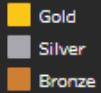
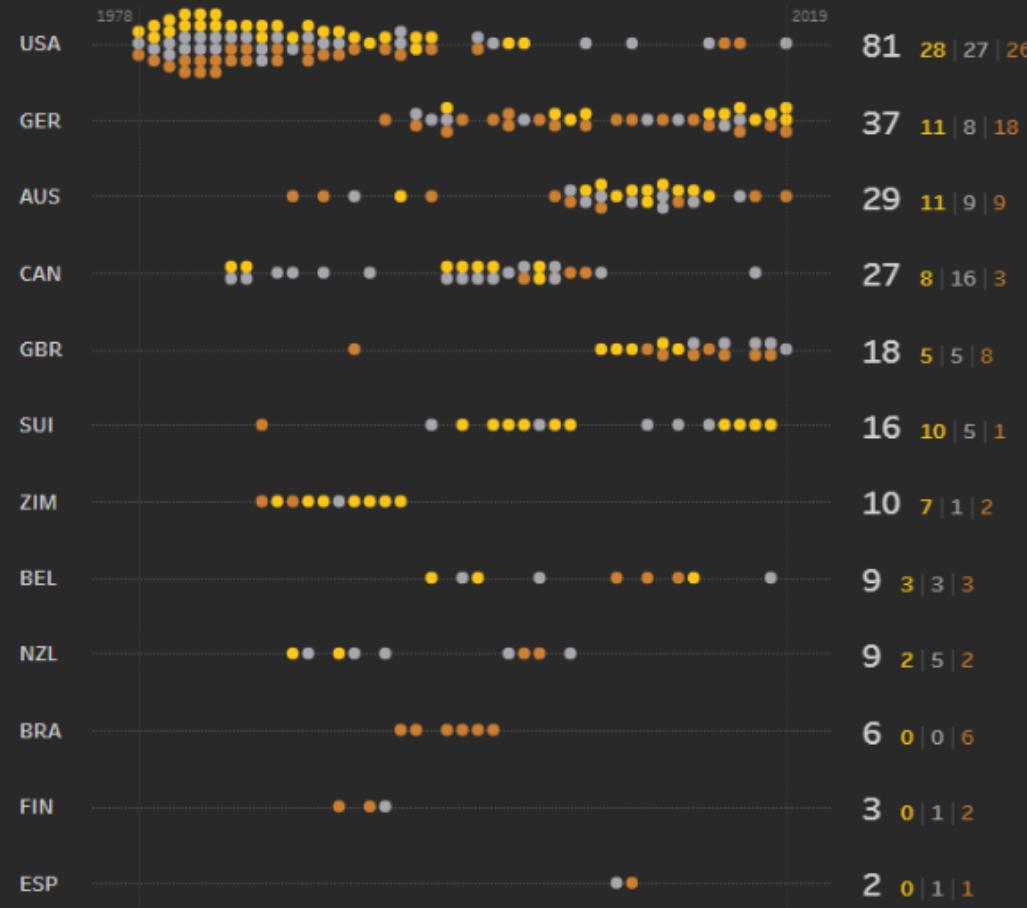


# IRONMAN WORLD CHAMPIONSHIP

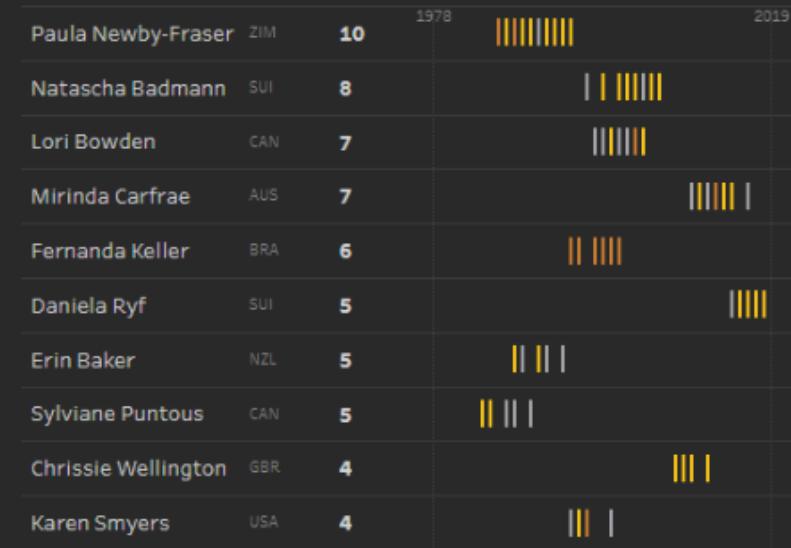
USA dominated from early years till mid 90s. Germany and Australia are emerging as dominant countries in recent years



