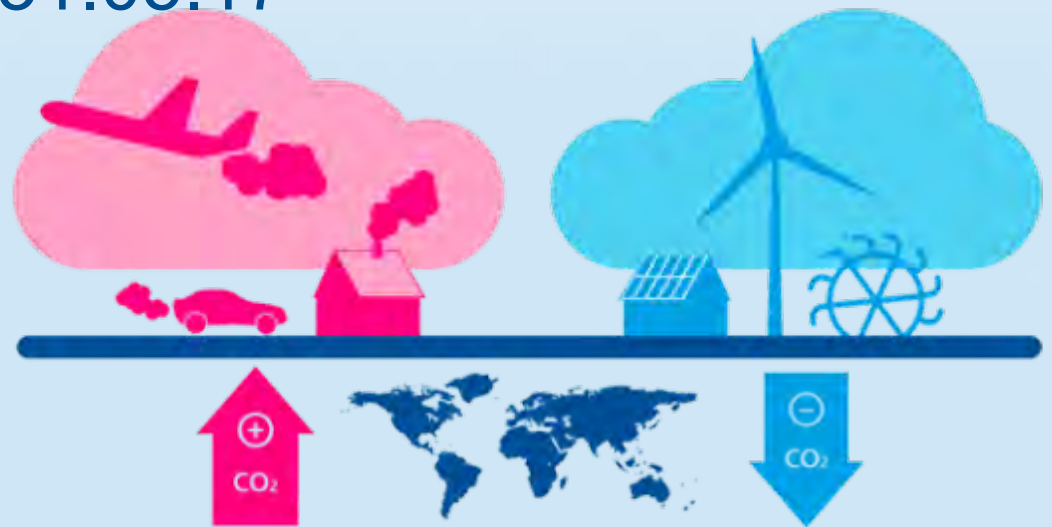


# climate protection & sustainable development – YES WE CAN!

Green Bug Lecture, 31.05.17

Uni Hohenheim

Stefan Baumeister  
Managing Director



# Climate change – The no.1 challenge of the 21st century



Quelle: [amsterdamadblog.com](http://amsterdamadblog.com)

# content

- Climate change / the global picture
- myclimate profile
- GHG-Emissions: avoid – reduce – compensate
- CO<sub>2</sub>-compensation:
  - mechanism, climate protection projects and their benefits
- Best practice cases from companies

# Political Agenda

- 1988 World Climate Change Conference in Toronto, Founding of IPCC
- 1997 Kyoto Protocol, Period I (2008 – 2012)
- 2012 Kyoto Protocol, Period II (2013 – 2020)
- **2015 COP Paris: New legally binding global agreement (post 2020)**
  - Keep global warming below 2°C
- **2015: agreement on global SDGs**
  - 17 sectors
  - period 2015 – 2030
  - For all countries



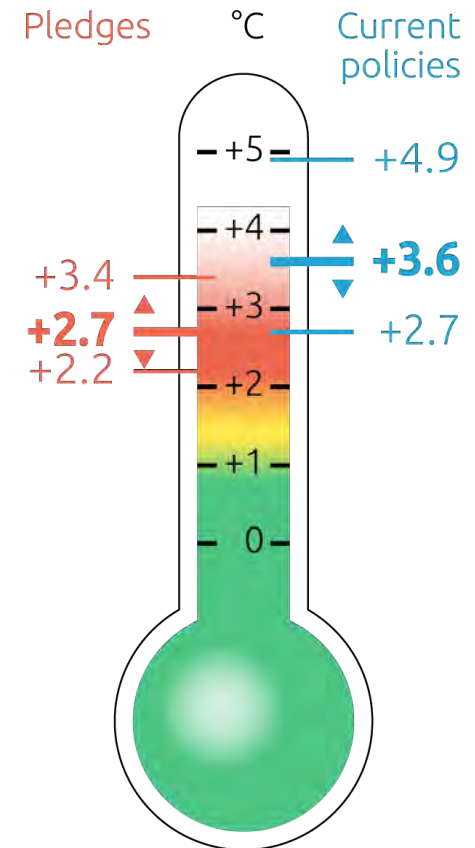
COP21-CMP11  
**PARIS 2015**  
UN CLIMATE CHANGE CONFERENCE



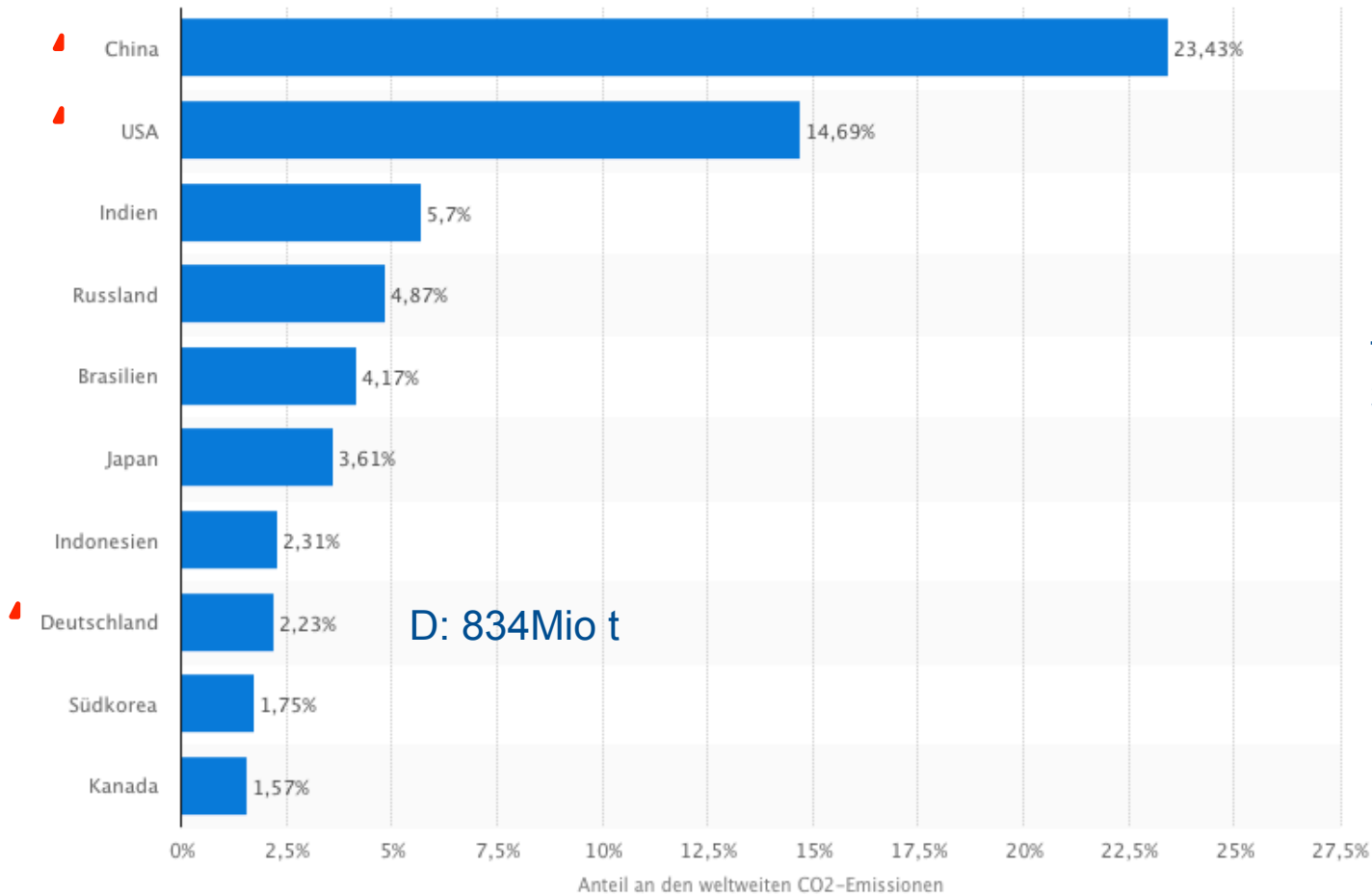
# Still lot's of work to do!

