



Orthodox
Academy
of Crete

Climate Crisis of the Planet and Good Environmental Practices for a Sustainable Future

Antonis Kalogerakis
kalogerakis@oac.gr

- Head, Institute of Theology and Ecology (Department of the Orthodox Academy of Crete)
- Environmental Engineer (University of Crete, Greece), MSc (University of Calgary, Canada)
- Member of the Thematic Group: “Economic and Ecological Justice & Sustainable Future” of the Conference of European Churches, on behalf of the Oikosnet Europe and the OAC

**Message by His All Holiness Ecumenical Patriarch Bartholomew upon the
Day of Prayer for the Protection of Creation (September 1st)**

“Unusual fluctuations in temperature, the pollution and many other catastrophic actions ought to be an obvious alarm for something to be done with the human behavior.

The principal reason for this catastrophic behavior of contemporary man is his egocentrism, which is another face of self-reliance apart from God and even self-divinization”.



Orthodox
Academy
of Crete



Holy and Great Council, Pentecost 2016 at the OAC

Stephen Hawking:

“I will pay to send climate change deniers to Venus”

“Climate change is one of the great dangers we face and it's one we can prevent”



“Triangular Physics Conference” September 1998 OAC



**Orthodox
Academy
of Crete**



July 2020 was record hot for N. Hemisphere, 2nd hottest for planet

Arctic sea ice melted to record lows

Climate | Satellites | climate analyses and statistics

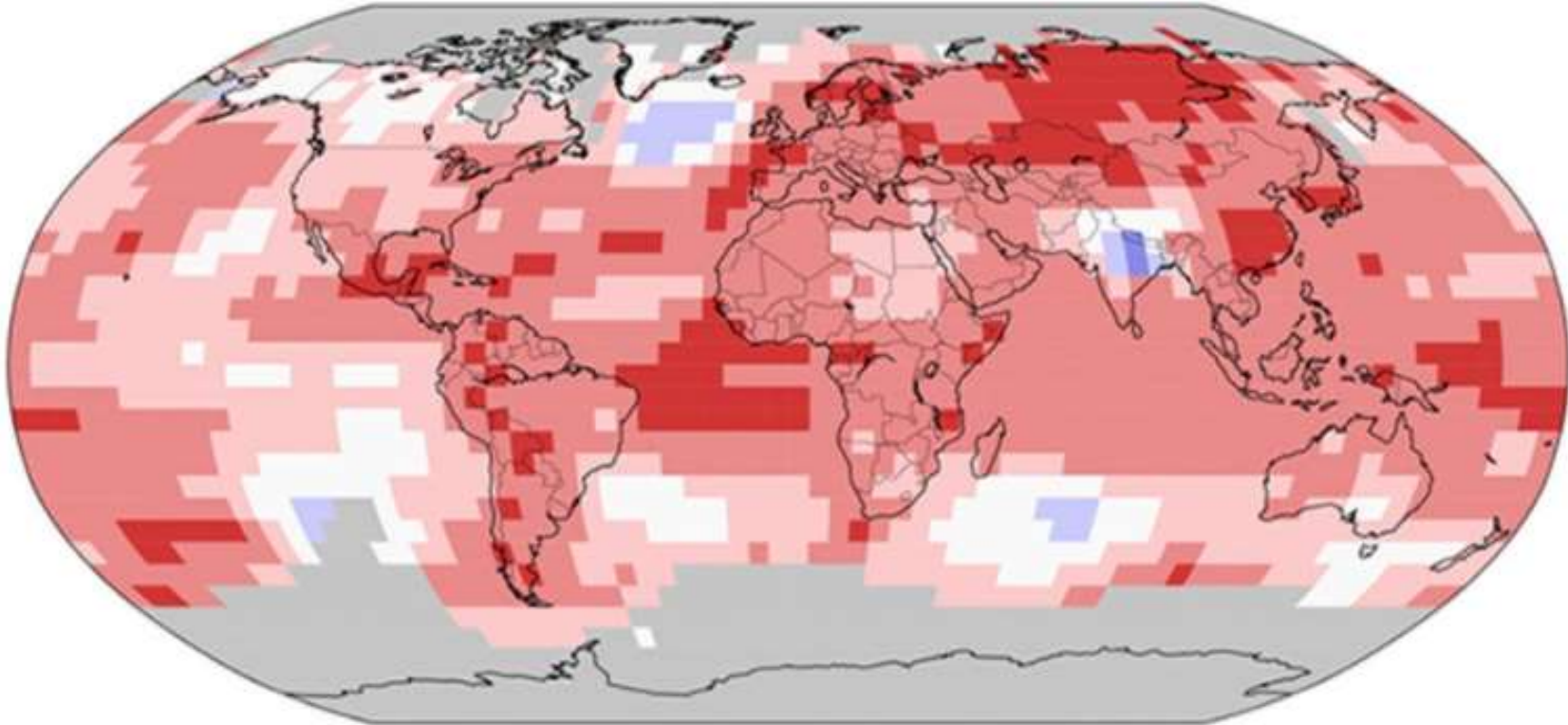
August 13, 2020 —








CLIMATE AND WEATHER

2020 May Be Earth's Warmest Year On Record, Even Without an El Niño

By Jonathan Erdman · July 13 2020 12:40 PM EDT · weather.com



						
Record Coldest	Much Cooler than Average	Cooler than Average	Near Average	Warmer than Average	Much Warmer than Average	Record Warmest

