Title page of the book

Author: Bodo Zeidler, KUH-Project, Lower Saxony, Germany

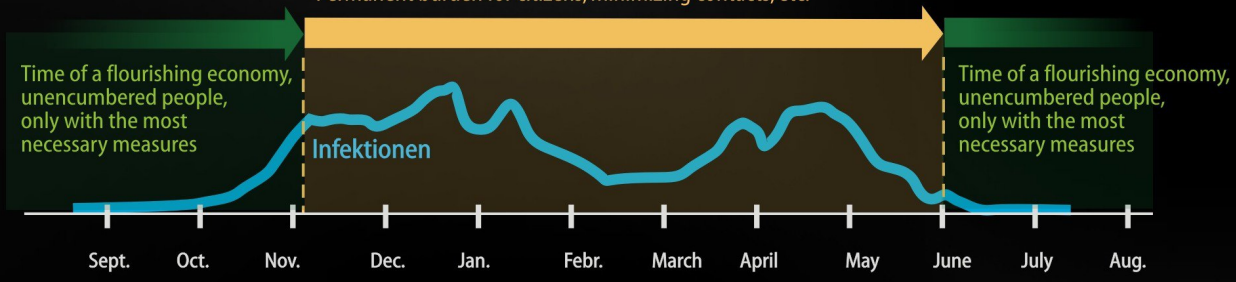
The Solution to a Pandemic

BY ACTIVATING THE LEVERAGE EFFECT OF PANDEMICS IN JOINT PERFORMANCE PHASES

PANDEMIC YESTERDAY:

Previous, burdensome long-term measures:

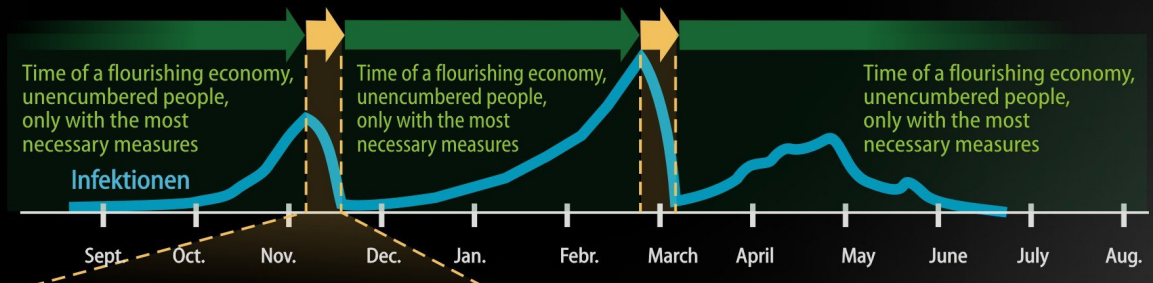
Example: Measures in winter 2020/2021 (Germany)
"Permanent burden for citizens, minimizing contacts, etc."



PANDEMIC TOMORROW:

New strategy according to the patent formulation:

"The phases marked in yellow to reduce
the number of infections would be significantly shorter."

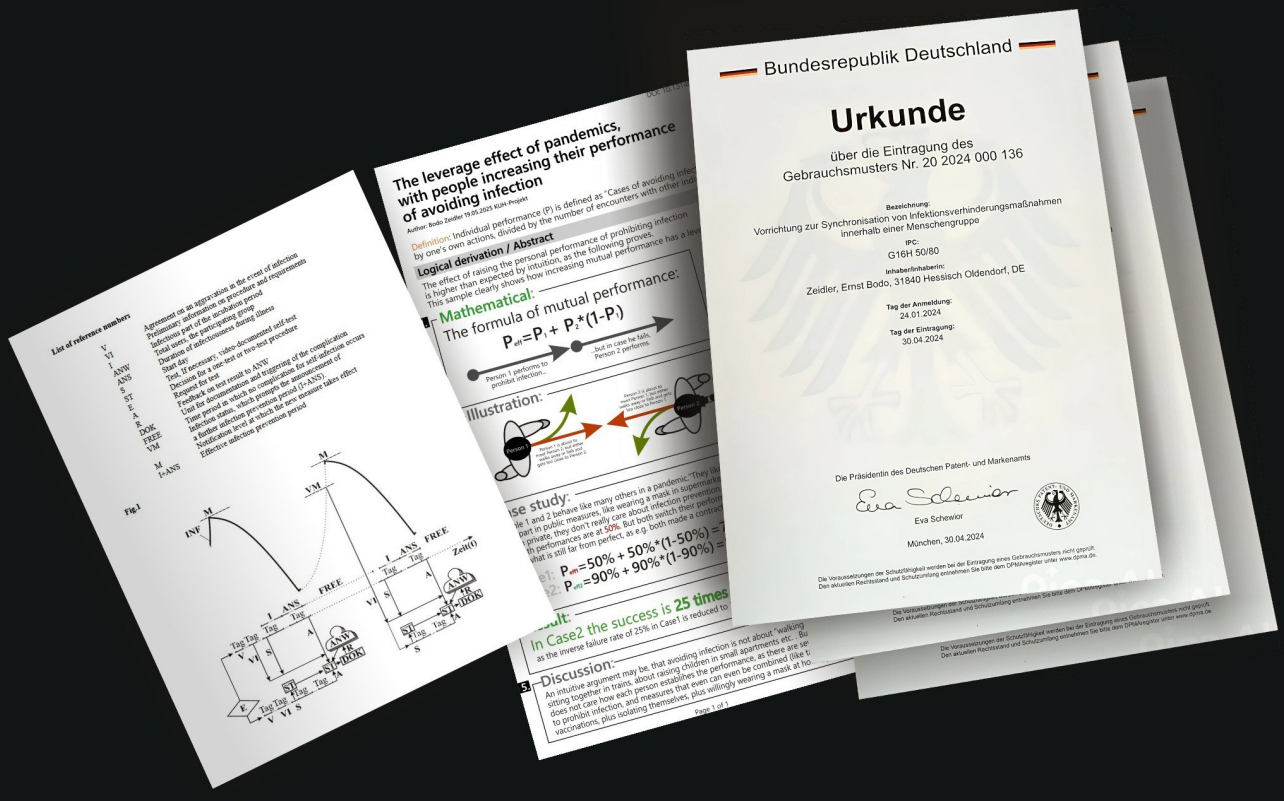


8 days of effective, joint performance

What it is about?

REDUCING THE DAMAGE IN A PANDEMIC FROM 400 BILLION EUROS TO 70 BILLION EUROS

SCIENTIFIC PAPERS, UTILITY MODELS AND PATENT APPLICATIONS



KUH-PROJECT-PAPERS No. 2025902 **89,- EURO**

Title: The Solution to a Pandemic by Activating the Leverage Effect of Pandemics in joint Performance Phases
Bodo Zeidler, 05.06.2025, incl. prior papers and documents,
KUH Project
(abbreviation for „kurz und heftig“, means „short and intense“, but as a game of words also „cow“)

Foreword

The concept is clearly shown in the front graphic.

The reason for this is that people's natural, demonstrably weak ability to prevent infection occurs particularly in private, and that even infections in unawareness during the incubation period rule out a successful pandemic according to previous strategies.

The solution presented is documented in various patent office documents, so that the seniority of the work is evident.

The tricky thing is that a single test not only describes the status quo of the infection as before, but also what the person tested did the days before. This also enables a paradigm shift for the synchronization of performance during pandemics. The video-documented self-test increases the validatable test capacity from 400,000 to 83,000,000 (example figures for Germany).

As the performance phases for people are greatly shortened and the phases of economic normality are greatly extended, **the concept has an immense impact on the damage within a pandemic**, in monetary terms, taking Germany as an example,
from 400 billion euros to a predicted 70 billion euros.

It should be noted that the procedure is expressly not a no-Covid strategy or a curfew in which infected and non-infected people are kept together.

A 1:45 minute explanatory video to get into the topic (Youtube Link)

ENGLISH

https://youtu.be/btSiZn2Fa1s

DEUTSCH

https://youtu.be/POAzCaT8vRg

DOI: 10.13140/RG.2.2.30933.33769

The leverage effect of pandemics, with people increasing their performance of avoiding infection

Author: Bodo Zeidler 19.05.2025 KUH-Projekt

Definition: Individual performance (P) is defined as “Cases of avoiding infection by one's own actions, divided by the number of encounters with other individuals”.

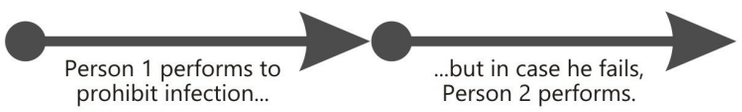
Logical derivation / Abstract

The effect of raising the personal performance of prohibiting infection is higher than expected by intuition, as the following proves.
This sample clearly shows how increasing mutual performance has a leverage effect.

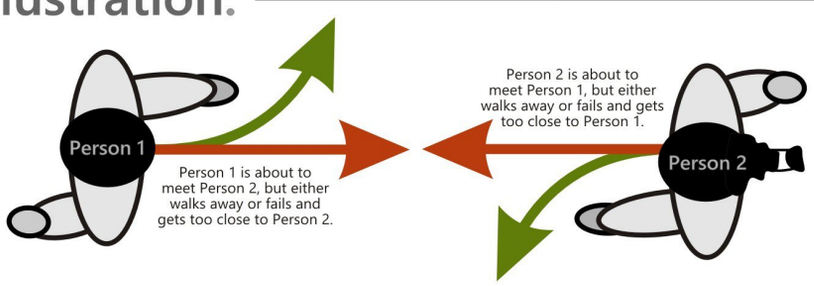
1. Mathematical:

The formula of mutual performance:

$$P_{eff} = P_1 + P_2 * (1 - P_1)$$



2. Illustration:



3. Case study:

People 1 and 2 behave like many others in a pandemic."They like to take part in public measures, like wearing a mask in supermarkets, but in private, they don't really care about infection prevention.
So both perfomances are at 50%. But both switch their performance to 90%, what is still far from perfect, as e.g. both made a contract to do so.

Case1: $P_{eff1} = 50\% + 50\% * (1 - 50\%) = 75\%$
Case2: $P_{eff2} = 90\% + 90\% * (1 - 90\%) = 99\%$

4. Result:

In Case2 the success is **25 times** higher.
as the inverse failure rate of 25% in Case1 is reduced to 1% in Case2.

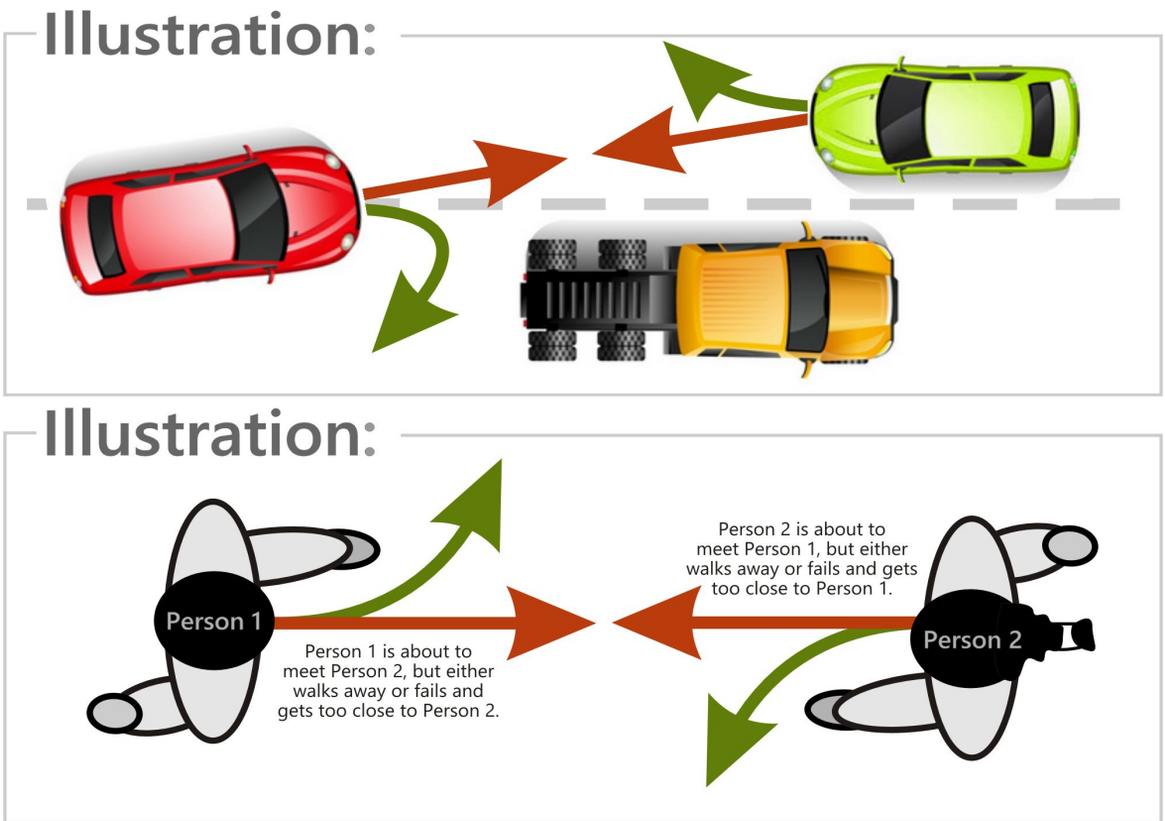
5. Discussion:

An intuitive argument may be, that avoiding infection is not about “walking away”, but about sitting together in trains, about raising children in small apartments etc. . But the mathematics does not care how each person establihes the performance, as there are several ways to prohibit infection, and measures that even can even be combined (like taking part in vaccinations, plus isolating themselves, plus willingly wearing a mask at home, plus... .

Content

The derivation of the concept

Derivation 1: The leverage effect that we did not use during the last pandemic



Whenever people avoid something together: Avoiding traffic accidents together, avoiding infections together, the following calculation rule applies:

This positive effect did not happen during the Covid19-pandemic.

(Underpinned experience)

If people collectively increase their infection prevention performance (as illustrated in the graphic from 50% to just 90%), the joint prevention success increases rapidly, and the cases of infection are reduced 25-fold in this example. This leverage effect, which I formulate in DOI: 10.13140/RG.2.2.30933.33769 as the “Leverage Effect of Pandemics”, is the key to successful infection prevention.

Above all, this effect cannot be achieved by people so far, as long-term pandemic measures exhaust and demotivate people. When there is an acute need to perform, we humans are good (“Mrs. Meyer has a burst water pipe, everyone come with a bucket” or “Do two push-ups”). We humans are not good at restricting human interaction in the long term (“Do 200 push-ups” categorically does not work).

It should also be emphasized that this relationship calculation applies to all people, regardless of how they meet or do not meet: between Germans and Australians, between an angler and someone who is on a train, etc., between all people.

Derivation 2: The main problem that the previous pandemic strategy did not solve

Many people think that people will automatically increase their infection prevention efforts in the event of a serious pandemic because they will recognize the need and act much better. This is wrong for two reasons:

1. During the Spanish flu of 1918, this assumption did not prove to be true. People were aware of the severity of the disease, but it spread worldwide with the well-known high death rates. Anyone who believes today that “everyone just takes care of themselves” is living a dysfunctional mindset from 1918.

2 The reason why the Spanish flu of 1918 was so unsuccessful is reflected in the proof I formulated DOI 10.1007/s15033-020-1826-1. The “infection in unawareness” formulated therein makes it impossible for people to prevent infection on their own during the infectious days when no symptoms are yet recognizable.