## Global climate-thermometer:

- Current political measures lead to **+3.6°C** global warming
- Full realization of all country pledges leads to **+2.7°C**
- goal: **< 2°C**



# CO<sub>2</sub>-emissions per country 2014



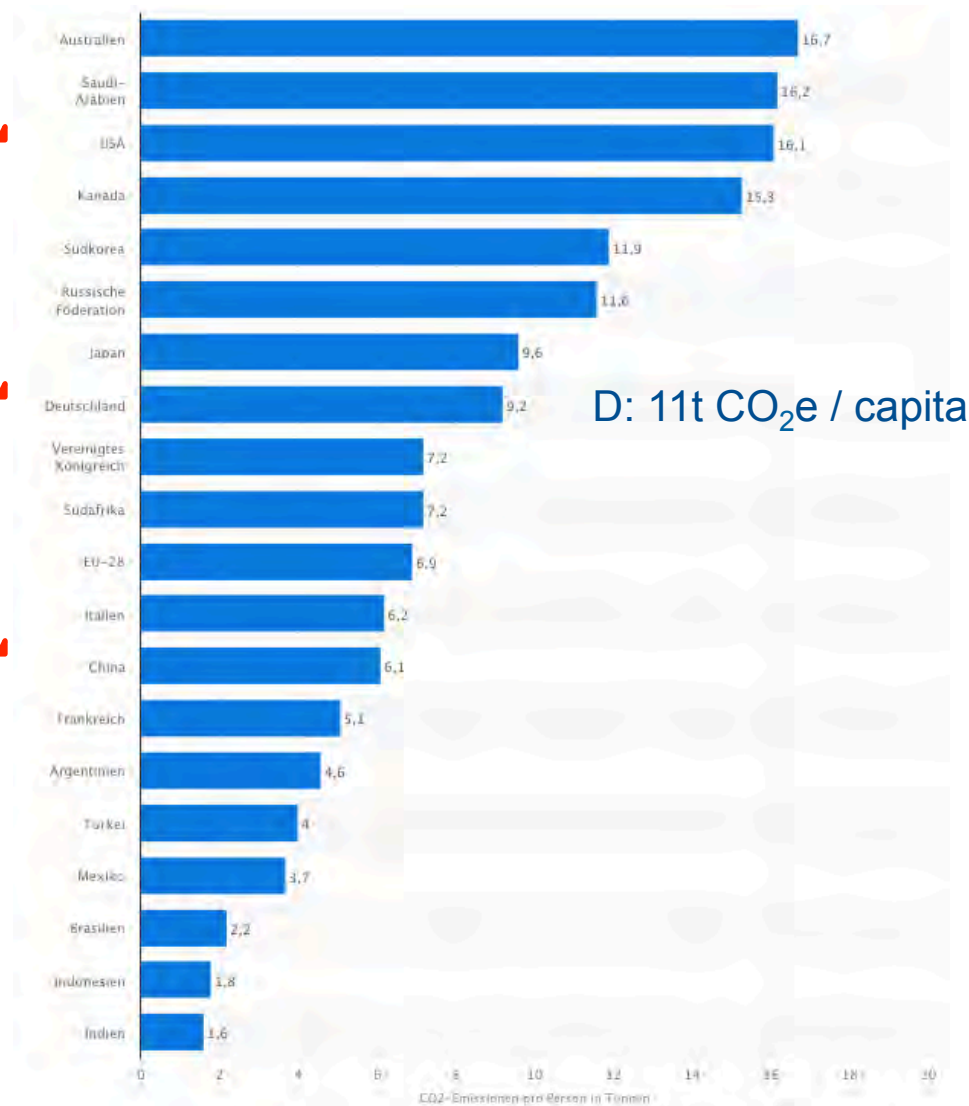
> 40% for export products!

total:  
35bio t CO<sub>2</sub>

D: 834Mio t

source: Statista 2015

# CO<sub>2</sub>-emissions G-20 per capita 2014



yearly budget / capita in line with Paris agreement: 2t CO<sub>2</sub>e!

