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## Advantage 1 - Disease

**The EU is in a public health crisis - its been piling up on IP protections and prioritizing pharma profits, worsening pandemic response**

**Corporate Europe Observatory**, 03/**2021**, EU risks global public health in its protection of big pharma monopolies<https://corporateeurope.org/sites/default/files/2021-03/Pharma%20briefing.pdf> //SR

In response to global south calls for patent waivers for COVID-19 vaccines, testing materials, and treatments, the EU insists this is unnecessary as global trade rules already have ‘flexibilities’ built in. That is not just untrue, it is highly hypocritical. The EU has been waging a ‘war on cheap drugs’ for over two decades, and done everything in its power to strengthen patent rules. But its protection of big pharma profits could have dire consequences. Will the risk of prolonging the pandemic change the EU’s approach?  It was inevitable that the pandemic would lead to powerful global disagreements over pharmaceutical patents. These patents – on things like vaccines, medical equipment, and drugs – are about the protection of monopolies on behalf of private interests. This goes against not only a notion of sharing in solidarity during a public health emergency, it prevents a massive expansion of production by allowing others to manufacture vaccines and treatments, whether a company or a public institution. Yet a massive, urgent expansion of production worldwide is exactly what is needed to bring the pandemic to an end. Now the fight has been taken to the World Trade Organization (WTO), where India and South Africa – with the backing of more than 100 countries – have proposed that international intellectual property rights should be put temporarily on hold to make way for the massive global production of pandemic-related vaccines and treatments. But the ‘waiver’ is set to be blocked this Spring by the European Union, the US, and a few other countries. However outrageous it may seem – to choose to protect the profits of a few companies over a route out of the pandemic worldwide – this move is no surprise. For two decades the EU has fought hand in hand with big pharma for far-reaching intellectual property rights. The question is whether pandemic times will force the EU to change course in its stubborn defense of the international patent regime.  A universal common good In the first phase of the pandemic, it did sound as if the European Union had finally had a change of heart in its approach to patents on pharmaceutical products. President of the European Commission Ursula von der Leyen stated solemnly at a WHO press conference in April 2020: “We need to develop a vaccine. We need to produce it and to deploy it to every single corner of the world. And make it available at affordable prices. This vaccine will be our universal, common good.” However, given the EU’s behaviour since, this was purely rhetorical. EU representatives are crystal clear in their opposition to India and South Africa’s proposal at the WTO to waive patents. The two countries argue that for COVID-19 vaccines, testing equipment, and medicine to become available and affordable globally, patents will have to be suspended for a while. This makes ethical, epidemiological, and economic sense. Such a move would save many lives, given we now have working vaccines and improved treatments. Secondly, if the virus continues to replicate unchecked anywhere in the world, this greatly increases the risk of new variants arising – perhaps even vaccine resistant ones. In the words of WHO Director Tedros Adhanom Ghebreyesus, “No one is safe until everyone is safe,” indeed a sentiment directly echoed by von der Leyen herself. Finally, ending the pandemic as soon as possible makes economic sense for everyone, and should be prioritised over the profits of a few giant pharmaceutical companies. Despite these compelling reasons, the Commission – with the backing of member state governments – has not hesitated: “Vaccine developers retain their intellectual property rights,” a Commission spokesperson told EURACTIV Germany in February this year: “We expect them to commit to the goal of universal and affordable access to diagnostics, treatments and vaccines.” In other words, the EU proposes the world rely on the voluntary goodwill of its pharma executives to end the pandemic.   Charity cannot do the job This is the European Commission on classic form: viewing patents – in effect monopolies on pharmaceutical inventions – as an unquestionable good. Now more than ever this is a credo at odds with reality: billions across the globe are in peril of not getting access to a vaccine any time soon, in no small part because a few companies have been allowed to cling on to their monopolies. Despite the fact that the vaccines are all predominantly funded by public money from the very inception, a few companies are still allowed to decide whether others should be allowed to manufacture them. The WHO’s international vaccine sharing programme COVAX will not be able to deliver much this year, and about 85 poor countries will not have widespread access to vaccines until 2023, as it stands. What is needed is extra production capacity and modestly-priced products, but patents stand in the way. Patent rules in hand, pharmaceutical companies are preventing generic manufacturers from producing vaccines, due to international rules under the TRIPS agreement of the WTO and due to national laws in many countries. And while one company has allowed some producers to take on manufacturing on their own, most have not. Incredibly, given the impact of COVID-19 on us all, vaccine production capacity is still lying idle. Meanwhile the WHO-led COVID 19 Technology Access Pool, a feeble attempt to share technology globally, has failed to gain traction. In Europe, for instance, only five countries have signed up half-heartedly (Portugal, the Netherlands, Luxembourg, Norway, and Belgium), and the pool remains horribly empty. That is the problem that India and South Africa have set out to address with a proposal to adopt a waiver that would temporarily suspend rules on patents, industrial designs, and trade secrets – all necessary to allow swift production of both vaccines, test equipment, and medicines.   Existing exceptions no solution Still, such arguments are lost on the European Commission. Along with industry, they argue that charitable programmes are the way forward. However when pressured, they claim that existing rules already allow for patents to be waivered, pointing to flexibility built into the TRIPS agreement. The WTO “allows for the necessary flexibilities in relation to intellectual property rights, including in health emergencies”, Vice President of the Commission Dombrovskis stated in a reply to a question from the European Parliament. “If voluntary solutions fail and IP becomes a barrier to access to treatments or vaccines, the TRIPS Agreement provides for a possibility to grant compulsory licences.” So, if a pharmaceutical company will not cooperate, then a license can be issued by law and hence make way for another producer. Compulsory licensing – the current way of sidestepping patents globally – are in large part the outcome of a clash between the global south and the global north over access to antiretroviral HIV/ AIDS medicine between 2001 and 2003. In the face of millions of HIV patients dying for lack of medicine, the global north was forced to make concessions to enable generic production of affordable treatments. But the current exceptions are limited in many ways. While they do make space for ‘compulsory licensing’ in times of emergency, in practice they stand in the way of the kind and scale of technology transfer necessary. As international medical activist and expert on intellectual property law Ellen ‘t Hoen told Corporate Europe Observatory, “Compulsory licensing alone will not help in the case of vaccines. Vaccine producers will need access to technology and knowhow, they will need to have information on production processes. That is not covered by the current exceptions”. When it comes to medicine and equipment, compulsory licensing may be useful. But having the European Commission point to the existing option of compulsory licensing as an adequate response to the pandemic, sparks a strong pushback from Ellen ‘t Hoen: “That makes me laugh. Looking at what the European Union has done in the past decades to make compulsory licensing as difficult as possible, it is quite something to hear them use that argument.”   Narrowing the options Since compulsory licensing exceptions were first fleshed out in 2001-2003, the EU in general and the European Commission in particular have waged a multifaceted campaign to reduce their scope, hand-in-hand with the pharmaceutical industry.  They have taken any opportunity to pile on constant pressure against these exceptions, for example pushing for introduction of rules on “data exclusivity” that would prevent most if not all generic producers from making use of the exceptions under the TRIPS agreement. “Data exclusivity” is a set of rules that allow patent holders to keep crucial data related to a drug secret, for example the results of clinical testing. This means information given to authorities for the purpose of approval for marketing by the company that launched the product in the first place cannot be handed over subsequently to a generic manufacturer to support its attempt to have a generic product approved. As generic producers rarely have the capacity even to conduct the tests, data exclusivity essentially renders a license fairly useless. Under the current circumstances, new testing either requires massive apparatus and huge resources, or it takes a huge amount of time – and to state the obvious, time is the scarcest of resources when confronted with a currently raging pandemic. According to one investigation the time needed to conduct such tests is 61 months on average. So while it’s true that there may be rules under TRIPS that allow for compulsory licensing, in practice these can be rendered null and void by rules on data exclusivity for the duration of the time they cover. In the case of the European Union, data exclusivity can impede effective use of a license for as long as eleven years. This may make the EU the most difficult place on earth to make use of a compulsory license (in the US this data exclusivity use is five years). These time limits also demonstrate how effectively data exclusivity in practice prevents compulsory licensing from being a way to urgently produce vaccines and treatments in a sudden emergency such as an unfolding pandemic. These impediments are the outcome of the powerful partnership between the European Commission and the main lobbying association for the pharmaceutical industry in Europe, the European Federation of Pharmaceutical Industries and Associations (EFPIA). The close alliance between the Commission and EFPIA was reflected in the words of one Commission official: “They [EFPIA] know best in the end”, as told to an academic during an investigation of the file (the Directive on Data Exclusivity adopted in 2004, shortly after the adoption of the TRIPS exceptions in 2003). Data exclusivity doesn’t just affect developing countries. It is also a serious obstacle within the EU: for some countries, compulsory licensing historically has been a key strategy to keep prices down and secure supply. This was the case for Central and Eastern European accession states that were out-manoeuvered: the directive was put in place right before these countries joined the European Union in 2004, leaving them with no choice but to accept the measure. The consequences are clear, as in a 2016 case where Romania tried to register a generic version of a drug against hepatitis C, but this proved to be impossible as the directive on data exclusivity rules out such a move this side of 2022.