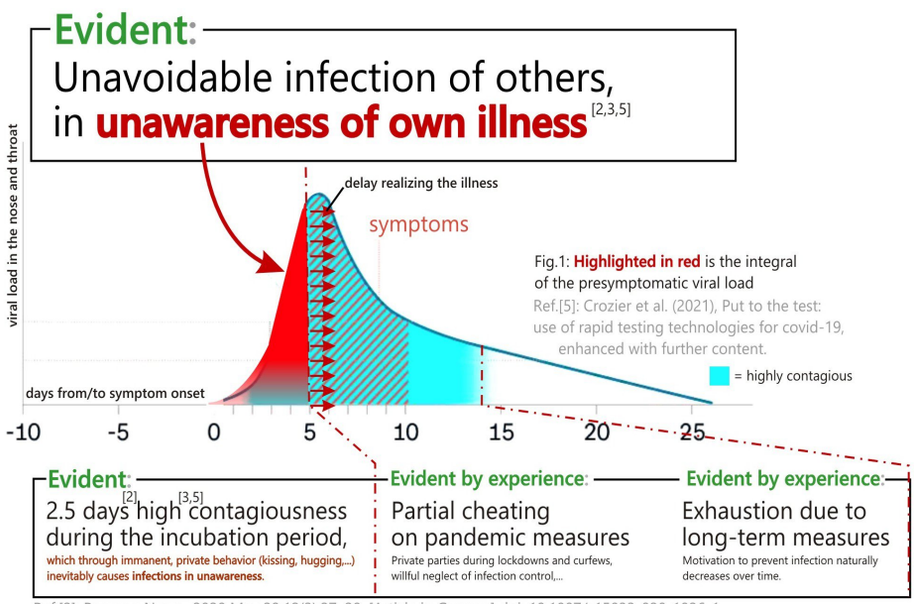


Fig.1: **Highlighted in red** is the integral of the presymptomatic viral load
Ref.[5]: Crozier et al. (2021), Put to the test: use of rapid testing technologies for covid-19, enhanced with further content.

Ref.[2]: Pneumo News . 2020 May 29;12(3):27–28. [Article in German] doi: 10.1007/s15033-020-1826-1
Ref.[3]: William S Hart et al. (2021) High infectiousness immediately before COVID-19 symptom onset highlights the importance of continued contact tracing

The graph shows that a family member coming home from work/school has no chance of preventing infection with normal actions such as “hugging, kissing, eating together, ...”, which explains the fact that most infections occur in private and that the replication-value is immanent at about R-value=1 .

Logical consequence: Only a strategy in which „infections in unawareness“ are avoided, can be promising, and this happens with continuously high infection prevention performance, which in turn can only be achieved in a short time window. (which the following illustration solves)

Implementation shown by a hypothetical case study

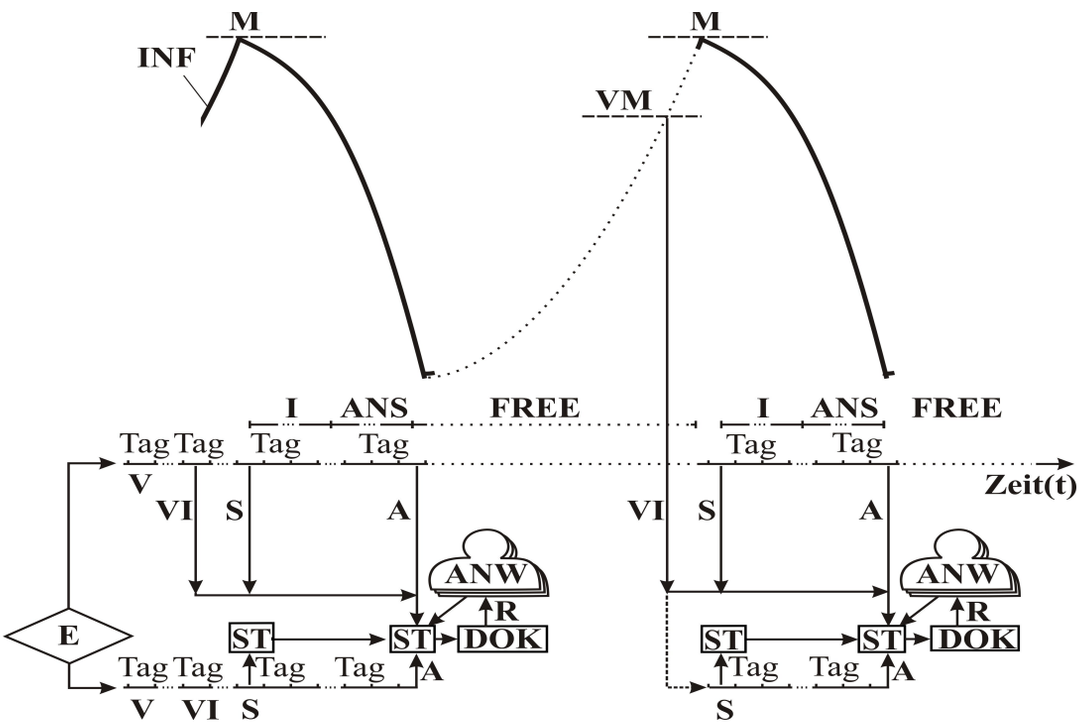
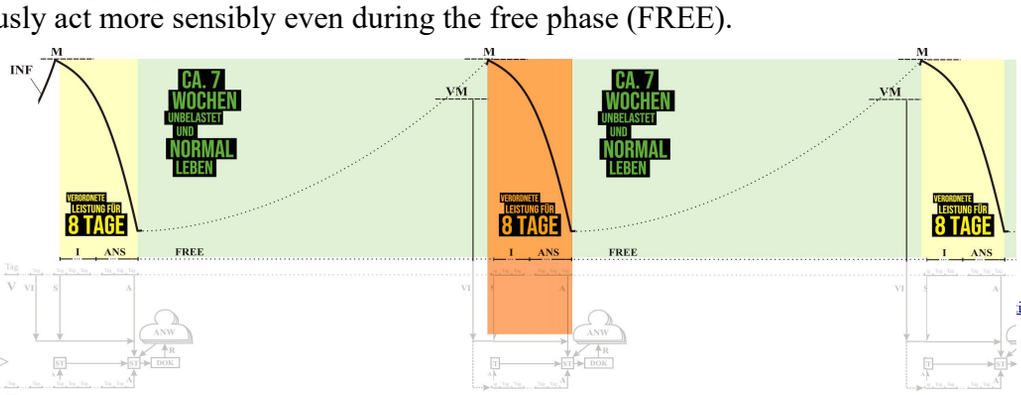


Fig.: Figure from the patent application for the assignment of the system parts in the following text (TAG=DAY)

The inhabitants of the island of Spiekeroog are “woke”. They are annoyed by the failure of the pandemic strategy on the mainland and do not want the high financial damage to occur on Spiekeroog. They use the patent application and pay a license fee for it.
The 850 inhabitants also download the system onto their cell phones and use the agreement of aggravation (V) in the first step. The system offers the choice of “50 hours of work for Spiekeroog sports club” or alternatively “700 euros club donation” in the event that they become infected during a joint infection prevention phase. All residents choose to work because they are thrifty people. After this agreement, the participants receive various preliminary information (VI). It states, among other things that at 30 infections per day (VM) they will be informed that at 35 infections per day (M) a joint infection prevention phase will begin. It also states that doctors, nurses, single parents with 3 or more children and minors do not officially participate in the measure, but are welcome to participate in solidarity without complications (patent claim 3).
Infections increase, Spiekeroog Hospital reports 30 infections to the system on this day (VM). The system informs the participants “It will start soon, prepare strategically”.
Spiekeroog Hospital reports 35 infections to the system on a subsequent day (M). The system

informs the participants “It is the start day (S) of our joint infection prevention phase (I+ANS)”. Because the virus is infectious for 3 days during the incubation period (I) and 5 days during the illness (ANS), everyone takes a video-documented self-test in 8 days (I+ANS) or goes to the doctor to prove that they have not been infected during this time.
This is because anyone who was infectious 9 days before the test date (I+ANS+1) will certainly have a negative self-test, as this would be an unjustified indication of misconduct.
And anyone who really doubts that a test will be sufficient afterwards can also take a test at the start of the phase.
Everyone starts on the start day (S), motivated not to have to do the club work, and makes an effort not to infect themselves, without any guidelines on how to do it personally. **A**lbert decides to go hiking alone for 8 days, **B**erta had already been vaccinated voluntarily in advance and assumes that she is generally not infectious, **C**hristine moves into the garden house for 8 days and combines it with avoiding her partner for a few days, single mother **D**iana also wears an FFP2 mask in the house when the children are around, **E**velyn has been single for 4 years, takes 8 days off and watches her favorite series on PAY-TV for that long, all employees of the **f**orestry decide in a community concept to put the tables 4 meters apart for 8 days at work, ... **G**. ..
Everyone comes up with more effective measures than the already sensible, officially prescribed pandemic measures. The sensible, prescribed pandemic measures such as FFP2 masks in the supermarket and plexiglas screens at the hairdresser's become an accessory, or are not perceived as disruptive for 8 days.
Grandpa **H**einrich has nothing to do with cell phone apps and prefers to go to his family doctor on the test day (A, before FREE) and take the test there. But since everyone else does the self-test with their cell phone, the testing capacity is not exhausted.
Everyone else takes a video-documented self-test in front of the cell phone, remains in the picture during the self-test, holds the test result in front of the camera and thus proves that they have not been infected. The central data storage system evaluates the result (possibly AI-supported in our times) and informs the respective participant whether they need to do the 50 hours of club work.
Ingo doesn't trust that only one test is enough to prove misconduct within the 8 days. He opts for the variant with 2 tests, which the procedure also allows.
However, **J**ochen - like some others - was unlucky. He slipped on a banana during the joint measure, fell on an infectious handkerchief lying on the floor and became infected, even though he had otherwise behaved in such an exemplary manner. But **J**ochen was lucky. This is because the system excludes individual cases of joint good performance (patent claim 2). According to all test results, the system shows that only 2 infections per day - instead of 35 - are admitted to the hospital on Spiekeroog.
The technical system - paired with system components - is now creating something that has never happened before in pandemics: For shared pride. That everyone has found an individually optimized way to persevere through 8 days of performance instead of reluctantly participating in burdensome official pandemic measures for 7 months, knowing that many people are undermining the official pandemic measures. Motivated by the successful 8 days of joint effort, a phase (FREE) now begins, in which no hardship is triggered in the event of infection. During this time, the economy flourishes over a considerably long period of e.g. 5 weeks, because all participants of Spiekeroog have in mind that the 8 days were already very exhausting. In this respect, the 8 days also have a unique, positive “reverberation” on the free time (FREE). This is why they subconsciously act more sensibly even during the free phase (FREE).



Main Patent Application

Author: Bodo Zeidler, 16.11.71

Procedure for the periodical reduction of infection by groups of people

A pandemic, epidemic or other period that requires infection mitigation can last for many months or even years, causing many deaths and high economic damage. Many sensible measures are being taken and offered by the state to alleviate the spread of infection, including the wearing of medical masks, social distancing rules, hygiene rules, curfews and vaccination programs.
Nevertheless, it has been confirmed by experts that most infections occur in private settings, a problem that cannot be solved by measures primarily aimed at the public. This is accompanied by the complication that the average performance in preventing infection is extremely low. However, in order to ensure that the pandemic is as successful as possible, it would be necessary to achieve a high level of prevention in the private sphere as well. However, this prevention is strenuous and cannot be achieved for months. Therefore, short, effective infection prevention phases would be desirable in order to prevent long phases - in which people are burdened and companies are strained for months. There is also a need to keep the costs of the tests used low and at best minimize them, and to make infection prevention cost-effective overall.

This problem is solved by the features listed in claim 1.

If there are already a sufficient number of effective test or self-test products - i.e. devices that detect the state of infection - in the respective pandemic, the group of people participating in the procedure (ANW) agrees on a motivating aggravation (V), which occurs for the respective participant in the event of failure - namely their own infection - as well as an infection status for announcing (VM) and reporting (M) a joint infection prevention period (I+ANS) . After a decision (E) on the test procedure, the user receives a behavioral specification from a central office as to whether one or two consecutive self-tests are to be carried out by each participant, depending on whether the test procedure requires one or two tests for binding proof of infection in the period (I+ANS). This self-organization is initially carried out by experts according to the parameters “Infectious part of the incubation period” (I) and “Duration of infectiousness during illness” (ANS), to which the procedure automatically adapts. At the beginning of the procedure, the participants are informed about the procedure (VI), whether a self-test is to be carried out on the respective start day (S) or whether the time period in which the participant is obliged to prevent self-infection begins without a self-test. At the end of the period (I+ANS), at least one self-test (ST) must be carried out to ensure that each participant is not infected, as a positive (optionally video) documented test or a test that is not carried out triggers the agreed aggravation for the participant. The results of the participating group are stored in a documentation system. Each user is informed of the results of their tests - i.e. their success in preventing self-infection - (R), which may result in the agreed reduction in severity. Once the infection level (INF) has been reduced in the time period (I+ANS), the group can go about their daily lives more freely over the time period (FREE) than with burdensome long-term measures. If the previously agreed infection level (VM) is then reached again in the group, the group receives information about a new infection prevention period (I+ANS) at the time of the reporting level (M).
The advantages of this procedure are that it optimizes the efficiency of infection prevention, reduces sick leave, deaths and economic damage during the pandemic, because the participating group is encouraged and encouraged to take appropriate measures to prevent infection within a feasible period of time in order to avoid a positive test and thus an aggravation. Ultimately, the procedure is

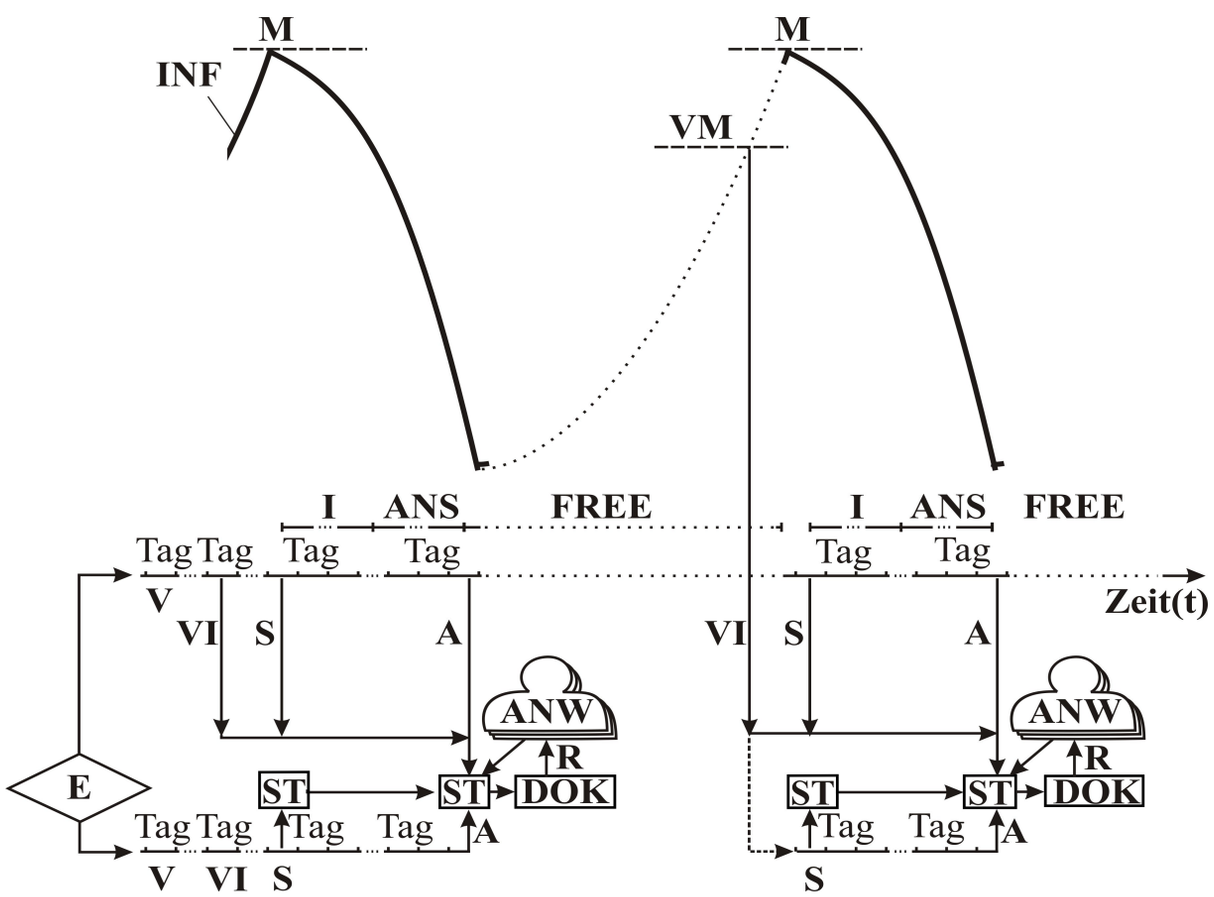
beneficial for the state, the citizen and the economy at the same time, provided that a large group participates. The procedure offers a high degree of simplicity and cost-effectiveness due to its clear specifications and the few resources used (primarily video-documented self-tests and existing information/documentation media required by the procedure). Furthermore, the procedure achieves the shortest, best possible duration. In addition, with nationwide participation, the need for compulsory vaccination may also be eliminated, as many citizens would decide to be vaccinated out of interest, and unvaccinated people would have to take suitable alternative measures of their own accord.
A variant of the method (patent claim 2) is that the agreed aggravation does not apply in the event of a high level of success, for example in the event that 90% of participants have prevented the infection.
A further variant of the method (patent claim 3) is that certain subgroups of people are categorically excluded from participation in the method, which is then added to the preliminary information (VI).
A further variant of the method (patent claim 4) is that safety periods can be added to or subtracted from the “infectious part of the incubation period” (I) and the “duration of infectiousness during illness” (ANS).