Quelle: Statista 2015

# myclimate profile

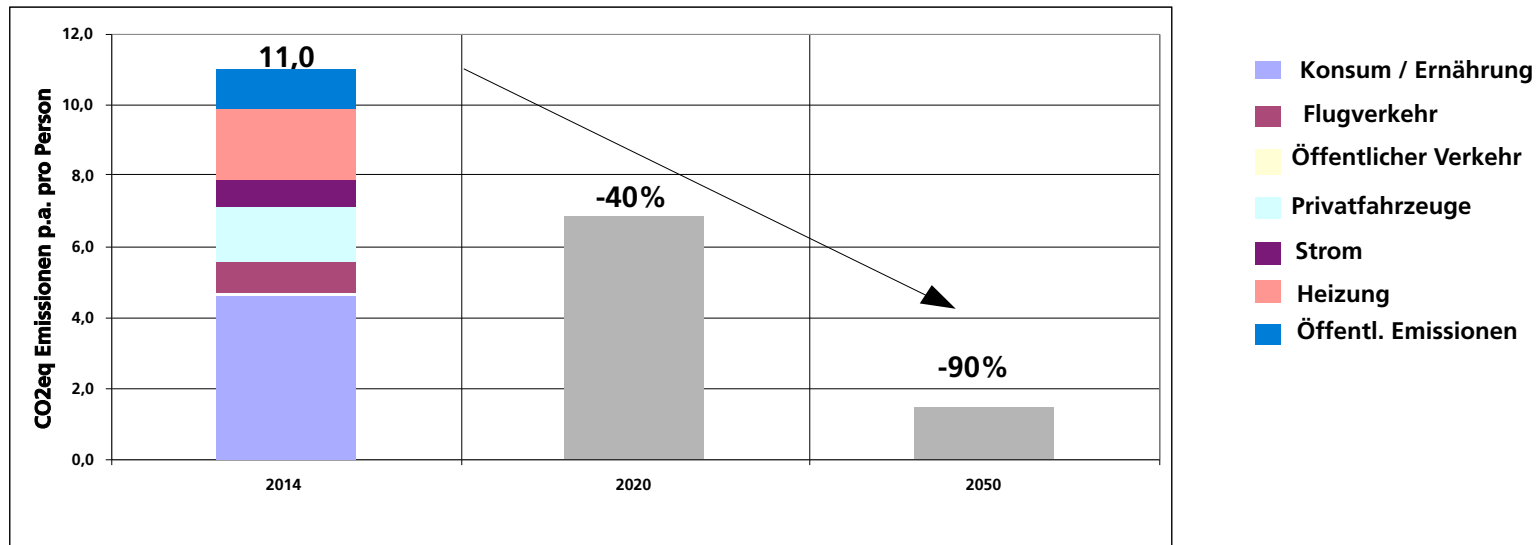
- Non-profit foundation in Zürich
  - Founded in 2002 as ETH Spin-Off
  - HQ in Zurich (50 staff)
  - turnover 2015: 12Mio Euro
- Non-profit entity (gGmbH) in Germany since 2009
- 8 other ventures globally
- goals:
  - climate protection (measurable, efficient)
  - Sustainable development
- Internationally renowned patronage committee





# Our vision: net-zero emissions society

- Reduction of GHG-emissions in your own decisions & influence area
- Compensation of non-avoidable GHG-emissions in high-quality climate protection projects



source: IFEU / UBA

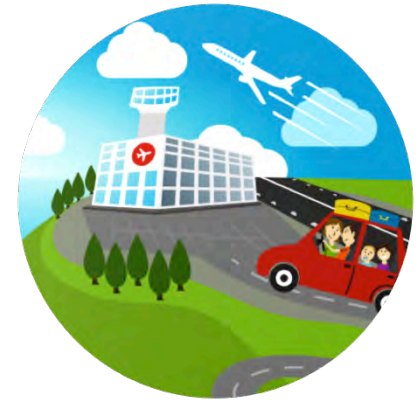
# myclimate – activities



Climate  
education



Consulting &  
Services



Carbon compensation  
via climate protection  
projects

# myclimate CO<sub>2</sub>-calculators

Calculate and compensate for your CO<sub>2</sub> footprint



Flight



Car



Footprint



Company



Event



My Project



Contribution

[www.myclimate.de](http://www.myclimate.de)

You can only manage what you measure!

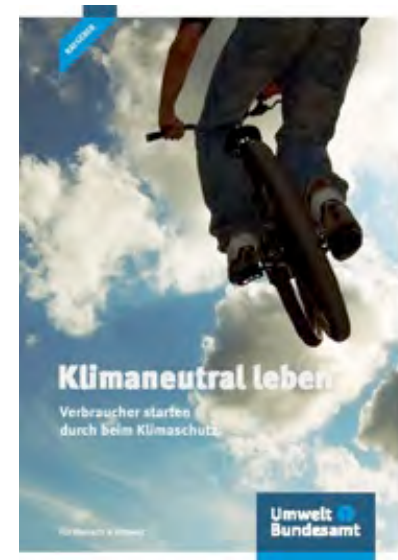
## How many GHG-emissions for a flight ...

- Stuttgart – New York (retour, econ.): 2,34t CO<sub>2</sub>e
- Stuttgart – Mallorca (retour): 0,50t CO<sub>2</sub>e
- Frankfurt – Sydney (retour): 6,90t CO<sub>2</sub>e
  
- yearly budget per person in line with Paris Agreement: 2,00t CO<sub>2</sub>e



# Live with net-zero emissions?

- without voluntary compensation out of reach!



# KLIMAWERKSTATT

## – Energy & climate in technical education



**KLIMAWERKSTATT**  
ENERGIE & KLIMA  
IN DER BERUFSBILDUNG

- **Target group: apprentices**
- Competition with awards for winning teams
- Climate protection projects in the company or technical school or in every-day life
- Apprentices create own, innovative solutions for the future
- Interconnection between job, energy and environment becomes touchable / clear
- 1000 apprentices, over 180 realized projects
- [www.klimawerkstatt.org](http://www.klimawerkstatt.org)