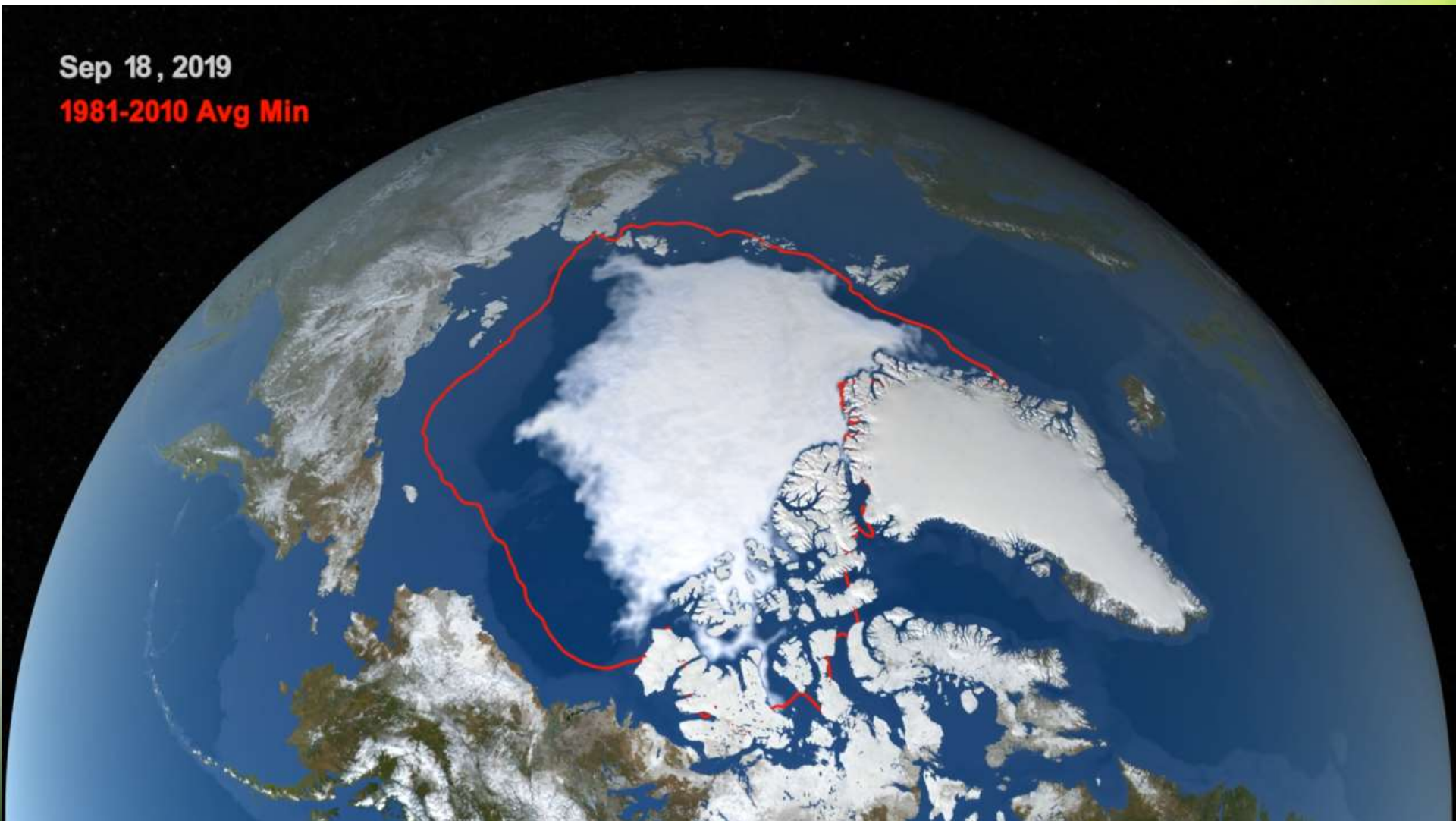
 

GHCNM v4.0.1.20200706.qbr

2019 Arctic Sea Ice Minimum Tied for Second Lowest on Record

Sep 18, 2019

1981-2010 Avg Min



Source: <https://climate.nasa.gov/news/2913/2019-arctic-sea-ice-minimum-tied-for-second-lowest-on-record/>

Anchorage, Alaska: All-Time Heat Record 32° Celsius (90° Fahrenheit)