Figure 1 describes the procedure. Depending on the decision (E), the respective tests (ST) are carried out by the individual participants, as the prevention of self-infection must be optimized during the period (I+ANS). An agreement (V) of the group and a preliminary information (VI) ensures that the participants understand that the user (ANW) must prevent their own infection from the start day (S) in order not to have to bear the agreed complication. Depending on the requirements of the detection procedure, a self-test (ST) may already be carried out at the beginning of an infection prevention period with the request (A). After the following self-infection prevention period (I+ANS), all users receive a request (A) to perform a test (ST).
The test results are sent to the documentation unit (DOK) and feedback (R) is sent to the user. This is followed by a period of time (FREE) with a greatly reduced infection level, during which participants can live unencumbered until the infection level (VM) announces the next infection prevention period, which occurs at the time of (M).

List of reference symbols

V	Agreement on an aggravation in the event of infection
VI	Preliminary information on procedure and requirements
I	Infectious part of the incubation period
ANW	Total users, the participating group
ANS	Duration of infectiousness during illness
S	Start day
ST	Test, If necessary, video-documented self-test
E	Decision for a one-test or two-test procedure
A	Request for test
R	Feedback on test result to ANW
DOK	Unit for documentation and triggering of the complication
FREE	Time period in which no complication for self-infection occurs
VM	Infection status, which prompts the announcement of a further infection prevention period (I+ANS).
M	Notification level at which the new measure takes effect
I+ANS	Effective infection prevention period

Fig.1



Patent Claims

1. Method for periodically achieving infection reduction in groups of people

   characterized in

   in that, depending on the “infectious part of the incubation period” and “duration of infectiousness during illness”, a frequent infection prevention phase agreed in a group occurs, which either only has a final test or, if necessary, also an initial test, which is frequented by the infection status and is automatically pre-announced and also triggered, with phases in between in which infection is not - or only to a reduced extent - prevented, with a respective advance information and a respective start of the joint infection prevention, from which an infection could cause a positive test, with the performance of self-tests, which are at least documented, in some cases also video-documented, with prior joint agreement of an “aggravation” for infection, linked to a documentation unit with automatic feedback information to the user and automated case-by-case triggering of a previously agreed “aggravation” if the test is positive or not verifiably performed.

2. Process according to claim 1,

   characterized in

   that the agreed aggravation does not apply in the event of a high level of success, for example in the event that 90% of the participants have prevented the infection.

3. Method according to claim 1,

   characterized in that

   that certain subgroups of people are categorically excluded from participation in the method, which is then added to the preliminary information (VI).

4. Method according to claim 1,

   characterized in that

   that safety durations can be added to or subtracted from the “infectious part of the incubation period” (I) and the “duration of infectiousness during illness” (ANS) in order to increase safety.

Summary

The process describes an invention whose novelty is also based on activating the high existing capacity of individual citizens who are willing or legally obliged to provide a high level of service over a short period of time to prevent their own infection. This is because asking citizens for help, underpinned by long-term measures, is not particularly effective because the citizen initially has a self-interest and not necessarily a general interest, and it is also largely impossible to test measures in the private sphere.

The inventive achievement is characterized, among other things, by the fact that, taking into account one- and two-stage testing procedures, an automatism is created to rhythmize joint infection prevention in a pandemic in order to achieve the longest possible phases in which infection prevention can be carried out without stress and thus normality returns to everyday life, in order to be able to muster the motivation for a short performance phase afterwards. The method can therefore be used socially for various infectious diseases, for pandemics, but also for other issues in which infection must be prevented, such as the consequences of the use of biological weapons.

Theory of a performance-oriented strategy for future pandemics

(German: Theorie einer leistungsorientierten Strategie für zukünftige Pandemien)

Author: Bodo Zeidler, 16.11.1971

English translation, taken from the German original

Foreword:

One major problem within epidemiology appears to be that the focus has not yet been on people/citizens as the key players in preventing infections. The same can be seen in the RKI's technical dictionary (as of 2015), where there is no performance concept for humans as infection preventers - and therefore no performance approach. This is exactly what the RKI confirmed to us in writing on 24.01.2024. Although the individual human being is the central actor in a pandemic, with drastic differences in performance, from the pandemic denier with low "infection prevention performance" to the primarily motivated risk patient with high performance. The introduction of a performance orientation/terminology is intended to address this deficit.

Acknowledgements to the Robert Koch Institute: I would like to thank the RKI for their dedicated and detailed help with our technical inquiries. The RKI's recommendation to fill in the previously missing term “Sichansteckungsverhinderungsleistung” (prevention of infection) was very helpful in our work.

Published: "Theory of a performance-based strategy for future pandemics (ResearchGate) and related patent applications.

KUH project, V004, date: 12.08.2024, interdisciplinary for the fields of economics, epidemiology, geoanthropology, game theory and sociology

Content

1. Abstract

The individual effort to prevent one's own infection is dealt with in this article, with theoretical suggestions for integration in an overall pandemic context and the introduction of the concept of prevention of infection (P_s).
The optimization of infection-preventing performance within the population represents an opportunity to bring about behavioral improvements during a pandemic in addition to medical measures, with the prospect of a multilateral positive effect, both for the population and the economy, especially if a trillion-dollar loss[1] could be averted worldwide.

2. Definition of terms to prevent infection

The following is used to define the concept of performance:
Natural human behavior has a partial infection-preventing effect, as cleanliness and natural distances to other people, among other things, prevent infections on a case-by-case basis. It can be assumed that this basic performance - called P_n ($P_{natural}$) - differs individually, but that an average value also exists demographically, which is not determined but can be determined.
In addition, the two possible extremes are considered: Someone who does not change their behavior within a pandemic should be assessed with an additional performance strength P_a ($P_{additional}$) = 0. Someone who, for example, completely isolates themselves or otherwise excludes infection through their behavior, with $P_a=1-P_n$. The resulting P_s ($P_{selfdefense}$) indicates in how many out of a hundred encounters with an infectious person someone independently prevents an infection, regardless of the contribution of their counterpart. Ultimately, the P_s is between 0 and 1; it is usefully expressed as a percentage and operationally represents a probability p. As in other performance areas, a person's P_s can vary depending on the circumstances (time, place, other conditions).

The ability to prevent infection P_s is often congruent with a general ability to prevent infection P_g, e.g. when maintaining social distancing, where external infection is also prevented.

The term P_c ($P_{complete}$) is used to describe how many out of a hundred encounters someone independently prevents infection, regardless of whether the other person is infectious or not. The term W should apply to infection prevention work, i.e. to a prevention effort that would not have been necessary because the other person is not infected.

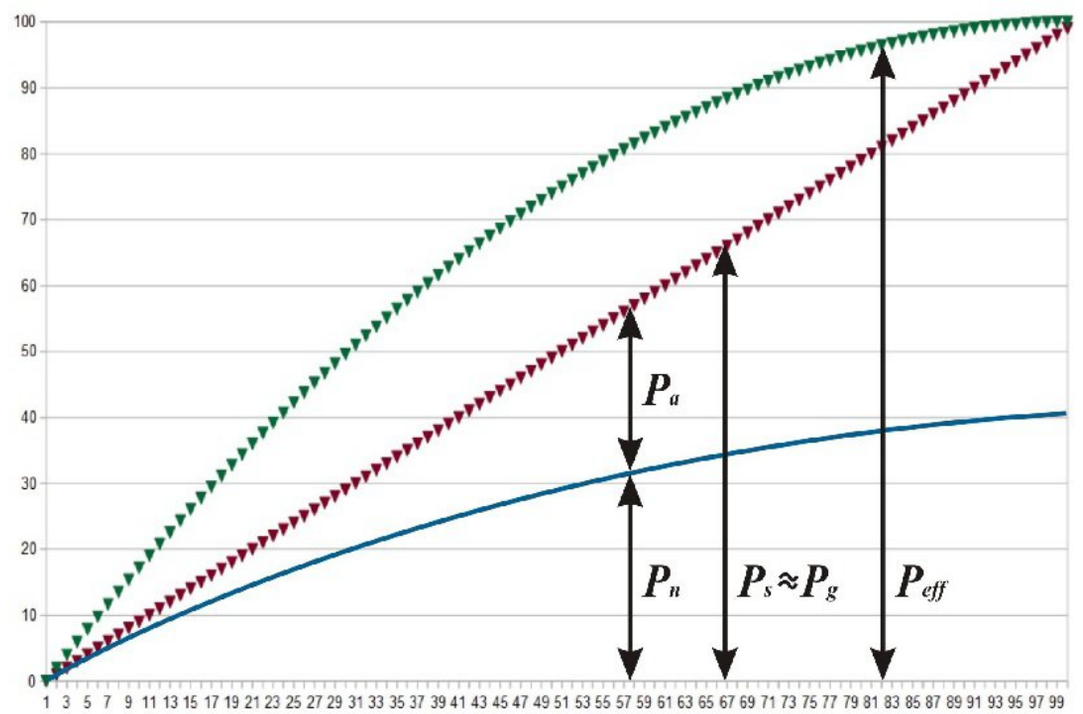


Fig.1: The red set of dots shows the 100 possible degrees of Pg, resulting from the natural prevention of infection Pn (blue) plus the individual Pa. The green set of dots shows the cumulative, synergetic power Peff when two people of equal strength meet, described in more detail as follows:

3. The favorable accumulation of P_g

The green set of dots shows the cumulative power that results when two people with the same Pg meet, theoretically calculated in such a way that their Pg acts stochastically in succession, according to the following formula, also valid for different power levels:

$$P_{eff} = P_{g1} + (1 - P_{g1}) * P_{g2}$$

It is possible that informing the population that such a positive accumulation is effective will result in general motivation.

Hypothetical cases can be considered according to Fig. 1:

Person 1	P_{g1}	Person 2	P_{g1}	P_{eff}
Kisses any other person	0%	Kisses any other person	0%	**0%**
Willing, but 10% bad cases	90%	Willing, but 10% bad cases	90%	**99%**
Did not change behavior during the pandemic	20%	Did not change behavior during the pandemic	20%	**36%**
Takes only part in public measures	50%	Takes only part in public measures	50%	**75%**
Willing, but 10% bad cases	90%	Did not change behavior during the pandemic	20%	**92%**

Fig.2: Table of fictitious examples

4. Relevance of a P_g

Fig. 2 shows how extreme performance and its effects can be. The circumstances described in each case are fictitious to describe the range. Example 2 shows that two ambitious people, each with an assumed P_g of 90%, achieve a dramatically positive collective performance of 99%, leaving only 1% potential for improvement, in contrast to example 4, where 100%-75%=25% potential for improvement remains. So if two people increase their Pg from 50% to 90%, the improvement potential decreases by 1% / 25% = 96%. Example 5 shows that an ambitious participant can compensate for the lack of performance of their counterpart.

As a conclusion, the population could be informed,
that even medium increases in performance
have a considerable, collectively positive effect.

5. Determination of a P_g

5.1. Possible methodology for determining a P_g

It would be desirable to fill the theoretical model of a P_g with reliable values, to underpin it empirically, or at least to discuss orders of magnitude. As a study, it would make sense to draw up a comprehensive list of questions that would show behavioral patterns in detail retrospectively to the pandemic and enable surveys to be carried out on P_g that has occurred, with a statistically sufficiently large number of people being interviewed.
Other options would be to carry out a virtual simulation that comes as close as possible to reality or to carry out a real re-enactment.

5.2. Estimation for determining a P_g through logical considerations

Based on statistics that show that "most infections occur in private", estimates of P_g can be made.

If a person carries out the sensible infection-reducing measures in public (e.g. wearing a medical mask, keeping a safe distance) over a period of time T1, but kisses and hugs his family members when he returns home for understandable reasons (T2), it is certain that there were significantly different Pg at both times. By comparison, the case we followed ourselves (T3) also shows that during the lockdown at Christmas 2020, eight people said goodbye after a meeting with a total of 28 kisses, which leaves an allocation to Fig.1 and Fig.2 open. It is also necessary to consider how someone in whom an infection is highly likely to cause death (risk group) can achieve a possibly very high Pg over a stressful period of years T4.

The current lack of empirical measured values for Pg does not change the fact that there were different Pg during the pandemic and that one - or even several - estimates of this can initially be used as input values for a virtual simulation, for example.

Fig.3: Places where infections were reported to have occurred. (accumulated in private households, hobby, at work,..., from the Ministry of Social Issues Baden Württemberg)

5.3. Assessment of a P_g

For an assessment, P_g is regarded as a performance range that is subject to the sociological principle of an expected normal distribution [2].

According to this, there are few people who achieve an extraordinarily high or low Pg and an accumulation of those who are in the middle range. It can be assumed that this normal distribution is influenced by social factors, such as the fact that a high-risk group tends to act in a committed manner, in contrast to people who feel healthy and have a strong defense.

Within these social factors, there are people of varying performance.

