



Climate Change Graz

Field of Excellence
University of Graz

Graz Climate Change Indicators: A data portal backing climate narratives towards reaching the Paris climate goals

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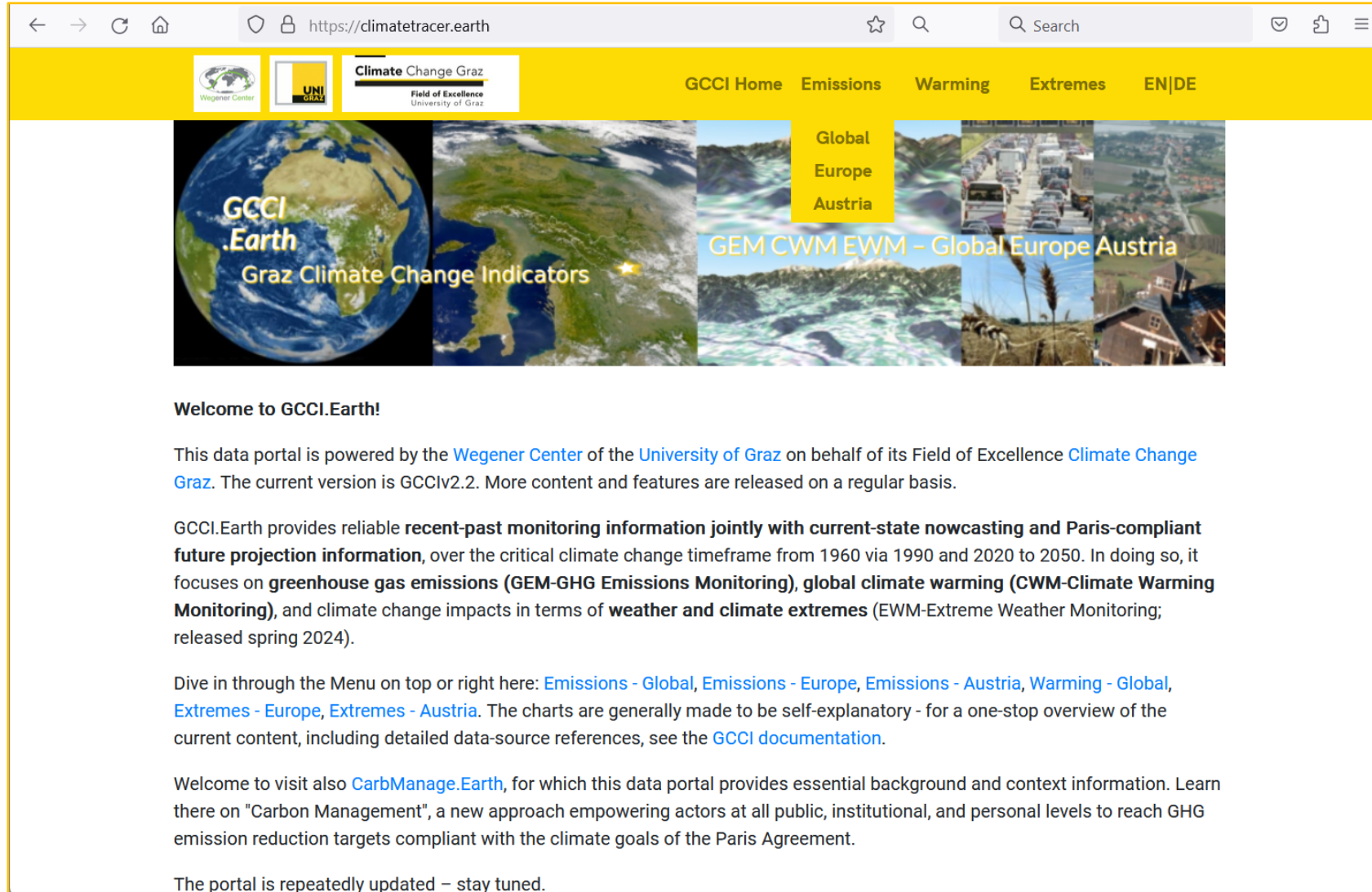
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EGU 2024, 16 April 2024, Session EOS1.8

– Telling climate stories: platforms, tools, and methodologies for accurate and engaging science communication

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GCCl.Earth provides reliable **recent-past monitoring information jointly with current-state nowcasting and Paris-compliant future projection information**, over the critical climate change timeframe from 1960 via 1990 and 2020 to 2050. In doing so, it focuses on **greenhouse gas emissions (GEM-GHG Emissions Monitoring)**, **global climate warming (CWM-Climate Warming Monitoring)**, and climate change impacts in terms of **weather and climate extremes (EWM-Extreme Weather Monitoring; released spring 2024)**.

Dive in through the Menu on top or right here: [Emissions - Global](#), [Emissions - Europe](#), [Emissions - Austria](#), [Warming - Global](#), [Extremes - Europe](#), [Extremes - Austria](#). The charts are generally made to be self-explanatory - for a one-stop overview of the current content, including detailed data-source references, see the [GCCl documentation](#).

Welcome to visit also [CarbManage.Earth](#), for which this data portal provides essential background and context information. Learn there on "Carbon Management", a new approach empowering actors at all public, institutional, and personal levels to reach GHG emission reduction targets compliant with the climate goals of the Paris Agreement.

The portal is repeatedly updated – stay tuned.

The portal gcci.earth (equivalently, climatetracer.earth)... (1)