Sahara Desert

January 7th, 2018



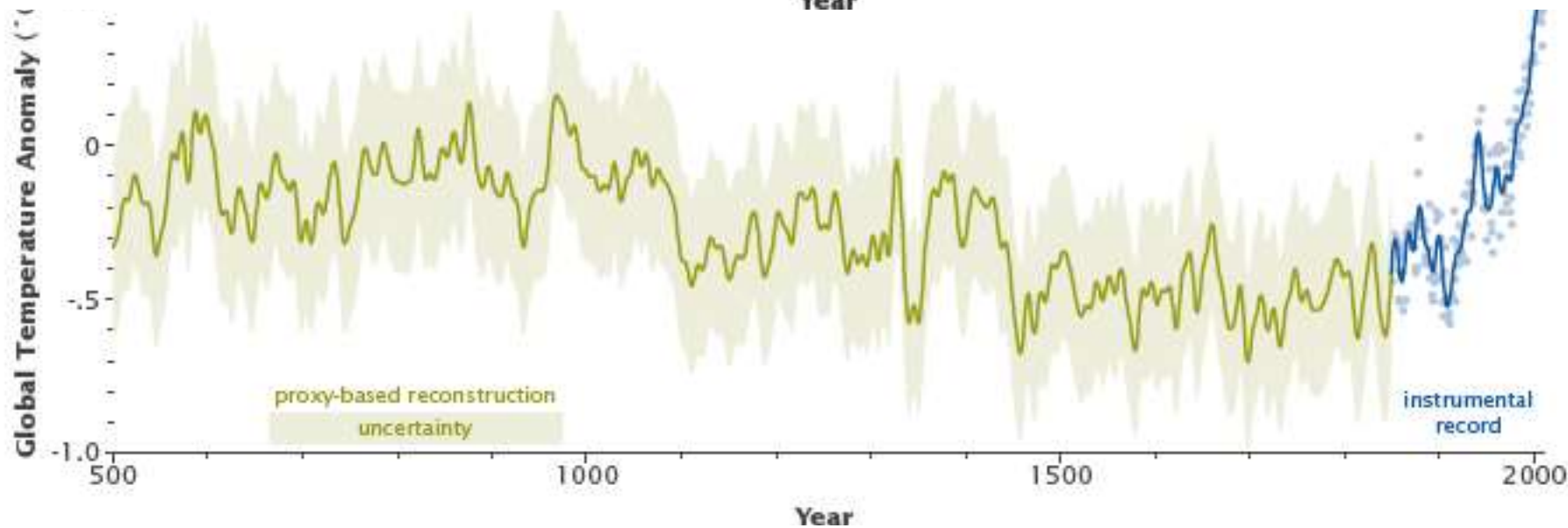
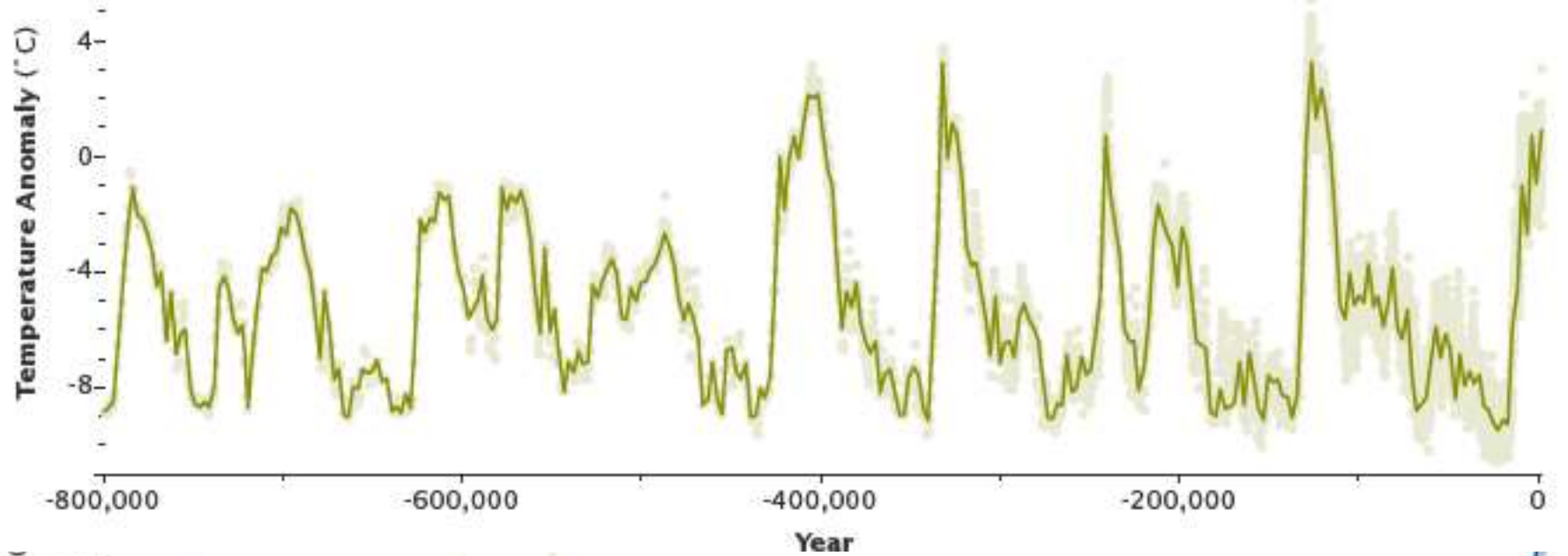
California Fires 2018 & 2019 & 2020