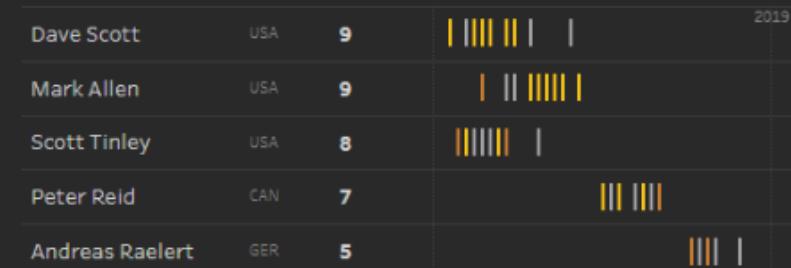
## Countries by medals



## Top 10 Female Athletes

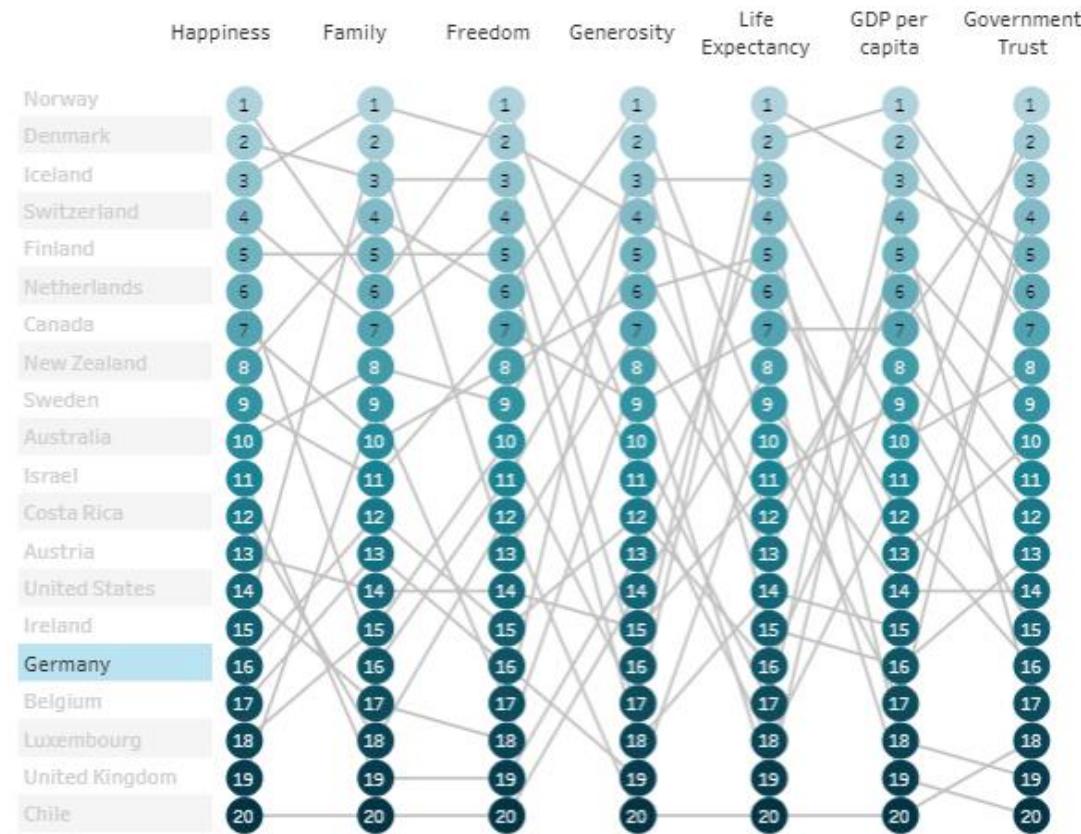


## Top 10 Male Athletes



# World Happiness Report

The World Happiness Report is a landmark survey of the state of global happiness. The happiness scores and rankings use data from the Gallup World Poll and the scores are based on answers to the main life evaluation question asked in the poll. Hover on a country to highlight the 2017 rankings.