**IP protections are the root cause of the problem--it silences whistleblowers and prevents the dissemination of medical information/research**

**HAI et al 14** — (Health Action International and a coalition of other NGOs, HAI works to expand health access in Europe, “EU trade secrets directive threat to health, environment, free speech and worker mobility”, 12-17-14, Available Online at https://corporateeurope.org/sites/default/files/attachments/statement\_-\_eu\_trade\_secrets\_directive\_needs\_amendments.pdf, accessed 9-8-21, HKR-AM)

AMSTERDAM—We strongly oppose the hasty push by the European Commission and Council for a new European Union (EU) directive on trade secrets because it contains: Ø An unreasonably broad definition of “trade secrets” that enables almost anything within a company to be deemed as such; Ø Overly-broad protection for companies, which could sue anyone who “unlawfully acquires, uses or discloses” their so-called “trade secrets”; and Ø Inadequate safeguards that will not ensure that EU consumers, journalists, whistleblowers, researchers and workers have reliable access to important data that is in the public interest. Contrary to the Commission’s goals, this unbalanced piece of legislation would result in legal uncertainty. Unless radically amended by the Council and European Parliament, the proposed directive could endanger freedom of expression and information, corporate accountability, information sharing—possibly even innovation—in the EU. Specifically, we share great concern that under the draft directive: Ø Companies in the health, environment and food safety fields could refuse compliance with transparency policies even when the public interest is at stake. Health: Pharmaceutical companies argue that all aspects of clinical development should be considered a trade secret. ii Access to biomedical research data by regulatory authorities, researchers, doctors and patients—particularly data on drug efficacy and adverse drug reactions—is critical, however, for protecting patient safety and conducting further research and independent analyses. This information also prevents scarce public resources from being spent on therapies that are no better than existing treatments, do not work, or do more harm than good.iii Moreover, disclosure of pharmaceutical research is needed to avoid unethical repetition of clinical trials on people. iv The proposed directive should not obstruct recent EU developments to increase sharing and transparency of this data.v 2/5 Environment: Trade secret protection can be used to refuse the release of information on hazardous products within the chemical industry. Trade secret protection may, for example, be invoked by companies to hide information on chemicals in plastics, clothing, cleaning products and other items that can cause severe damage to the environment and human health. They could also use the directive to refuse disclosing information on the dumping of chemicals, including fracking fluids, or releasing toxins into the air. Food safety: Under EU law, all food products, genetically modified organisms and pesticides are regulated by the European Food Safety Authority (EFSA). Toxicological studies that the EFSA relies on to assess the risks associated with these products are, however, performed by manufacturers themselves.vi Scientific scrutiny of the EFSA's assessments is only possible with complete access to these studies. Companies argue, though, that this information contains confidential business information and strongly oppose its disclosure.vii It is essential that the risk assessment work of public bodies is properly monitored by the scientific community. All data that these public bodies use must therefore be exempt from the scope of the directive. Ø The right to freedom of expression and information could be seriously harmed. Under the proposed directive, whistleblowers can use undisclosed information to reveal misconduct or wrongdoing, but only if “…the alleged acquisition, use or disclosure of the trade secret was necessary for such revelation and that the respondent acted in the public interest”. Unfortunately, though, determining whether disclosure was necessary can often only be evaluated afterwards. In addition, it remains unclear whether many types of information (e.g., plans to terminate numerous employees) qualify as “misconduct” or “wrongdoing”. This creates legal uncertainty for journalists, particularly those who specialise in economic investigationsviii , and whistleblowers.ix Ø The mobility of EU workers could be undermined. The proposed directive poses a danger of lock-in effects for workers. It could create situations where an employee will avoid jobs in the same field as his/her former employer, rather than risking not being able to use his/her own skills and competences, and being liable for damages. This inhibits one’s career development, as well as professional and geographical mobility in the labour market.x In addition, despite the Commission’s desire for a “magic bullet” that will keep Europe in the innovation game, closed-door trade secret protection may make it more difficult for the EU to engage in promising open and collaborative forms of research. In fact, there is a risk that the measures and remedies provided in this directive will undermine legitimate competition—even facilitate anti-competitive behaviour. Unsurprisingly, the text is strongly supported by multinational companies. In fact, industry coalitions in the EU and the United States (US) are lobbying, through a unified Trade Secrets Coalition, for the adoption of trade secret protection.xi In the US, two new bills are pending before Congress. xii If passed, these texts would allow trade secret protection to be included in the Trans-Atlantic Trade and Investment Partnership (TTIP)—something that will be incredibly difficult to repeal in the future through democratic processes.xiii Given that TTIP is expected to set a new global standard, its potential inclusion of trade secret protection is particularly worrisome. We urge the Council and the European Parliament to radically amend the directive. This includes limiting the definition of what constitutes a trade secret and strengthening safeguards and exceptions to ensure that data in the public interest cannot be protected as trade secrets. The right to freely use and disseminate information should be the rule, and trade secret protection the exception.

**Whistleblowers are uniquely necessary for innovation, access, and checking back corruption in the public health system**

**Dreyfus and Galizzi 20** — (Suelette Dreyfus, PhD, Researcher at the University of Melbourne, and Bruno Galizzi, part of the Blueprint for Free Speech Spain, “Protect whistleblowers, protect everyone's health”, 5-19-20, Blueprint for Free Speech, Available Online at https://www.blueprintforfreespeech.net/en/news/protect-whistleblowers-protect-everyones-health, accessed 9-8-21, HKR-AM)