WERKSTATT  PROJEKT  
2012

Ausgezeichnet durch den NACHHALTIGKEITSRAT

# Energie- und Klimapioniere

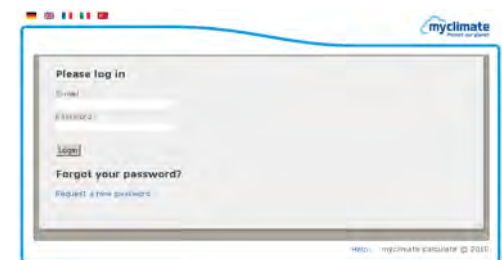


The screenshot shows the website for 'Energie- und Klimapioniere Deutschland'. At the top, there are logos for Baden-Württemberg (Ministerium für Umwelt, Klima und Energiewirtschaft; Ministerium für Kultus, Jugend und Sport), HEROLÉ REISEN (So sollten Klassenfahrten sein!), and SOLARIMPULSE. On the right, there are links for 'Login' and 'Kontakt' (powered by myclimate). The main header features a hand icon pointing to the title 'ENERGIE- UND KLIMAPIONIERE DEUTSCHLAND' and a 'Jetzt mitmachen' button. Below this is a navigation bar with 'HOME', 'FÜR LEHRPERSONEN', 'FLIEGT MIT!', 'PROJEKTE', 'ÜBER UNS', and 'NEWS & PRESSE'. The main content area is split: on the left, a photo of a man in a black jacket shaking hands with a young boy; on the right, a light blue box contains the text 'Energie- und Klimapioniere: 317 Schüler/innen' and 'Bereits initiierte Projekte: 15 Projekte', with a hand icon pointing to the text.

- [www.energie-klimapioniere.de](http://www.energie-klimapioniere.de)
- teens (scholl classes 5-11)
- Do capacity building and motivate to realize own projects

# Consulting and Solutions

- For companies & organizations
  - CO<sub>2</sub> assessment and reporting
  - CO<sub>2</sub> performance management and benchmarking
  - Industry solutions: printing, transport, hotels...
  - Efficiency of energy and resources
- For products & services
  - Carbon footprints and life cycle assessments
  - Climate neutral products and services
  - Eco-design and labelling
- IT solutions
  - performance platform
  - booking platform





# Corporate Carbon Footprint (CCF)

	t CO <sub>2</sub>
Stromverbrauch	200,00
Wärmeerzeugung (inkl. Fernwärme/-kälte)	600,00
Kältemittel	10,00
Treibstoffverbrauch (eigene Fahrzeuge)	5,00
Geschäftsverkehr	40,00
Pendelverkehr	0,00
Verpflegung	200,00
Externe Wäscherei	100,00
Abfall, Wasser & Hygiene/Reinigung	20,00
Administration	10,00
<b>Total</b>	<b>1185,00</b>

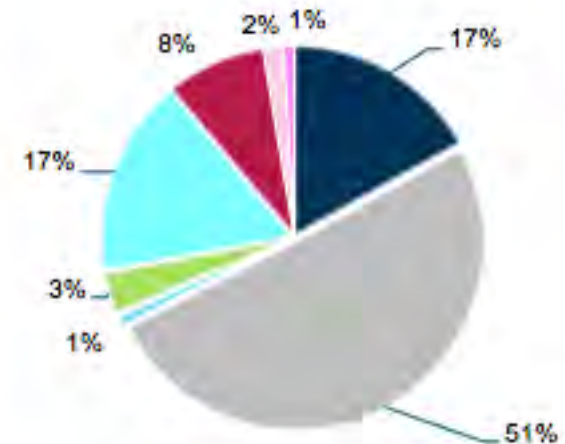
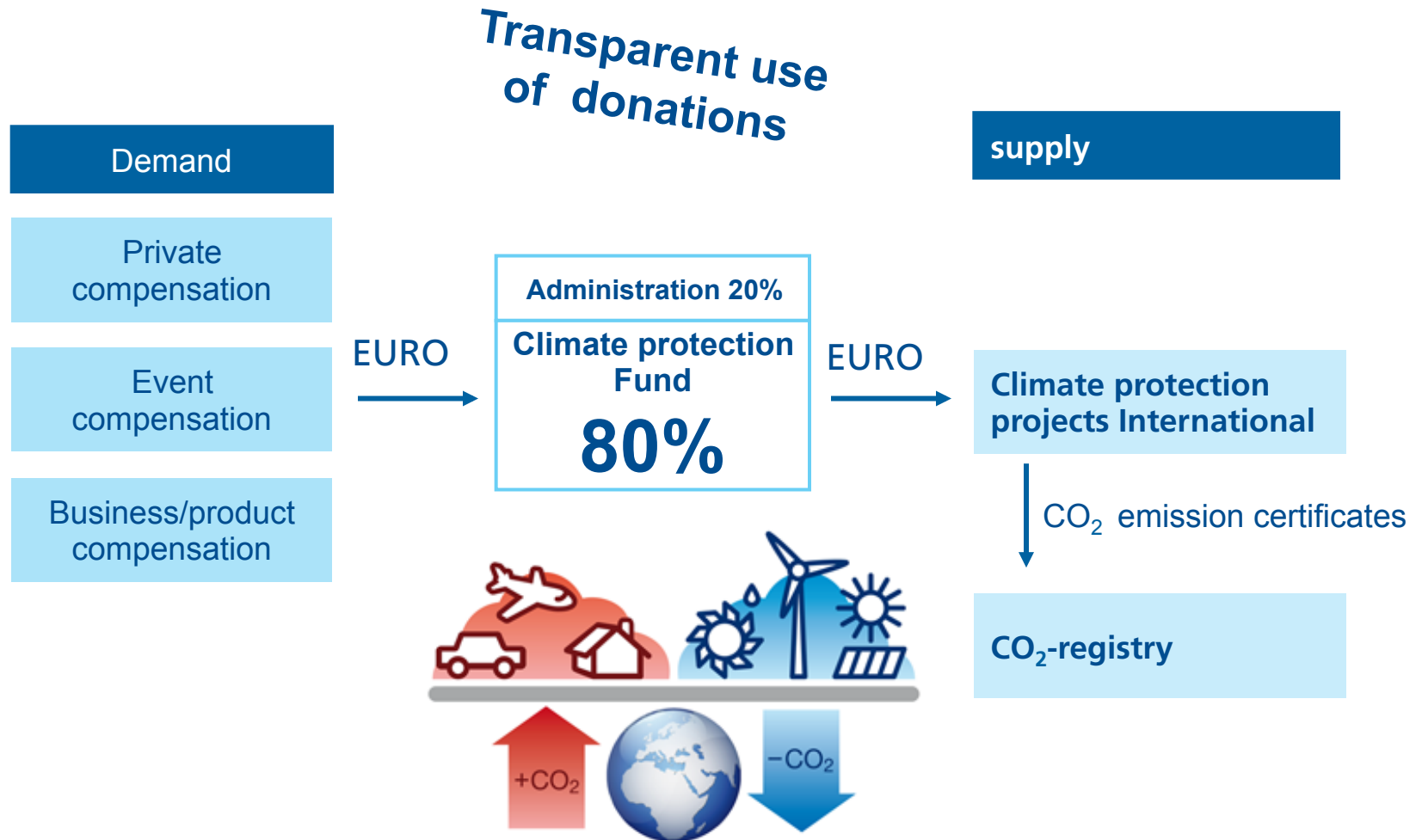