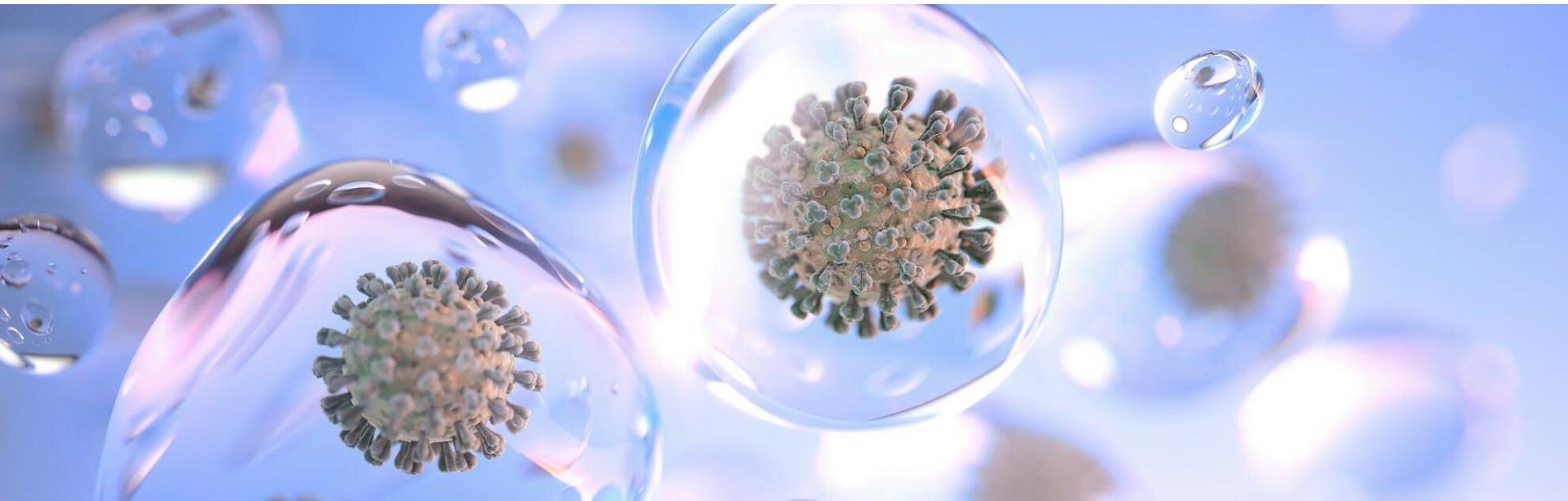


Data Source: Kaggle | Created by: Sara Hamdoun

Tableau



# What do you believe?



**How successful is  
Germany in fighting Covid-19  
compared to our neighbors?**

## Fines Database

Fine Models by DPAs

Fines Statistics

Filter by country:



Filter by violation (Art.):

All	5	6	7	9
12	13	14	15	17
18	21	24	25	28
29	31	32	33	34
35	36	37	58	83

### UK: Fine against British Airways finally set

Fine against British Airways for inadequate security measures finally set at approx. EUR 22 million (reduction from initially proposed EUR 202 million).



# GDPR Enforcement Tracker

tracked by **C'M/S'**  
Law.Tax

The CMS.Law GDPR Enforcement Tracker is an overview of fines and penalties which data protection authorities within the EU have imposed under the EU General Data Protection Regulation (GDPR, DSGVO). Our aim is to keep this list as up-to-date as possible. Since not all fines are made public, this list can of course never be complete, which is why we appreciate any indication of further GDPR fines and penalties. Please note that we do not list any fines imposed under national / non-European laws, under non-data protection laws (e.g. competition laws / electronic communication laws) and under "old" pre-GDPR-laws.