The worldwide spread of coronavirus has highlighted the importance of whistleblowers like never before. The medical community caught a glimpse of the dark emergence of the virus when Dr. Li Wenliang from China tried to warn colleagues about the disease. Like many, he suffered retaliation from local officials for telling his community unpleasant truths. The highest levels of government intervened to rehabilitate his reputation only when he had died from the virus. Whistleblowers from around the world are revealing irregularities that are hidden by governments, companies and institutions. They reveal when health workers are put at risk for lacking the proper protective equipment; they tell us when the supply chains that bring us food - or medical supplies - are being tampered with or corrupted, etc. For this reason, more than 100 civil society organizations, journalists, unions, and experts from around the world released a statement asking to protect the whistleblowers in times of Covid-19. The letter emphasizes the centrality of citizens and workers in "guaranteeing that proper accountability is maintained in our governments, corporate institutions and markets, and in the defense of their human rights and the freedoms of all people." Neither heroes nor martyrs In Spain, the State Confederation of Medical Unions (CESM) has filed a complaint with the Supreme Court about the distribution of defective medical material, based on situations that have been experienced at the local level. Not surprisingly, unions are valuable institutions to which an whistleblower could turn to report a fact, particularly on public health and safety. Although this is not always the case in Spain, many unions and organizations have exposed the lack or non-compliance of protection measures, or the lack of means to fight the virus, unleashing the #NiHéroesNiMartires trend. Protecting those who blow the whistle, in this case, also saves lives. The European Center for Disease Prevention and Control (ECDC) places Spain among the countries with the highest percentage of infected among its health personnel. Even when we applaud them from our balconies every day, healthcare workers continue to face a double vulnerability at the same time: contagion and retaliation. In fact, in recent weeks, many have been exposed to prevent or combat crimes or irregularities. The lack of protection they have contrasts, without a doubt, with the value that the public interest complaints they share provide us. This is something that does not happen only in the field of health care, as we have seen in the globally known case of Tim Bay, Amazon's vice president, who decided to leave one of the most powerful companies after having witnessed the dismissal of employees who had denounced the vulnerabilities of workers in the warehouses of the technological giant. Just a fight against corruption? Some organizations are recognizing the vital value of protecting whistleblowers for the duration of the pandemic, not afterward. The Group of States against Corruption (GRECO) has recently released a series of legal references to prevent and fight corruption during this period. They recognize that fraudulent practices have an effect on medical services, making them more expensive and of lower quality, leading to unequal access to them, to the detriment of the most vulnerable populations. The report again points out that the protection of whistleblowers is essential to prevent the effect of corruption on public institutions and the management of funds. Once again, protecting those who warn against corruption also saves lives, since it allows strengthening the health system by protecting those who report corruption from within. Let's not forget that the economic costs of corruption for Spain have been estimated by different sources, reaching 90 billion euros, according to a report published by the Los Verdes / ALE alliance in the European Parliament, defining it as 90% of public health spending by 2018. But the protection of whistleblowers goes further, and has an effect on the protection of the environment, nuclear safety, transport, the quality of products, distribution chains and, as we have already seen, public health. This is recognized by the rapporteur of the Committee on Legal Affairs of the European Parliament Sylvain Waserman, in his latest report last October. In Poland, Andrzej Hawranek, Director of the State Health Inspectorate, reported the lack of sufficient evidence to determine the spread of the virus in the city of Krakow. Thanks to his publications on the local situation, he forced the health and epidemiological units to report daily on the situation. The knowledge and democratization of public, updated and reliable information on the state of the pandemic is essential to be able to carry out successful and tailored management. Protecting whistleblowers and our right to know also saves lives. Towards the new normality, protecting those who protect us In a bitter irony, Spain is one of the countries hardest hit by the coronavirus and, at the same time, one of the few countries in the European Union that does not have a national law to protect whistleblowers. Now is the time to change that. The transposition of the European Directive 2019/1937 is an opportunity to incorporate legal provisions at the national level, and promote a cultural change to provide citizens with mechanisms for active participation in the protection of the public interest. Last February, when the world was yet another, Blueprint for Free Speech, together with the National Commission of Markets and Competition, organized a public event bringing together spokespersons and representatives of political parties precisely to discuss this matter. That event was the first time that a wide and diverse party table (Ciudadanos, Esquerra Republicana, Partido Popular, Unidas Podemos, Vox) sat publicly in Madrid to discuss protection of whistleblowers. Different positions were heard, some of them distant from what was established by the aforementioned European Directive, but all recognized the complete need to protect alerters in an integral way. Civil society was once again ahead of the interests of legislators proposing various alternatives that were waiting to be debated, one of them currently on the Table of Congress. In this period of de-escalation and transition to the "new normal" one cannot look the other way. The iron and urgent commitment must be doubled to protect the whistleblowers, who have demonstrated to promote a more just and democratic operation of the institutions, in defense of our fundamental and human rights.

**Only the plan ensures coordinated EU response through unified collaborations**

Ellen 'T **Hoen, 12-2**-2020, "Some Surprises in the European Commission's New Intellectual Property Strategy," Medicines Law & Policy, <https://medicineslawandpolicy.org/2020/12/some-surprises-in-the-european-commissions-new-intellectual-property-strategy/> //SR

The European Commission’s new intellectual property (IP) strategy is out and it holds a number of surprises for access to medicines. After restating the importance of IP for innovation and for fostering a competitive European industry, the Commission lays out a number of actions relevant for access to medicines and global public health that signals a willingness to introduce more balance in the system.   The Covid-19 crisis has brought into focus fault lines in the current pharmaceutical innovation and IP system. While vast amounts of public financing are being spent on the research and development (R&D) of Covid-19 vaccines, the IP system allows the privatization of the outcome of the R&D. Calls on the industry, including by the Commission, to share the IP and know-how with others “to rapidly and broadly distribute the resulting products and services under fair and reasonable conditions to prevent, diagnose, treat and contain COVID-19”  have largely fallen on deaf ears.    The influence of the Covid-19 crisis on the Commission’s IP strategy is palpable. The Commission states that: “The COVID-19 crisis illustrated our dependence on critical innovations and technologies, particularly in the health sector. The EU should further enhance its tools to make such innovations and technologies available, where needed, whilst ensuring a fair return on investment”, and specifies that such tools should include both the licensing of patents and sharing of data. The Commission lists as one of the weaknesses in the current IP system that the “tools to facilitate access to IP are insufficiently developed“.   The strategy supports voluntary pooling and licensing of IP related to Covid-19 therapeutics and vaccines, in line with the resolution of the World Health Assembly (WHA). The WHA resolution calls on international organisations and other stakeholders to:  Work collaboratively at all levels to develop, test, and scale-up production of safe, effective, quality, affordable diagnostics, therapeutics, medicines and vaccines for the COVID-19 response, including, existing mechanisms for voluntary pooling and licensing of patents to facilitate timely, equitable and affordable access to them, consistent with the provisions of relevant international treaties including the provisions of the TRIPS agreement and the flexibilities as confirmed by the Doha Declaration on the TRIPS Agreement and Public Health

**EU health coordination is uniquely necessary for global pandemic response, but there isn’t enough coordination. The plan is goldilocks--it ensures sufficient pressures to innovate while maintaining cooperation**

Philippe **Aghion, 9-1**-2020, "How to strengthen European industries’ leadership in vaccine research and innovation," No Publication, <https://voxeu.org/article/how-strengthen-european-industries-leadership-vaccine-research-and-innovation> //SR