Tabelle 1: Treibhausgasemissionen aufgetrennt nach Kategorien für das Jahr 2014.

- Measure: status quo, basis for improvements
- Avoid / reduce
- Compensate non-avoidable GHG emissions
- communicate



# The carbon compensation process



# Climate protection projects per region



## Climate protection projects:

**10 technologies, 30 countries 5 continents**

Chose from a huge portfolio of projects complying with the strictest quality standards

# Climate protection projects

- Verified emission reductions
- High quality projects
  - Clean Development Mechanism
  - Gold Standard and Plan Vivo (forestry)
- Additionality
  - Projects need financial funding from emission reduction sale
- Sustainability
  - Inclusion of and benefits for the local population, jobs, technology transfer, improved air-, water- and soil-quality



Your commitment with myclimate contributes to reaching the UN's 17 sustainable development goals (SDG)

# THE GLOBAL GOALS

For Sustainable Development





3 bio



1,5 bio



# Solar Energy for Education and Jobs



Tanzania

## Socio-economic benefits

- Powering homes with solar energy
- More education and jobs thanks to light and electricity
- Micro-finance system: A mobile banking solution allows costs to be paid in instalments over 36 months – even by distant relatives
- Monitoring: A GSM modem integrated into the solar controller enables maintenance problems to be identified.

## Ecological benefits

- Replacement of kerosene lamps

Gold Standard®

# Impacts and Benefits achieved



- The project has over 150.000 beneficiaries
- 350 jobs created
- 280 freelance marketing agents
- Over 40.000 solar systems distributed since project start
- Over 700 beneficiaries trained on solar installation
- 24 market hubs and information centres in Tanzania



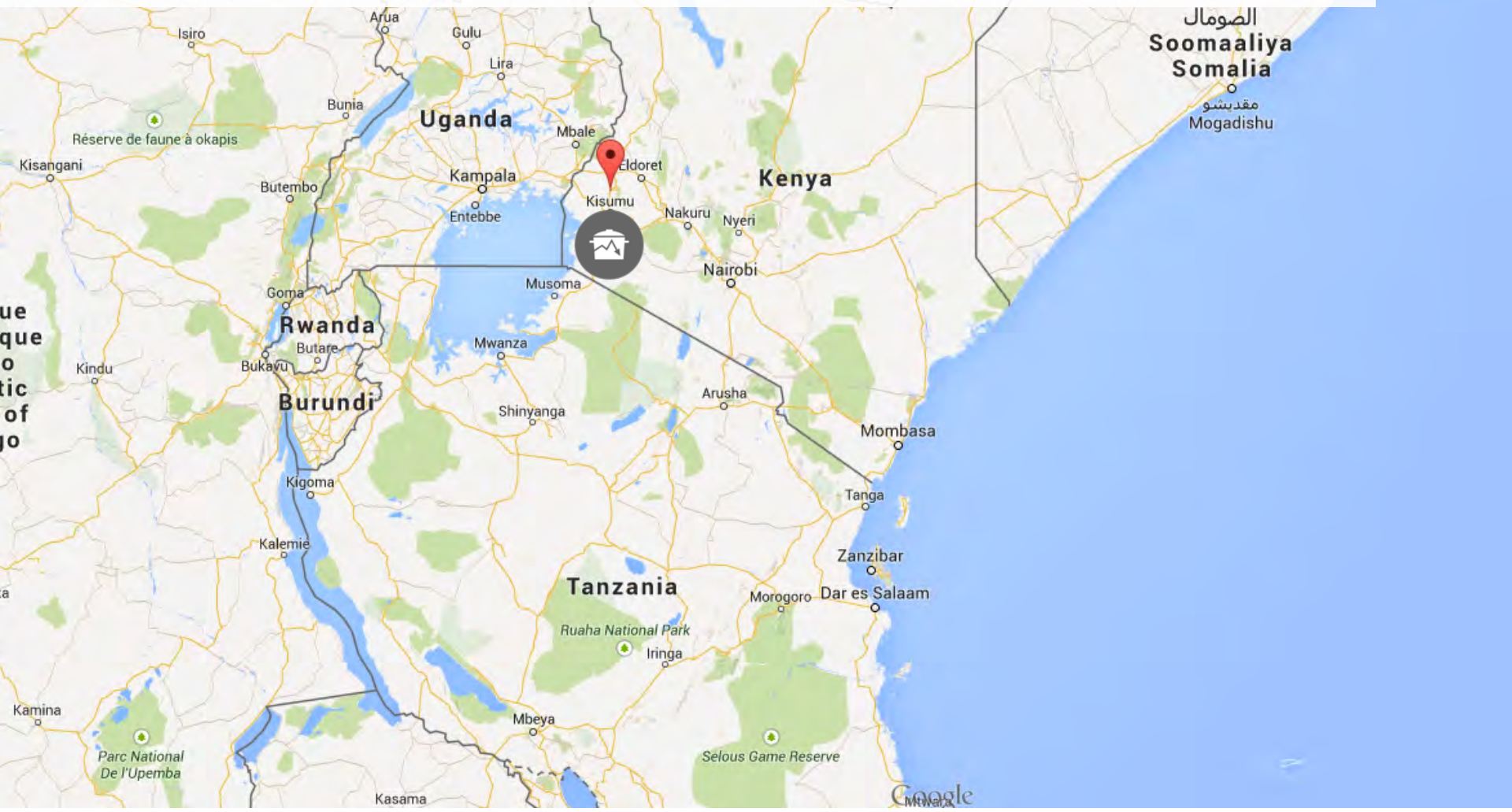
2,5 bio



# Size of Greece



# Less deforestation in Kakamega rainforest, Video



# Less deforestation in Kakamega rainforest



Kakamega, Kenia

## Socio-economic benefit

- 400 jobs
- Time- and money savings
- Better health
- income generation thanks to locally produced efficient cook stoves
- Girls go to school regularly