Show **10** entries

Search:

ETID	Country	Date	Fine [€]	Controller/Processor	Quoted Art.	Type	Source
ETID-23	FRANCE	2019-01-21	50,000,000	Google Inc.	Art. 13 GDPR, Art. 14 GDPR, Art. 6 GDPR, Art. 5 GDPR	Insufficient legal basis for data processing	<a href="#">link</a>
ETID-405	GERMANY	2020-10-01	35,258,708	H&M Hennes & Mauritz Online Shop A.B. & Co. KG	Art. 5 GDPR, Art. 6 GDPR	Insufficient legal basis for data processing	<a href="#">link</a>
ETID-189	ITALY	2020-01-15	27,800,000	TIM (telecommunications operator)	Art. 5 GDPR, Art. 6 GDPR, Art. 17 GDPR, Art. 21 GDPR, Art. 32 GDPR	Insufficient legal basis for data processing	<a href="#">link</a>
ETID-58	UNITED KINGDOM	2020-10-16	22,046,000	British Airways	Art. 5 (1) f) GDPR, Art. 27 Privacy Impr.	Insufficient technical and Home License Privacy Impr.	<a href="#">link</a>

# 4 Data Driven Innovation

## - Learning from Innovative Business Ideas (5) Summary

### Content:

1. Motivation
2. Startups in Germany
3. Platform Economy
4. Disruptive Innovations
5. Summary

- Innovative Geschäftsideen gab es, gibt es und wird es **immer** geben.
- Sie kennen Besonderheiten interessanter Gründer, Startups und digitaler Plattformen.
- Sie sind **motiviert** und beschäftigen sich mit Gründungsideen.



# 4 Data Driven Innovation

## - Learning from Innovative Business Ideas



### Content:

1. Motivation
2. Startups in Germany
3. Platform Economy
4. Disruptive Innovations
5. Summary



# STARTUP

**2. Startups  
In Germany**

# Michael Amberg

## Todays Content:

- 1. Motivation**
- 2. Startups in Germany**
- 3. Platform Economy**
- 4. Disruptive Innovations**
- 5. Summary**



# Als Verkäufer auf Plattformen Geld verdienen...

AliExpress™

NO.4 WHITE Store

Top-Marke 98.3% Positive Feedback

+ Follow

813 Follower

MARKENWOCHE

Auf AliExpress

Verk.

## ~~SHOP NO.4 WHITE~~

Can be manufactured according to customer requirements

Manufacturers to replace shipments

Startseite des Shops

Produkte ▾

Verkaufsartikel

Meistverkaufte

New Arrivals

Bewertung



Multifunktions Frauen Reisetasche Hohe Qualität Wasserdichte Tragbare Kulturbetuel weibliche Kosmetische Veranstalter Beutel Hängen Waschen Taschen

 4.7 ▾ 100 Bewertungen 171 Bestellungen

US \$5.47 US \$6.92 -21%

Farbe:



Menge:

- 1 + Weitere 2% Rabatt (2 Stücke oder mehr)  
66427 Stücke verfügbar (200 Stücke höchstens pro Kunde)

Kostenloser Versand

nach Germany mit China Post Registered Air Mail ▾

Voraussichtliche Lieferung am 11/19 ⓘ

Jetzt kaufen

In den Einkaufswagen

2401



 60-Tage Käuferschutz  
Geld-Zurück-Garantie

# Als Verkäufer auf Plattformen Geld verdienen...

AliExpress™

Mirar Store

77.7% Positive Feedback

+ Follow

45 Follower

MARKENWOCHE

Auf AliExpress

Verk

## Mirar Store

Startseite des Shops

Produkte ▾

Verkaufsartikel ▾

Meistverkaufte

Bewertung



Donne Moda Leder Uhr Luxus Analog Quarz Armbanduhr Casual Kristall armbanduhr Armbanduhr Regarder