The Covid crisis has revealed the weaknesses of the US social system compared to European social systems: in particular its inability to offer adequate protection to individuals against the risk of falling sick or falling into poverty (Aghion et al. 2020). Moreover, it also brought to light the mismanagement of the pandemic by the current administration, as exemplified by negligence in realising the danger of the virus, pushing for excessively fast reopening of the economy, and resistance against mask wearing and generalised testing. Nonetheless, together with Congress, the same administration has pursued a determined and aggressive strategy to ensure US leadership in vaccine R&D and to secure supplies of future vaccines to US citizens.   Although the European Commission recently took the lead in negotiating advance purchase agreements with vaccine manufacturers on behalf of the 27 member states and decided to provide loans to European biotechs engaged in vaccine development through the European Investment Bank, it has fallen short in matching the US effort to incentivise vaccine innovation – not only because of a lower level of financial investment, but also an inability to ensure coordination across member states as well as across the different funding schemes for research and innovation in healthcare (reflecting the more decentralised nature of R&D and health policies in Europe).  This is problematic because the best way to get one’s economy back on track is to eliminate the virus. And, next to non-pharmaceutical measures (masks, social distancing, etc.), this means treatments and, first and foremost, vaccines. Naturally, a strategy that is too aggressive poses risks as well (e.g. conflict of interest from vaccine developers and reluctance in getting vaccinated).1  General considerations  Regarding Covid-19 vaccines, it is useful to distinguish two phases: vaccine development, and the securing of vaccine supplies once a vaccine has been found and authorised. Both are needed to bring vaccines to the patient (then one should still convince, or ‘force’, people to get vaccinated).  Intuitively, contributing to vaccine development looks like a ‘benevolent’ action, since the whole world should benefit from the arrival of one, or several, Covid vaccines. Instead, securing vaccine supplies in advance for one’s citizens seems more ‘selfish’, especially if limited supply means denying vaccines to other countries’ citizens. Nevertheless, advanced contracts for delivery will encourage private entities to energetically pursue vaccine development – the two are intertwined.   More generally, when considering innovation for a ‘global product’, it is natural to wonder about the ‘optimal’ degree of competition and coordination to rapidly identify successful vaccines. In fact, we observe an interesting mix of coordination and competition in the search for vaccines. Although political authorities in China were denying the upcoming disaster, Chinese scientists have been very open about their research results, which benefited the world research community. The first vaccines that will become available could be rapidly developed because Chinese scientists published the genetic sequence of the virus as soon as it was deciphered. On the other hand, universities and private firms, large and small, have been competing aggressively to ‘be the first’ in the race for a vaccine, including in terms of raising funds from private and state sources.       From the perspective of world welfare, the cooperation/open science part is of course good. As for the competition on vaccine development, things are more subtle: on the one hand, more financial effort overall is a good idea to accelerate innovation for such a costly disease (just think of the cost of a lockdown). On the other hand, should we worry about money ‘wasted’ in funding more than 100 vaccine projects, including advance building of production facilities? As discussed by Bolton-Farrell (1990), in “times of war”, speed is essential, and more coordination is preferable to “fine-tuning for the most efficient option” if such an optimal solution comes later. We can, however, safely conclude that speed will not be hampered, given the rush we observe (if anything, the risk is more about ‘cutting corners’ in excessively fast approval of vaccines which might not be safe and effective enough).  The US versus the EU The US is a clear leader in biotech innovation (Figure 1 and Table 1). Moreover, it does have an articulated US-centric Covid  strategy – Operation Warp Speed (OWS) – which builds on an understanding of the complementarity between vaccine development and securing advanced supplies, thereby bringing together the negotiations with private entities on the two phases, while relying on the combined expertise and financial weight of existing federal instruments, in particular the National Institutes of Health (NIH) and the Biomedical Advanced Research and Development Authority (BARDA). This gives the US a first-mover advantage.   Figure 1 Biotechnology patents Source: Authors’ calculations using OECD data. Reference country: Inventor’s country of residence. Reference date: priority date.   Table 1 Biotechnology patents (per 1 million inhabitants)      Source: Authors’ calculations using OECD data.  Notes: Reference country: Inventor’s country of residence. Reference date: priority date.  Congress has allocated almost $10 billion to OWS, of which more than $6.5 billion was allocated to BARDA and $3 billion for NIH research. In practice, during this pandemic, BARDA is providing funding to develop, among others, vaccines and treatments to fight Covid. So far, BARDA has distributed more than $11 billion among more than 40 companies to fund the development of vaccines, diagnostic, therapeutics, rapidly deployable capabilities, and others (Table 2).2  Table 2 BARDA’s Covid-19 medical countermeasure portfolio                Source: Authors’ calculations based on https://medicalcountermeasures.gov/app/barda/coronavirus/COVID19.aspx.  The EU, instead, has pursued a less coherent strategy overall, and with fewer financial resources directly invested in candidate vaccines (European Commission 2020). Indeed, it is more ‘benevolent’ than the US in terms of vaccine development, pushing for worldwide cooperation, but with limited funding commitment (Tables 3 and 4). In fact, the EU makes constant international cooperation efforts, as the Coronavirus Global Response exemplifies. This global action raised almost €16 billion from countries worldwide; the US did not contribute. The EU also contributes through the Coalition for Epidemic Preparedness Innovations (CEPI),3 an innovative partnership between public, private, civil and philanthropic organisations. Additionally, the ACT-Accelerator has one vaccine pillar, COVAX, of which CEPI is co-leader together with Gavi and WHO. However, in spite of these international cooperation efforts, the EU is ‘EU-centric’ when trying to secure vaccine supplies for its member states and citizens. This does not sufficiently exploit the complementarity involved in the process, which adds to the problematic complexity of funding sources (within the European budget, EIB, member states, etc).   Table 3 Coronavirus global response: Horizon 2020 pledge                            Source: https://ec.europa.eu/info/research-and-innovation/research-area/health-research-and-innovation/coronavirus-research-and-innovation/financing-innovation\_en, last access 24 August 2020.  Table 4 Funding from the European Commission and the European Investment Bank    Source: Authors’ calculations using data from the COVID-19 Health Funding Tracker, from The Economist.  Currently, there are more than 130 candidate vaccines in preclinical evaluation and 30 candidate vaccines in clinical evaluation. Among these 30 candidates, 13 receive support from BARDA, CEPI and/or the EU/EIB (Table 5). Three receive support from both BARDA and CEPI (University of Oxford, Moderna and Novavax), one receives support from both CEPI and the EIB (CureVac), and one from BARDA and EIB (BioNTech). BARDA provides consistently higher funding amounts.   Table 5 Partnerships to develop vaccines against Covid-19: BARDA, CEPI and EU (through EIB)     Source: Authors’ calculations based on BARDA, CEPI and Global Response Europe.  A renewed EU support strategy to the development and commercialisation of innovative technologies could be extended to other areas, for example, defence-related technologies, on the model of the Defense Advanced Research Projects Agency (DARPA) in the US. Interestingly, the latter has been instrumental in a number of non-defence innovations as well. Note that we are not talking here about a renewed industrial policy amounting to ‘picking one winner’ but funding several competing vaccines. The DARPA model is one that mixes top-down and bottom-up: government funds are devoted to financing competing teams that work on making new ‘tough technologies’ become operational. Once selected by the government, team leaders have full autonomy in deciding on how to organise the research process and whom to involve in that process. The various teams will typically compete not only within Europe, but also on a more global scale, with the US, but also China and possibly Russia. So, this is about competition-friendly industrial policy, as advocated in Aghion et al. (2015).     How would a European BARDA work? While there are a number of institutional specifications to address, let us just make two remarks. First, this is an area where joining forces with Britain makes sense, given its (academic and industrial) expertise (the same is true for defence). Second, one wants of course to identify the optimal trade-off between scale and adaptiveness/flexibility, since speed is often key. This would plead for an open ‘coalition of the willing’, which can possibly build on insights from EU success stories (like the European Research Council, which includes non-EU partners) but should clearly avoid rigidities (e.g. juste retour, seven-year budgets) enforced by (near) unanimity voting rules.    Competition between Europe and the US would accelerate vaccine development and supply, which can be good for the world as a whole. Naturally, ‘pressure’ on pharmaceutical companies to avoid excessive profits, as well as sufficient international (public and private) aid to ensure global access, will be very important.  To sum up, in order to strengthen European industries leadership in vaccine research and innovation, we recommend the creation of a European BARDA to which EU member-states plus the UK would be welcome to participate on a voluntary basis. Although the BARDA model should be adapted to ensure a decision process that is science-based and transparent, we suggest that the launch of a BARDA-type initiative should be considered in the forthcoming Horizon Europe framework programme for Research and Innovation. The strategy we suggest would be complementary to Europe’s other assets when facing epidemiological shocks, namely an evidence-based sanitary policy and a social model that can mitigate such shocks.