Based on this, the following may be outlined, initially as a thesis (next page), on the basis of empirical values - i.e. without the empirical evidence that a study as mentioned above would remedy:

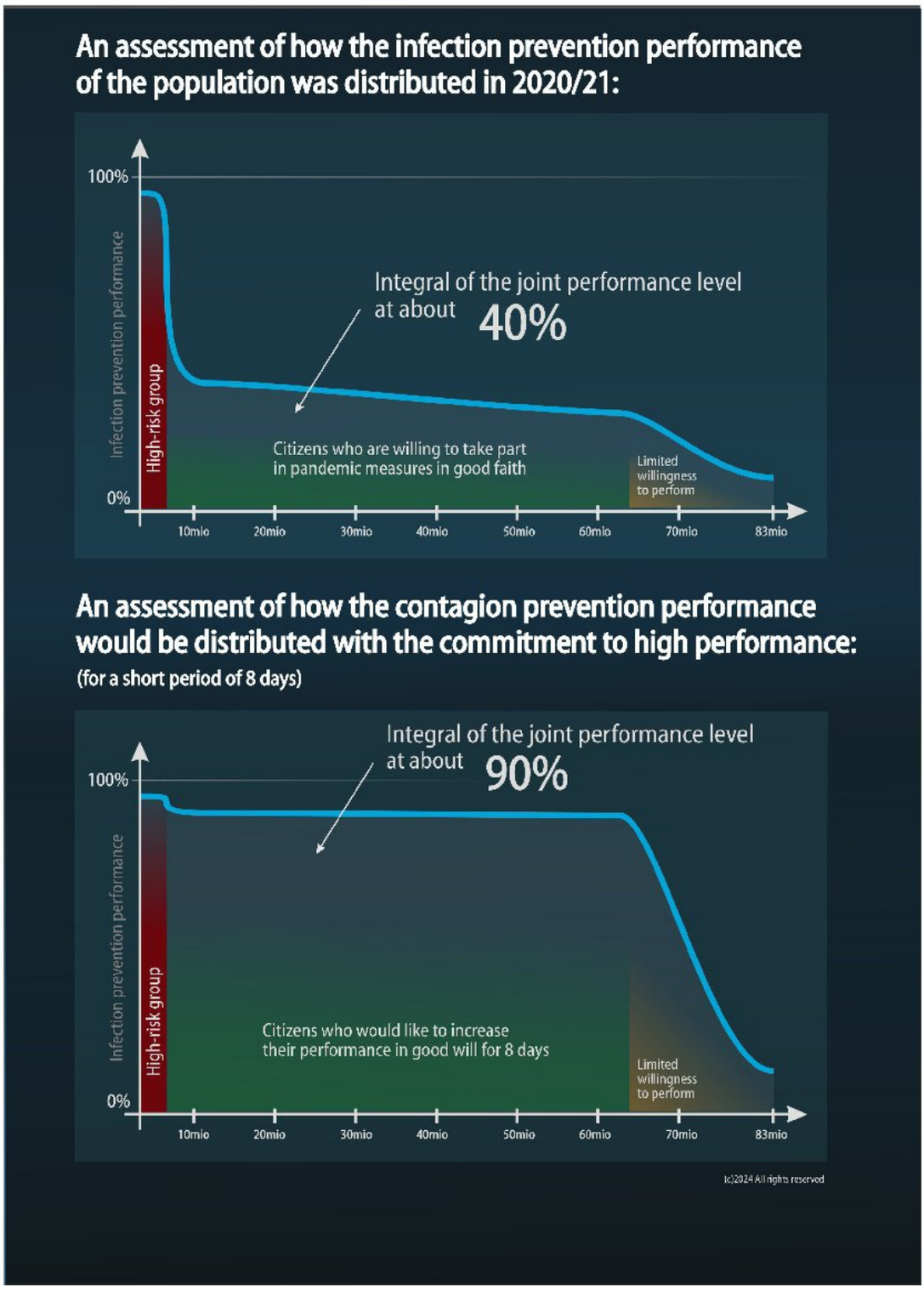


Fig.4: Outline of an assessment of Pg during the corona pandemic and the possible impact on the performance profile, provided that motivation is increased across the board.

5.3.1. Underpinning the assessment of an infection prevention rate of 40%

Fig.3 shows that, based on this statistical survey in Baden-Württemberg, 52% of infections occurred in private settings (i.e. 48% in public), without the availability of vaccines to date.

Logical basis: If people had had the same number of private and public contacts, their P_p and $P_ö$ would also be almost the same (P_p=48/52*$P_ö$). However, if people had had significantly more contacts in public than in private, their performance in private would drop considerably according to this formula, which is also used in the tables:

$$P_{PRIV.} = P_{PUBL.} * \frac{48\%}{52\%} * \frac{K_{PRIV.}}{K_{PUBL.}}$$

Possible ratio confrontations in PRIVATE		PUBL.	Hypothetic Perf. in PUBL.	thus Infect. PUBL.	thus Infect. PRIV	thus Perf.PRIV
1	zu	30	70%	9	9,75	2%
1	zu	25	70%	7,5	8,13	3%
1	zu	20	70%	6	6,50	3%
1	zu	10	70%	3	3,25	6%
1	zu	7	70%	2,1	2,28	9%
1	zu	6	70%	1,8	1,95	11%
1	zu	5	70%	1,5	1,63	13%
1	zu	3	70%	0,9	0,98	22%
1	zu	2	70%	0,6	0,65	32%
1	zu	1	70%	0,3	0,33	65%
2	zu	1	70%	0,3	0,33	129%
3	zu	1	70%	0,3	0,33	194%
5	zu	1	70%	0,3	0,33	323%

Possible ratio confrontations in PRIVATE		PUBL.	Hypothetic Perf. in PUBL.	thus Infect. PUBL.	thus Infect. PRIV	thus Perf.PRIV
1	zu	30	80%	6	6,50	2%
1	zu	25	80%	5	5,42	3%
1	zu	20	80%	4	4,33	4%
1	zu	10	80%	2	2,17	7%
1	zu	7	80%	1,4	1,52	11%
1	zu	6	80%	1,2	1,30	12%
1	zu	5	80%	1	1,08	15%
1	zu	3	80%	0,6	0,65	25%
1	zu	2	80%	0,4	0,43	37%
1	zu	1	80%	0,2	0,22	74%
2	zu	1	80%	0,2	0,22	148%
3	zu	1	80%	0,2	0,22	222%
5	zu	1	80%	0,2	0,22	369%

Possible ratio confrontations in PRIVATE		PUBL.	Hypothetic Perf. in PUBL.	thus Infect. PUBL.	thus Infect. PRIV	thus Perf.PRIV
1	zu	30	90%	3	3,25	3%
1	zu	25	90%	2,5	2,71	3%
1	zu	20	90%	2	2,17	4%
1	zu	10	90%	1	1,08	8%
1	zu	7	90%	0,7	0,76	12%
1	zu	6	90%	0,6	0,65	14%
1	zu	5	90%	0,5	0,54	17%
1	zu	3	90%	0,3	0,33	28%
1	zu	2	90%	0,2	0,22	42%
1	zu	1	90%	0,1	0,11	83%
2	zu	1	90%	0,1	0,11	166%
3	zu	1	90%	0,1	0,11	249%
5	zu	1	90%	0,1	0,11	415%

Possible ratio confrontations in PRIVATE		PUBL.	Hypothetic Perf. in PUBL.	thus Infect. PUBL.	thus Infect. PRIV	thus Perf.PRIV
1	zu	30	99%	0,3	0,33	3%
1	zu	25	99%	0,25	0,27	4%
1	zu	20	99%	0,2	0,22	5%
1	zu	10	99%	0,1	0,11	9%
1	zu	7	99%	0,07	0,08	13%
1	zu	6	99%	0,06	0,07	15%
1	zu	5	99%	0,05	0,05	18%
1	zu	3	99%	0,03	0,03	30%
1	zu	2	99%	0,02	0,02	46%
1	zu	1	99%	0,01	0,01	91%
2	zu	1	99%	0,01	0,01	183%
3	zu	1	99%	0,01	0,01	274%
5	zu	1	99%	0,01	0,01	457%

Fig.4: The 4 tables show the cases in which $P_{ö} = 70\%$; 80% ; 90% ; 99%, i.e. a range of hypothetically high performance in public. A private performance of only approx. 10%-15% would exist if the ratio of contacts $K_{ö}/K_{p}$ were ≈ 7 to 10.

No measured value is available for the $K_{p}/K_{ö}$ variable (private/public contact ratio). A study on this would be desirable, as this variable could be used to determine exactly how the private performance P_{p} was in each case.

Conclusion: Since experience shows that people have significantly more contacts in public on average than in private, the performance in private is reciprocal to the performance in public: In the case of a good public performance of $P_{ö} = 70\%$ and $K_{ö}/K_{p} \approx 9$, i.e. with only $P_{ö}/P/2 \approx (70\%+10\%)/2 \approx 40\%$. Even with an optimum power of approx. 99%, the cumulative power would be at most $P_{ö} = 99\%$ and $K_{ö}/K_{p} \approx 9$ at only $Pö/P/2 \approx (99\%+10\%)/2 \approx 55\%$.

This assessment also goes hand in hand with the following layer model, which categorically shows the problems that people are exposed to in a pandemic:

6. General information on increasing motivation and improving a Pg

In general, internal and external factors, needs, desires, values and goals are considered motivating [3]. Internal factors include self-protection, external factors include the expectations of others (family, job), and needs and desires include the prospect of a life without restrictive measures, framed by fundamental ethical principles that are practiced.
Demotivating factors also include the lack of a sense of achievement despite the volume of work and ongoing stress during a pandemic, provided that the infection figures do not change significantly, or the realization that people perform at very different levels.

6.1. Extreme value analysis of motivation and P_g

A thought experiment for the discussion of group dynamics:

a) Assume the smallest possible population, namely two people. Both are highly motivated, each with an assumed P_g of 90%, i.e. a cumulative performance P_{eff} of 99%. Both agree over an infectious period of 7 days [4], sufficient distance from each other. Consequently, the disease dies out within the population. The same happens when some people, such as three, do so. From a minimalist perspective, mitigating a pandemic therefore seems simple.

b) Now a fourth person is added, who has been living an extreme P_g of 0% because she is constantly kissing people in the back. It is foreseeable that the previous three participants will not be able to maintain their Pg. So they decide to motivate the fourth person with a bonus of 1,000 euros in case the disease runs dry. The motivation works, the pandemic is alleviated (the motivation can be seen here as both a benefit and a hindrance, a delta of 1,000 euros).

c) Now 78 people are to solve the task, 70 of them with Pg of 90% and 8 with low P_g. The strategy is congruent with b), but does not work because one participant makes a mistake. This leads to unwanted contagion, despite increased motivation. The aggravating delta of 1,000 therefore occurs even though the joint effort was maximized.

While the common goal is achieved in a) and b), c) results in an unfavourable situation that needs to be optimized in terms of justice. The solution is the following thesis:

The aggravating delta no longer applies,
if the group achieves a jointly defined objective,
for example if the pandemic is sufficiently and proportionately alleviated.

6.2. Historical perspective on motivation and synchronization

In a historical examination of the Spanish flu of 1918-1920, it becomes clear that the lack of communication media made it impossible to synchronize a joint effort to prevent infection [5]. Accordingly, a pandemic was seen as something rampant, something in which there was basically no chance and only partial relief could be achieved. It is clear that this view has not changed significantly during the coronavirus pandemic. Nowadays, we are highly synchronized in many areas; when an online lecturer posts to his thousands of students “We are starting half an hour later today”, thousands act accordingly. Traffic management systems that prevent traffic jams in road traffic and enable landings every minute in air traffic are also exemplary.

The approaches to synchronization during the coronavirus pandemic include the coronavirus app from the German Federal Ministry of Health and the luca app from neXenio GmbH, each with content on rules of conduct, current events or

statistics on infection locations, among other things. The approach of synchronization in the luca app was at least to localize places with an increased risk of infection and to advise users not to visit such places or to “track” users as to who is currently where.

6.3. Inherent motivation during a pandemic

There is a need to discuss what possibilities exist to increase motivation during a pandemic. "Motivation can be either intrinsic or extrinsic [6]. The former is the case when the activity is pursued by the actor because it seems interesting or pleasurable in itself, the latter when the goal of the actor is a reward that is different from the activity itself." (Motivation, Wikipedia, 2024) Intrinsic motivation is, for example, when a person knows that another person - within reach - has a deadly, infectious disease and therefore avoids being near them. Extrinsic motivation is when someone receives a financial reward if they do not become infected.

During the coronavirus pandemic, people were individually intrinsically and extrinsically motivated in different ways, with the known cumulative result in terms of infection rates [7]. The sum of intrinsic and extrinsic motivation did not lead to a minimization of infection numbers in the winter of 2020/2021. Instead, the statistics show that - in parallel with the known adaptive measures - an approximate constancy has been achieved and at least an exponential increase that could otherwise be assumed has been avoided.

Logical conclusion:

If the sum of intrinsic and extrinsic motivation did not minimize the number of cases, the intrinsic motivation alone was not high enough to minimize the number of infections.

A reward system for extrinsic motivation within a pandemic is questionable for several reasons: Firstly, it does not seem affordable to reward a population of

several million people for success. Secondly, a reward would hardly provide motivation if the participant knows that they can only become infected in exceptional cases anyway and that they will usually receive the reward anyway.

Thesis:
It is to be regarded as inherent, i.e. inevitable,
that extrinsic rewards within a pandemic
cannot generate any significant motivation.

The aggravating delta mentioned in 6.1. provides a proverbial bridge. It is assumed that a reward that does not materialize or the payment of a fine represents an aggravating factor (a difference in wealth), so that an extrinsic motivation can also be assumed. Fines are applied: Anyone who is flashed at 61km/h in traffic in a 30 zone receives a substantial fine of 288.50 euros [8]. Exceeding the speed limit is considered avoidable and it needs to be clarified whether a fine for infection during a pandemic is also permissible.

6.4. General information on the development of a P_g motivation concept

The extent to which a performance concept can be developed that complies with ethical and legal requirements and can therefore be used by groups needs to be discussed. A fundamental distinction must be made as to whether a motivation-enhancing performance concept is applied voluntarily by a group in accordance with the law, or whether it may be used across the board within the framework of a legal basis. However, it must also be considered to what extent the requirement of appropriateness can be upheld if a P_g motivation concept is legally compliant and practicable but is not applied, especially in the event that a future pandemic has a significantly higher value, e.g. 5%, instead of a mortality rate of less than 0.47% [9], but the motivation profile of the population remains comparable. A comprehensive treatment of such questions in the fields of epidemiology, sociology, law and economics, among others, seems advisable to an extent that the

structure of this article cannot and should not achieve. The solutions described in the following are based on the assumption that the imposition of a fine or comparable aggravation may be permissible, provided that internal and external circumstances make it possible to prevent self-infection.

6.5. Logical derivation of a Pg motivation concept

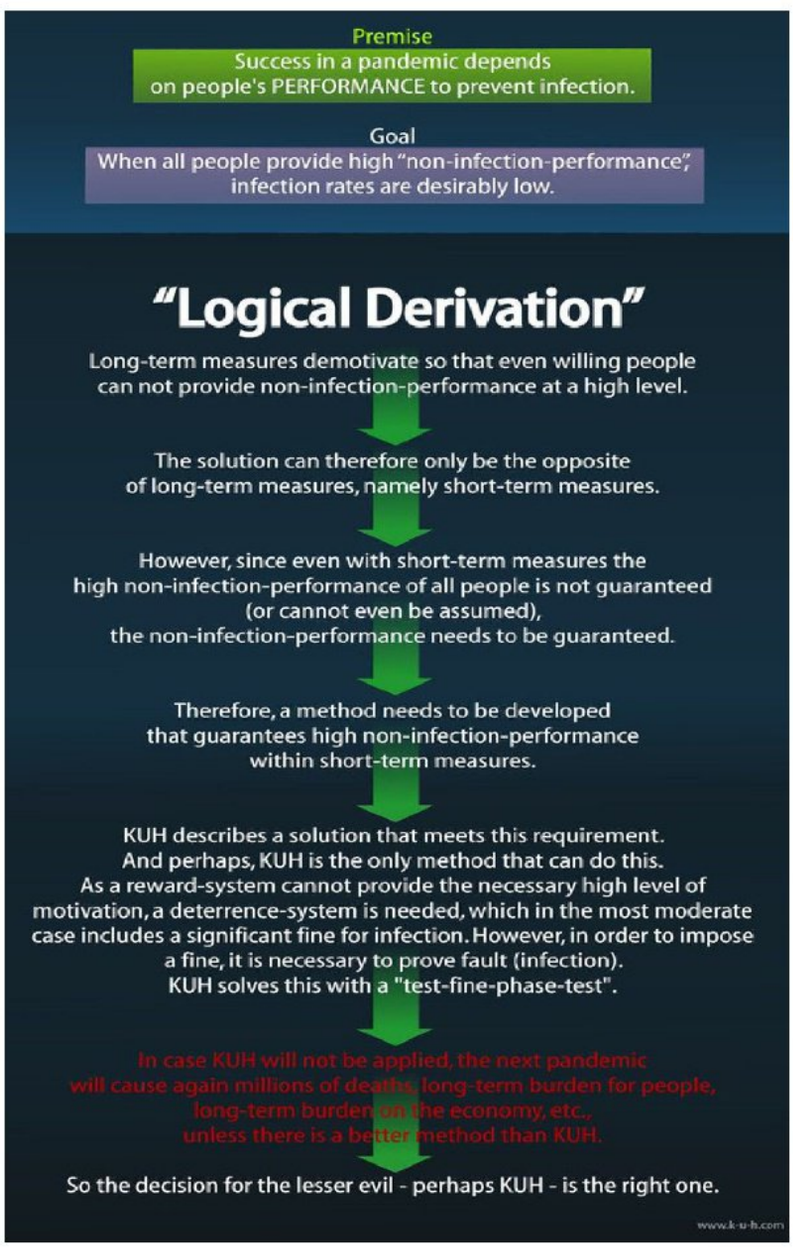


Fig. 5

7. Concepts for increasing the motivation of a P_n

7.1. P_n-concept with two tests

This concept is described in the patent application [10] and may be the first record of an approach that uses aggravation as a means of motivation during a pandemic.

