



Miami Florida Jean Monnet Center of Excellence 2023 EU FACULTY CURRICULUM DEVELOPMENT GRANT Interview with grantee Dr. George Philippidis



Dr. George Philippidis is the Associate Dean for Research and Director of the Sustainable Energy concentration at the Patel College of Global Sustainability (PCGS) at the University of South Florida (USF).

He received the Miami-Florida Jean Monnet Center of Excellence Curriculum Development grant this year for developing "Pedagogical Material about European Union Policies and Research on Sustainable Transportation Fuels".

He was kind enough to answer a few questions about his research.

MFJMCE: Can you tell us a little bit about yourself?

I grew up in Europe (Greece) before moving to the United States to pursue a Ph.D. in Chemical Engineering, but with an angle towards biotechnology. Being concerned about the environment, I have been pursuing a career in sustainability in both the public and the private sector. I started at the National Renewable Energy Lab (NREL) in Denver before moving to Thermo Fisher Scientific in Boston. I then joined FIU's Applied Research Center in Miami to create a renewable energy program and later became a faculty member at the University of South Florida (USF) in Tampa, where I have been pursuing applied research and development of low-carbon biofuels and bioproducts from bioresources, such as algae, biomass, and oilseed crops.



MFJMCE: In a few words, can you tell us what the focus of the research project for which you received this grant is?

The focus of this research grant is identifying policies and research implemented by the European Union (EU) with regards to sustainable transportation fuels that can help reduce carbon emissions, thus combating climate change. Given EU's leadership in green initiatives, it is essential that we strengthen the US-EU partnership for reducing carbon emissions in the transportation sector and other sectors of the economy. A key focus area of the grant pertains to the development of Sustainable Aviation Fuels using algae and other bioresources, where EU policy leads the way worldwide.

MFJMCE: How did the idea for this research come up?

I have been developing and teaching graduate sustainability courses at USF since 2014. One of these courses, 'Renewable Transportation Fuels' (IDS 6207), focuses on the development and commercialization of low-carbon renewable fuels as replacement for carbon-intensive gasoline, diesel, and aviation fuel. Reducing carbon emissions has to be an international effort, so incorporating knowledge from EU policies and practices into IDS 6207 is essential to providing students with a holistic view of global efforts and tools they can use to lead sustainable development.



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Dr. George Philippidis

MFJMCE: Your grant proposal says that you would use this research and pedagogical material for classroom teaching. What do you hope students will gain by attending the course you are developing?

I hope that students will gain an in-depth understanding of policy and research initiatives underway in the EU, so as future sustainability leaders they can collaborate with their European and other international counterparts to reduce the global threat of climate change.

MFJMCE: Why do you think the focus of your course has specific interest for students in the U.S.?

Reducing greenhouse emissions, while maintaining high living standards, is an international challenge. Carbon emissions and air pollution are global threats to society. As a result, students in the US are keen on understanding how EU countries have responded to this challenge, learning about the successes and challenges the EU has experienced so far in its efforts, and identifying opportunities for joint efforts.

- ▶ For Dr. George Philippidis' Bio, [click here](#)
- ▶ For more information on the MFJMCE Faculty



Algae cultivation system

MFJMCE: Where will your research take you in the future? Do you plan to continue developing this project, or do you have others in mind?

I am very interested in partnering with EU institutions and researchers to jointly develop and implement measures that can help all of us reduce carbon emissions through renewable fuels and products.

MFJMCE: Do you have any last thoughts to share?

I appreciate the Center's continuing efforts to enhance pedagogy through curriculum development and its appreciation of the need to promote understanding and collaboration between EU and US students and professionals for a more sustainable future.

By Christine I. Caly-Sanchez