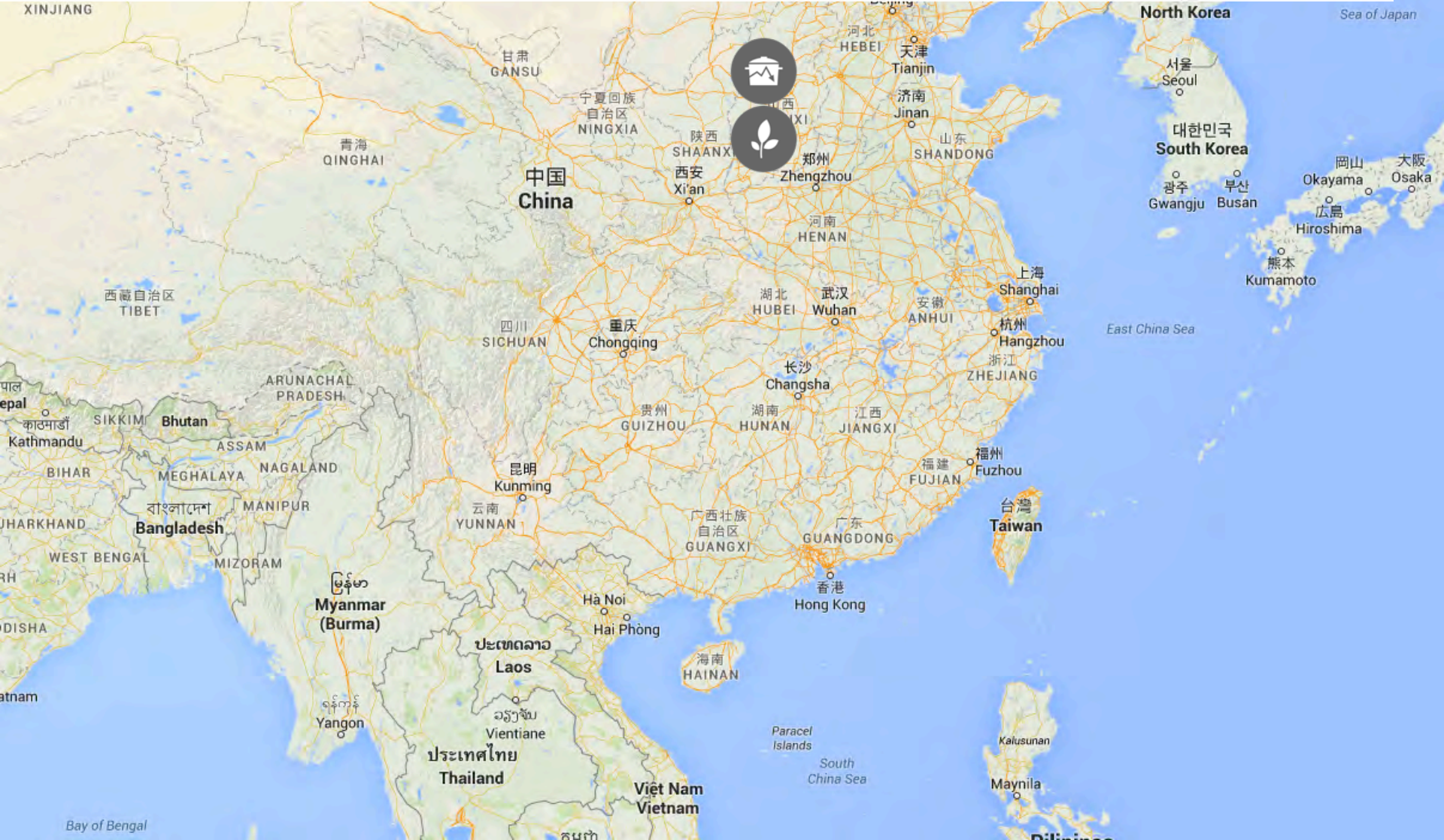
## Ecological benefits

- 143.000t CO<sub>2</sub> avoided
- 85.000t forest protected (250ha)
- Protection of biodiversity/rare species



The Gold Standard

# Cooking with Corn Cobs instead of Coal



130.000 installed stoves  
have saved over 900.000  
tons of charcoal so far.





# Impacts and Benefits Achieved



- 130,000 stoves have been installed in three provinces.
- 138 jobs have been created (17% women).
- More than 900.000 tons of charcoal have been avoided since the start of the project.
- Households save USD 1.000-1.500 on fuel over the stove's five year lifetime.
- Each stove avoids about 5 t CO<sub>2</sub> per year.
- Households save EUR 80 for every Euro spent on the stove.

115.000 solar and efficient  
cookers installed in Madagascar



# Cooking with biogas in India, Nepal and Indonesia!



# Biogas for rural Households



Rural areas, India

## Socio-economic benefits

- Improvement in health
- Saves time and money
- More time for school and business

## Ecological benefits

- Replaces firewood, kerosene or liquid gas
- Biological fertiliser vastly increases harvest
- Less deforestation
- Methane reduction

**Gold Standard**

→ [zur Website](#)



780 mio



100 mio

# Clean drinking water for schools



Uganda

## Socio-economic benefits

- Clean drinking water > less worm infections and diarrhea
- Regular school visits
- Money savings
- New business models (pay-as-you-use)

## Ecological benefits

- Less deforestation: 40t less firewood per school and 1,7t less per household
- Less GHG-emissions

4,4 million beneficiaries

7.700 jobs created

1,7 million trees planted

470.000 efficient and solar cookstoves installed

1 million t of coal substituted

130 million l diesel saved

1,5 million t of wood preserved



**THE GLOBAL GOALS**  
For Sustainable Development

**Gold Standard**<sup>®</sup>

*Climate Security & Sustainable Development*



## Case: Michael Müller publishing



- 600.000 travel guides
- CO<sub>2</sub>-compensation of all printing emissions
- 1 content page in every travel guide about the supported project

# Case: Stadthalle Reutlingen

## Stadthalle Reutlingen wird immer grüner

Von Andrea Glitz

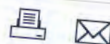
REUTLINGEN. »Als erste Veranstaltungsstätte führt die Stadthalle Reutlingen Veranstaltungen ab sofort gänzlich klimaneutral durch.« Was sich hinter dieser Ökoprospekt-tauglichen Verheißung verbirgt, erläuterten Stadthallenmanagerin Petra Roser und Prokurist Sandro Zimmermann in einer Pressekonferenz.