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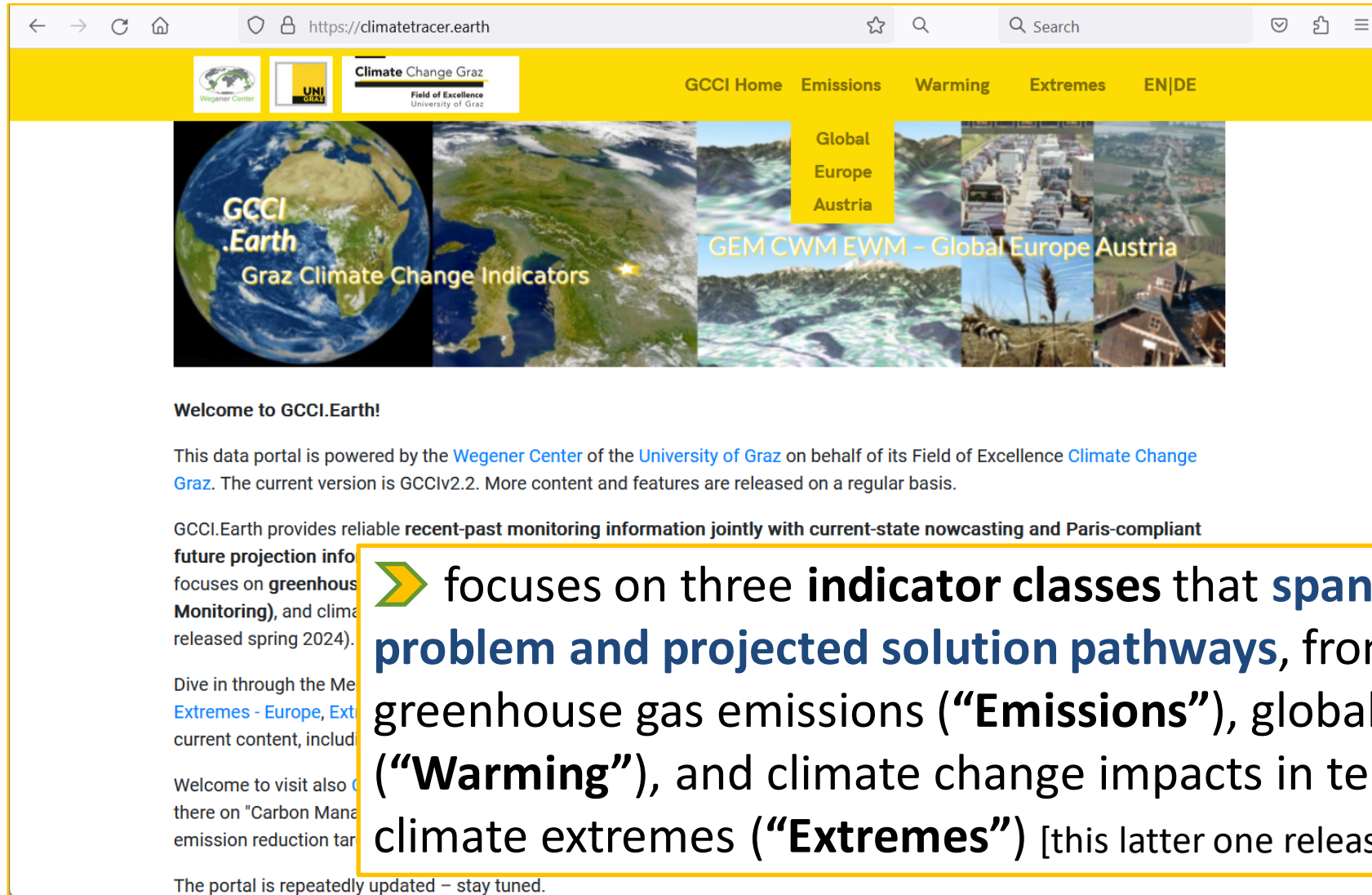
Dive in through the [Media](#) [Extremes - Europe](#), [Ext](#) current content, includ

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➤ helps to **bridge climate science, narratives and action** and provides, in an **easy-to-use** way with focus on **informative indicator time series**, reliable **recent-past monitoring** information jointly with **current-state nowcasting** and **Paris-compliant future projection** information, over the **critical climate change timeframe from 1960 via the Present to 2050**.

The portal gcci.earth (equivalently, climatetracer.earth)... (2)



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➤ focuses on three **indicator classes** that **span the climate change problem and projected solution pathways**, from causes to impacts: **greenhouse gas emissions (“Emissions”)**, **global climate warming (“Warming”)**, and **climate change impacts in terms of weather and climate extremes (“Extremes”)** [this latter one released later in 2024].

The portal gcci.earth (equivalently, climatetracer.earth)... (3)



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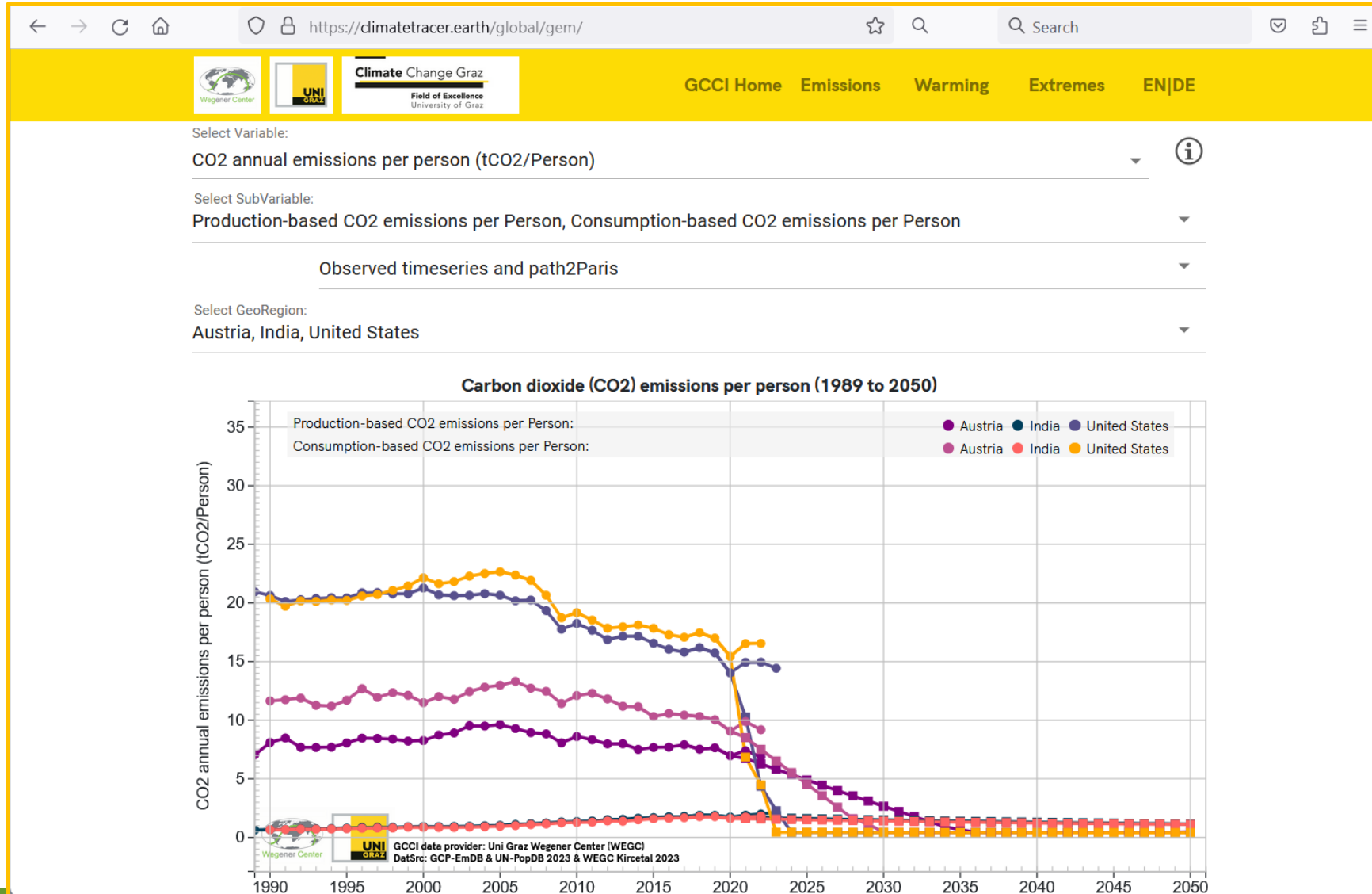
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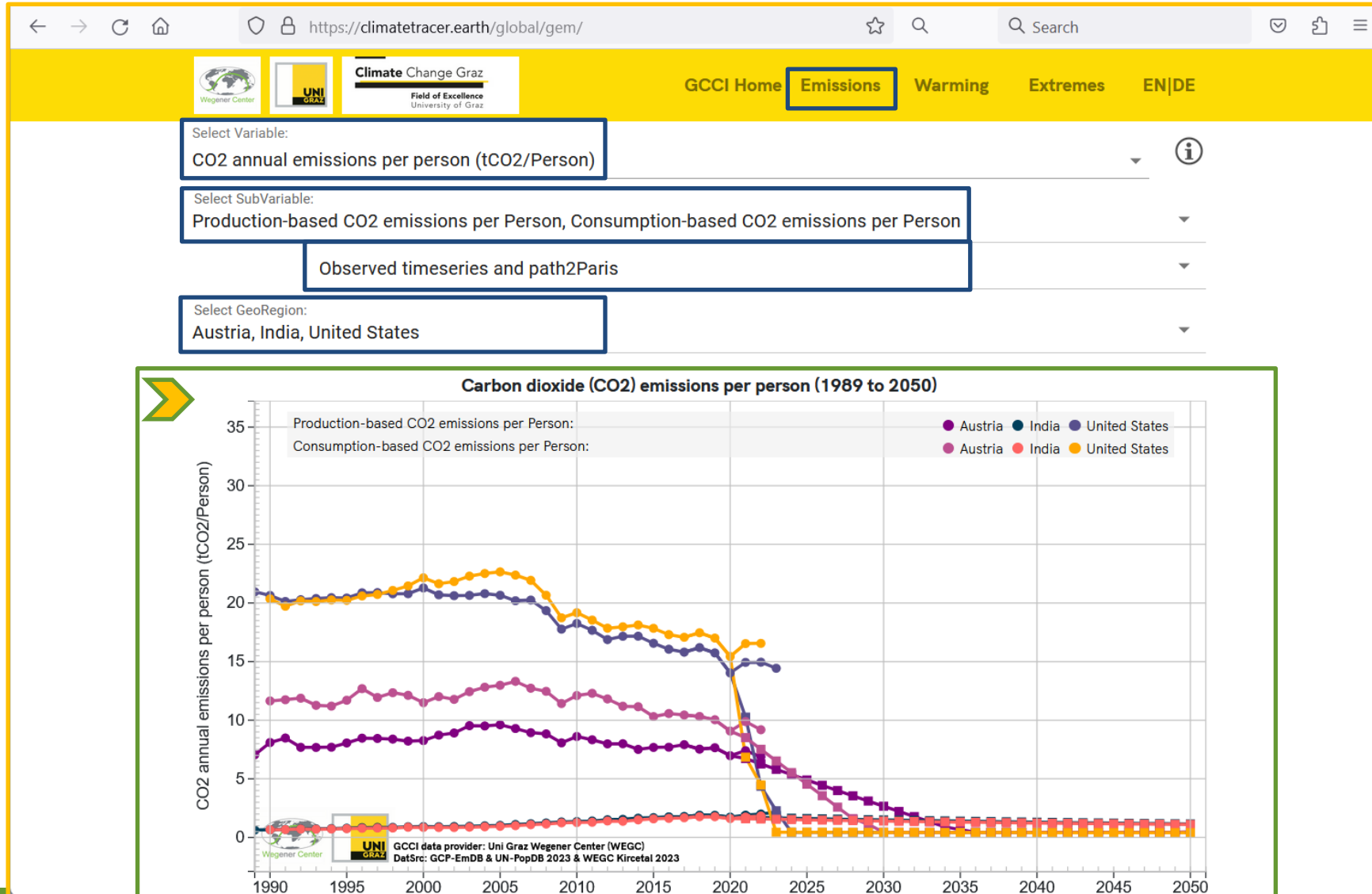
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➤ follows an open data and open science approach, which is made to **enable broad uptake and to support climate solution narratives on “pathways to Paris”**, also **linking to the co-developed climate solutions framework “Carbon Management – carbsmart2Paris”** (short intro infos klimaneutral.uni-graz.at/carbon-management, web carbmanage.earth).