**Disease causes extinction - defense is wrong**

Piers **Millett 17**, Consultant for the World Health Organization, PhD in International Relations and Affairs, University of Bradford, Andrew Snyder-Beattie, “Existential Risk and Cost-Effective Biosecurity”, Health Security, Vol 15(4), <http://online.liebertpub.com/doi/pdfplus/10.1089/hs.2017.0028>

Historically, disease events have been responsible for the greatest death tolls on humanity. The 1918 flu was responsible for more than 50 million deaths,1 while smallpox killed perhaps 10 times that many in the 20th century alone.2 The Black Death was responsible for killing over 25% of the European population,3 while other pandemics, such as the plague of Justinian, are thought to have killed 25 million in the 6th century—constituting over 10% of the world’s population at the time.4 It is an open question whether a future pandemic could result in outright human extinction or the irreversible collapse of civilization.  A skeptic would have many good reasons to think that existential risk from disease is unlikely. Such a disease would need to spread worldwide to remote populations, overcome rare genetic resistances, and evade detection, cures, and countermeasures. Even evolution itself may work in humanity’s favor: Virulence and transmission is often a trade-off, and so evolutionary pressures could push against maximally lethal wild-type pathogens.5,6  While these arguments point to a very small risk of human extinction, they do not rule the possibility out entirely. Although rare, there are recorded instances of species going extinct due to disease—primarily in amphibians, but also in 1 mammalian species of rat on Christmas Island.7,8 There are also historical examples of large human populations being almost entirely wiped out by disease, especially when multiple diseases were simultaneously introduced into a population without immunity. The most striking examples of total population collapse include native American tribes exposed to European diseases, such as the Massachusett (86% loss of population), Quiripi-Unquachog (95% loss of population), and theWestern Abenaki (which suffered a staggering 98% loss of population).  In the modern context, no single disease currently exists that combines the worst-case levels of transmissibility, lethality, resistance to countermeasures, and global reach. But many diseases are proof of principle that each worst-case attribute can be realized independently. For example, some diseases exhibit nearly a 100% case fatality ratio in the absence of treatment, such as rabies or septicemic plague. Other diseases have a track record of spreading to virtually every human community worldwide, such as the 1918 flu,10 and seroprevalence studies indicate that other pathogens, such as chickenpox and HSV-1, can successfully reach over 95% of a population.11,12 Under optimal virulence theory, natural evolution would be an unlikely source for pathogens with the highest possible levels of transmissibility, virulence, and global reach. But advances in biotechnology might allow the creation of diseases that combine such traits. Recent controversy has already emerged over a number of scientific experiments that resulted in viruses with enhanced transmissibility, lethality, and/or the ability to overcome therapeutics.13-17 Other experiments demonstrated that mousepox could be modified to have a 100% case fatality rate and render a vaccine ineffective.18 In addition to transmissibility and lethality, studies have shown that other disease traits, such as incubation time, environmental survival, and available vectors, could be modified as well.19-2

**New pandemics are deadlier, faster, and coming – COVID is just the beginning**

**Antonelli 20** Ashley Fuoco Antonelli 5-15-2020 "Weekly line: Why deadly disease outbreaks could become more common—even after Covid-19" (Associate Editor — American Health Line) <https://www.advisory.com/daily-briefing/2020/05/15/weekly-line> //Elmer

While the new coronavirus pandemic suddenly took the world by storm, the truth is public health experts for years have warned that a virus similar to the new coronavirus would cause the next pandemic—and they say deadly infectious disease outbreaks could become more common. Infectious disease experts are always on the lookout for the next pandemic, and in a report published two years ago, researchers from the Johns Hopkins Bloomberg School of Public Health predicted that the pathogen most likely to cause the next pandemic would be a virus similar to the common cold. Specifically, the researchers predicted that the pathogen at fault for the next pandemic would be: A microbe for which people have not yet developed immunities, meaning that a large portion of the human population would be susceptible to infection; Contagious during the so-called "incubation period"—the time when people are infected with a pathogen but are not yet showing symptoms of the infection or are showing only mild symptoms; and Resistant to any known prevention or treatment methods. The researchers also concluded that such a pathogen would have a "low but significant" fatality rate, meaning the pathogen wouldn't kill human hosts fast enough to inhibit its spread. As Amesh Adalja—a senior scholar at the Johns Hopkins Center for Health Security, who led the report—told Live Science's Rachael Rettner at the time, "It just has to make a lot of people sick" to disrupt society. The researchers said RNA viruses—which include the common cold, influenza, and severe acute respiratory syndrome (or SARS, which is caused by a type of coronavirus)—fit that bill. And even though we had a good bit of experience dealing with common RNA viruses like the flu, Adalja at the time told Rettner that there were "a whole host of viral families that get very little attention when it comes to pandemic preparedness." Not even two years later, the new coronavirus, which causes Covid-19, emerged and quickly spread throughout the world, reaching pandemic status in just a few months. To date, officials have reported more than 4.4 million cases of Covid-19 and 302,160 deaths tied to the new coronavirus globally. In the United States, the number of reported Covid-19 cases has reached more than 1.4 million and the number of reported deaths tied to the new coronavirus has risen to nearly 86,000 in just over three months. Although public health experts had warned about the likelihood of a respiratory-borne RNA virus causing the next global pandemic, many say the world was largely unprepared to handle this type of infectious disease outbreak. And as concerning as that revelation may be on its own, perhaps even more worrisome is that public health experts predict life-threatening infectious disease outbreaks are likely to become more common—meaning we could be susceptible to another pandemic in the future. Why experts think deadly infectious disease outbreaks could become more common As the Los Angeles Times's Joshua Emerson Smith notes, infectious disease experts for more than ten years now have noted that "[o]utbreaks of dangerous new diseases with the potential to become pandemics have been on the rise—from HIV to swine flu to SARS to Ebola." For instance, a report published in Nature in 2008 found that the number of emerging infectious disease events that occurred in the 1990s was more than three times higher than it was in the 1940s. Many experts believe the recent increase in infectious disease outbreaks is tied to human behaviors that disrupt the environment, "such as deforestation and poaching," which have led "to increased contact between highly mobile, urbanized human populations and wild animals," Emerson Smith writes. In the 2008 report, for example, researchers noted that about 60% of 355 emerging infectious disease events that occurred over a 50-year period could be largely linked to wild animals, livestock, and, to a lesser extent, pets. Now, researchers believe the new coronavirus first jumped to humans from animals at a wildlife market in Wuhan, China. Along those same lines, some experts have argued that global climate change has driven an increase in infectious diseases—and could continue to do so. A federally mandated report released by the U.S. Global Change Research Program in 2018 warned that warmer temperatures could expand the geographic range covered by disease-carrying insects and pests, which could result in more Americans being exposed to ticks carrying Lyme disease and mosquitos carrying the dengue, West Nile, and Zika viruses. And experts now say continued warming in global temperatures, deforestation, and other environmentally disruptive behaviors have broadened that risk by bringing more people into contact with disease-carrying animals. Further, experts note that infectious diseases today are able to spread much faster and farther than they could decades ago because of increasing globalization and travel. While some have suggested the Covid-19 pandemic could stifle that trend, others argue globalization is likely to continue—meaning so could infectious diseases' far spread.