## Imagegewinn durch Klimaschutz

Die Stadthalle als Vorbild in Sachen Ökologie und Klimaschutz: Als erste Veranstaltungsstätte in Deutschland wird es dort ab sofort Veranstaltungen geben, die gänzlich klimaneutral sind.

JÜRGEN SPIESS | 11.07.2014



0 MEINUNGEN

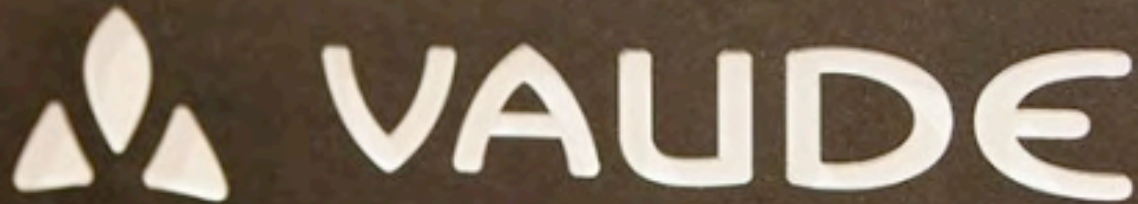
- Very positive image thanks to climate neutrality!
  - First event location in Germany with all events being climate neutral
  - Measures for CO2-reduction
  - Compensation of non-avoidable GHG-emissions
  - Award as top event location in Germany

# Case: Kyocera Document Solutions

UMWELTBEWUSST. BLATT FÜR BLATT.  
CO<sub>2</sub>-NEUTRALER TONER VON KYOCERA.



«Gemeinsam mit myclimate haben wir stufenweise das Vorgehen auf dem Weg zur Klimaneutralität festgelegt.»  
*Antje von Drewitz, Geschäftsführerin Vaude*



- Climate-neutral headquarters
- Climate-neutral products

## Case: ALDI Suisse



## Case: Barmenia Insurance

- Climate-neutral Headquarters



**Barmenia**  
Versicherungen  
Leben | Kranken | Unfall | Sach

Unser Ziel:  
CO<sub>2</sub>-Neutralität

Nach der Umstellung auf 100% erneuerbare Energien spart jährlich  
3.800 t CO<sub>2</sub>.  
[www.barmenia-nachhaltigkeit.de](http://www.barmenia-nachhaltigkeit.de)