Saudi Arabia

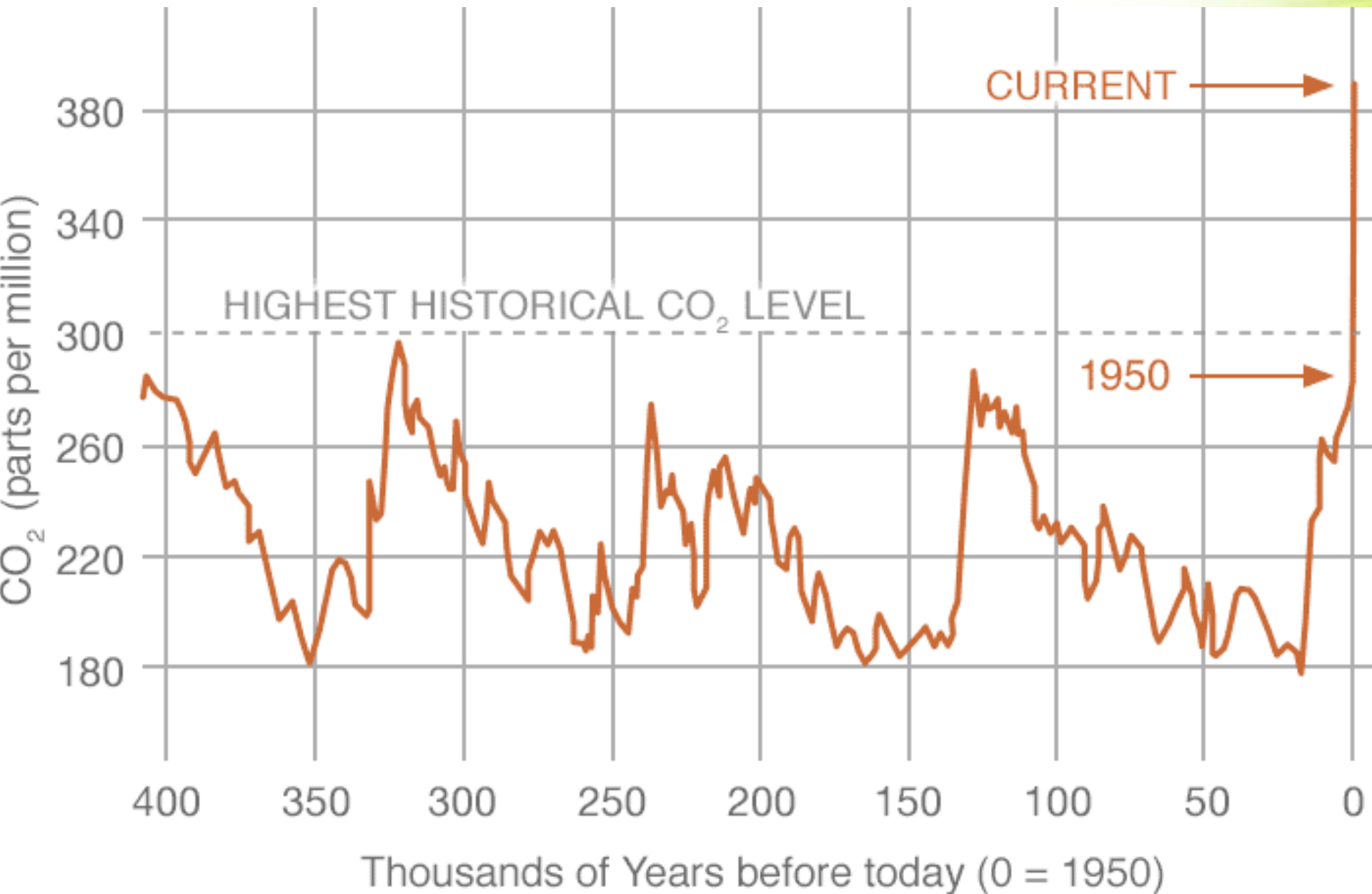
November 11th, 2018





When global warming has happened at various times in the past two million years, it has taken the planet about 5,000 years to warm 5 degrees. The predicted rate of warming for the next century is at least 20 times faster. **This rate of change is extremely unusual.**

Source: <https://earthobservatory.nasa.gov/features/GlobalWarming/page3.php>

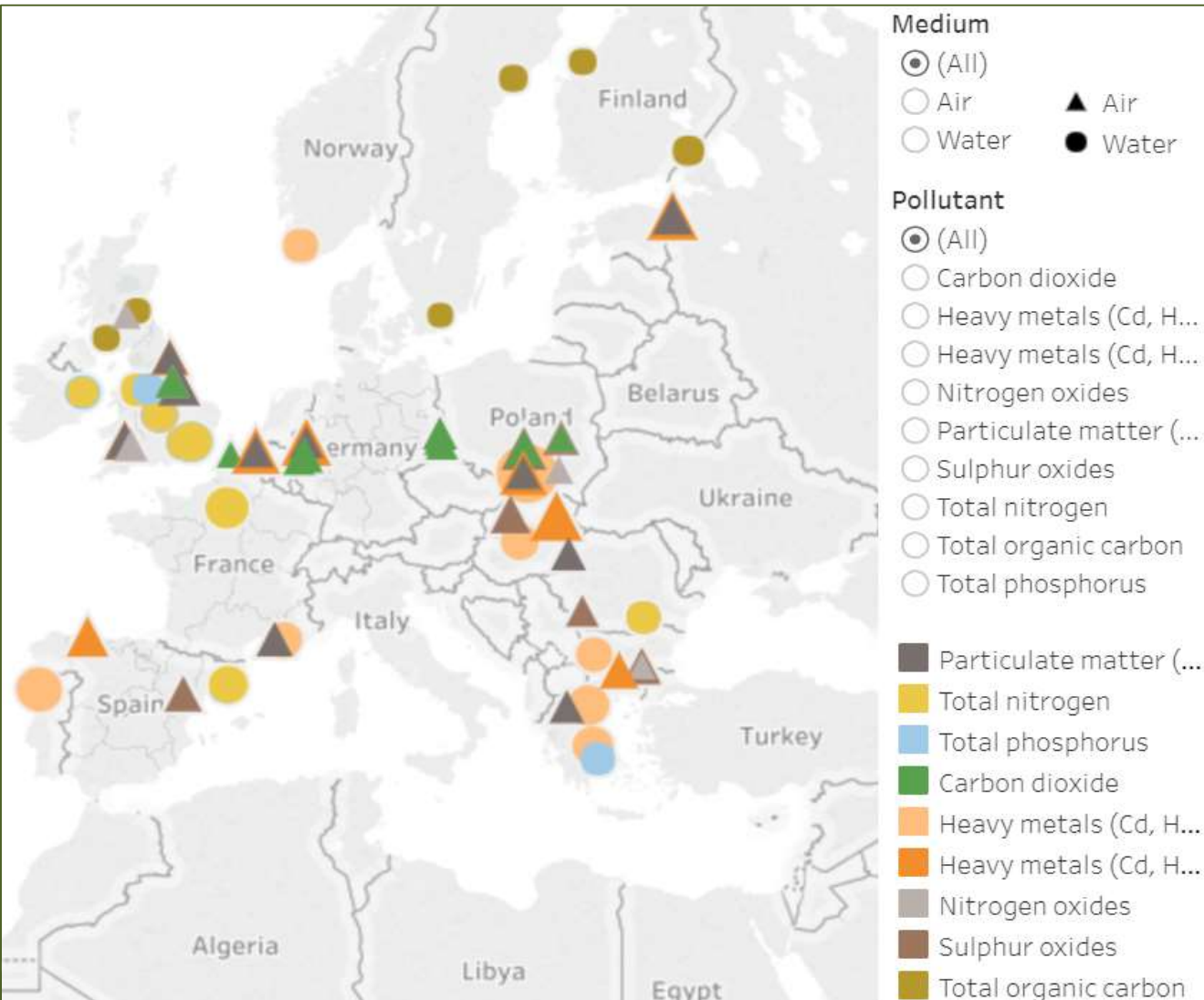


Source: <https://climate.nasa.gov/vital-signs/carbon-dioxide/>

European Environment Agency (EEA)

- ***Power plants across Europe (especially coal-fired) are responsible for the largest amounts of key pollutants released into the air.***

Source: www.eea.europa.eu/highlights/coal-fired-power-plants-remain



Orthodox
Academy
of Crete



The Intercept

Photo: Brandon Camp/WP

Facebook share icons: a list of icons, a Twitter icon, and a blue 'DONATE' button with a small icon and the number '212' below it.