Fig. 6: Within a one-day - or short - time window, the first self-test of all participants takes place, followed by a period in which the self-test reveals a change in the antibody status.

The two-test concept should be used if the test procedure requires a change in antibody status. In addition, the first test is also an indicator for the participant that they must prevent their own infection from then on.

7.2. P_n-concept with one test

This concept is documented in the various patent and utility model applications that have not yet been disclosed.

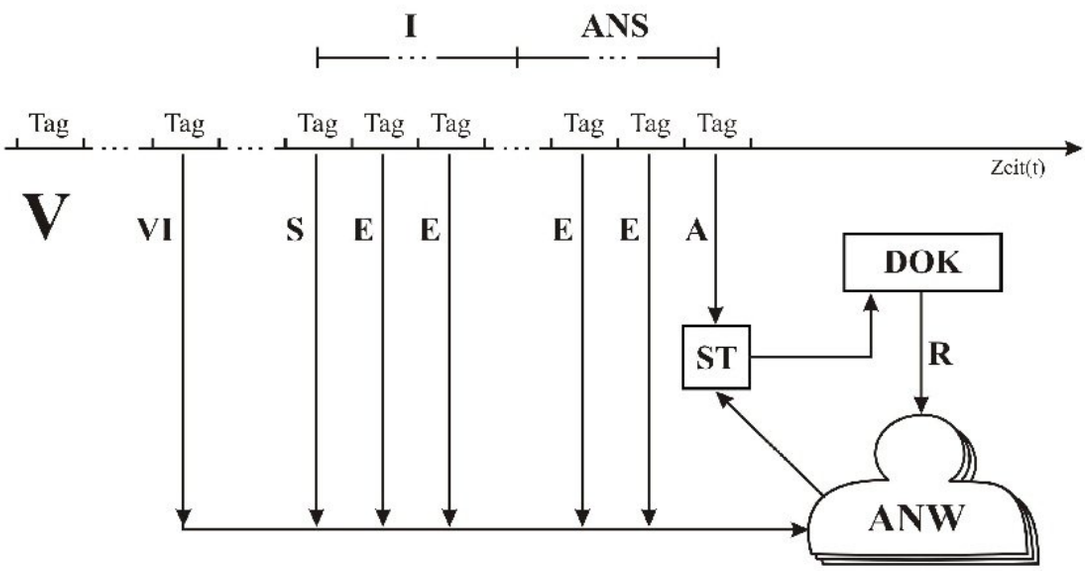


Fig. 7: Structure of a one-test-concept (TAG=DAY, Zeit=Time)

After a joint agreement has been reached, the participants are informed of the start of the measure, which is followed by a period in which self-infection must be prevented, otherwise the participant will be at risk of the agreed complication. It is assumed that the one-off, final self-test will provide certainty as to whether the participant has completed the task of preventing infection.

8. The desired effect

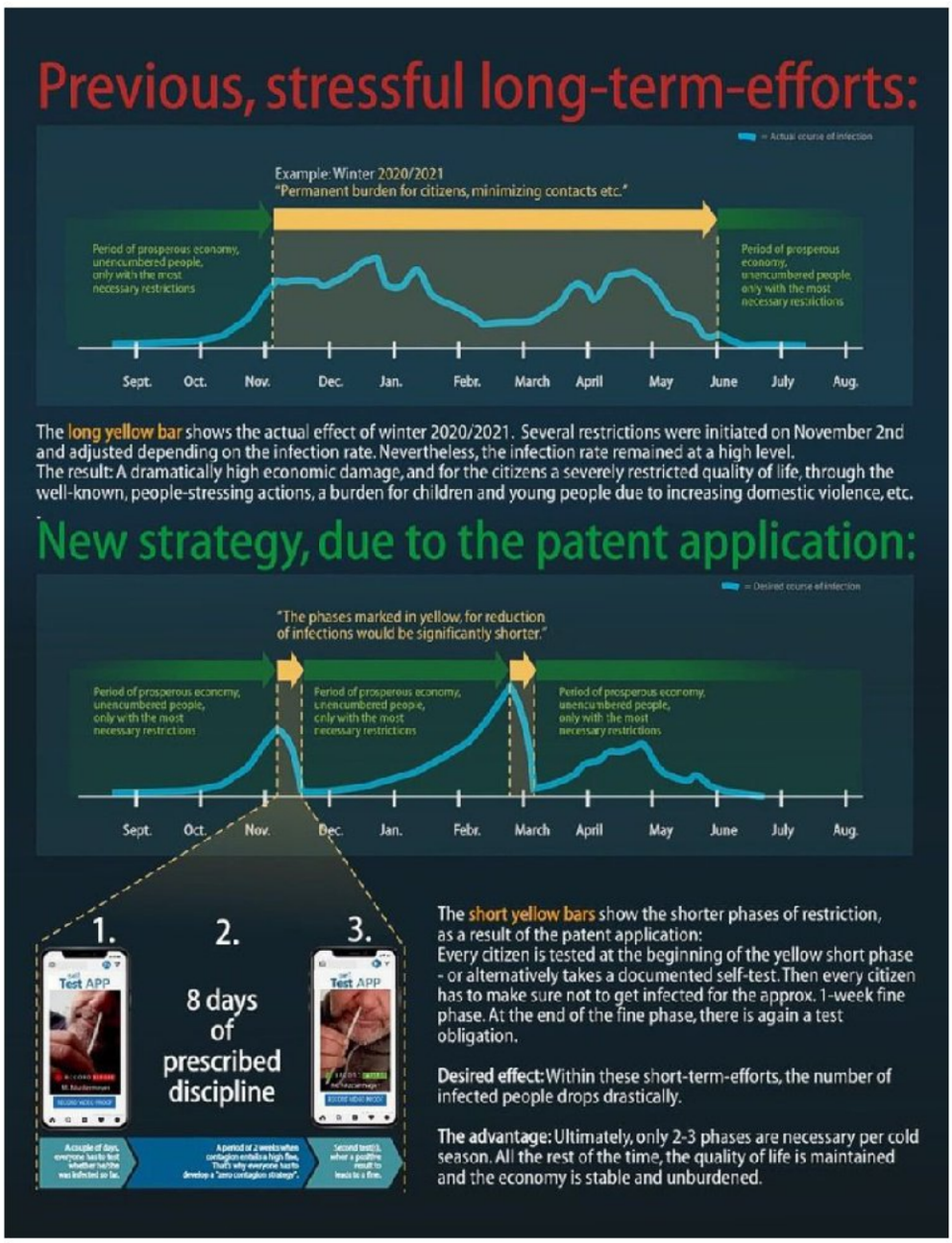


Fig. 8: The first diagram shows the actual course of infection in winter 2020/21 [11], the second the desired effect that the concepts from 7. are intended to achieve: A drastic decrease in infections within the performance periods, outside these periods the possibility of less burdensome long-term measures, whereby a renewed increase in infection numbers is allowed until a limit value triggers a new performance period.

9. Aspects for an ethical and legal classification

9.a) The idea that catching the disease entails an aggravating circumstance or even a fine seems obscure, at least at first glance. On the other hand, the aggravation is not for being ill, but for the failure to prevent one's own infection, which precedes being ill.

9.b) Is it necessary to classify whether the prevention of infection can be deliberately achieved by a person, in the sense of feasibility?

9.c) Is the failure to prevent one's own infection comparable to other fines, such as speeding in traffic or a violation of the Corona Ordinance [12]?

9.d) May there be a gradual introduction of such a procedure, in the form of volunteers joining a group practicing the procedure? With a voluntary aggravation/money commitment from each participant?

9.e) To what extent can a feasibility study be carried out scientifically, and how would such a study be designed?

9.f) Is there a legal impossibility: Basic Law, laws, regulations with which the concept is not compatible? Or could such legal bases be changed in such a case?

9.g) Are there sensible restrictions that have not yet been taken into account? Would it make sense to exclude certain groups of people, such as hospital staff and nursing staff? Is it possible to design a system of fines in such a way that fines are generally waived if a common goal is achieved because the overall performance is correspondingly high?

10. Aspects of a scope analysis and impact assessment

10.1. In general

In contrast to the aspects expressed in 9., the extent to which the use of a procedure from 7. brings advantages must be considered. Because if the effect is as described in 8., then there is a chance that the course of a pandemic can be shaped in a significantly different way, with possible major consequences for infection rates and medical circumstances (e.g. also with regard to infestation and immunity), the economy and the easing of social problems within a pandemic.

As a result, the extent to which simulation-based scope analyses can provide information on this and thus allow a well-founded assessment of the consequences must be weighed up.

The aspects described in 9. make it clear that an effort on the part of the population would be necessary, which would represent a burden, so to speak. On the other hand, the aspects mentioned in 10. above show that there are considerable advantages that would ease the burden.

Consequently, burden and relief must be discussed.

10.2. Economic aspects

In this abbreviated view, the ZDF report is intended to give an impression of the extent of the damage caused by the coronavirus pandemic and how desirable concepts that significantly increase joint social performance would be [1].

https://www.zdf.de/nachrichten/wirtschaft/corona-wirtschaft-schaden-verluste-pleite-100.html

11. Proof of inherent ineffectiveness of previous pandemic strategies

11.1. Probability of meeting infected people

In accordance with the terms defined in 2., one day in winter 2020/2021 is considered, December 7, with 36,059 registered new infections of SARS-CoV-2/Covid-19 in Germany [13].

This is also based on the unreported infection rate of 43% in this time window (see [16], page 12) and the infectiousness of one week ([4] , p. 60), with a population of 83.2 million people [14].

As a result, it is possible to calculate at least roughly how many people were infected at this time, or how high the probability p is that a person will meet another infected person:

$$p = 36.059 * 7 * 143\% / 83.200.000 = 0{,}404\%$$

On average, every person met an infected person in every 231 cases.

11.2. Ratio of performance P_s to infection prevention work W in public

Based on the definitions of performance and work from 2., it can be concluded that a person only used their P_s on average 0.404% of the time when implementing infection-preventing measures and, conversely, performed 99.596% of infection-preventing work W instead, during which no infection could have occurred. In the event that his P_c in public was 90% due to measures such as wearing a mask and social distancing, the person was infected on a statistical average of every 2,310 encounters, i.e. a Pc of 2,309 / 2,310 = 99.96%. Assuming that an exemplary person who uses public transport, among other things, has around 40 encounters per day in public, he would therefore be infected after an average of 58 days.

11.3. Ratio of performance Ps to infection prevention work W in the private sector

Wearing a mask and safety stands do not take place if, among other things, the person as mentioned in 11.1

a) comes home and kisses his/her partner.
b) comes home and kisses his/her family members.
c) makes love to a partner or stranger.
d) hugs friends.
e) holds social evenings.
f) performs comparable immanent rituals/needs,

whereby a) to f) can be assigned to each of the basic needs defined by Klaus Grawe: "need for attachment, need for orientation and control, need for self-esteem enhancement and self-esteem protection, need for pleasure gain and pleasure avoidance" [15].
A P_s is assigned to cases a) to f). In the case of high infectivity, a) can be assumed to be of a negligible order of magnitude of 3-10%. It follows from this that a P_c of 57 / 58 = 98.3% for the daily kissing of the partner, who is infected in public 58 days on average, at home.

11.4. Comparison of P_s and P_c in public and private

From this follows a proof by ring conclusion: Because the lived, total (nominal) infection prevention performance Pcö in public of 99.97% inevitably leads to a Pch of approx. 98.7% in private - due to the almost unpreventable infection due to 11.2.a)-f). Prevention in private is as much weaker as contacts in public are present, according to formula no. 5 from 11.04. .

11.5. Collection of formulas for a performance analysis for pandemics

1.

$$J_{OneOfHowManyIsInfected} = \frac{B_{EntireCitizens}}{T_{DailyInfections} * I_{InfectiousTimeSpan}}$$

2.

$$P_{erformanceCompleteInÖPublic} = \frac{\frac{J_{OneOfHowManyIsInfected}}{1-P_{erformanceSelfdefense}} - 1}{\frac{J_{OneOfHowManyIsInfected}}{1-P_{erformanceSelfdefense}}}$$

3.

$$N_{AfterHowManyDaysInfectedInPublic} = \frac{\frac{J_{OneOfHowManyIsInfected}}{1-P_{erformanceSelfdefense}}}{K_{ContactsPerDayInPublic}}$$

4.

$$P_{erformanceCompleteZinPrivate} = \frac{N_{AfterHowManyDaysInfectedInPublic} - 1}{N_{AfterHowManyDaysInfectedInPublic}}$$

(On the premise that an infection is almost certain to happen at home)

5.

$$K_{ContactsPerDayInPublic} = \frac{1 - P_{erformanceCompleteZinPrivate}}{1 - P_{erformanceCompleteInÖinPublic}}$$

