	13	1,519,130	1,134,350	384,780	33.9%
National Science Foundation	153	162	38	47	7,005,727	5,707,496	1,298,231	22.7%
US Department of Agriculture	57	35	29	16	2,780,051	1,295,037	1,485,014	114.7%
US Department of Defense	77	53	75	47	9,831,297	6,546,594	3,284,703	50.2%
US Department of Education	1	2	2	1	329,907	92,155	237,752	258.0%
US Department of Energy	23	32	14	14	4,791,366	1,395,949	3,395,417	243.2%
US Department of HHS	32	30	9	10	1,685,759	2,141,734	-455,975	-21.3%
US Department of Transportation	12	13	17	15	2,856,231	1,007,636	1,848,595	183.5%
Other Federal Agencies*	34	41	26	17	1,735,309	794,893	940,416	118.3%
Federal Agency Total	436	429	229	180	32,534,777	20,115,844	12,418,933	61.7%
State of Michigan	21	36	11	20	754,878	2,917,420	-2,162,542	-74.1%
Industrial	167	149	154	149	6,176,321	6,145,001	31,320	0.5%
Foreign	13	18	13	14	1,097,578	722,054	375,524	52.0%
All Other Sponsors	69	58	26	22	1,193,959	1,452,638	-258,679	-17.8%
Subtotal	706	690	433	385	41,757,513	31,352,957	10,404,556	33.2%
Gifts**	N/A	N/A	231	271	2,366,672	6,753,353	-4,386,681	-65.0%
Crowd Funding	N/A	N/A	10	20	13,001	20,450	-7,449	36.4%
Grand Total	706	690	674	676	44,137,186	38,126,760	\$6,010,426	15.8%

* US Dept of the Interior, US Dept of Commerce, National Archives & Records Admin, National Endowments for the Arts & Humanities, National Security Agency, National Transportation Safety Board, US Environmental Protection Agency, US Dept of State

**Gifts represent non-contractual funding from corporations, foundations, associations and societies in support of academic programs, scholarships/fellowships, student design & enterprise, research, youth programs and special programs.



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Research Expenditures, 3rd Quarter FY17

College/School/Division	FY2017	FY2016	Variance	%
Administration*	2,819,246	3,330,453	(511,207)	-15.3%
College of Engineering	17,796,598	20,784,905	(2,988,307)	-14.4%
College of Science & Arts	12,507,981	11,717,273	790,708	6.7%
Great Lakes Research Center	108,305	N/A	108,305	N/A
Pavlis Honors College	215,057	175,769	39,288	22.4%
Keweenaw Research Center (KRC)	5,251,037	5,031,408	219,629	4.4%
Michigan Tech Research Institute (MTRI)	6,089,643	6,326,435	(236,792)	-3.7%
School of Business & Economics	1,136,021	1,276,976	(140,955)	-11.0%
School of Forest Resources & Environmental Science	4,293,538	3,823,224	470,314	12.3%
School of Technology	419,228	561,402	(142,174)	-25.3%
Total	50,636,654	53,027,845	(2,391,191)	-4.5%

*Includes the Vice Presidents, Provost, and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR.



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Intellectual Property, 3rd Quarter FY17

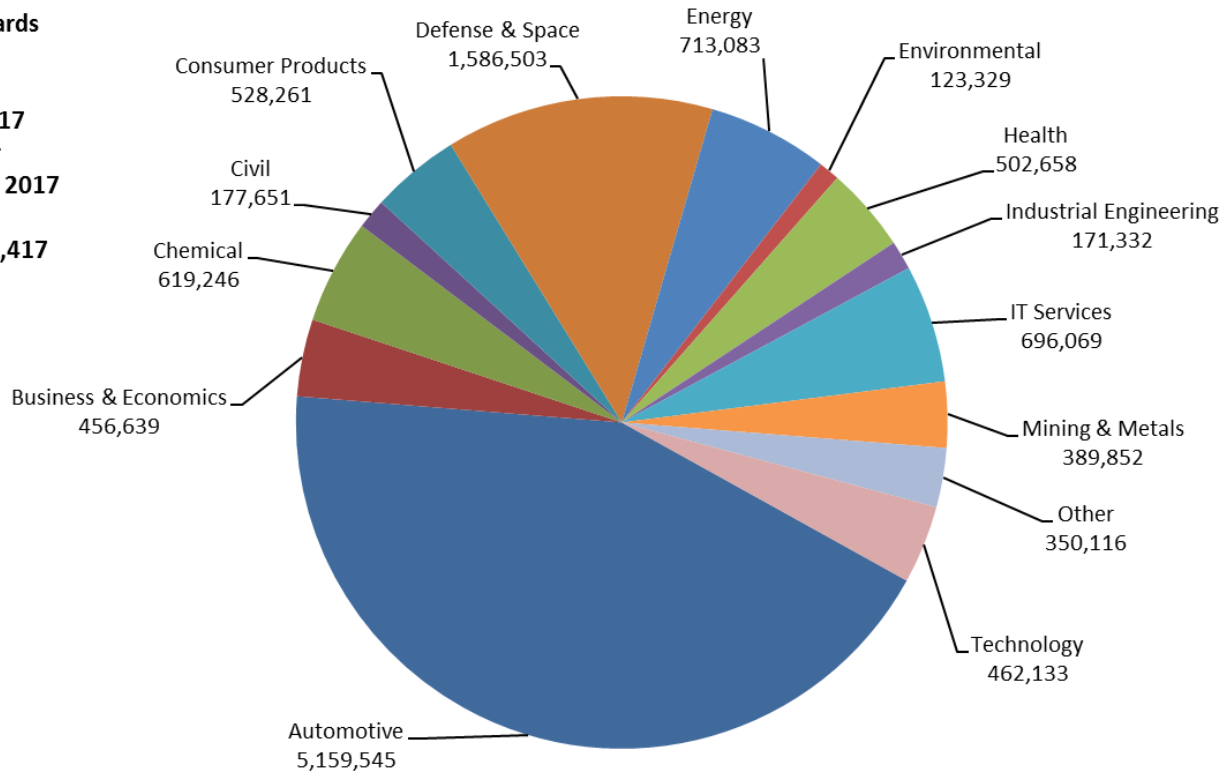
	FY17	FY16	+/-
Disclosures Received	22	20	+ 10 %
Nondisclosure Agreements	75	83	- 10 %
Patents Filed or Issued	13	11	+ 18 %
License Agreements	15	15	0 %
Gross Royalties	\$ 311,184	\$ 278,500	+ 12 %