FOSSIL FUELS ARE A THREAT TO CIVILIZATION, NEW U.N. REPORT CONCLUDES

When DDT was found to be harmful to humanity, it was banned outright. That sensible move now somehow eludes us.

 **Kate Azonoff**
October 9 2018, 2:48 p.m.

Source: <https://theintercept.com/2018/10/09/un-report-climate-change-fossil-fuels>



Orthodox Academy of Crete

EU says one in eight deaths is linked to pollution

20 hours ago



Nitrogen dioxide air pollution 5-10 January

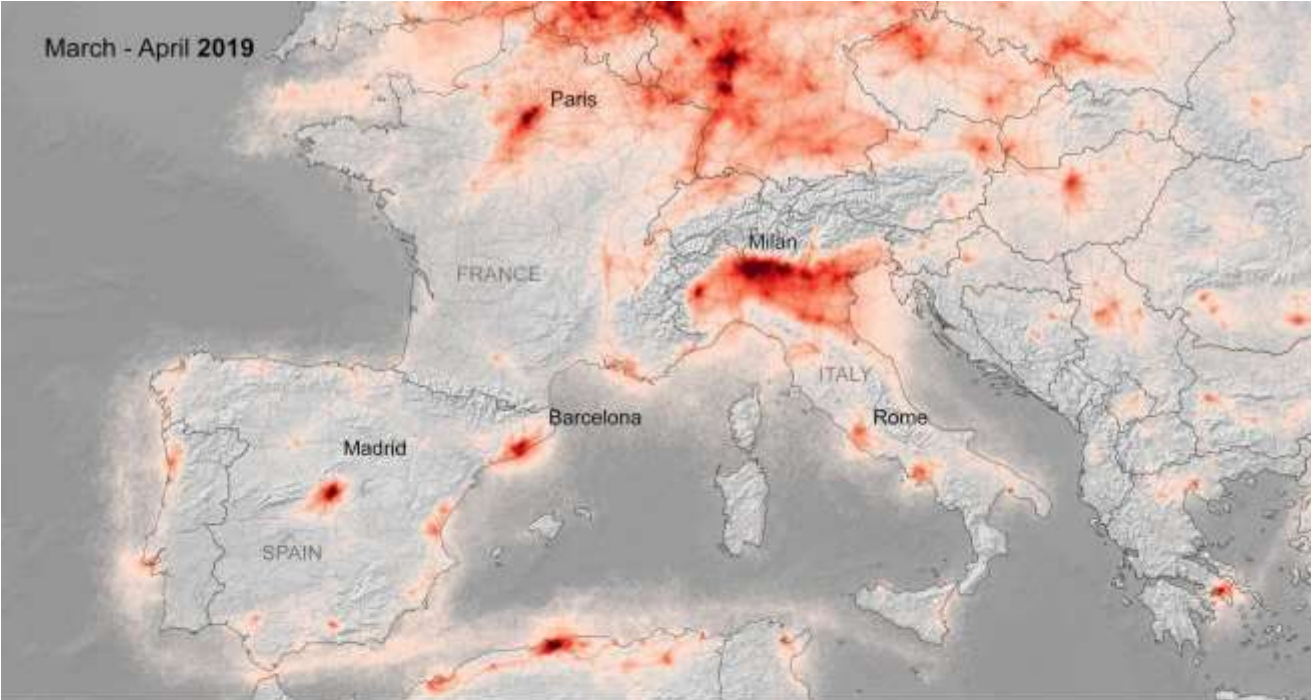
One in every eight deaths in Europe can be linked to pollution, according to a new report by the EU's environment agency (EEA).