Fig 9: Formulas

11.6. Case studies

J	Ps	K	N	NT	Pcö	Pch	Difference-
			Being infected	Being infected	Performance	Performance	factor
One of J	Performance	Contacts	after meeting	after	in	in private	of performances
is infected	Selfdefense	per day	N persons	NT days	public	(nominal)	(invers)
100	90,00%	40	1000	25	99,90%	96,00%	40
120	90,00%	40	1200	30	99,92%	96,67%	40
140	90,00%	40	1400	35	99,93%	97,14%	40
160	90,00%	40	1600	40	99,94%	97,50%	40
180	90,00%	40	1800	45	99,94%	97,78%	40
200	90,00%	40	2000	50	99,95%	98,00%	40
220	90,00%	40	2200	55	99,95%	98,18%	40
240	90,00%	40	2400	60	99,96%	98,33%	40
260	90,00%	40	2600	65	99,96%	98,46%	40
280	90,00%	40	2800	70	99,96%	98,57%	40
300	90,00%	40	3000	75	99,97%	98,67%	40
320	90,00%	40	3200	80	99,97%	98,75%	40
340	90,00%	40	3400	85	99,97%	98,82%	40
360	90,00%	40	3600	90	99,97%	98,89%	40
380	90,00%	40	3800	95	99,97%	98,95%	40
400	90,00%	40	4000	100	99,98%	99,00%	40
420	90,00%	40	4200	105	99,98%	99,05%	40
440	90,00%	40	4400	110	99,98%	99,09%	40
460	90,00%	40	4600	115	99,98%	99,13%	40
480	90,00%	40	4800	120	99,98%	99,17%	40
500	90,00%	40	5000	125	99,98%	99,20%	40
520	90,00%	40	5200	130	99,98%	99,23%	40
100	60,00%	40	250	6,25	99,60%	84,00%	40
120	60,00%	40	300	7,50	99,67%	86,67%	40
140	60,00%	40	350	8,75	99,71%	88,57%	40
160	60,00%	40	400	10,00	99,75%	90,00%	40
180	60,00%	40	450	11,25	99,78%	91,11%	40
200	60,00%	40	500	12,50	99,80%	92,00%	40
220	60,00%	40	550	13,75	99,82%	92,73%	40
240	60,00%	40	600	15,00	99,83%	93,33%	40
260	60,00%	40	650	16,25	99,85%	93,85%	40
280	60,00%	40	700	17,50	99,86%	94,29%	40
300	60,00%	40	750	18,75	99,87%	94,67%	40
320	60,00%	40	800	20,00	99,88%	95,00%	40
340	60,00%	40	850	21,25	99,88%	95,29%	40
360	60,00%	40	900	22,50	99,89%	95,56%	40
380	60,00%	40	950	23,75	99,89%	95,79%	40
400	60,00%	40	1000	25,00	99,90%	96,00%	40
420	60,00%	40	1050	26,25	99,90%	96,19%	40
440	60,00%	40	1100	27,50	99,91%	96,36%	40
460	60,00%	40	1150	28,75	99,91%	96,52%	40
480	60,00%	40	1200	30,00	99,92%	96,67%	40
500	60,00%	40	1250	31,25	99,92%	96,80%	40
520	60,00%	40	1300	32,50	99,92%	96,92%	40
231	0,00%	40	231	5,78	99,57%	82,68%	40
231	5,00%	40	243	6,08	99,59%	83,55%	40
231	10,00%	40	257	6,42	99,61%	84,42%	40
231	15,00%	40	272	6,79	99,63%	85,28%	40
231	20,00%	40	289	7,22	99,65%	86,15%	40
231	25,00%	40	308	7,70	99,68%	87,01%	40
231	30,00%	40	330	8,25	99,70%	87,88%	40
231	35,00%	40	355	8,88	99,72%	88,74%	40
231	40,00%	40	385	9,63	99,74%	89,61%	40
231	45,00%	40	420	10,50	99,76%	90,48%	40
231	50,00%	40	462	11,55	99,78%	91,34%	40
231	55,00%	40	513	12,83	99,81%	92,21%	40
231	60,00%	40	578	14,44	99,83%	93,07%	40
231	65,00%	40	660	16,50	99,85%	93,94%	40
231	70,00%	40	770	19,25	99,87%	94,81%	40
231	75,00%	40	924	23,10	99,89%	95,67%	40
231	80,00%	40	1155	28,88	99,91%	96,54%	40
231	85,00%	40	1540	38,50	99,94%	97,40%	40
231	90,00%	40	2310	57,75	99,96%	98,27%	40
231	95,00%	40	4620	115,50	99,98%	99,13%	40
231	99,90%	40	231000	5775,00	100,00%	99,98%	40

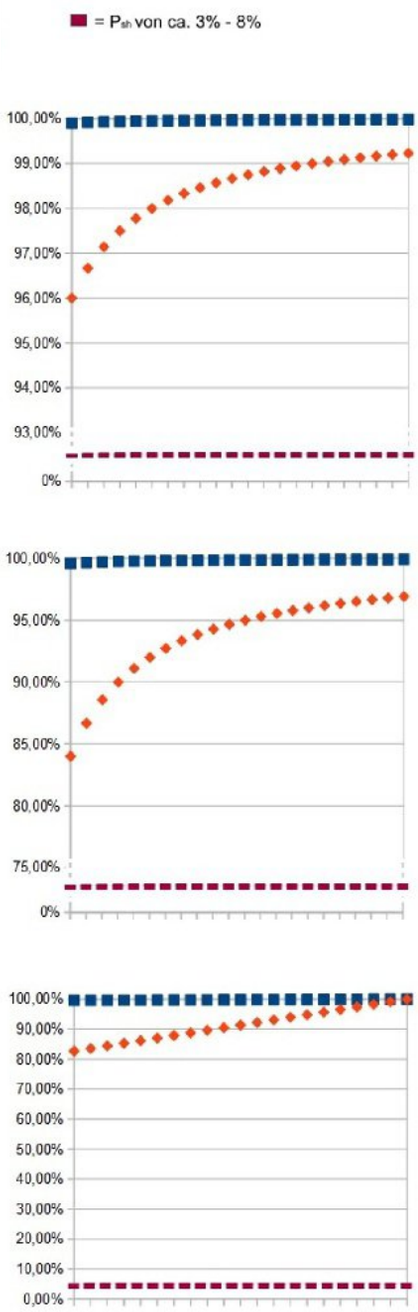


Fig 10: Case studies 11.6.1, 11.6.2 and 11.6.3: The blue nominal power in public is over 99%, regardless of effort, and the orange power at home is directly dependent on it. However, at the moment when a person comes home, current performance of 3%-8% can only be expected. So there is a huge gap between performance in public and at home.

11.7. Evaluation of the case studies and discussion

The most striking feature of the case studies is that the nominal performance Pcö remains high regardless of the actual level, namely even in the circumstance from 11.6.3. that although one in 231 is infected, the Pcö is 99.57, although the test person has a P_S of 0% (equivalent to "kisses everyone in public"), whereby on average an infection in public occurs after 5.78 days. 11.6.3. also shows that high $P_{cö}$ of over 80% statistically prevent infection for years.

However, the consistently high PCOE is also the critical starting condition, similar to the butterfly effect known from chaos theory, because if an infection occurs in public, the risk of infection there is very high when the infection is carried into one's own home - in accordance with 11.3.a)-f) - and possibly also among several family members.

This results in a polarization for the incidence of infection: In public, if the sensible measures are observed - such as wearing a mask and keeping a distance - there is hardly any chance of infection, whereas at home it is almost guaranteed that one or more infections will occur if the test person has a family or is single and maintains comparably close contacts at home. The high volume of infections at home - as shown in Fig. 3 with over 50% of infections there - goes hand in hand with case study 11.6, as well as with the assessment of performance from 5.3.

A dramatic change in the infection figures would therefore only be expected if there were dramatically fewer infections at home. However, natural needs - in accordance with 11.3.a)-f) - are immanent, especially if measures such as those in winter 2020/2021 last for several months without a foreseeable end. In this respect, it is also questionable or at least not proven whether a higher lethality would lead to more motivation, as the problem does not seem to be conventionally eliminated in private life.

Conclusion:

Accordingly, a pandemic can either categorically not be made significantly better than the current one, or a solution can be found that enables a dramatic increase in the ability to prevent infection in the private sphere, at least in the short term. After all, if natural needs can be restricted at all - in accordance with 11.3.a)-f) - then only for a few days (based on 6.5. Fig.5).

The assessment that a no-Covid strategy or a curfew, as practiced in China, could provide a remedy instead is refuted by the fact that the same problem of high infection rates exists in private homes. At the start of a no-Covid measure, there is a population of infected people who now stay at home for a whole day instead of half a day (as is the case with working people), presumably visiting neighbors in the apartment building out of boredom, or illegally circumventing the guidelines, or at least having more intensive contact with their own family members.

12. Recommendation

In line with the conclusion from 11., it is advisable to prepare the concepts from 7.1. and 7.2. at least technically now as an option in order to have such procedures available as soon as possible, at least optionally, due to their months or years of development. The current pandemic has shown the limited efficiency with which case numbers can develop positively during a pandemic. It should also be taken into account that, despite the lethality rate of 1% [4] and 0.47% [9], there was no higher primary motivation among the population. And it is by no means guaranteed that the primary motivation would be higher in a pandemic with a lethality rate of around 5%. It should also be borne in mind that the concepts from 7.1. and 7.2. generate any need for infection reduction, even in the case of epidemics or any problems in connection with biological weapons.

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DOI: 10.1007/s15033-020-1826-1

Illustration of the dilemma of why previous pandemic measures categorically cannot solve the high incidence of infection in private households

Autor: Bodo Zeidler 25.03.2025 KUH-Projekt

Logical derivation / Abstract

1. **Evident:**
Most infections take place in private.[1]

Ref.[1]: Ministerium für Soziales und Integration Baden-Württemberg, Tagesspiegel 22.10.2022, derivable from this: **52,2% in private.**

2. **Evident:**
Unavoidable infection of others, in **unawareness of own illness**[2,3,5]

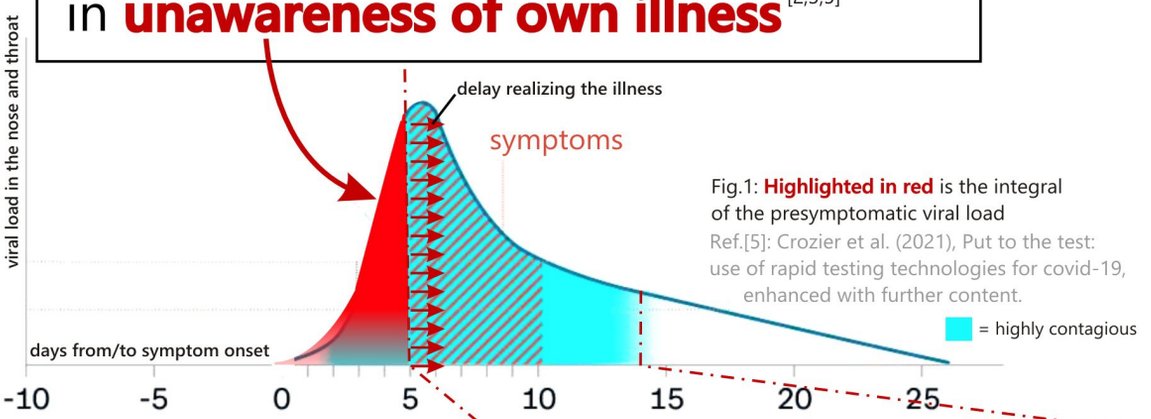

Fig.1: **Highlighted in red** is the integral of the presymptomatic viral load
Ref.[5]: Crozier et al. (2021), Put to the test: use of rapid testing technologies for covid-19, enhanced with further content.

Evident:[2] [3,5]
2.5 days high contagiousness during the incubation period,
which through immanent, private behavior (kissing, hugging,...) inevitably causes **infections in unawareness.**

Evident by experience:
Partial cheating on pandemic measures
Private parties during lockdowns and curfews, willful neglect of infection control,...

Evident by experience:
Exhaustion due to long-term measures
Motivation to prevent infection naturally decreases over time.

Ref.[2]: Pneumo News . 2020 May 29;12(3):27–28. [Article in German] doi: 10.1007/s15033-020-1826-1
Ref.[3]: William S Hart et al. (2021) High infectiousness immediately before COVID-19 symptom onset highlights the importance of continued contact tracing

3. **Logical conclusion:**
What is needed is a method that stops the numerous private **infections in unawareness**, which are still unavoidable today,

as **any previous pandemic measures [6]** do not counteract this requirement.
(With known limitations [7], vaccination does reduce private infections, but the high level of infection in the private sphere [1] already occurred during the availability of vaccines.)

Ref.[6]: Wikipedia, 2025, "Liste der infolge der COVID-19-Pandemie erlassenen deutschen Gesetze und Verordnungen"
Ref.[7]: RKI, 2025, www.rki.de/impfen (bzgl. Ansteckbarkeit trotz Impfung)

"KUH-method" as a technically operative innovation (solution)

Ref[4]: Bodo Zeidler, patent application DE102022000152A1
„Verfahren zur Reduktion des Ansteckungsaufkommens in einer Pandemie" vom 19.01.2022
("Procedure for reducing the number of infections in a pandemic")

(19) Deutsches Patent- und Markenamt

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(12) # Offenlegungsschrift

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(71) Anmelder:
Zeidler, Ernst Bodo, 31840 Hessisch Oldendorf, DE

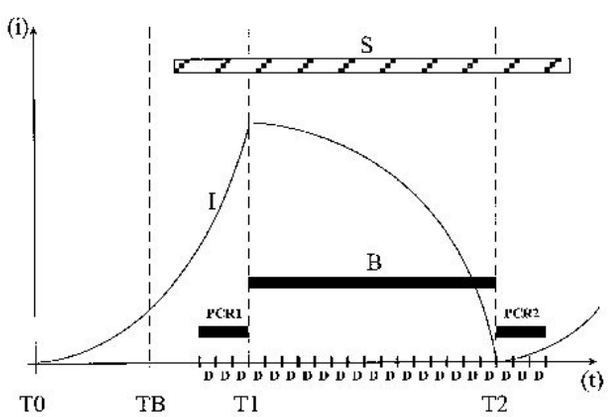
(72) Erfinder:
Erfinder gleich Anmelder

Rechercheantrag gemäß § 43 PatG ist gestellt.

Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen.

(54) Bezeichnung: **Verfahren zur Reduktion des Ansteckungsaufkommens in einer Pandemie**

(57) Zusammenfassung: Das Verfahren beschreibt eine Erfindung, dessen Neuartigkeit auch darauf beruht, die hohe vorhandene Leistungsfähigkeit einzelner Bürger zu aktivieren. Denn ein Bitten um Hilfe an den Bürger, untermauert von Langzeitmaßnahmen, ist deswegen nicht besonders effektiv, weil der Bürger zunächst ein Selbstinteresse hat, und nicht unbedingt ein Allgemeininteresse. Die erfinderische Leistung ist ferner dadurch gekennzeichnet, die schwierige Aufgabe, die Anstrengung jedes Bürgers auf eine kurze Zeitspanne zu fokussieren, unlösbar scheint. Denn ein hartes Gesetzeswerk oder starkes Eingreifen in die Freiheit des Menschen erzielt diesen fokussierten Effekt nicht. Die Kombination von Bußgeldphasen mit beidseitiger Abgrenzung von Testphasen versetzt den Bürger in eine effektive Kurzzeitleistung, in eine Motivation, sich eine eigene sprichwörtliche „Nullansteckungsstrategie“ zu entwickeln, die zeitlich machbar ist, ohne Bevormundung, welcher Mittel man sich bedient, und insbesondere auch zur Abwendung einer moralisch fraglichen Impfpflicht.



Beschreibung

[0001] Eine Pandemie kann über viele Monate oder gar Jahre andauern, und damit Sterbefälle und einen hohen wirtschaftlichen Schaden verursachen. Zur Linderung der Ansteckungen werden seitens des Staats viele Maßnahmen ergriffen und angeboten, darunter das Tragen von Medizinischen Masken, Abstandsregeln, Hygieneregeln, Ausgangssperren und Impfangebote.

[0002] Obwohl solche Maßnahmen dem Bürger per Gesetz und Verordnungen auferlegt sind, werden sie dennoch oft hintergangen, da z.B. bei einer Krankheit, die nicht jede Altersgruppe unmittelbar bedroht, kein Interesse besteht, außer sich selbst noch andere zu schützen.

[0003] Ein weiteres Problem ist, dass anstrengende, unangenehme Maßnahmen über einen langen Zeitraum nur schwer durchzuhalten sind. Vorteilhaft wäre es, wenn gezielt - über eine kurze Zeitspanne - das Ansteckungsaufkommen stark gemindert würde.

[0004] Der im Patentanspruch 1 angegebenen Erfindung liegt das Problem zugrunde, dass mittels bekannter Pandemiemaßnahmen eine kostengünstige, starke Reduktion von Ansteckungen über einen kurzen Zeitraum ohne hohen wirtschaftlichen Schaden nicht möglich ist. Ein Verfahren zur Abwendung des Problems wäre wünschenswert.

[0005] Dieses Problem wird durch die im Patentanspruch 1 aufgeführten Merkmale gelöst.

[0006] Sofern eine bedrohliche Pandemie eintritt, bestimmt die Regierung wie bisher den Beginn der Pandemie. Ebenso muss zur Krankheit bereits eine Testmöglichkeit - wie ein PCR-Test - vorliegen. Das Verfahren sieht vor, dass ab diesem - oder ab einem gesondert definierten - Startzeitpunkt jeder Bürger durch ein Gesetz oder eine Verordnung verpflichtet wird, sich nicht anzustecken und dafür entsprechend sinnvolle, aber letztlich auch beliebige Maßnahmen zu ergreifen. Sofern sich ein Bürger ab diesem Zeitpunkt mit der besagten Krankheit infiziert, muss er ein gehörig hohes, abschreckendes Bußgeld zahlen. Statt des Bußgelds kann alternativ etwas anderes Erschwernis gesetzlich festgelegt werden.

