



Università  
Ca' Foscari  
Venezia



# Master of Research Science and Management of Climate Change

Second Edition 2019-2020

Climate change is shaking up everything from  
**finance to health**

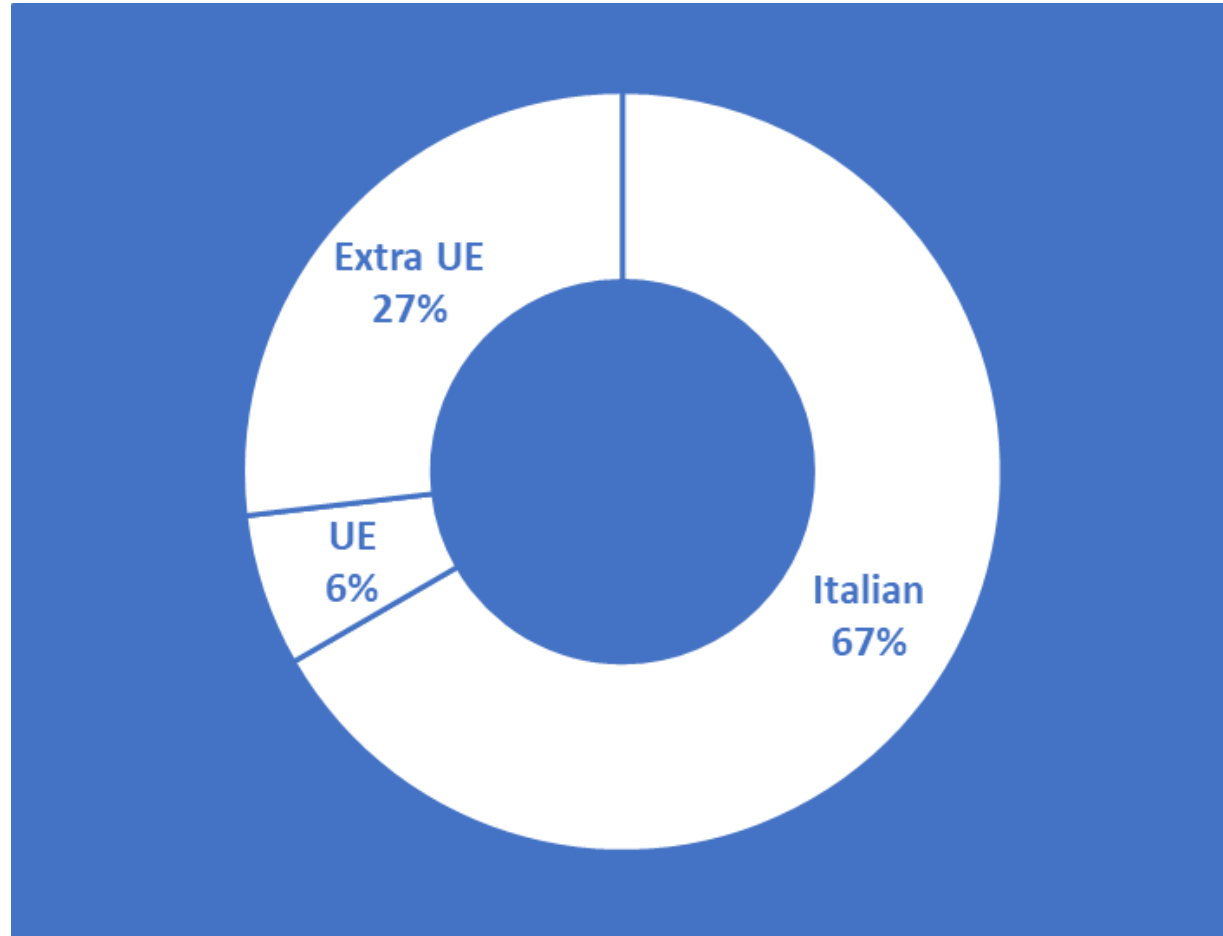
But we don't have the **right people** with the  
**right skills** in the **right places**