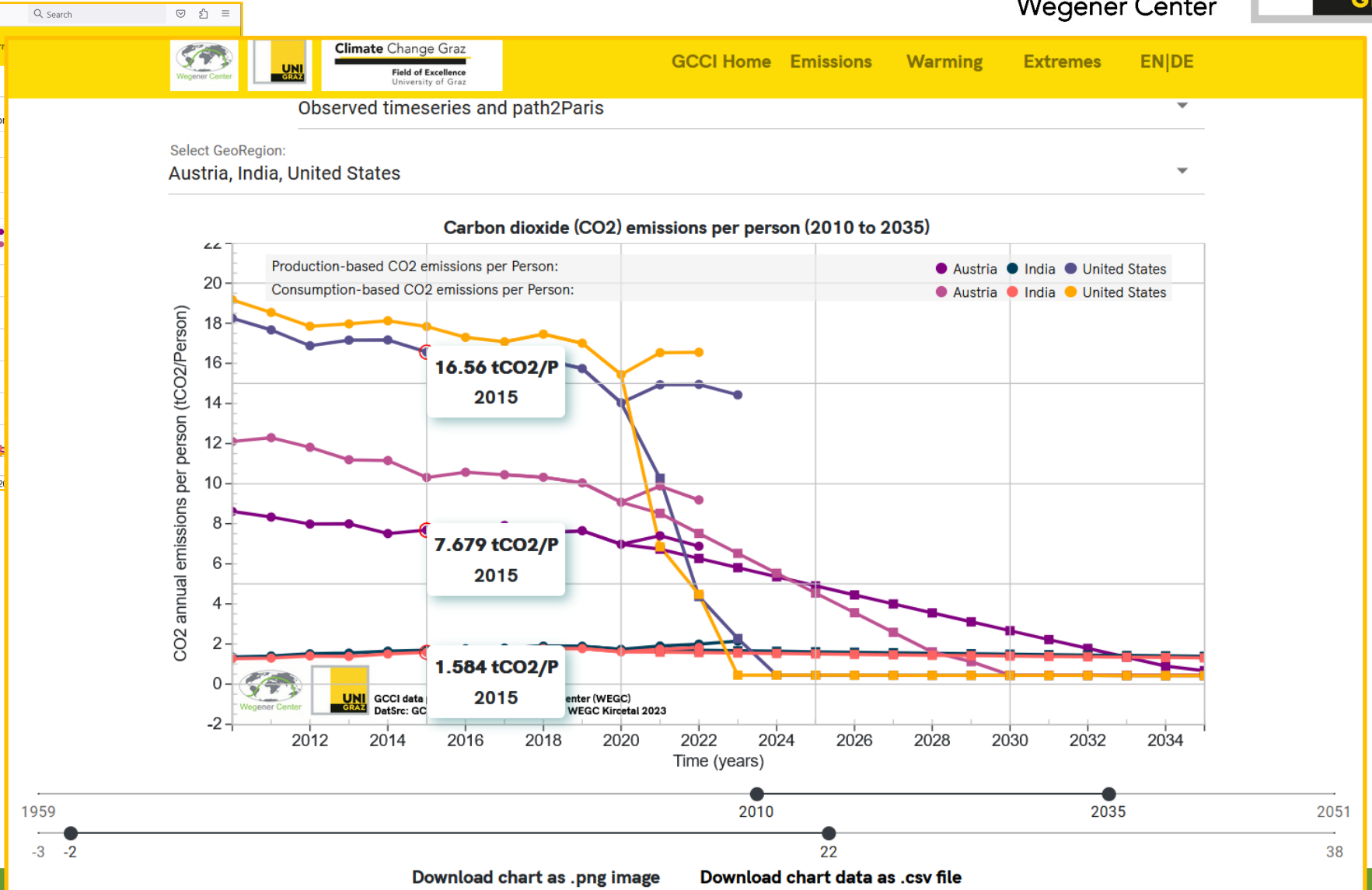
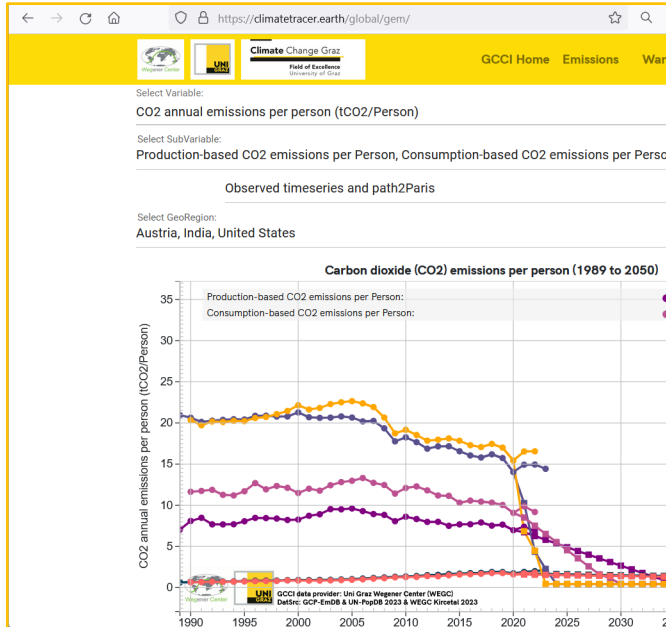
Example *Emissions* | backing emission reduction policymaking