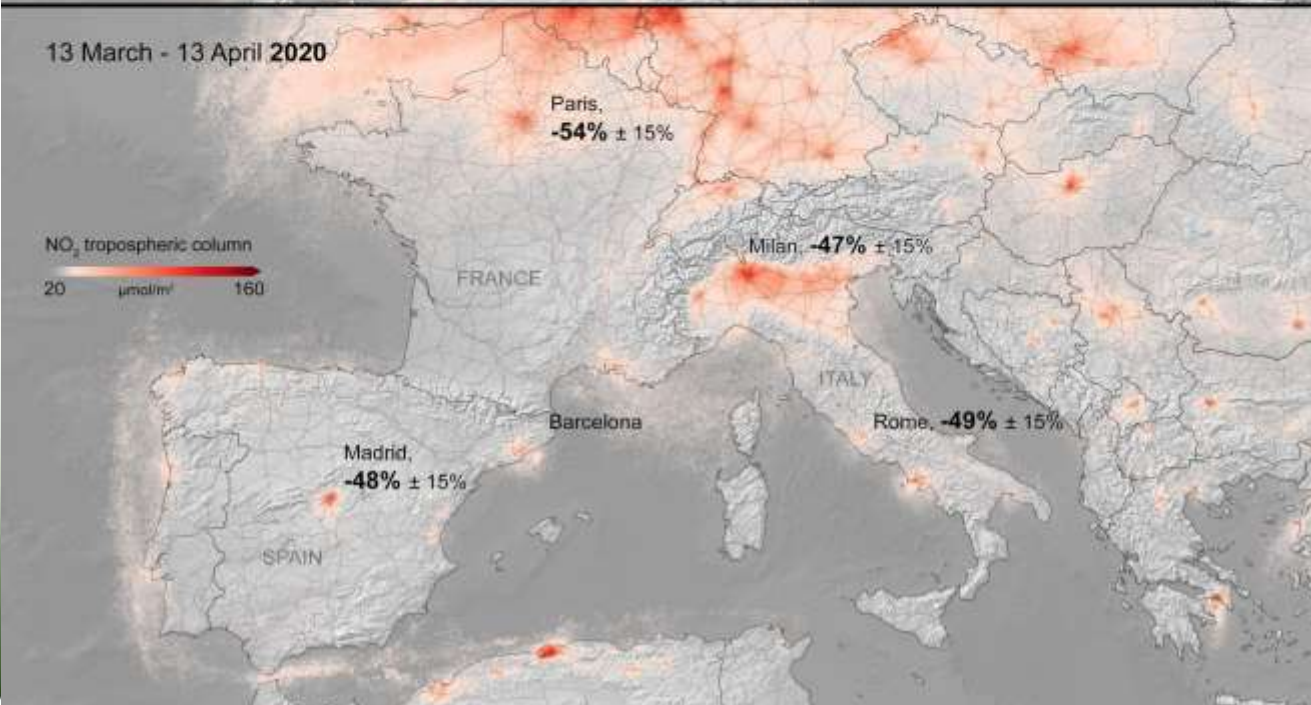
Orthodox
Academy
of Crete

March - April 2019

Coronavirus Case



13 March - 13 April 2020



Source: http://www.esa.int/ESA_Multimedia/Images/2020/04/Nitrogen_dioxide_concentrations_over_Europe



Orthodox
Academy
of Crete

Good Practices



Orthodox
Academy
of Crete

Platon Academy – symphilosophhein



The OAC is a Foundation
for the common good

***MAIN MISSION
is the DIALOGUE***



Orthodox
Academy
of Crete



From **1968** until today, **2.625** conferences and seminars have taken place at the OAC:

- Local/national: ca. **43%**
- International/ecumenical: ca. **57%**

The OAC participates at Project Proposals

- **Horizon 2020**
- **Life**
- **Call for Proposals on Bilateral
Research and Innovation
Cooperation**
- **Interreg**
- **Erasmus+**



2019-1-TR01-KA204-073981



Training on religion as a lever towards mental and physical health



Co-funded by the Erasmus+ Programme of the European Union

Orthodox Academy of Crete



ΙΝΣΤΙΤΟΥΤΟ ΘΕΟΛΟΓΙΑΣ & ΟΙΚΟΛΟΓΙΑΣ

**Παράρτημα
Ορθοδόξου Ακαδημίας Κρήτης**

INSTITUTE OF THEOLOGY & ECOLOGY

**Department of the
Orthodox Academy of Crete**



**Orthodox
Academy
of Crete**

OAC 2017 – 50kW_p PV

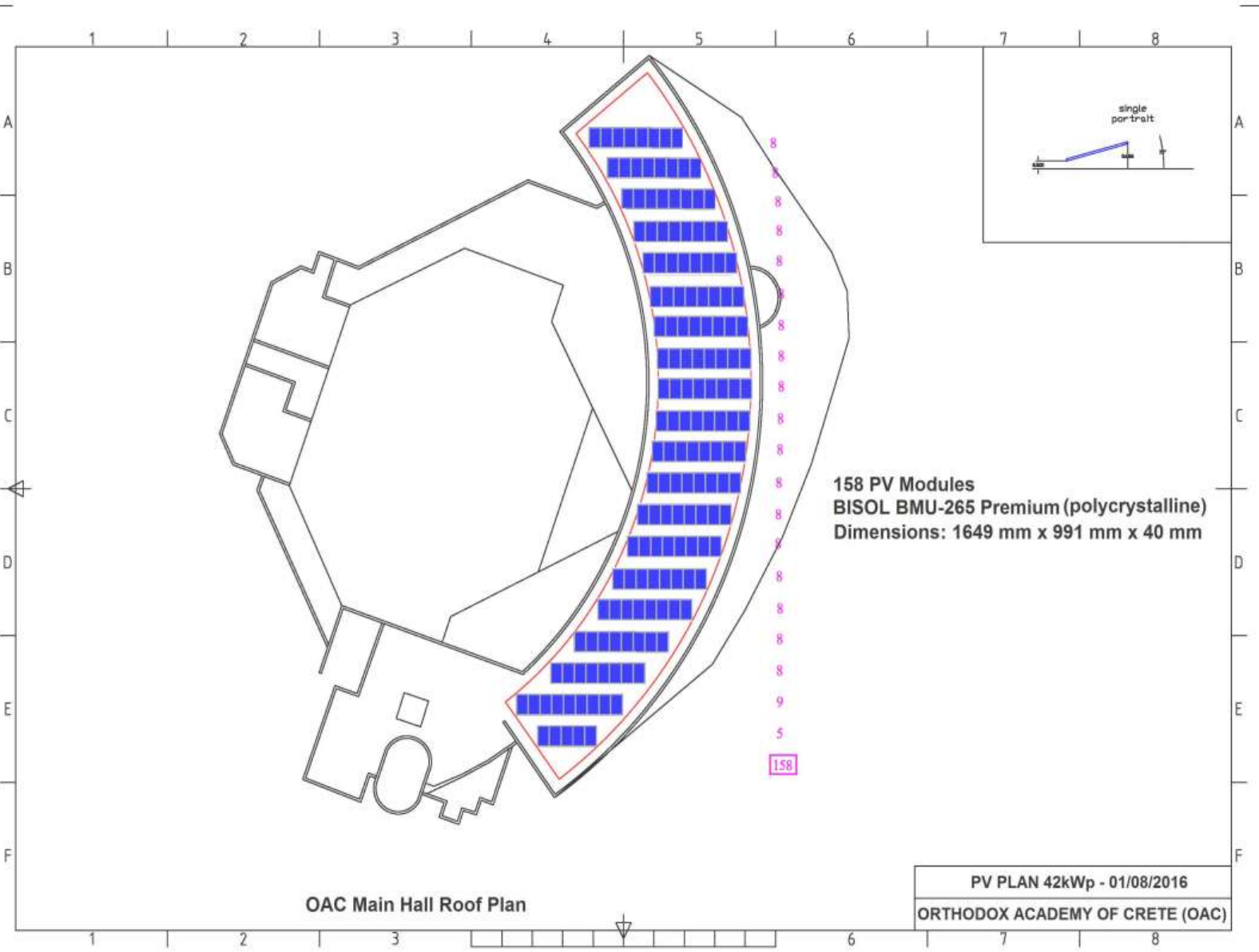
The 1st Net Metering Case in Middle-Voltage on Crete