[0007] Eingangs einer solchen Bußgeldphase wird jeder Bürger getestet, um seinen Antikörperstatus festzuhalten. Bei Beginn einer Pandemie - und somit ausgeschlossener vorheriger Ansteckung - kann solch ein Ersttest entfallen (Patentanspruch 2).

[0008] Um zu prüfen, ob sich jemand infiziert hat, werden nach Start dieser Maßnahme einmalig am Ende der Bußgeldphase - an einem Stichtag oder in Zeitfenstern - ein Antikörpertest durchgeführt, ob der Bürger entweder aktuell unter der betreffenden Krankheit leidet, oder infolge einer Infektion bereits Antikörper aufgebaut hat, was bei positivem Testergebnis dann jeweils zur Zahlung des besagten Bußgelds führt.

[0009] Optional lässt sieht das Verfahren auch eine saisonale Eingrenzung vor, so dass z.b. Bußgeldphasen nur in der virenbevorteilenden Winterzeit stattfinden (Patentanspruch 3), und im Sommer stattdessen Ansteckungen gesetzlich erlaubt sind, was den Bürger als Zusatzinformation entlastet. Insbesondere in diesem Falle wird mit Beginn einer neuen Bußgeldphase ein erneuter Test durchführt, um den neuen Antikörperstatus jedes Bürgers zu erfassen, und um so ungerechtfertigte Bußgelder infolge Infektionen außerhalb der Bußgeldphase auszuschließen. Sofern ein Bürger durch eine Impfung einen positiven Antikörperstatus erhält, ist er ab dann vom Bußgeld generell entbunden (Patentanspruch 4). Ebenso können optional geeignete Personengruppen wie z.b. Kinder und Jugendliche ausgeschlossen werden, oder auch Eltern bevorzugt werden, da sie durch ihre Kinder einer höheren Ansteckungsgefahr ausgesetzt sind .

[0010] Auch kann eine Bußgeldphase bei akutem Infektionsgeschehen spontan beschlossen werden, alternativ zu einem geregelt automatisierten gesetzlichen Inkrafttreten (Patentanspruch 5).

[0011] Die Vorteile dieses Verfahrens sind, dass der Krankenstand, Todesfälle und wirtschaftliche Schäden während der Pandemie reduziert werden, weil jeder Bürger dazu angehalten und ermuntert wird, von selbst geeignete Maßnahmen zur Verhinderung einer Ansteckung zu ergreifen. Die bisherigen umfassenden Maßnahmen, was der Bürger zur Minderung der Pandemie bitte tun solle, entfallen weitestgehend, weil nun der Bürger hochgradiges Interesse hat, Ansteckungen zu vermeiden und sich selbst reguliert. Letztlich ist das Verfahren sowohl für den Staat, den Bürger und die Wirtschaft gleichzeitig vorteilhaft. Auch muss der Bürger gar nicht unbedingt geprüft werden, ob er empfohlene oder verordnete andere Maßnahmen einhält, da das Teilnahmeinteresse durch das Verfahren deutlich erhöht wird. Zudem entfällt somit womöglich auch der Bedarf einer Impfpflicht, da viele Bürger sich interessehalber für eine Impfung entscheiden würden, und Ungeimpfte von selbst geeignete Ersatzmaßnahmen ergreifen müssten.

[0012] In **Fig. 1** beschreibt den Ablauf des Verfahrens. Das Koordinatensystem zeigt die Skalen (i) und (t). Nach Pandemiebeginn TB wird - oder ist - gesetzlich der Beginn einer zeitlichen Phase B definiert, in der eine Ansteckung ein Bußgeld mit sich bringt. Mit Beginn einer Bußgeldphase wird an

einem Tag - ersatzweise in einer möglichst kleinen Zeitspanne PCR1 - der Infektionsstatus der Bürger ermittelt, und entsprechend am Tag/Zeitspanne PCR2 erneut geprüft. Hat sich der Infektionsstatus eines Bürgers verändert, wird das Bußgeld - oder das besagte Erschwernis - fällig. Optional finden Bußgeldphasen nur in übergeordnet sinnvollen saisonalen Phasen S wie der Winterzeit statt.

Bezugszeichenliste

(i)	Skala Infektionsgeschehen, Infektionsquote in der Bevölkerung
(t)	Zeitskala
I	Infektionsgeschehen, Infektionsquote
T0	Zeitpunkt vor Pandemie ohne Infektionsgeschehen
TB	Zeitpunkt, zu dem die Regierung Pandemie bestimmt
T1	Beginn einer festgelegten Bußgeldphase, bei entsprechend akutem Infektionsgeschehen
T2	Ende einer Bußgeldphase
D	Ein Tag
PCR1	Tag oder Zeitspanne, wann der jeweils vorherige Antikörperstatus ermittelt wird
PCR2	Tag oder Zeitspanne, wann die bußgeldrelevante Veränderung des Antikörperstatus' ermittelt wird
S	Optionale übergeordnete zeitliche Phase wie beispielsweise der Winterzeit, in denen Bußgeldphasen überhaupt stattfinden

Patentansprüche

1. Verfahren zur Reduktion des Ansteckungsaufkommens in einer Pandemie **dadurch gekennzeichnet**, dass während einer Pandemie Bußgeldphasen gesetzlich oder verordnet definiert werden, abgegrenzt durch einen Erst- und Zweittest, der eine etwaige Veränderung des Antikörperstatus' aufzeigt und ein Bußgeld - oder ein alternatives Erschwernis - nach sich zieht.

2. Verfahren nach Patentanspruch 1, **dadurch gekennzeichnet**, dass anfangs einer Pandemie ein Ersttest vor einer Bußgeldphase entfallen kann.

3. Verfahren nach Patentanspruch 1, **dadurch gekennzeichnet**, dass über Bußgeldphasen hinaus saisonale Phasen definiert werden können, die den Bußgeldphasen übergeordnet sind.

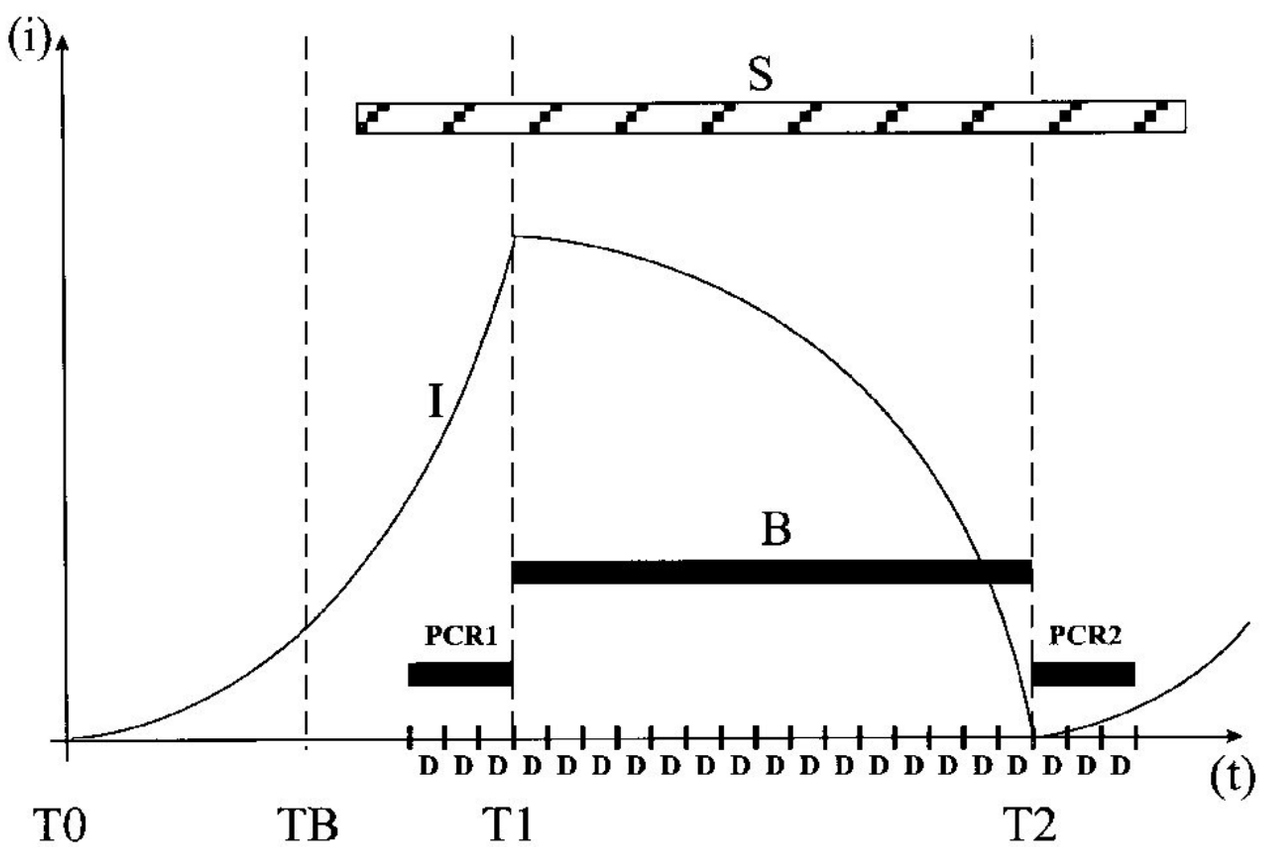
4. Verfahren nach Patentanspruch 1, **dadurch gekennzeichnet**, das Bürger vom Bußgeld entbunden werden, wenn sich ihr Antikörperstatus durch eine Impfung verändert hat.

5. Verfahren nach Patentanspruch 1, **dadurch gekennzeichnet**, dass Bußgeldphasen sowohl spontan entschlossenen als auch geregelt ausgelöst werden können.

Es folgt eine Seite Zeichnungen

Anhängende Zeichnungen

Fig.1



(19) Deutsches Patent- und Markenamt

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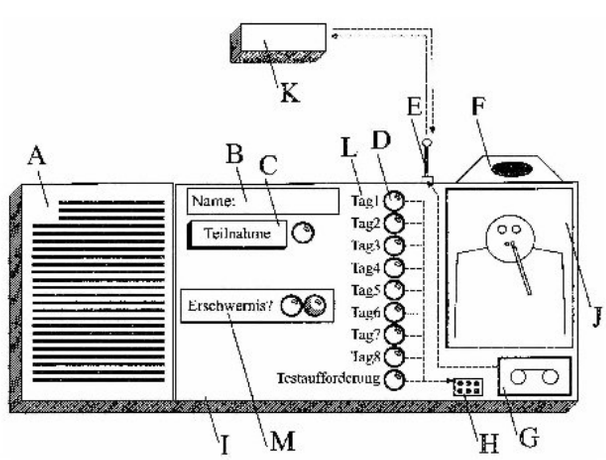
G06Q 50/10 (2012.01)

(73) Name und Wohnsitz des Inhabers:
Zeidler, Ernst Bodo, 31840 Hessisch Oldendorf, DE

Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen.

(54) Bezeichnung: **Vorrichtung zur Synchronisation von Infektionsverhinderungsmaßnahmen innerhalb einer Menschengruppe**

(57) Hauptanspruch: Vorrichtung zur Synchronisation von Infektionsverhinderungsmaßnahmen innerhalb einer Menschengruppe dadurch gekennzeichnet, dass zur Optimierung der Anteckungsverhinderungsleistung jedes Teilnehmers ein linearer Anzeigemechanismus täglich an die erforderliche Leistung erinnert, der abschließend zum Selbsttest auffordert, unter Beinhaltung einer Videodokumentationseinheit zum Selbsttests, der etwaig einen konditionalen Baustein das vereinbartes Erschwernis anzeigen und auslösen lässt, auf Grundlage eines Bausteins zur gemeinsamen Vereinbarung, unter Einschluss einer Identifikationseinheit, eines Teilnahmebuttons und audiovisueller Signalgeber.



Beschreibung

[0001] In Zeiten, wo das Verhindern von Infektionen sinnvoll ist, besteht der Umstand, dass einzelne Menschengruppen ihre Leistung beim Verhindern von Selbstinfektionen optimieren wollen. Im Regelfall gibt es bisher auf landesweiter Ebene sinnvolle Gesetze und Verordnungen, die den Bürger zur Vermeidung von Infektionen anhalten. Darüber hinaus gibt es jedoch Menschengruppen wie u.a. Unternehmen oder Interessengruppen, die gemeinschaftlich eine höhere Effizienz bei der Infektionsverhinderung erreichen wollen. Jedoch gibt es kein Gerät, dass solch ein Ansinnen derart optimiert unterstützt wie die hier geschilderte Vorrichtung. Bekannt sind zur Unterstützung bisher Informationsquellen, die Personen bei der Verhinderung von Infektionen redaktionelle Empfehlungen geben, wie z.B. „Händewaschen ist sinnvoll“. Wünschenswert wäre jedoch ein Gerät, dass die Teilnehmern einer Menschengruppe so motiviert und begleitet, dass die jeweilige Leistung beim Verhindern von Infektionen erheblich steigt.

[0002] Dieses Problem wird durch die im Schutzanspruch 1 aufgeführten Merkmale gelöst.

[0003] Die Vorrichtung, die jedem Teilnehmer der Menschengruppe verfügbar gemacht wird, enthält einen Präsentationsbaustein, der die Teilnahmebedingung mit Verpflichtung zu einem Erschwernis im Falle einer eigenen Ansteckung enthält. An der Vorrichtung ist die Mitteilung des jeweiligen Namens zur Identifikation vorgesehen, ebenso ein Knopf, der die Teilnahme bestätigt. Ab dem in der Teilnahmebedingung erwähnten Zeitpunkt erwirkt ein linearer Anzeigemechanismus, dass durch ein Aufleuchten des jeweiligen Anzeigebausteins täglich an die erforderliche Infektionsverhinderung erinnert wird, unterstützt durch Tonsignale. Ebenso ist auf diesem Anzeigemechanismus ersichtlich, wann der Selbsttest zum Nachweis einer Ansteckung zu erfolgen hat. Die Vorrichtung ermöglicht am finalen Tag der gemeinsamen Maßnahme, dass mittels der implementierten Kamera die Dokumentation des Selbsttests und seines Ergebnisses als Video festgehalten wird, mit Hilfe eines Monitors, der den Videoinhalt bei Aufnahme wiedergibt. Das Ergebnis des Tests gilt als Grundlage für das etwaige Eintreten des Erschwernisses für die teilnehmende Person.

[0004] Zusätzlich - wie in Schutzanspruch 2 beschrieben - wirkt die Vorrichtung in Verbindung mit einem zentralen Dokumentationssystem. Eine funkähnliche Verbindung zu einem Dokumentationssystem sammelt die Ergebnisse und verwaltet die Resultate.

[0005] Zusätzlich - wie in Schutzanspruch 3 beschrieben - kann ein konditionaler Baustein das Erschwernis für alle Teilnehmer entfallen lassen, sofern die angebrachte Teilnahmebedingung das Erschwernis im Falle des Erreichens eines gemeinsamen Ziels ausschließt.

[0006] Zusätzlich - wie in Schutzanspruch 4 beschrieben - kann in Kommunikation mit dem zentralen Dokumentationssystem das Gerät für solche Personen deaktiviert werden, deren Teilnahme an der Gruppenleistung ausgeschlossen sein soll.

[0007] Zusätzlich - wie in Schutzanspruch 5 beschrieben - kann die Anzahl der Tage beim linearen Anzeigemechanismus je nach gewünschter Länge der gemeinsamen Maßnahme variiert werden.