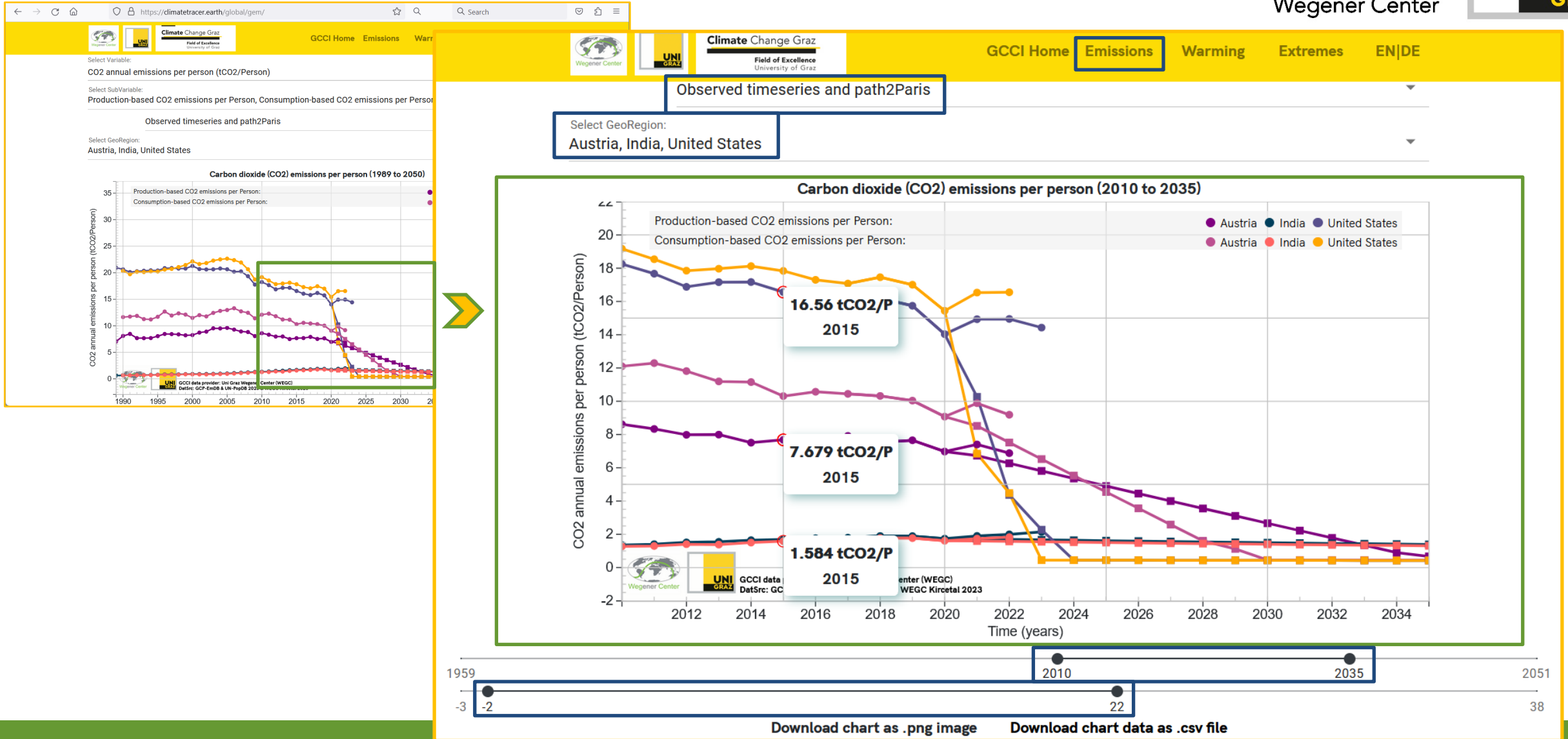
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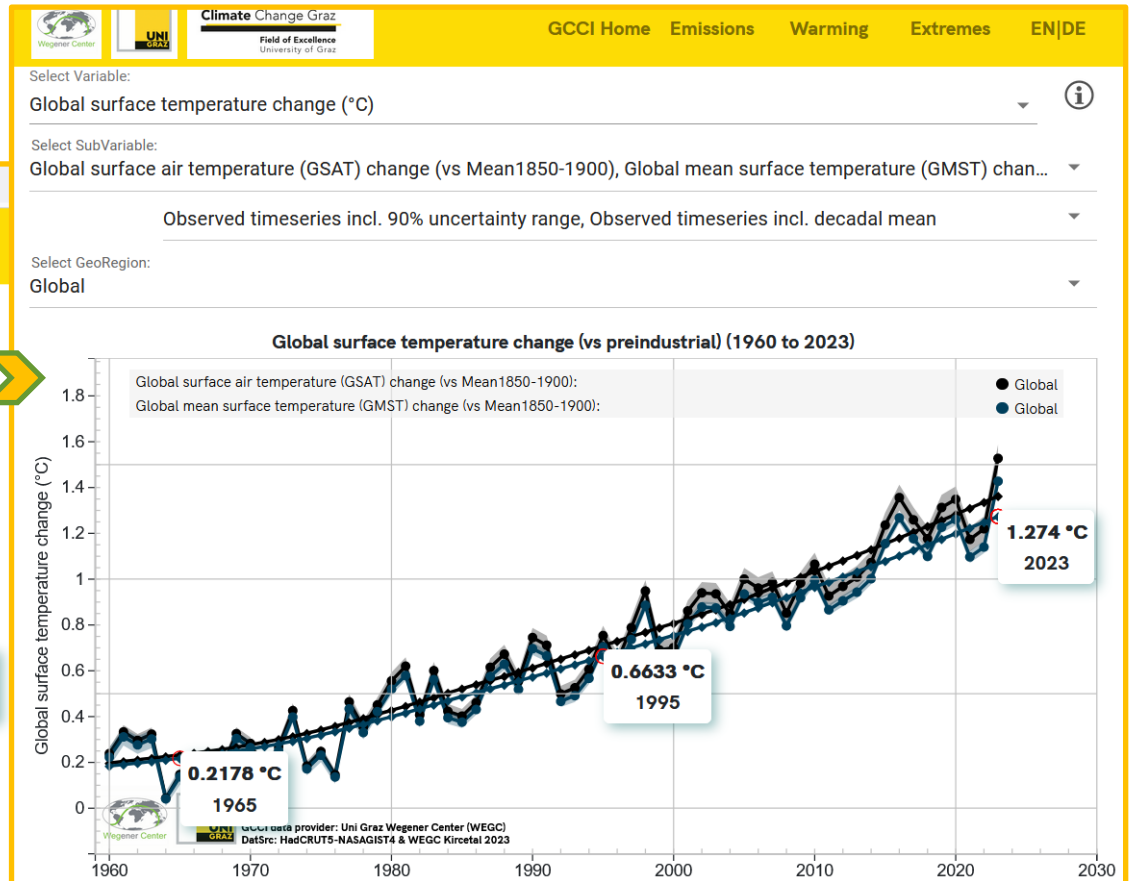
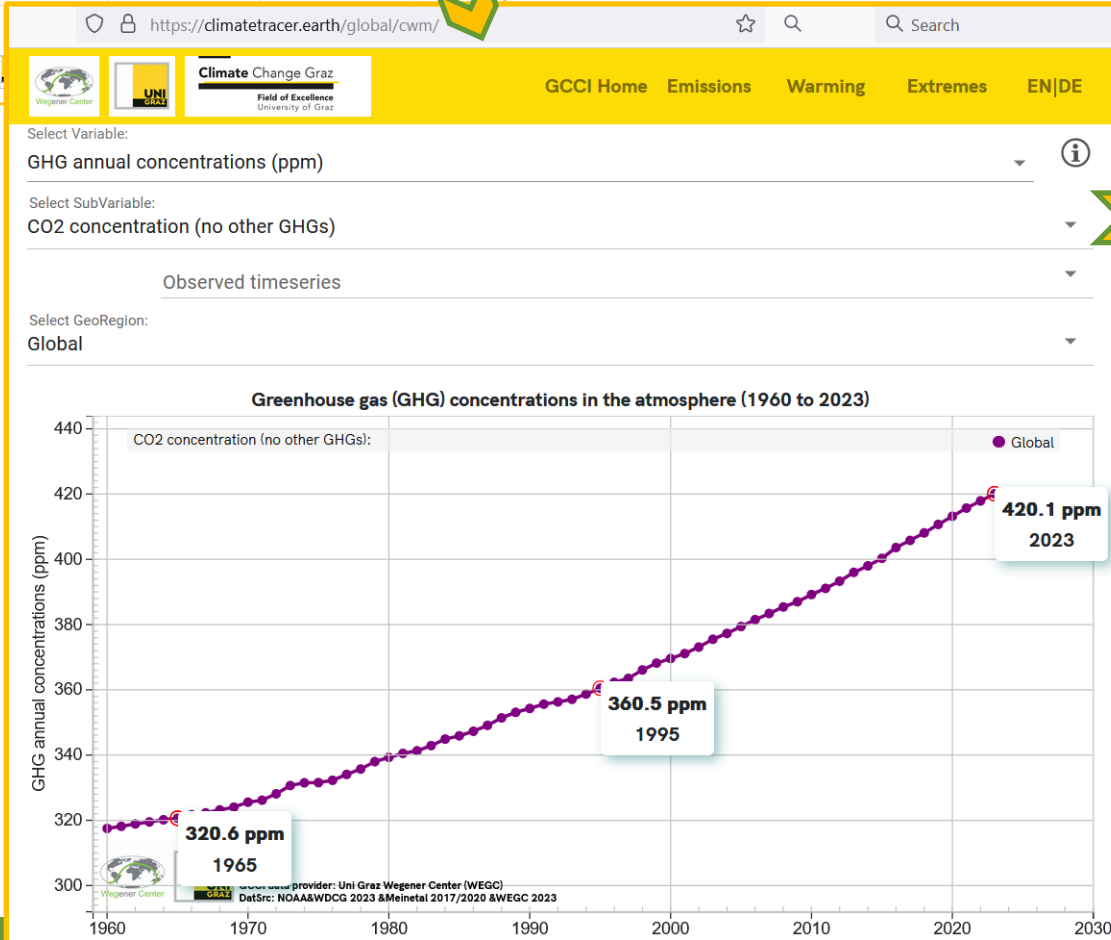