Orthodox
Academy
of Crete

OAC 2017 – 50kW_p PV

The 1st Net Metering Case in Middle-Voltage on Crete



OAC 2017 – 50kW_p PV

The 1st Net Metering Case in Middle-Voltage on Crete



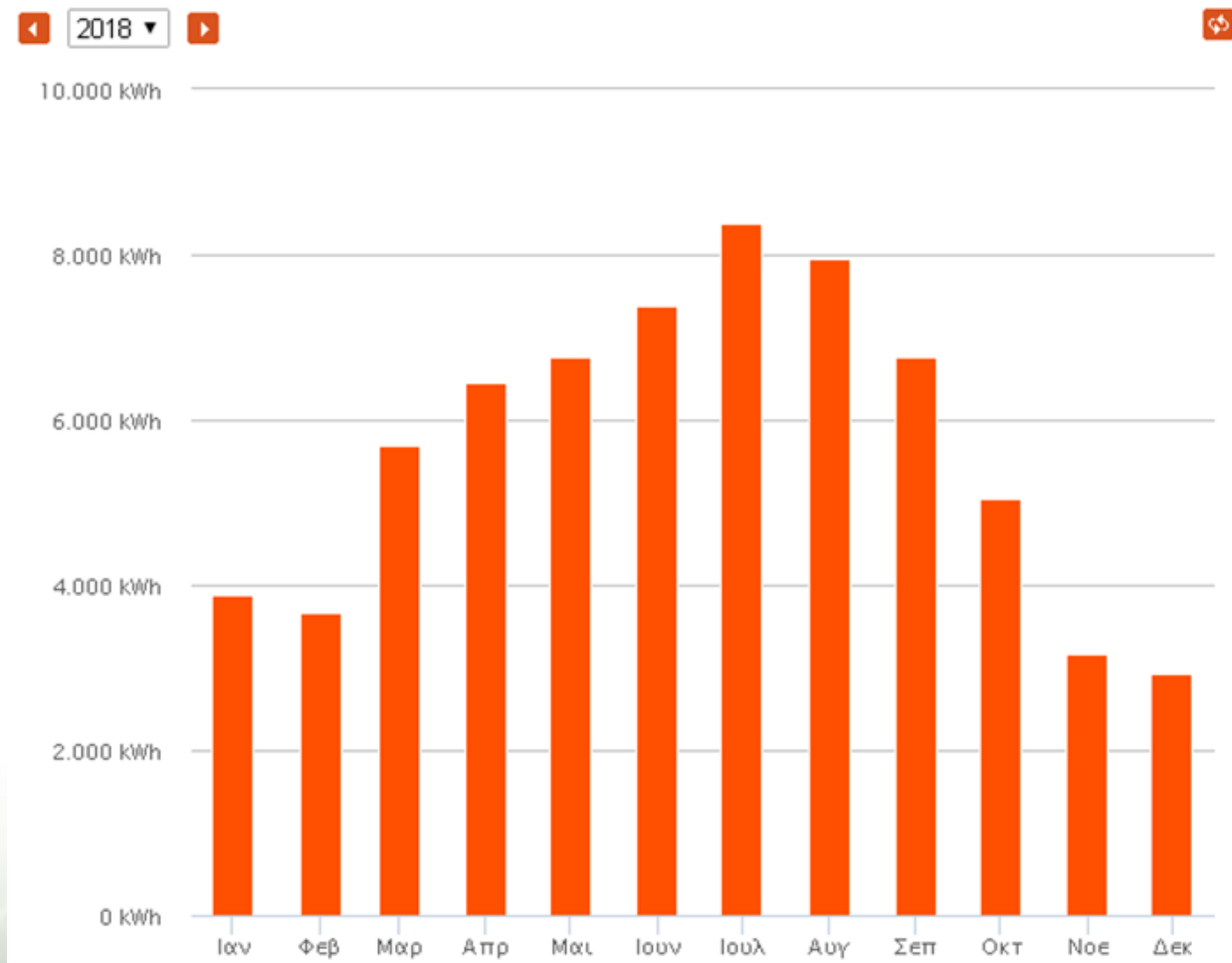
OAC 2017 – 50kW_p PV

The 1st Net Metering Case in Middle-Voltage on Crete



OAC 2017 – 50kW_p PV

The 1st Net Metering Case in Middle-Voltage on Crete



OAC 2017 – 50kW_p PV

The 1st Net Metering Case in Middle-Voltage on Crete

- ✓ The annual production of the OAC's green energy is **75 MWh**
- ✓ **40.5 Tones of CO₂** are saved per year
- ✓ Up to **80%** of OAC's daytime energy needs is covered by RES



Conferences for the **Energy Future** and **Energy Communities**



Ορθόδοξος Ακαδημία Κρήτης

ΤΟ ΕΝΕΡΓΕΙΑΚΟ ΜΕΛΛΟΝ ΣΤΗΝ ΚΡΗΤΗ

ΔΥΝΑΤΟΤΗΤΕΣ ΑΝΑΠΤΥΞΗΣ ΣΥΝΕΤΑΙΡΙΣΜΩΝ ΓΙΑ ΤΙΣ ΑΝΑΝΕΩΣΙΜΕΣ ΠΗΓΕΣ ΕΝΕΡΓΕΙΑΣ (ΑΠΕ)

ΕΥΖΗΤΗΣΗ - ΕΝΗΜΕΡΩΣΗ - ΠΡΟΒΛΗΜΑΤΙΣΜΟΣ

- ▶ Η ΠΟΛΙΤΙΚΗ ΓΙΑ ΤΙΣ ΑΠΕ: ΠΡΟΒΛΗΜΑΤΑ & ΠΡΟΟΠΤΙΚΕΣ
- ▶ Η ΠΡΑΓΜΑΤΙΚΟΤΗΤΑ ΓΙΑ ΤΙΣ ΑΠΕ ΣΤΗΝ ΚΡΗΤΗ
- ▶ ΔΥΝΑΤΟΤΗΤΕΣ ΑΝΑΠΤΥΞΗΣ ΣΥΝΕΤΑΙΡΙΣΜΩΝ ΓΙΑ ΤΙΣ ΑΠΕ ΣΤΗΝ ΚΡΗΤΗ

1 ΝΟΕΜΒΡΙΟΥ 2014
Ορθόδοξος Ακαδημία Κρήτης • Ώρα έναρξης: 09.00 π.μ.