[0008] Fig. 1 beschreibt den Aufbau der Vorrichtung, wesentlich den Gerätebehälter (I), der den linearer Anzeigemechanismus (L), den Präsentationsbaustein mit Teilnahmebedingung (A), die Namensmitteilung (B), den Knopf zur Teilnahmebestätigung (C), Bausteine für ein optisches Signal (D), die beispielsweise funkähnliche Sendevorrichtung (E), die Kamera (F), den Video-Aufzeichner (G), die Tonausgabe (H) und den Monitor (J) zeigt. Das Ergebnis wird im Ergebnisbaustein (M) mitgeteilt. Das optional in Verbindung stehende zentrale Dokumentationssystem (K) befindet sich in einem gesonderten Gerätebehälter.

Bezugszeichenliste

A	Präsentationsbaustein mit Teilnahmebedingung
B	Namensmitteilung, Identifikationsbaustein
C	Knopf zur Teilnahmebestätigung
D	Baustein für ein optisches Signal
E	Sendevorrichtung, beispielsweise funkähnlich
F	Kamera
G	Video-Aufzeichner
H	Tonausgabe
I	Gerätebehälter
J	Monitor
K	Zentrales Dokumentationssystem
L	Linearer Anzeigemechanismus
M	Ergebnisbaustein

Schutzansprüche

1. Vorrichtung zur Synchronisation von Infektionsverhinderungsmaßnahmen innerhalb einer Menschengruppe **dadurch gekennzeichnet**, dass zur Optimierung der Anteckungsverhinderungsleis-

tung jedes Teilnehmers ein linearer Anzeigemechanismus täglich an die erforderliche Leistung erinnert, der abschließend zum Selbsttest auffordert, unter Beinhaltung einer Videodokumentationseinheit zum Selbsttests, der etwaig einen konditionalen Baustein das vereinbartes Erschwernis anzeigen und auslösen lässt, auf Grundlage eines Bausteins zur gemeinsamen Vereinbarung, unter Einschluss einer Identifikationseinheit, eines Teilnahmebuttons und audiovisueller Signalgeber.

2. Vorrichtung nach Schutzanspruch 1, **dadurch gekennzeichnet**, dass die Vorrichtung in Verbindung mit einem zentralen Dokumentationssystem wirkt und durch eine funkähnliche Verbindung zu einem Dokumentationssystem die Ergebnisse sammelt und Resultate verwaltet.

3. Vorrichtung nach Schutzanspruch 1, **dadurch gekennzeichnet**, dass ein konditionaler Baustein das Erschwernis für alle Teilnehmer entfallen lassen kann, sofern die angebrachte Teilnahmebedingung das Erschwernis im Falle des Erreichens eines gemeinsamen Ziels ausschließt.

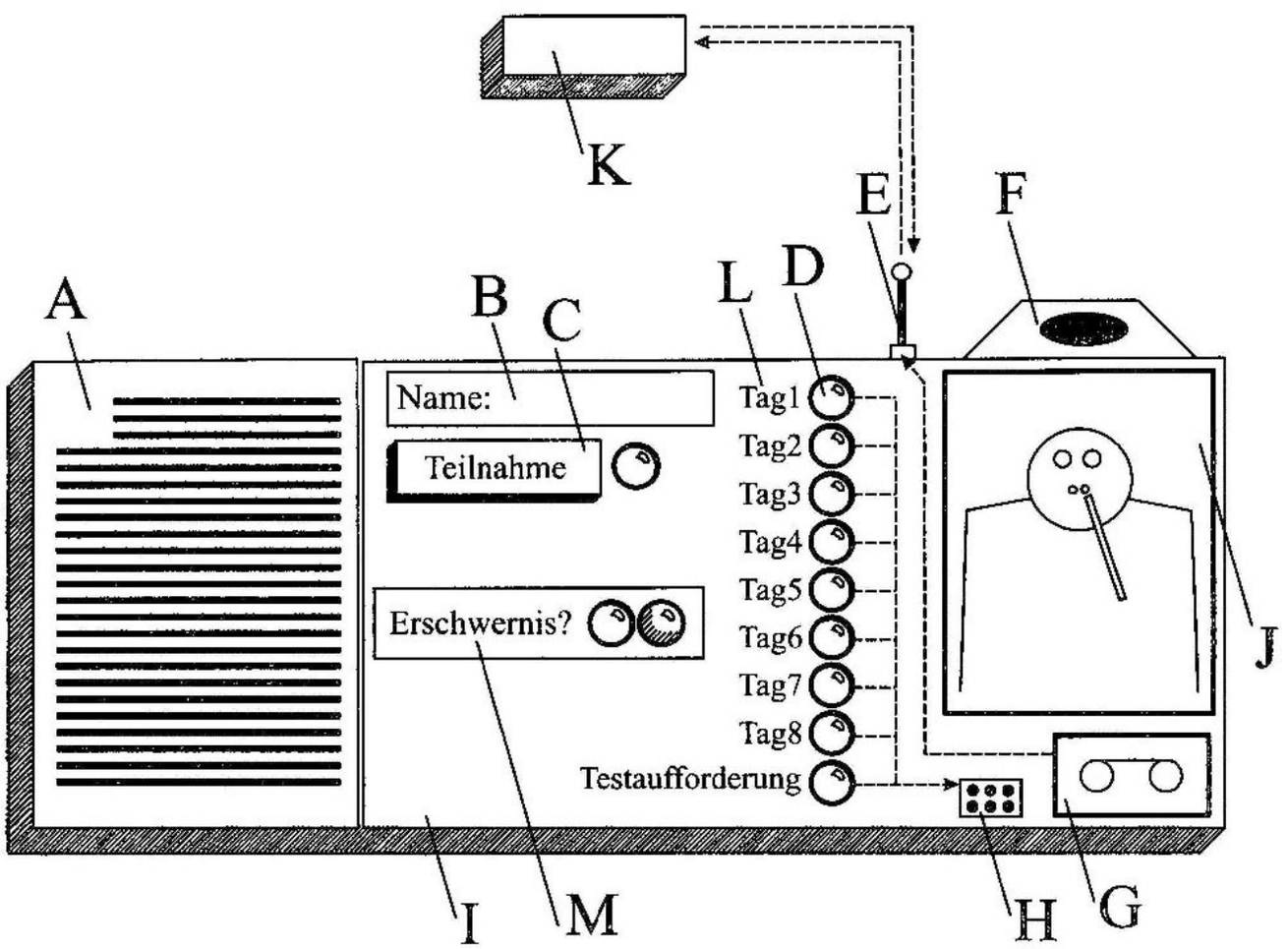
4. Vorrichtung nach Schutzanspruch 1, **dadurch gekennzeichnet**, dass in Kommunikation mit dem zentralen Dokumentationssystem das Gerät für solche Personen deaktiviert werden kann, deren Teilnahme an der Gruppenleistung ausgeschlossen sein soll.

5. Vorrichtung nach Schutzanspruch 1, **dadurch gekennzeichnet**, dass die Anzahl der Tage beim linearen Anzeigemechanismus je nach gewünschter Länge der gemeinsamen Maßnahme variiert werden kann.

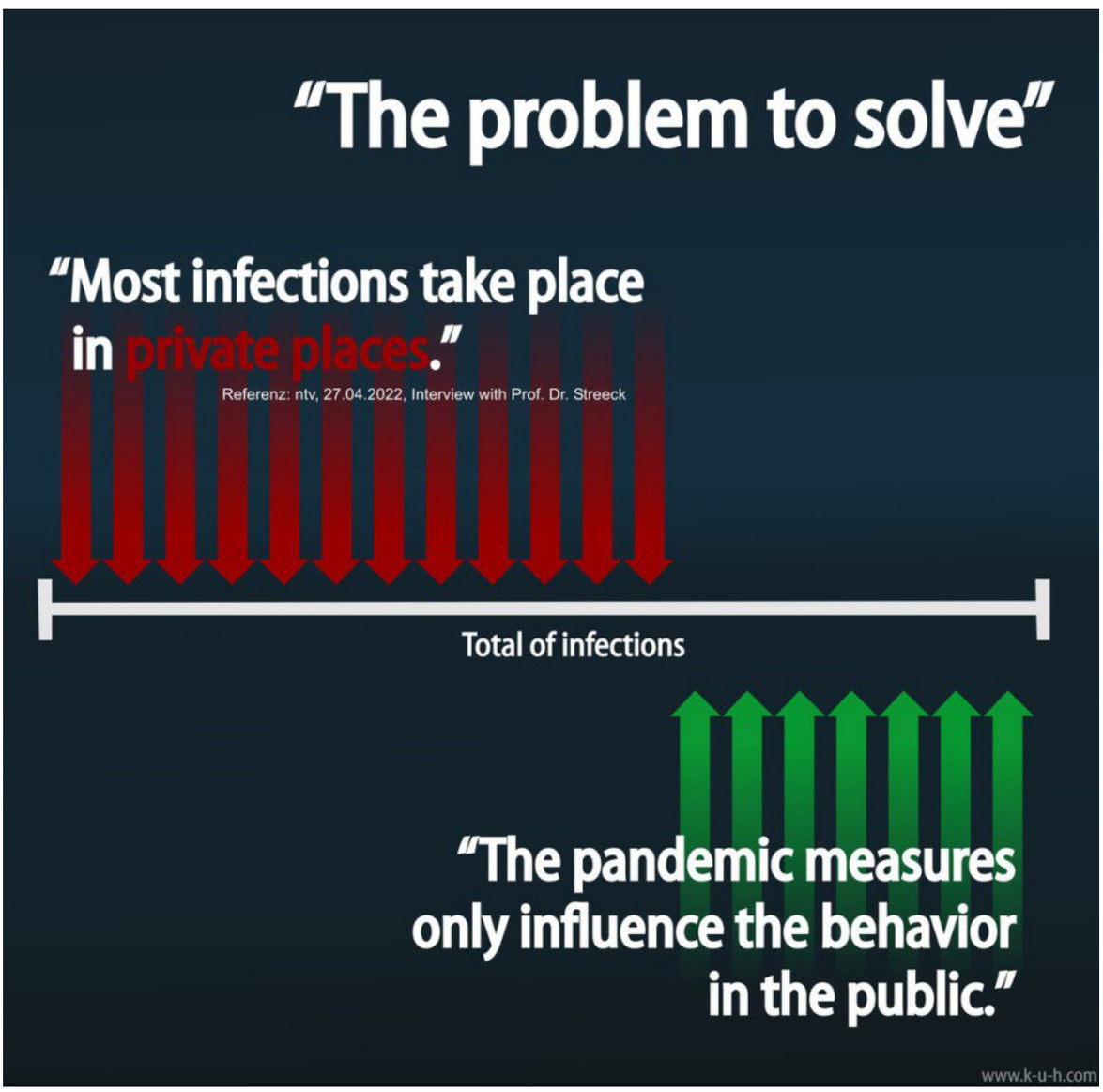
Es folgt eine Seite Zeichnungen

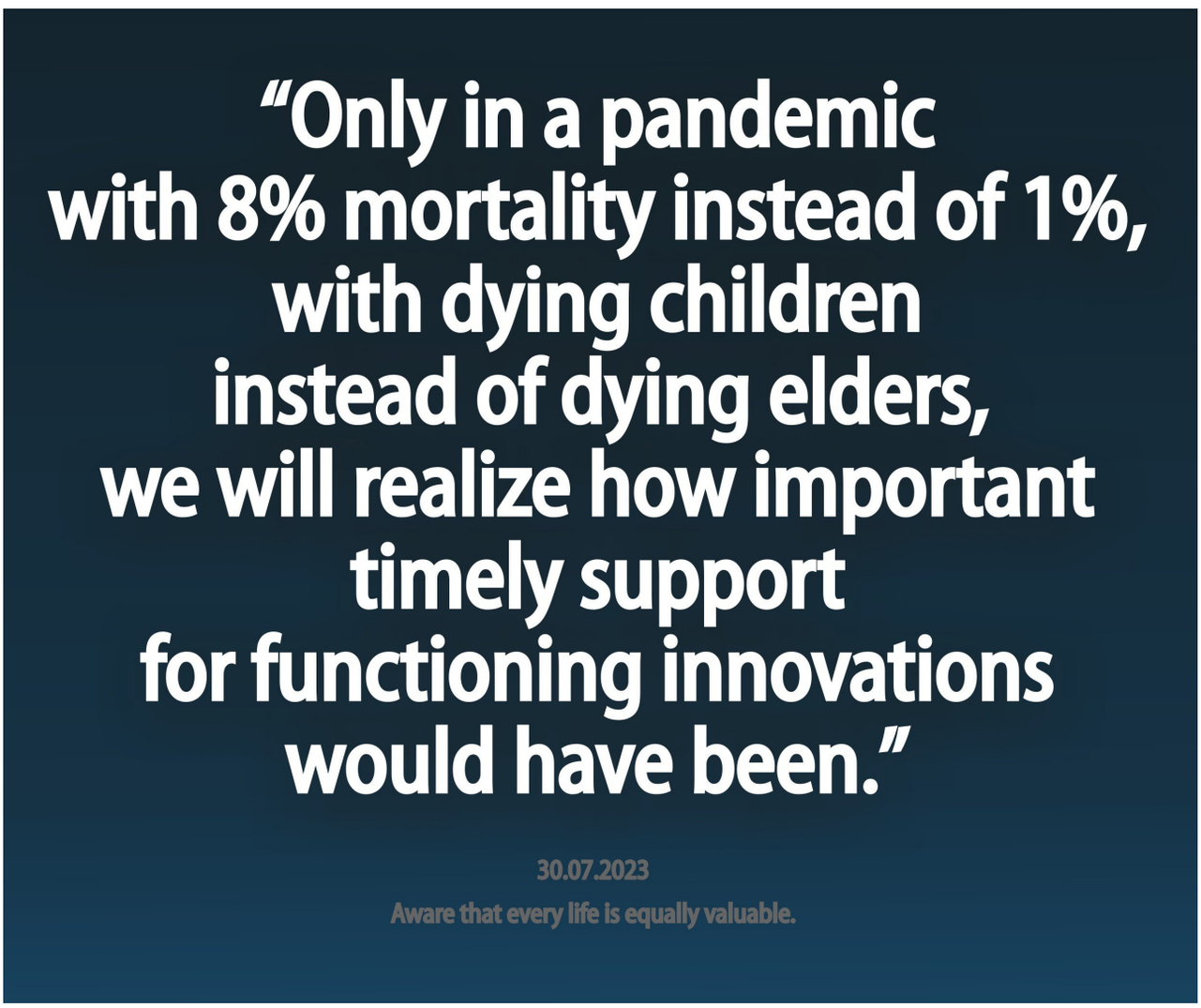
Anhängende Zeichnungen

Fig.1



Aspects und further illustrations of the creative process





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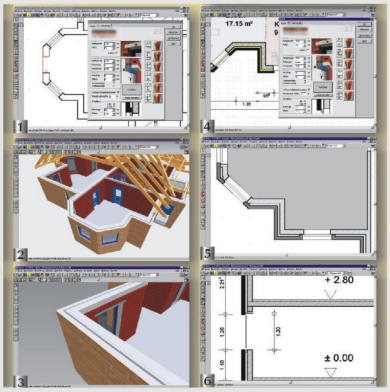
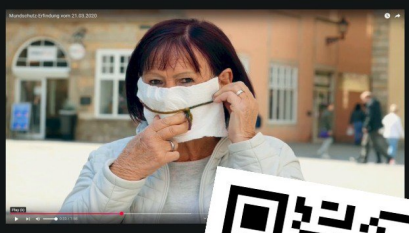
References:

Extract: Energy-optimized calculation of multi-layer masonry for any existing floor plans



Extract: Software robot that calculates module-precise solar plans from geodata, including all economic efficiency calculations

Extract: The invention of the perhaps easiest auxiliary mask, way before the WHO recommended them.



Extract: The sad mask video, a mask that would have saved many lives before professional masks were available.

Dedicated to innovation that makes sence.