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Corporate Sponsorship, 3rd Quarter FY17

Sponsored Awards
-Industry-
COMBINED
Fiscal Year 2017
3rd Quarter
Ended March 31, 2017
TOTAL: \$11,936,417



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“The Next Level”

- In FY16 we had \$72.5 MM in research expenditures, an increase of 3-4% from FY15.
- At that rate we will reach \$ 100 MM, an increase of almost 40%, in about 8 years.
- Q: How do we accelerate that?
A: Everyone I ask says “we need to get to the next level”.



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“The Next Level”

- What does it mean for Michigan Tech to reach “the next level” as a research institution?
 - We need to be the prime on an increasing number of large, multi-institutional funding programs.
 - These programs should be from a variety of sponsors, indicating a broad base of recognized research capacity.
 - Within any given funding program, awards should be to a range of nationally recognized research institutions, including Michigan Tech



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Recent Examples

- Within the last year, Michigan Tech has been the lead on awards from the following programs:
 - EPA Regional Environmental Finance Center
 - DOE ARPA-E
 - NASA Space Technology Research Institute
 - DOT Beyond Traffic Innovation Center



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EPA Regional Environmental Finance Center

- Tim Colling (CEE/MTTI-CTT), Lead, Six Years, \$ 5.6 Million
- Goal: Assist counties, cities, villages, and state agencies in Michigan, Minnesota, Wisconsin, Illinois, Indiana, and Ohio find better ways to manage and maintain their infrastructure and to minimize their impact on the environment.
- Other Host Institutions:
 - University of Southern Maine, Syracuse University, University of Maryland *, University of North Carolina *, University of New Mexico, Wichita State University, CSU-Sacramento



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DOE ARPA-E

- Jeff Naber (MEEM/APSRC), \$2.8 Million
- Partner: GM
- Goal: NEXTCAR: Connected and Automated Control for Vehicle Dynamics and Powertrain Operation on a Light-Duty Multi-Mode Hybrid Electric Vehicle.
- Other Awardees:
 - General Motors, Oak Ridge National Laboratory, Ohio State University *, Pennsylvania State University *, Purdue University *, UC-Berkeley *, UC-Riverside, University of Michigan *, University of Minnesota *



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NASA Space Technology Research Institute

- Greg Odegard (MEEM) Lead, \$ 15 million, Five Years
- Partners:
 - Florida A&M University, Florida State University, Georgia Institute of Technology *, Johns Hopkins University *, Massachusetts Institute of Technology *, Pennsylvania State University *, University of Colorado *, University of Utah, Virginia Commonwealth University, Nanocomp Technologies, Solvay, US AFRL
- Goal is to “develop and deploy a carbon-nanotube based, ultra-high strength lightweight aerospace structural material within five years.”
- Other Awardee: UC Berkeley *



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DOT Beyond Traffic Innovation Center

- Pasi Lautala (CEE/MTTI), Lead
- Centers “will be recognized by the DOT as forward-thinking and influential institutions that are capable of driving solutions to the challenges and trends identified in Beyond Traffic 2045, the US DOT’s report on current and future issues in transportation”. The Centers contribute by “convening decision-makers in their megaregion and coordinating related research, curriculum, outreach, and other activities.
- Other Awardees:
 - Northeastern University, Rutgers University *, University of Virginia *, Clemson University, Florida Atlantic University, Ohio State University *, University of Michigan *, University of Texas, Austin *, Texas Southern University, University of Denver, University of Arizona *, University of Washington *, UC Berkeley *, CS-San Bernardino



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Summary

- Michigan Tech has been the lead on a number of significant programs from a variety of sponsors within the last year.
- These programs involve a wide range of participants across campus, and involve significant partner institutions.
- Other Universities with awards from these programs are included amongst the most prestigious research institutions in the United States

Michigan Tech is increasingly receiving external recognition as a major national and international technological research institution

The challenge in front of us is not to get to “the next level”, it is to sustain and accelerate activity.



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