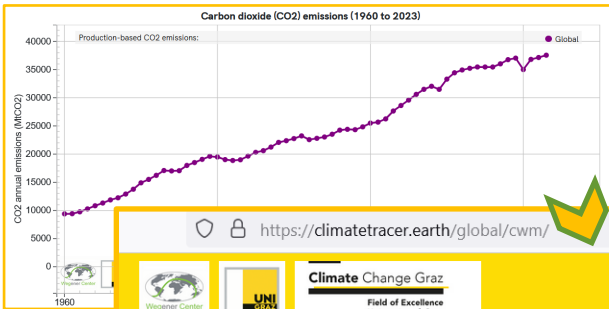
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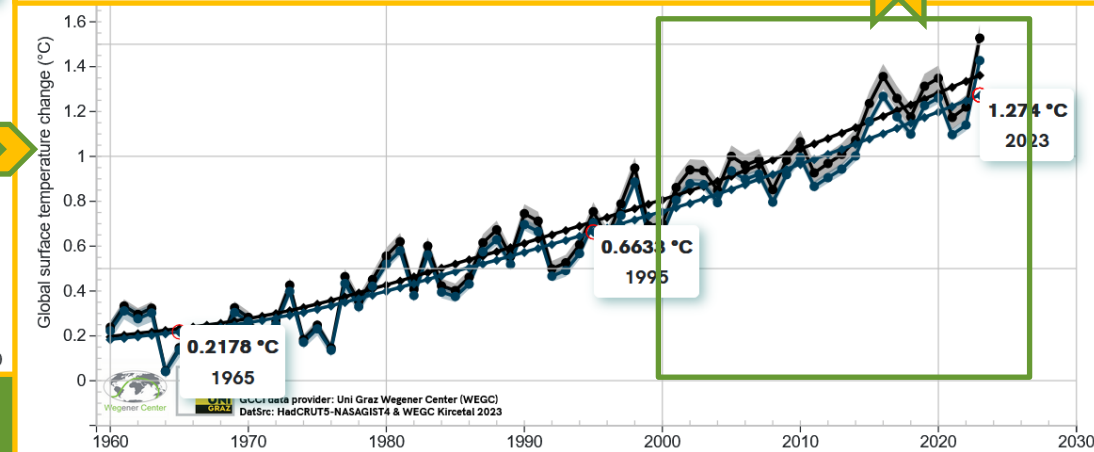
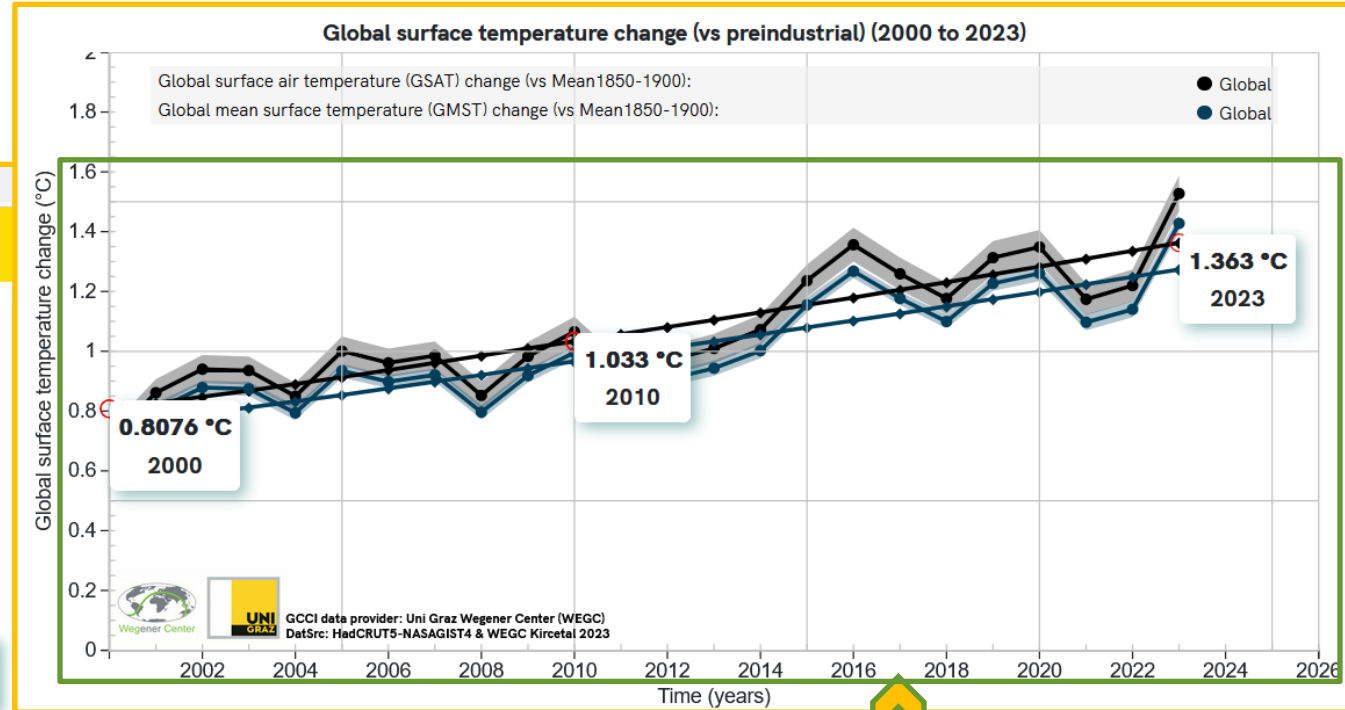