Daniel Kreeger,  
Executive director  
Association of Climate Change Officers

## HIGHLIGHTS

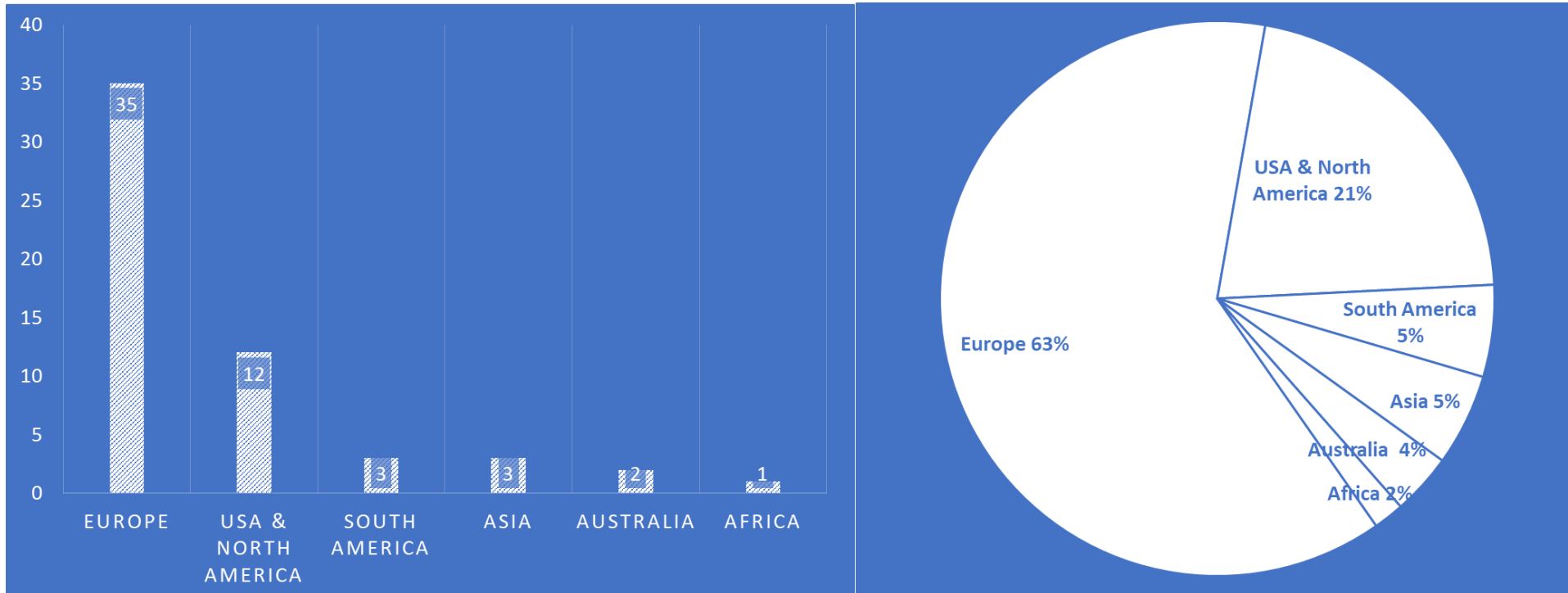
- ✓ **1-year program** fully integrated with the PhD in Science and Management of Climate Change
- ✓ **Customized curriculum:** 12 courses out of 23, 72 CFUs, 400 hours of activities
- ✓ Innovative teaching: **hands-on-sessions, discussion groups, labs, seminars, guest lectures** from international experts
- ✓ International and national **internship opportunities**