## Advantage 2 - EU Legitimacy

**Covid has wrecked multilateralism but it provides a new opportunity for the EU, it just requires that the EU promotes medical transparency**

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Summary The pandemic has brought forward a new agenda for multilateralism, focused on areas including global health, economic recovery, climate, technology, and trade. In trying to promote global cooperation, the EU must take account of competition with China and other illiberal powers across these areas. The EU should pursue a twin-track strategy, seeking to revitalise institutions that include rival powers while promoting deeper cooperation with like-minded countries. Europe should launch an initiative to build up global vaccine manufacturing and encourage the free movement of medical goods, and set up a ‘preparedness club’ of countries committed to transparency in their health systems. The EU should look for ways to coordinate with China on climate and global debt, while focusing on work with its liberal partners on technology and human rights.  Introduction The covid-19 pandemic has brought a changing international order into focus. As the virus swept the globe, it highlighted both the interdependence of today’s world and the obstacles to international cooperation. Now that the world is moving into a new phase of the fight against the virus, there is a chance to work together better – both on the recovery from covid-19 and on other transnational challenges in its aftermath. The European Union could do much to set the frameworks through which the world deals with these issues. But, to play that role, Europe will need a strategy for multilateralism that is adapted to a newly competitive world.  Since the fall of the Berlin Wall in 1989, the EU has tended to promote a form of multilateralism in its own image, seeking binding agreements to bring all the world’s countries together on broadly liberal terms. But as the globe divides along geopolitical lines – with China, Russia, and other powers pursuing conflicting visions of international order – the space for consensual multilateralism involving the major powers has narrowed. In this new context, the EU can best secure its interests by following a twin-track strategy on international cooperation. It should continue to seek coordination on global public goods with as wide a circle of countries as possible, while recognising the limits imposed by divergent political agendas. At the same time, it should aim at deeper and narrower cooperation with smaller groups of like-minded partners who share common principles on openness, accountability, and individual rights. Alone, either approach would be insufficient. Together, they offer Europe its best chance of an effective multilateralism for an era of global divisions – as long as the two tracks complement rather than undermine each other.  As the world looks beyond the first phase of covid-19, a new multilateral agenda focused on global public goods is taking shape. The pandemic brought home the need for global cooperation on public health. It reinforced the idea that health is an essential component of security, and demonstrated that multilateral action is inseparably connected to the well-being of people in every society. At the same time, the impact of covid-19 threatens to increase inequality around the world. The quest for economic recovery needs to be conceived on a global scale. As the world starts to rebuild, the goal of deepening cooperation on climate, technology, and trade will also feature prominently on the EU’s foreign policy agenda.  The problem for multilateralism is that the domains of health, finance, climate, technology, and trade – where the world’s societies are deeply interconnected – are increasingly sites of geopolitical competition between powers with very different political and economic models and values. International institutions such as the World Health Organization (WHO) and World Trade Organization (WTO) that were set up to facilitate common goals have become handicapped by the clash of competing interests and values. In an era of systemic competition, the links between countries have become instruments of power, creating dependencies that could represent strategic risks. Trade in areas from vaccines to semiconductors is offered or withheld for geopolitical reasons, and countries see the development of green technology or the routing of financial flows as a path towards international primacy.  During the Trump presidency, the United States added to the problems for multilateralism by largely turning its back on international cooperation. For Donald Trump, multilateral organisations constrained US freedom of action; as his term went on, he increasingly saw them merely as vehicles for China to advance its interests. Joe Biden has promised to reverse this approach, and started his presidency by reaffirming US participation in the WHO and the Paris Agreement on climate change, as well as dropping US opposition to the most widely supported candidate to head the WTO.  Biden’s arrival in the White House, combined with advances in the fight against covid-19, offer a chance for the EU to repair some of the damage that multilateral cooperation has suffered in recent years. At the same time, the forces that propelled Trump to victory in 2016 have not disappeared. Many European countries have also seen an increase in nationalist and populist sentiment that tends to regard international cooperation with suspicion. A renewed European approach to multilateralism will need a stronger domestic base, and should be able to withstand another reversal in US policy.  This paper maps out a strategy that the EU could use to act on its commitment to multilateralism against this difficult political background. Firstly, the paper sketches the outlines of a twin-track strategy on international cooperation for the post-coronavirus period. Next, it considers how such a strategy might be implemented, focusing on the recovery from the pandemic. Finally, it sets out key recommendations for other areas of multilateral policy.  European multilateralism after covid Consensual multilateralism and its limits The EU has recognised that it needs to renew and rethink its support for multilateralism in response to covid-19 and changes in the international order. Several member states have already launched policy initiatives in this area, including the Alliance for Multilateralism started by France and Germany, and the European Commission and the European External Action Service recently published a joint communication on the subject. They identified the need for the EU to be more assertive in its multilateral engagement in an increasingly transactional global system, and to build and reinforce coalitions on key issues. A twin-track strategy would help to fulfil those goals.  A traditional European approach to strengthening multilateralism would involve trying to reform existing international institutions and promoting new inclusive international agreements where they are lacking. Indeed, the EU has already developed ambitious reform plans for the WHO and the WTO. Since global health, climate change, technology, and trade connect all the world’s countries, there are clear advantages in trying to revitalise or develop collective international institutions to address them. Nevertheless, there are limits to what a consensual approach can achieve in an era of geopolitical competition. With China and other illiberal powers increasingly determined to assert their influence, the EU cannot assume that it will succeed in building collective institutions – involving all major powers – that reflect its political values and economic models. China’s refusal to cooperate fully with the WHO’s investigation into covid-19 suggests it is likely to resist any far-reaching regime of transparency and accountability over pandemic preparedness. Similarly, China is certain to resist reforms to the WTO that place significant constraints on its state-centred economic model. In an age of competitive geopolitics and nationalism, it has become harder to secure commitments to any binding international treaties: even the 2015 Paris Agreement, the signature multilateral agreement of recent years, was based on the adoption of voluntary targets by states.  While the EU seeks to promote international cooperation on global public goods, it must take into account the weaponisation of transnational links as tools of geopolitical competition. During a pandemic, medical supply chains become an instrument of national security. As societies around the world shift to more climate-sensitive economic models, green technology and the raw materials they depend on will increasingly confer a national advantage. China frames its Belt and Road Initiative as a development project, but it uses infrastructure investments to advance Chinese economic and political influence. The increasingly central place of information technology in all aspects of life means that supply chains for core components, control of data flows, and standard-setting for the digital world are essential components of power.  Despite this complex picture, it would be wrong for the EU and other liberal states to pull back from seeking consensual ways to handle global public goods. Inclusive multilateral organisations have legitimacy and reach that more limited forums lack. The universal membership of the WHO makes it irreplaceable in mobilising global responses to public health threats. China in particular is too important as a global power for the EU to imagine that transnational challenges can be met without Chinese involvement. While Beijing is a competitor in the development of green technology, no effort to tackle climate change will succeed without its engagement.  Since China is likely to remain a key trading partner for Europe, the EU needs to define ground rules for economic interaction that offer the greatest advantage for European firms and investors while accepting the very different nature of China’s economy. The WTO remains the foundation of the rules-based global trading system on which the EU depends for its prosperity. The G20 – which includes China – is a better forum for shaping a global recovery than the more restricted G7, particularly given China’s role as a significant holder of bilateral debt. In all these areas, the EU faces the complex task of identifying the scope for collective action and consensual reform without losing sight of the geopolitical agendas of rival powers.  A twin-track strategy Given the inherent limits of consensual multilateralism in a competitive world, the EU will be most likely to achieve its objectives if it supplements its efforts to reinvigorate collective institutions with deeper cooperation among smaller groups of like-minded partners. Biden’s arrival offers the chance to put EU-US coordination at the centre of this like-minded approach. Working together, liberal countries are more likely to build coalitions that can push back against efforts by China and other states to erode the norms underlying international institutions or impose illiberal standards. Even under Trump, the EU and the US were able to work together to defeat the Chinese candidate to lead the World Intellectual Property Organization in March 2020. Transatlantic leadership can play an essential role in galvanising action, even in inclusive forums such as the G20.  More importantly, like-minded partners can forge deeper forms of integration that reflect their commitment to common values and political models. By abandoning the need for global consensus, ad hoc coalitions can adopt more ambitious commitments in areas such as pandemic preparedness and carbon taxation, enforced by strict transparency and accountability regimes. This pattern is already visible in trade, through the proliferation of regional trade agreements like the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, and the EU’s bilateral and plurilateral agreements. The like-minded approach is particularly important in areas that unavoidably involve shared values, such as the governance of technology, human rights, democracy promotion, and measures against corruption and kleptocracy. This kind of cooperation is also suited to the involvement of non-state entities such as municipal or regional governments, corporations, networks of professionals, and civil society groups. The Gavi vaccine alliance and the Organisation for Economic Co-operation and Development (OECD) expert group on artificial intelligence are examples.  