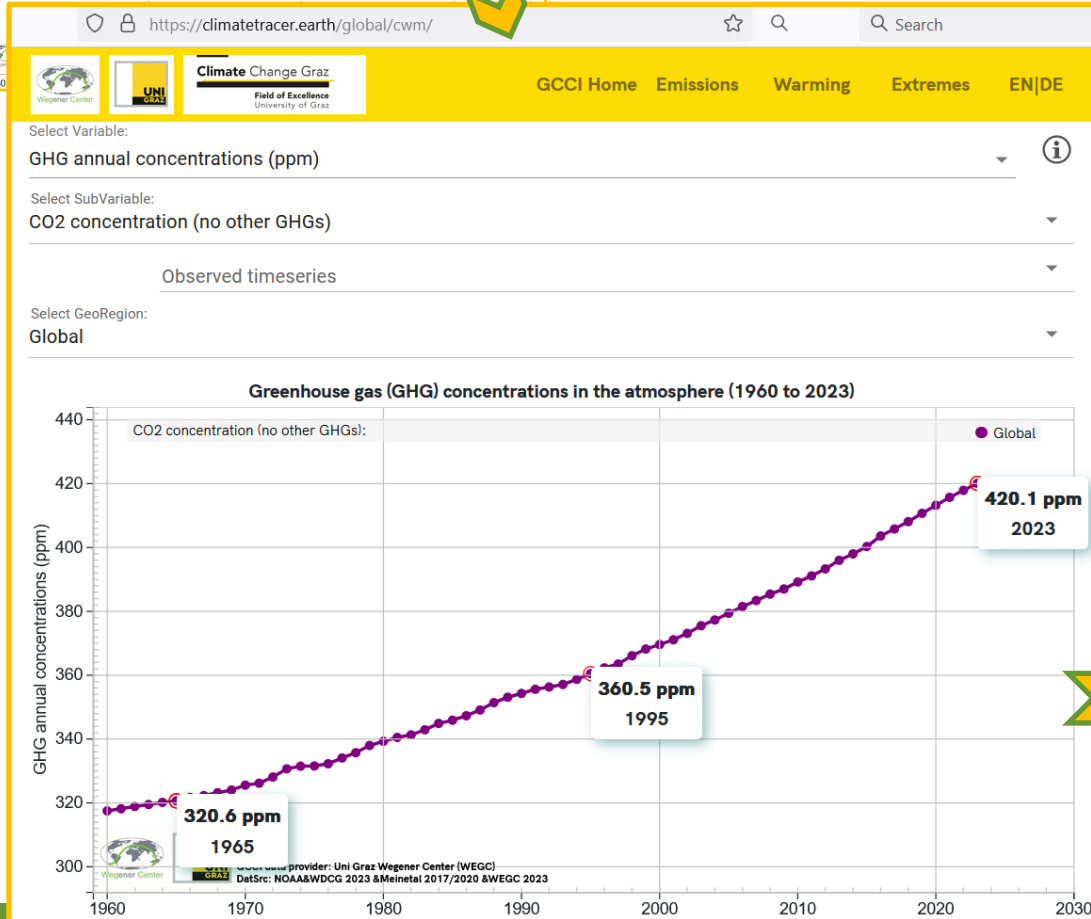
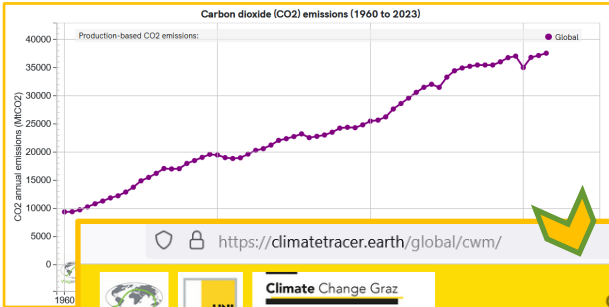
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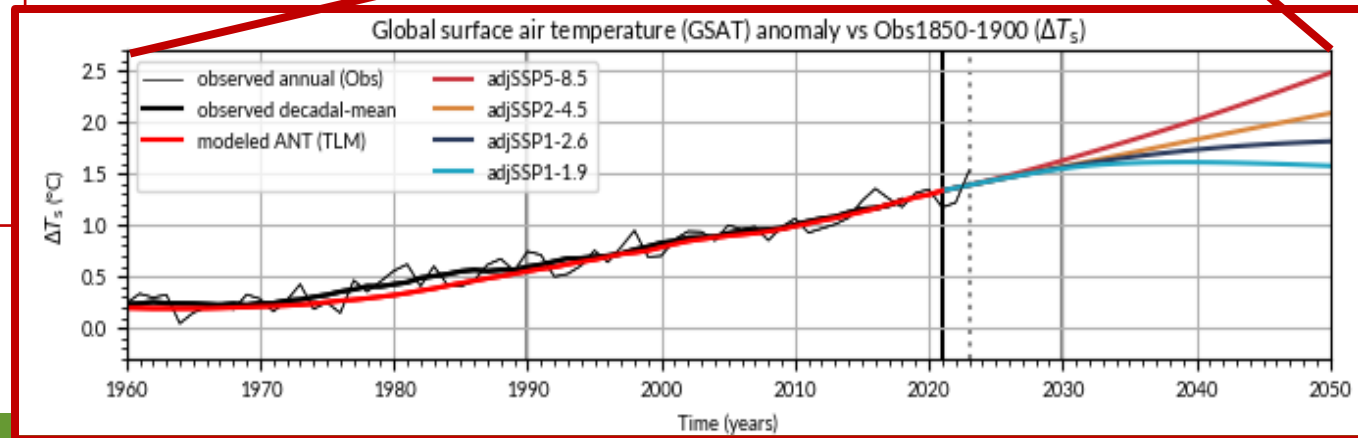