1 Bestellung

**US \$2.37** US \$3.64 -35%

Sofortiger Rabatt: US \$1.00 Rabatt bei Einkauf in Höhe von US \$11.00 ▾

**US \$3.00 Coupon Für Neue Benutzer**

**US \$1.00 Rabatt auf US \$8.00**

Holen Sie sich Coupons

Farbe:



Menge:

-

1

+

Weitere 1% Rabatt (5 Stücke oder mehr)  
549 Stücke verfügbar

**Kostenloser Versand**

nach Germany mit China Post Ordinary Small Packet Plus ▾

Voraussichtliche Lieferung am 12/02 ⓘ



**Jetzt kaufen**

**In den Einkaufswagen**



# Als Verkäufer auf Plattformen Geld verdienen...

Instagram

Suchen

Anmelden

Registrieren



landgrafuhren

Abonnieren

923 Beiträge

101k Abonnenten

5.313 abonniert

Landgraf

Southern Germany | Minimalistic and elegant timepieces you will fall in love with | [landgraftime.com](http://landgraftime.com)



Kollektionen



Support



Feedbacks ...



Kooperatio...

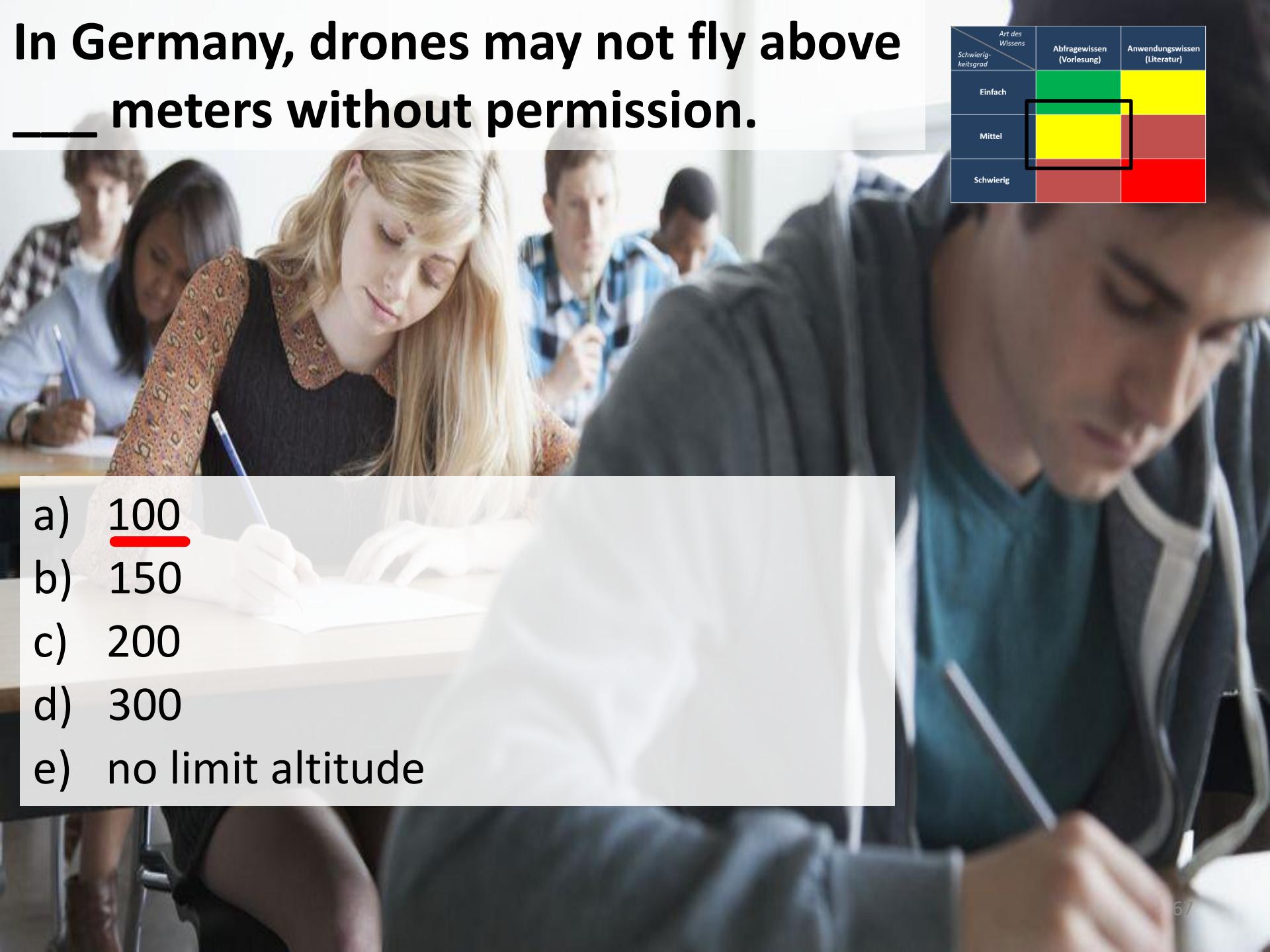
BEITRÄGE

MARKIERT



# In Germany, drones may not fly above \_\_\_ meters without permission.

Schwierigkeitsgrad	Art des Wissens	Abfragewissen (Vorlesung)	Anwendungswissen (Literatur)
Einfach		Green	Yellow
Mittel		Yellow	Red
Schwierig		Red	Red

- 
- A photograph showing several students in a classroom setting, focused on writing in their notebooks. The student in the foreground on the left is a young woman with blonde hair, wearing a patterned blouse. The student on the right is a young man with dark hair, wearing a dark green t-shirt. They are all looking down at their work. The background shows other students and desks.
- a) 100
  - b) 150
  - c) 200
  - d) 300
  - e) no limit altitude



## RESEARCH ARTICLE

10.1029/2020MS002301

## Key Points:

- Machine learning is successfully applied to the warm-rain parameterization problem
- Training and testing data for the warm-rain kinetic collection equation are provided using the superdroplet method
- Standard training methods show some limitations for the resulting ODE system

## Supporting Information:

- Supporting Information S1

## Correspondence to:

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microphys-

Advances

12, e2020

10.1029/

Received

Accepted

Accepted

# Potential and Limitations of Machine Learning for Modeling Warm-Rain Cloud Microphysical Processes

Axel Seifert<sup>1</sup>  and Stephan Rasp<sup>2</sup> 

<sup>1</sup>Deutscher Wetterdienst, Offenbach, Germany, <sup>2</sup>TU München, Munich, Germany