# AN INTERNATIONAL PROGRAM



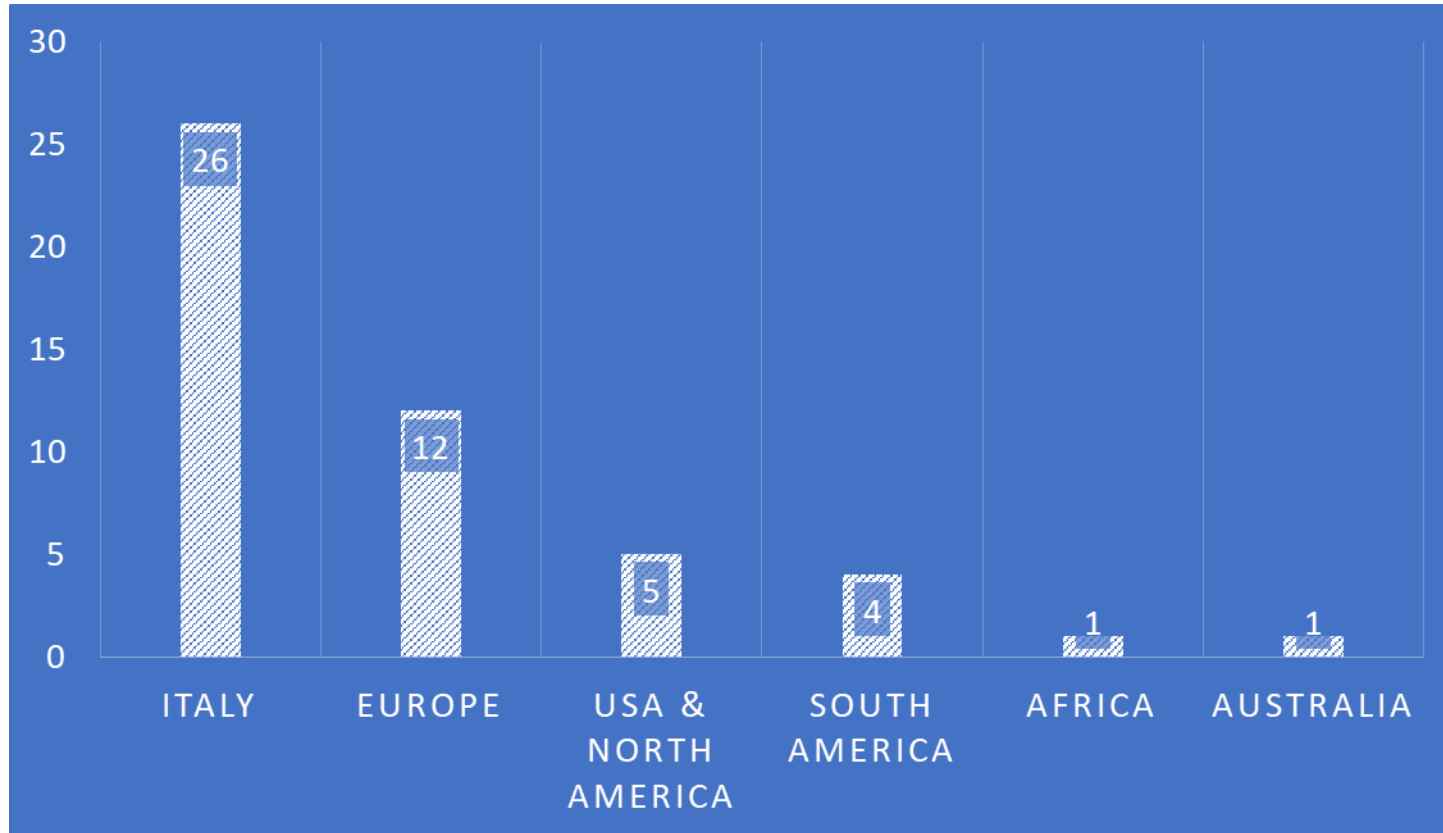
Students come from all over the world, e.g. India, Brazil, China, Bangladesh, Africa, USA, UK, Germany, ...

# WITH A WORLDWIDE EXTENSIVE NETWORK



**Global opportunities** in top universities and research institutes (e.g. **Princeton, Harvard, Stanford, Columbia, WB, Max Planck Institute, ...**)

# OFFERING GLOBAL OPPORTUNITIES



Placement in international organizations (**World Bank, ...**),  
development agencies (**GIZ, ...**) consultancy (**CPI, Acclimatise, ...**)

# COURSEWORK AND STRUCTURE

## FOUNDATIONS - FIRST TERM

Climate dynamics, math, stat, machine learning, econometrics, climate change economics ...



## METHODS - SECOND TERM

Climate models, climate dynamics, oceans dynamics, decision theory, environmental contamination, climate risk analysis ...



## INSIGHTS AND APPLICATIONS - THIRD TERM

Socio-economic impacts of climate change, adaptation, decision support systems, international climate policy, adaptive management of natural resources...

## THE MASTER: CLIMATE-RELATED SKILLS

- ✓ Understand and synthesize the **physical** and **economic** nature of climate change
- ✓ Assess the **impacts, socio-economic effects,** and **uncertainties** related to climate change
- ✓ Evaluate the socio-economic implications of **mitigation and adaptation policies**
- ✓ Design **innovative climate policy solutions** in the context of sustainable development



# THE MASTER: INTERNSHIP OPPORTUNITIES

Conduct your internship in **Italy** or **abroad**

**Extensive network** of institutions, local governmental agencies, and companies that today are already dealing with climate change, e.g.:

- ✓ Euro-Mediterranean Centre on Climate Change
- ✓ European Topic Center on Climate Change Impacts
- ✓ Mar Fund
- ✓ Comune di Padova
- ✓ Climate Service Center Germany (GERICS)

# THE MASTER IN SHORT

- ✓ **Opening of the official call: end of April 2019**
- ✓ Lectures: September 2019- June 2020
- ✓ Study support: Loans available from the University's partner banks
- ✓ Course fee: 6,000 euro
- ✓ Requirements: second cycle degree, English B2 level
- ✓ Language: English