**Besser Barmenia.  
Besser leben.**

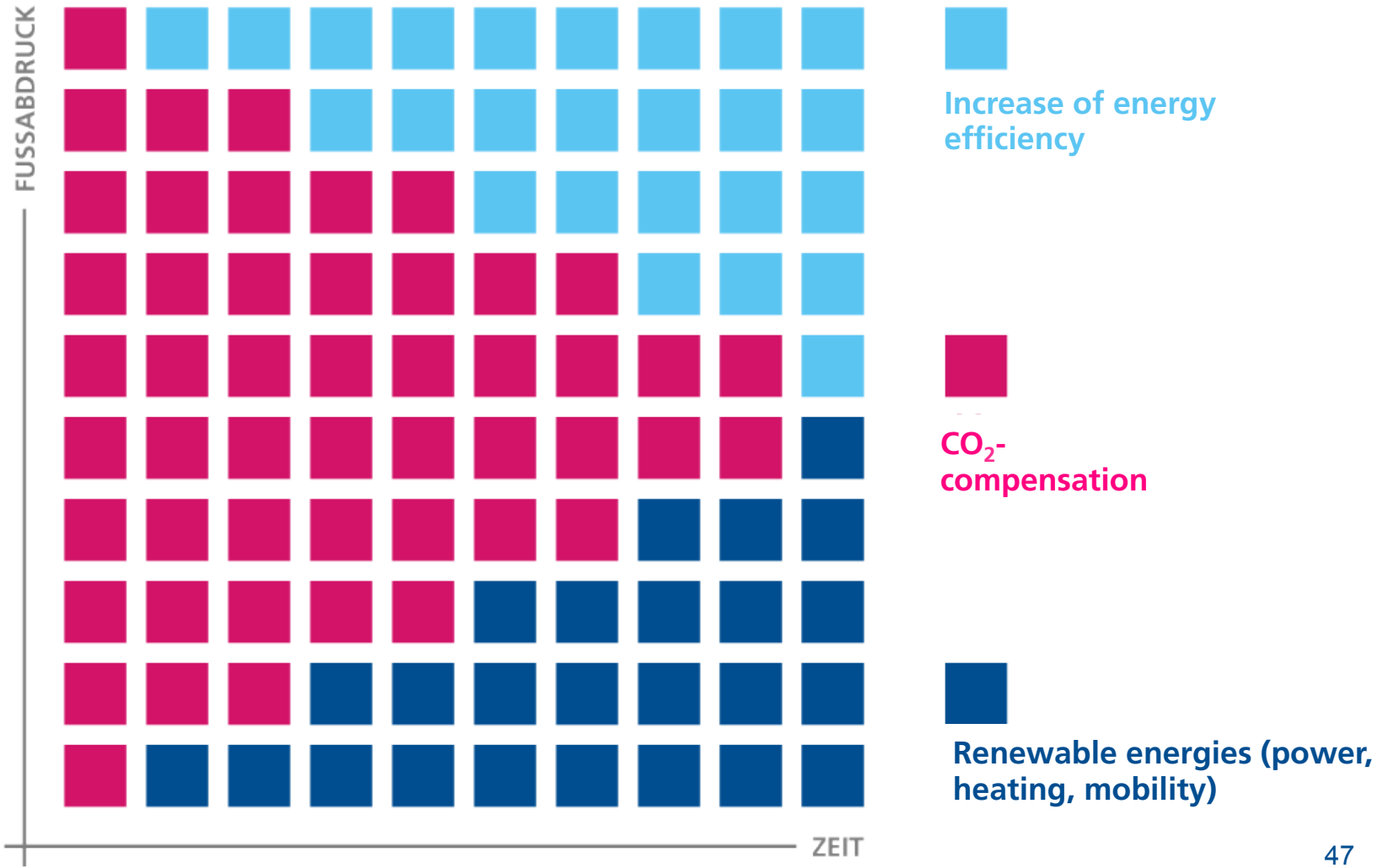


**WIR  
SIND  
KLIMA-  
NEUTRAL!**

Nicht reden, machen – von der CO<sub>2</sub>-Neutralität  
bis zum Barmenia-Nachhaltigkeitstag.

# The path towards net zero emissions.

## Do the best – Compensate the rest!



## How many GHG-emissions for a flight ...

- Stuttgart – New York (retour, econ.): 2,34t CO<sub>2</sub>e
- Stuttgart – Mallorca (retour): 0,50t CO<sub>2</sub>e
- Frankfurt – Sydney (retour): 6,90t CO<sub>2</sub>e
- **yearly budget per person in line with Paris Agreement:** 2,00t CO<sub>2</sub>e
- Would you compensate the GHG emissions? Up to which amount (€)?
  - Not every year
  - Stay longer in destination
  - Take responsibility and compensate GHG emissions





## Amount of GHG emissions ...

- 4000kWh electricity:
  - German power mix: 2t CO<sub>2</sub>
  - green power: 0t CO<sub>2</sub>
- heating:
  - 1500l oil: 4,78t CO<sub>2</sub>
  - 3000kg wood pellets: 0,24t CO<sub>2</sub>
- Recycling paper vs. Fresh fiber paper: - 20%
- Laptop vs. Desktop: - 50-70%

# Tipps for avoiding / reducing GHG emissions ...

- Mobility:
  - Fly less!
  - Replace flights < 1000km by public transport / car
  - Public transport instead of car
  - Car / travel policy for companies
- 100% green energy
- Energy efficiency:
  - Save power / heat: 30-50% potential!
  - Saves cost as helps our climate!
- Consumption:
  - Food, thumb-rule: organic, seasonal, regional
  - Paper: recycling, print double-sided

... and compensate the rest!

## Calculate and compensate for your CO<sub>2</sub> footprint



Flight



Car



Footprint



Company



Event



My Project



Contribution

[www.myclimate.de](http://www.myclimate.de)

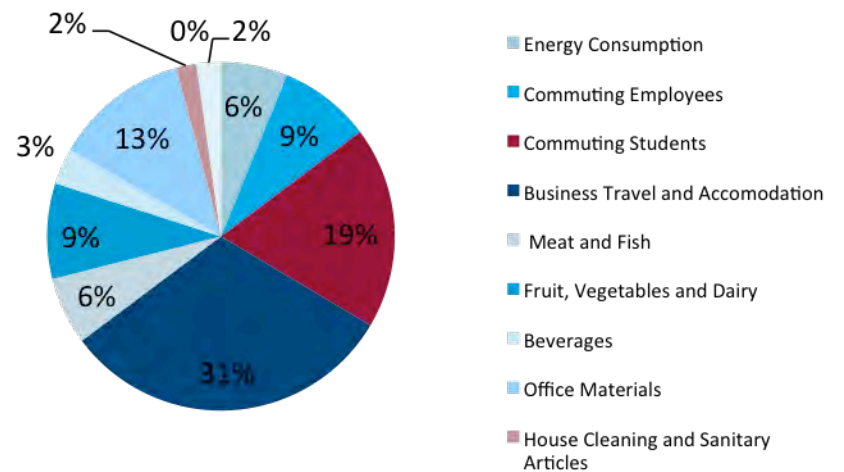
Your small donation does have a big impact!

# CO<sub>2</sub>-Balance for Uni Hohenheim?



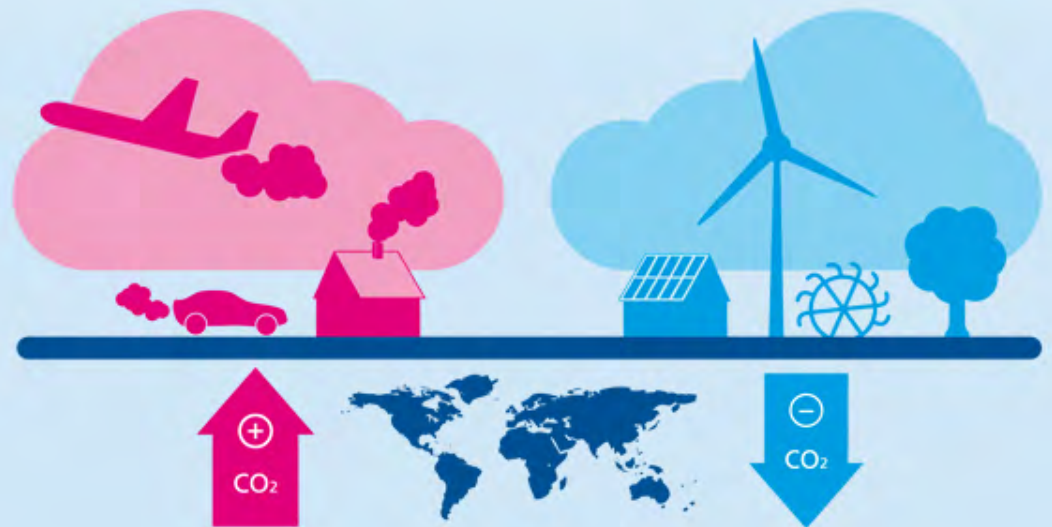
**BI** NORWEGIAN  
BUSINESS SCHOOL

Carbon Footprint of Nydalen Campus



# There is no good, unless you do it!

## Thank you very much for your attention!



Stefan.baumeister@myclimate.org  
www.myclimate.de