**Abstract** The use of machine learning based on neural networks for cloud microphysical parameterizations is investigated. As an example, we use the warm-rain formation by collision-coalescence, that is, the parameterization of autoconversion, accretion, and self-collection of droplets in a two-moment framework. Benchmark solutions of the kinetic collection equations are performed using a Monte Carlo superdroplet algorithm. The superdroplet method provides reliable but noisy estimates of the warm-rain process rates. For each process rate, a neural network is trained using standard machine learning techniques. The resulting models make skillful predictions for the process rates when compared to the testing data. However, when solving the ordinary differential equations, the solutions are not as good as those of an established warm-rain parameterization. This deficiency can be seen as a limitation of the machine learning methods that are applied, but at the same time, it points toward a fundamental ill-posedness of the commonly used two-moment warm-rain schemes. More advanced machine learning methods that include a notion of time derivatives, therefore, have the potential to overcome these problems.

**Plain Language Summary** In our work, we are trying to teach a computer how rain forms in clouds. We show that computer hundreds of cases in the form of data. To be honest, the data are not real data but only results of simulations with a more complicated computer model. This complicated model can track the collisions of 10,000 of droplets, and we save all that data about the growth of the droplets into larger raindrops. This is what we then give to the simpler computer model to teach it something about clouds and rain. Afterward, it can make pretty good predictions about which clouds will rain and how long it will take them to produce the first rain. Unfortunately, the current machine learning methods are still a bit stupid because they only learn from the data but do not understand the mathematics and the physics behind the data. Therefore, the new computer model is still not as good at predicting rain as some clever mathematical formulas that were developed 20 years ago. Maybe we first have to teach the computer model more about calculus before it can learn to predict rain.