Multilateralism and European sovereignty In the last few years, European policymakers have recognised a need to reinforce Europe’s ability to resist pressure from other great powers by building up its sovereignty or strategic autonomy. While European sovereignty is sometimes said to be in tension with multilateralism, the two can be seen as complementary. In seeking to establish sovereignty, the EU recognises that the interests of its citizens can best be fulfilled if it acts forcefully to sustain and shape the terms of multilateral action. Multilateralism is now a competitive space, where the EU has to use its influence and partnerships to try to promote the kind of international order it wants through its engagement in both broad-membership and like-minded groupings. Nevertheless, the EU must preserve its freedom of action when international cooperation breaks down, while trying to find forms of autonomous action that do not further undermine the international rules-based system.  The recent success of populist and nationalist movements in many European countries has put supporters of multilateralism on the defensive. These movements argue that international cooperation involves a sacrifice of national interests, placing the concerns of the global elite above those of the country’s citizens. The pandemic could provide an opportunity to reset this narrative, since it demonstrates how the failure of states to work together has an impact on ordinary people. Other parts of the post-coronavirus multilateral agenda could function in the same way: climate change and cyber space are also areas where the failure to coordinate action internationally would cause real harm in the daily life of Europeans. European populations are likely to assess multilateralism on the basis of its results, rather than seeing it as a good in itself.  To rebuild popular support for multilateralism, leaders will need to be careful in balancing their commitment to global mechanisms with the responsibility they owe to their own populations. In the case of covid-19 vaccines, it would be unrealistic to have expected European officials to turn down the opportunity to place advance purchase orders for a large share of the early doses. Nevertheless, as discussed below, the EU should avoid contributing to a breakdown in vaccine supply chains.  US-China rivalry Any European effort to pursue a geopolitically aware multilateralism will take place in a context defined above all by the growing confrontation between the US and China.  Having stepped up its efforts across the multilateral system in recent years, China is now the most significant exponent of an alternative vision of that system – one that places state power over openness, accountability, and human rights. China systematically uses its international connections to extend its power and influence, and Europeans are increasingly aware of the risks that this poses for them. It also seeks to use its sway over international institutions and processes to tilt them towards its own sovereigntist values. However, the EU is not contemplating any full-fledged economic decoupling from China, and Europe stands to benefit from pragmatic coordination with Beijing across many of the areas discussed in this paper.  Under Trump, the US came to see competition with China as the guiding principle of its foreign policy. The then president said he was withdrawing the US from the WHO because it was too weak in challenging China, and imposed a series of tariffs on China in response to what he claimed were unfair trade practices. Biden and his advisers largely see China in a similar way, but are committed to working with allies to confront it.  The US re-engagement with multilateralism is good news for the EU, and offers scope for Europe and Washington to work together to contain Chinese influence in international institutions, and to set up mechanisms for like-minded cooperation. Nevertheless, there may be some areas where the EU and the US are not fully aligned. A difference of emphasis was visible at the recent Munich Security Conference, where Biden’s speech focused on the ideological competition between democracy and authoritarianism, while Emmanuel Macron spoke of the importance of results-focused cooperation on global challenges. Even under Biden, the US appears to believe that aspects of the rules-based order offer a systematic advantage to China in a way that may justify working around them to secure US interests. Biden has given no indication that he will lift Trump’s tariffs on China, even though they were condemned by a WTO panel, and his trade representative, Katherine Tai, has said that tariffs are a legitimate tool to use against China.  Cooperation with a multilateralist US administration should be the starting point for the EU’s strategy on international cooperation, but Europeans should be ready to argue their case if their views on coordinating with China diverge from the US position.  Putting multilateralism into practice The fight against covid-19 The fight against the pandemic is now focused above all on the manufacture and distribution of vaccines. In the words of historian Adam Tooze, “Never has the world depended to such a degree on the success of a single scientific research programme.” The allocation of doses over the coming year raises major questions of international coordination and fairness, and has become the subject of geopolitical power plays. Despite the efforts of international organisations and states to establish a multilateral vaccine-sharing mechanism, there are great global disparities in procurement.  As the virus spread around the world in spring 2020, a group of sponsors, including France and the European Commission, launched the Access to Covid-19 Tools Accelerator. This included COVAX, which aimed to pool as much as possible of the world’s vaccine procurement. Participating countries would give money so that COVAX could place advance purchase orders for a range of promising vaccine candidates, allowing countries to hedge their bets between the efforts of different pharmaceutical firms; rich countries would also subsidise vaccines for poorer ones. In the event, however, the idea that the world’s wealthiest countries would pursue a purely multilateral approach to vaccine procurement proved unrealistic. As an unprecedented effort to coordinate purchase orders on behalf of dozens of countries, COVAX took some time to reach the position of agreeing contracts with vaccine manufacturers. And, in the meantime, wealthy countries concluded their own independent advance-purchase agreements, locking up much of the early vaccine supply.  Despite the hopes of some of its sponsors, COVAX has developed not as a mechanism through which all the world secured its vaccine supply, but largely as a way of funnelling vaccines to lower- and middle-income countries. Its achievements should not be underestimated: COVAX delivered its first shipment of 600,000 vaccines to Ghana in February 2021. And its directors hope to deliver 2 billion doses around the world before the end of the year, including 1.3 billion donor-funded doses to lower-income countries. However, even if COVAX meets its target, recipient countries would only receive enough doses through the scheme to vaccinate 20 per cent of their populations – and most of these would be delivered months after wealthy countries had enough vaccines to cover most of their adult populations.  While European leaders proclaim that vaccines are a global public good, it would be naive to expect them to put other countries’ needs ahead of their own. A realistic vision of multilateralism should accept that European leaders have a particular responsibility to their own populations, and cannot be expected to pass up the chance to procure vaccines for their citizens more quickly than less wealthy countries. However, if Europeans remain focused only on securing doses for their own population and neglect the problems of global distribution, their rhetoric about vaccine multilateralism will ring hollow. Europe could also suffer geopolitically, as other powers use the distribution of vaccines to enhance their image and gain political advantage. India and China are competing to offer doses to Asian neighbours, while both China and Russia have made vaccines available to Western Balkan countries that have struggled to obtain them through other means. Moreover, leaving poor and middle-income countries with insufficient vaccines could encourage the emergence of new variants of the virus, setting back the world’s recovery.  European leaders point out that much of the world’s vaccine supply has come from Europe. Since January 2021 alone, they say, 41 million doses have been shipped from the EU to countries outside the bloc, at a time when supplies within Europe have been limited. But these doses were supplied by private pharmaceutical companies based in Europe rather than the EU or its member states, and went mostly to developed countries that placed early purchase orders. Moreover, the EU has given itself powers to block companies from exporting vaccines when they have not fulfilled their contracts with the EU, or when the shipments are destined for countries that do not need the vaccines as urgently or do not allow reciprocal shipments to the EU. Italy used the regulation to prevent AstraZeneca from shipping 250,000 doses to Australia.  The EU’s move is part of a growing pattern of direct or indirect controls on the export of both vaccine doses and the inputs that are needed to produce them. The United Kingdom has signed contracts requiring manufacturers based there to prioritise British needs, and the US has organised an entire domestic production chain to deliver vaccines to its citizens through Operation Warp Speed. As a result, there are fears that vaccine production in many countries could be slowed down by shortages in essential components ranging from giant plastic bags to vials and lipid nanoparticles used for mRNA vaccines. It is understandable that the EU should feel disadvantaged by the arrangements other countries have made, but an increased use of export restrictions could trigger further countermeasures along the complex supply chains involved in vaccine production. The damage this could cause outweighs the EU’s need to block exports, given that is expecting to receive 360 million further doses in the second quarter of 2021.  Instead, the EU should use its international influence to increase global vaccine manufacturing capacity and reduce barriers to trade in vaccine-related goods. It made a start in this direction by joining with a number of like-minded countries as part of the Ottawa Group to launch a trade and health initiative that called for limits on the use of export restrictions. Any further actions to block vaccine exports from Europe would undercut that commitment.  It would be better for the EU to launch a new initiative, perhaps through the G20, that brings together the small number of vaccine-producing countries along with big manufacturers and funders to work on scaling up manufacturing capacity and diversifying production. A recent proposal by the trade and health scholars Chad Bown and Thomas Bollyky suggested this could be done through a new vaccine investment and trade agreement. Through such an initiative, the EU could encourage big pharmaceutical companies to expand voluntary licensing of their vaccines and work on knowledge transfer and training to help a greater range of countries to produce them. If Europe does not support steps to encourage companies to grant voluntary licences, pressure for a waiver of intellectual property rights on products used to protect against or treat covid-19 is likely to increase.  At the same time, the EU should step up its efforts to distribute vaccines globally in other ways. The EU recently doubled its financial contribution to COVAX. But while lower- and middle-income countries wait to receive their COVAX allocations, the EU should also begin to share some of its supply, setting aside a limited share of vaccine deliveries it receives. Macron proposed an initiative along these lines ahead of the G7 summit in mid-February, suggesting a reallocation of 4-5 per cent of supplies. This would help reduce pressure on COVAX, which is facing an anticipated shortfall of deliveries. The WHO’s director-general, Tedros Ghebreyesus, has said COVAX needs states to donate 10 million doses so that it can begin vaccination in some of the world’s poorest countries. The EU could also donate some doses to countries in its neighbourhood.