ΣΥΝΕΤΑΙΡΙΣΜΕΝΟΙ ΘΑΥΡΕΙΣ
Ορθόδοξος Ακαδημία Κρήτης - Ινστιτούτο Θαλάσσιων & Πικολόγας • Τεχνολογικό Εκπαιδευτικό Ίδρυμα (ΤΕΙ) Κρήτης Χανίων
Περιφέρεια Κρήτης - Ενότητα Χανίων • Πρόγραμμα ΣΑΛΑΘΟ - Κιπρός - ΕΝΕΡΓΕΙΑ
ΟΙΚΟΣΜΕΤ EUROPE • Οργανισμός Ανάπτυξης Κρήτης Α.Ε. • Πολιτισμικό Κρήτης • Τράπεζα Χανίων

ΣΥΝΕΤΑΙΡΙΣΤΙΚΗ ΤΡΑΠΕΖΑ ΧΑΝΙΩΝ
ΟΡΘΟΔΟΞΟΣ ΑΚΑΔΗΜΙΑ ΚΡΗΤΗΣ
ΕΤ.ΑΝ.ΑΠ. Α.Ε.

ΔΗΜΙΟΥΡΓΙΑ ΕΤΑΙΡΕΙΑΣ ΛΑΪΚΗΣ ΒΑΣΗΣ ΓΙΑ ΤΗΝ ΕΝΕΡΓΕΙΑ

Καταστατικό • Στόχοι • Προοπτικές

Πρόσκληση για συλλογική δράση
με σεβασμό στο περιβάλλον και στον άνθρωπο

Τετάρτη, 20 Ιανουαρίου 2016

5:00 μ.μ. • Ορθόδοξος Ακαδημία Κρήτης

Κυριακή, 31 Ιανουαρίου 2016

11:00 π.μ. • Κάντανος (πρώην Δημαρχείο)

ΟΡΘΟΔΟΞΟΣ
ΑΚΑΔΗΜΙΑ ΚΡΗΤΗΣ

SAMARIA
ΕΤ.ΑΝ.ΑΠ. Α.Ε.

ΤΡΑΠΕΖΑ
ΧΑΝΙΩΝ
ΣΥΝΕΤΑΙΡΙΣΤΙΚΗ
ΤΡΑΠΕΖΑ ΧΑΝΙΩΝ



Orthodox
Academy
of Crete

Energy Communities in Europe

Amount of REScoops per country



Legenda

 	Germany has 800 REScoops	 	Spain has 26 REScoops
 	Denmark has 657 REScoops	 	Belgium has 22 REScoops
 	Austria has 390 REScoops	 	Ireland has 10 REScoops
 	Netherlands has 110 REScoops	 	Portugal has 6 REScoops
 	Sweden has 108 REScoops	 	Croatia has 4 REScoops
 	Finland has 79 REScoops	 	Greece has 4 REScoops
 	Italy has 74 REScoops	 	Luxemburg has 2 REScoops
 	France has 60 REScoops		
 	United Kingdom has 45 REScoops		

Total amount of REScoops in Europe:



2397



REScoop EU
THE ASSOCIATION OF ENERGY AND ENVIRONMENTAL SERVICES FOR A SUSTAINABLE ENERGY TRANSITION

Kissamos (Crete – Greece) 1945

Establishment of the First Energy Community in Crete



Πηγή: https://sadentrepese.blogspot.gr/2017/02/blog-post_1.html



St Georgios Church, (Pyrgos) Kastelli – 1st of September 2019



Church in Hoofddorp (The Netherlands)

<http://www.bisol.com/en/products/pv-modules/bisol-spectrum-poly.html#tabs-6>



Orthodox
Academy
of Crete



St Mark Church – Ottawa (Canada)

www.stmarksottawa.ca/solar.html



Orthodox
Academy
of Crete



Tycroes Primary School, Carmarthen (Wales, UK)

<https://www.1visionsolar.co.uk/case-study/tycroes-primary-school-carmarthen>



Orthodox
Academy
of Crete

The OAC's Educational Program: "Interactive – Experimental Paper Recycling Laboratory with Introduction to Renewable Energy Sources and Sustainable Resources Management"



Orthodox
Academy
of Crete

Renewable energy – An Opportunity For Energy Democracy



Source:

<https://susdev.eu/renewable-energy-an-opportunity-for-energy-democracy>



Orthodox
Academy
of Crete

Compost at the OAC: Producing natural plant nutrient



Walks on the OAC's Natural Stone Pathways



Tree planting at the OAC by volunteers – December 9th, 2018



New Technologies





Source: <https://sonomotors.com/>



Orthodox
Academy
of Crete

Conclusions

- The respect to the natural environment is a matter of ***survival***.
- Local communities can take actions for a ***just and sustainable future***.
- A new way of life is necessary to take into account the Climate Crisis:
⇒ ***To make Earth a better place for everyone.***





감사합니다 Natick
Grazie Danke Ευχαριστίες Dalu
Thank You Köszönöm
Tack
Спасибо Dank Gracias
谢谢 Merci Seé
ありがとう

Obrigado



Orthodox
Academy
of Crete