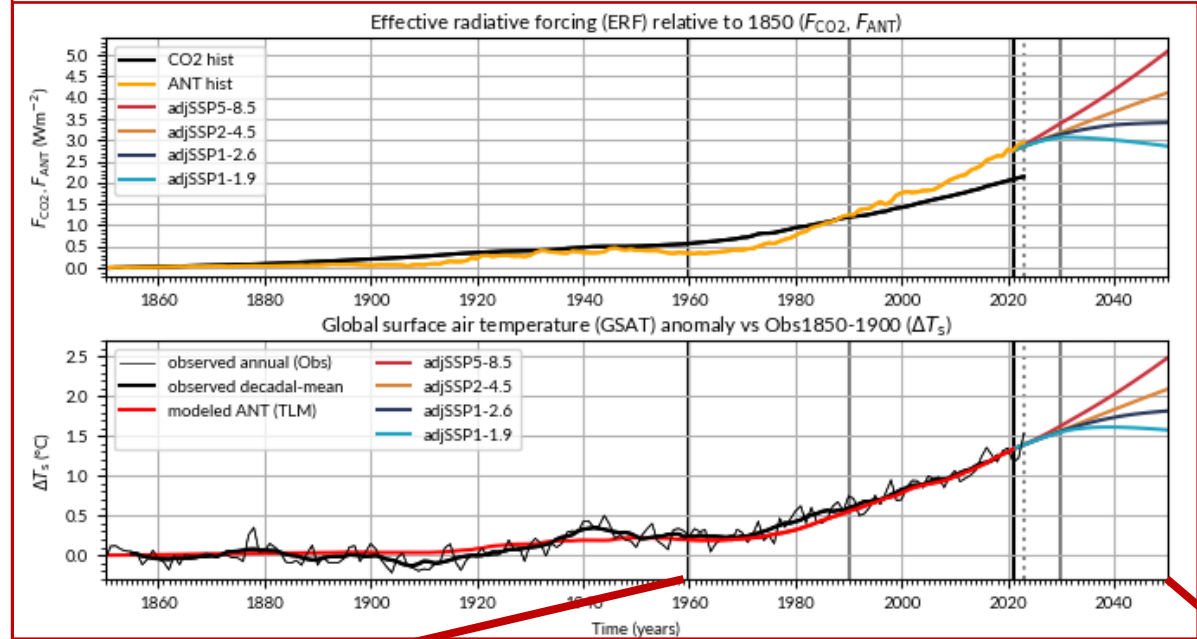
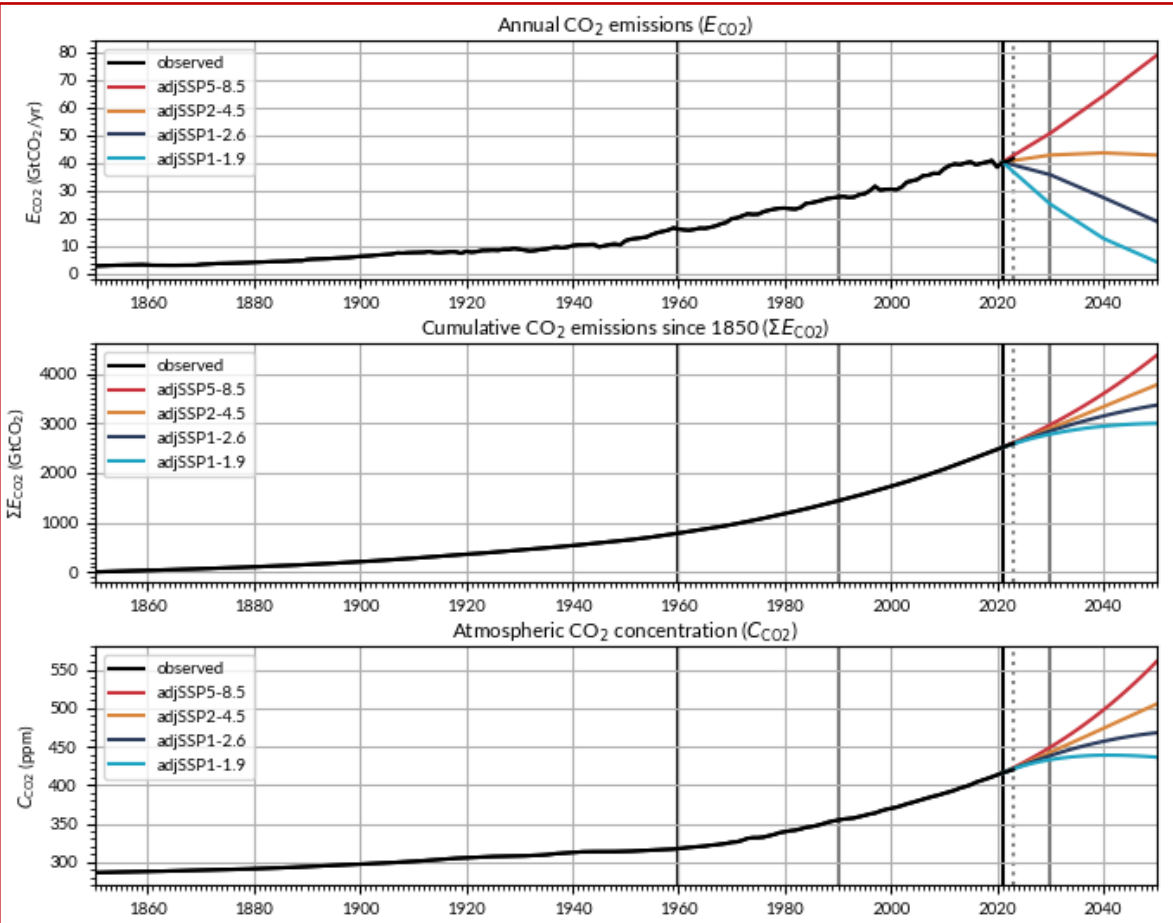
Example *Warming* | insight to links emissions > global warming