# CONTACTS

**Webpage:** <https://www.unive.it/pag/33563/>

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**Contacts:** Ca' Foscari Challenge  
School [master.challengeschool@unive.it](mailto:master.challengeschool@unive.it)

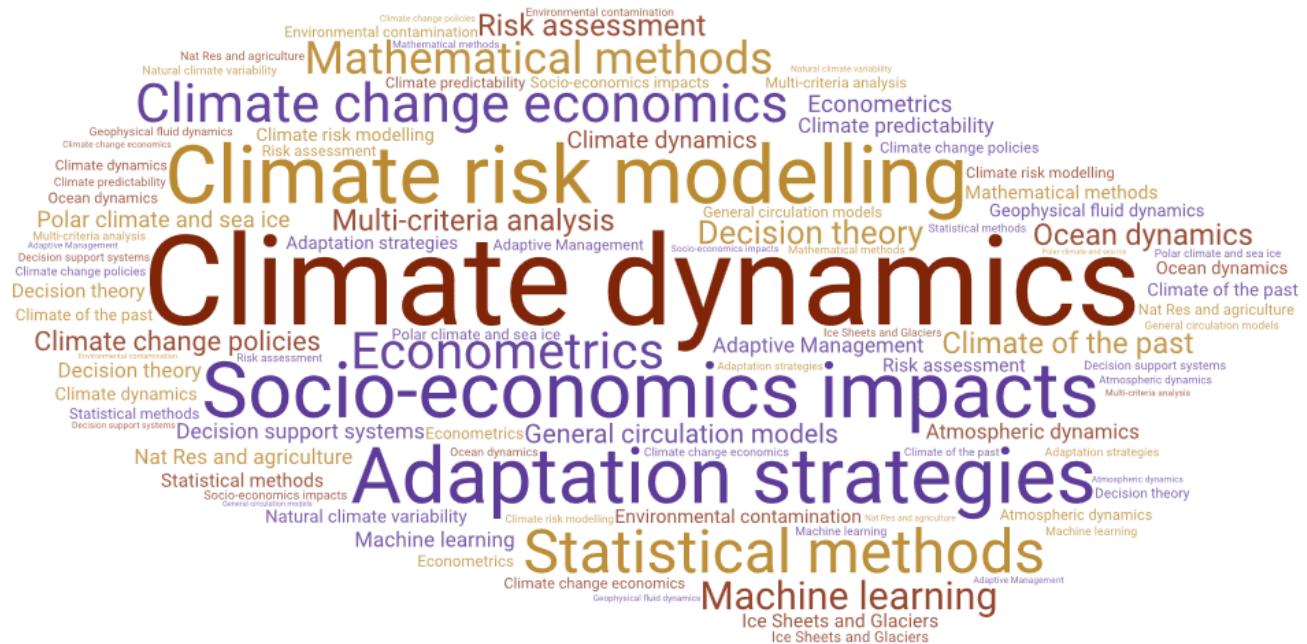
Federica Varosio [phd-climate-change@unive.it](mailto:phd-climate-change@unive.it)



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# THANK YOU FOR YOUR ATTENTION



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## **FOUNDATIONS**

- ✓ Introduction to climate dynamics
- ✓ Atmospheric Dynamics
- ✓ Numerical Methods and Modeling for Geophysical Fluid Dynamics
- ✓ Mathematical methods for climate change analysis
- ✓ Statistical methods for climate change analysis
- ✓ Climate Change Economics
- ✓ Econometrics & Machine learning

## **METHODS**

- ✓ Climate of the past
- ✓ General circulation models
- ✓ Climate Dynamics and Predictability
- ✓ Geophysical Fluid Dynamics
- ✓ Ocean Dynamics
- ✓ Decision theory and multi-criteria analysis
- ✓ Climate Change and Environmental Contamination
- ✓ Climate Risk Modelling and Assessment

## **INSIGHTS AND APPLICATIONS**

- ✓ Polar Climate and Sea Ice
- ✓ Advanced Topics in Geophysical Fluid Dynamics
- ✓ Natural climate variability and its modes
- ✓ Socio-Economics Impacts & Adaptation Strategies
- ✓ Risk Assessment & Decision Support Systems for Impacts of Climate Change
- ✓ Adaptive Management of Natural Resources and Agricultural Systems
- ✓ Climate Change Policies
- ✓ Ice Sheets and Glaciers in the Climate System