Example *Warming* | insight to links emissions > global warming



Strong science backing, e.g., links emissions > global warming



Strong science2public, e.g., Carbon Management framework



Carbon Management – a new solution framework to help meet the Paris climate goals...

Wegener Center
RESEARCH BRIEFS
1 | 2021

Carbon Management: a new approach to achieve Paris-compliant climate goals and Uni Graz Institutional Carbon Management as a role model

Gottfried Kirchengast, Julia Danzer, Stefanie Hölbling

April 2021

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[Kirchengast et al., CM/WEGC, 2021; CM online (hub): carbmanage.earth, PCM: pubcarb.earth, ICM: wecarb.earth, pCM: youcarb.earth]

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Global Europe Austria

GEM CWM EWM - Global Europe Austria

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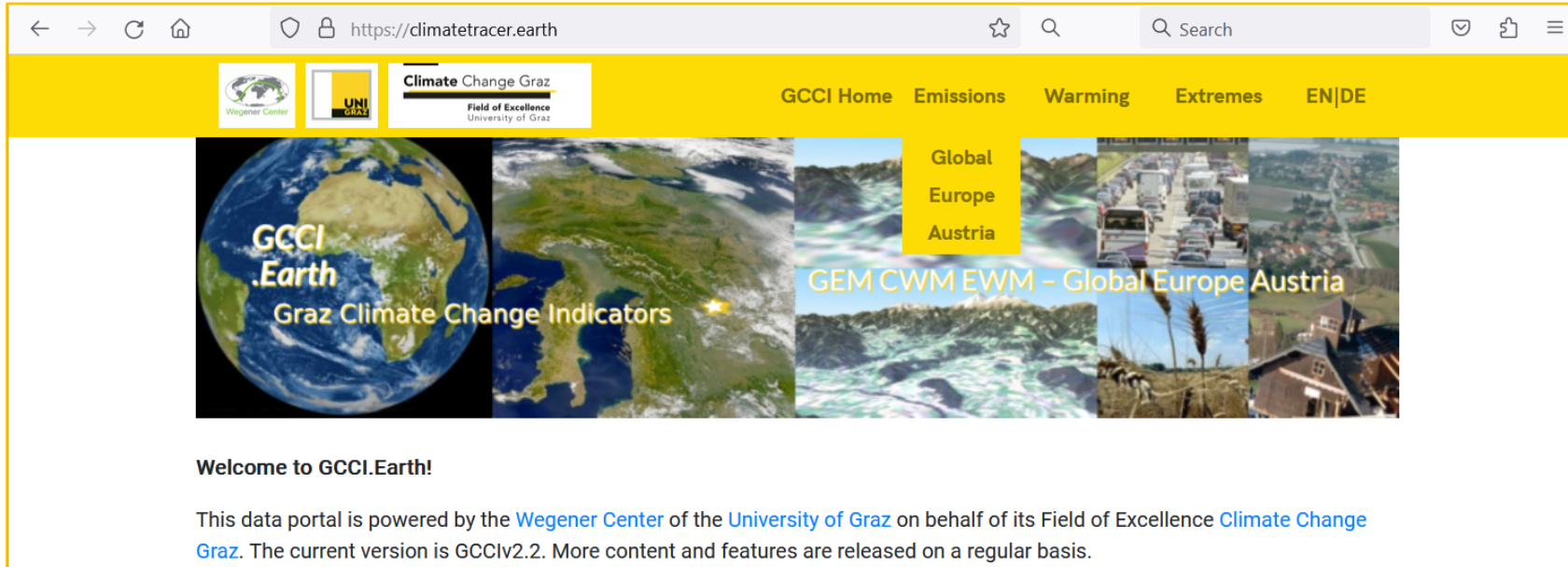
Dive in through the Menu on top or right here: Emissions - Europe, Emissions - Austria. The current content, including detailed data-source information, is available at gcci.earth/gem.

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[Kirchengast et al., GCCI/WEGC, 2023; GCCI Emissions Monitoring: gcci.earth/gem]

[Kirchengast et al. WEGC RB1-2021; accessible online (including individual-sections access) via <https://doi.org/10.25364/23.2021.1>]

Conclusions – Welcome to [GCCI.Earth!](https://gcci.earth) (or [ClimateTracer.Earth](https://climatetracer.earth))



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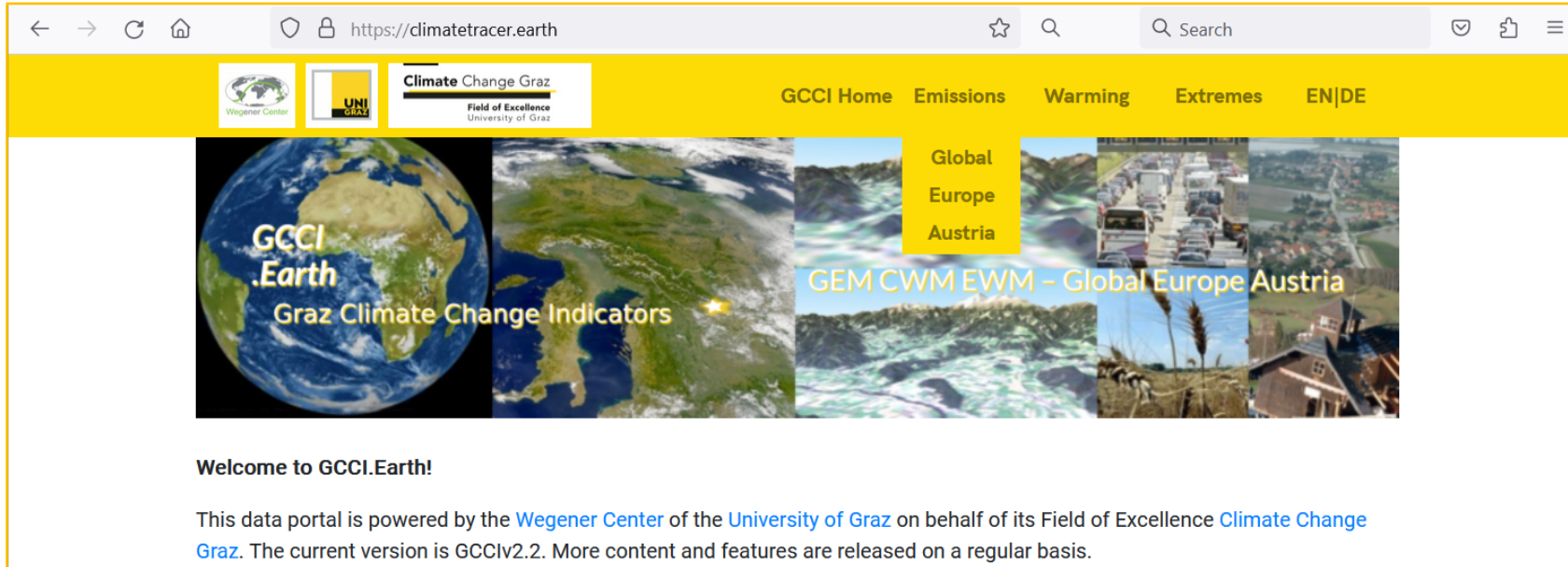
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➤ Overall, the portal wants to bring, besides its value also for research and teaching, a clear **added-value to policy makers, other stakeholders and the broader public**, by helping **science-back their climate narratives and action efforts** towards reaching the Paris climate goals.

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Thank you for your attention! 😊