**IP protections create the perception of a corrupt and selfish EU that shows a lack of solidarity, undermines global activism and public faith, and weakens vaccine diplomacy which destroys EU legitimacy**

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Earlier this month, European Union leaders met in Portugal to ‘reinvigorate’ their commitment to social rights and affirm the importance of ‘European unity and solidarity in the fight against the COVID-19 pandemic’. Yet the EU’s continued opposition to the suspension of patents on Covid-19 vaccines and supplies demonstrates a stunning lack of solidarity and makes such declarations appear little more than hot air. Many campaigners now view the EU as Big Pharma’s biggest lobbyist at the G20. If European leaders are serious about ‘ensuring no one is left behind’, it’s time to join the World Health Organization, health-worker unions, Joe Biden’s administration in the United States and the majority of the world’s governments in pushing for a Covid-19 patent waiver at the World Trade Organization—so we can ramp up production of vaccines and supplies, ensure equal access and finally end these lockdowns. Business interests Europe’s experience through the last global financial crisis demonstrates the dangers which arise when business interests are put ahead of social rights. After 2008, the EU’s promotion of bank bailouts and strict austerity measures decimated public services across the continent. In Italy, the health service was slashed by €37 billion between 2010 and 2019, in part to comply with EU stringency requirements. In Greece, a Lancet study found that austerity programmes were the principal cause of increased mortality. Observing the damage, one Forbes writer noted that ‘anyone would think this was a war zone, not an advanced country’. Not only did these measures leave many states ill-prepared for the pandemic; they also contributed to the rapid rise of Eurosceptic parties, which have doubled their vote-share over the past two decades. Prioritising social rights is about more than rebranding—it’s about securing the future of the entire EU project. Recovery stunted We all know recovery cannot be a return to ‘normal’. If EU leaders really want a fairer Europe, they must stop clinging to the outdated and discredited ideas which stunted the recovery after the last crisis. The Biden administration has already understood this and is pursuing bold and essential policy change. This includes a reformed tax system, where pandemic profiteers are made to contribute to the cost of recovery, and new legislation which would require corporations to reveal where they do (or do not) pay their taxes. Yet when similar measures were under discussion at the EU level, leak revealed France’s official position had been developed by one of Europe’s biggest corporate lobby groups. Such revelations breed cynicism, undermine public faith and add to anti-‘Brussels’ sentiment. Once-in-a-generation opportunity If the EU and its member states would stop pandering to corporate interests and instead join the US in demonstrating progressive global leadership, there is a once-in-a-generation opportunity to make the world a better, fairer, more social place. An opportunity to end offshore tax dodging, which costs us the equivalent of one nurse’s salary every second. To forgive odious debt in the global south, which undermines urgently needed health employment. And to reshape the development agenda so that quality public services—the key to achieving human rights—are finally put first. Public Services International represents millions of workers across the world who have given their all to save lives and put everything in place to get us vaccinated. Just this week, Jibin Theerthakkuzhi Chalil of the United Nurses Association of India told us: ‘[W]e are facing a humanitarian disaster and we need to use all the tools we have to tame the pandemic in India and everywhere else, fast. It comes down to a simple choice, to share or not to share.’ While workers such as Chali struggle with shortages, the EU seems to care more about defending the interests of a small new group of ‘vaccine billionaires’. Is this what solidarity looks like? Soft power The EU’s stance is weakening the bloc’s diplomatic influence, providing ample space for China and Russia to grow their soft power through vaccine diplomacy efforts, as countries unable to produce their own supplies become increasingly reliant on Beijing and Moscow. Meanwhile more than 400 MPs and MEPs from across Europe have called on the EU to change its position. The European Parliament has already voted in favour of patent suspensions and the sharing of lifesaving technology. And many EU leaders—including Emmanuel Macron in France and Pedro Sanchez in Spain—have said they are open to such proposals. Yet the European Commission, along with Germany and a handful of other countries, is holding the world back through diehard devotion to Big-Pharma monopolies. German civil-society groups are pleading: ‘While we pour into beer gardens … we watch as mass graves are dug around the world. What is going on?’ By putting corporate interests ahead of the public interest, the EU is doing lasting damage to its reputation—regionally and on the global stage. It’s time to make solidarity more than just a buzzword. And that starts with supporting Covid-19 vaccine patent waivers.

**Empirically proven--the EU’s strategy is unsustainable and undermines multilateralism, and even lets countries sue the EU**

**OXFAM**, 9/29/**14**, TRADING AWAY ACCESS TO MEDICINES – REVISITED: How the European trade agenda continues to undermine access to medicines, <https://www-cdn.oxfam.org/s3fs-public/file_attachments/bp-trading-away-access-medicines-290914-en.pdf> //SR

DEMOCRACY AT RISK IN EU TRADE POLICY The EU‟s demand that FTAs include stricter IP rules has provoked fierce resistance; the EU has had to accept the embarrassing rejection of ACTA by the EP in July 2012 and its inability to impose certain TRIPS-plus provisions in several bilateral negotiations. In negotiations with the EU, the Indian government – under strong pressure from local and international civil society groups, the media and its own generic medicine industry – largely rejected the EU‟s IP demands. In 2009, trade negotiations with the Andean Community fell apart when Ecuador and Bolivia left the negotiations, partly because of concerns that strict IP rules would restrict access to medicines. Nevertheless, the EU pressed on with negotiations to enforce strict IP standards with the remaining countries: Peru and Colombia.126 The South American trading bloc, MERCOSUR, in negotiations with the EU, refused to use the standard EU text as a starting point, and proposed a different approach to the role of IP provisions that prioritised social welfare. Negotiations with this regional bloc have stalled, although bilateral negotiations with Ecuador and Brazil are slowly progressing. In current negotiations with Thailand, the EU is again attempting to impose strict IP rules for medicines.127 Multi-sectorial stakeholders, e.g. public health NGOs, experts128,129, the Vatican130 and UN bodies131,132 , recognise the link between TRIPS-plus provisions and poor access to medicines. The EP, through resolutions, recommendations and letters, has communicated its concerns about trade agreements and access to medicines in developing countries.133 Academics and civil society representatives have spoken in a single voice on the ineffectiveness of greater IP protection for needs-driven and affordable innovation in medicine. Despite this opposition, the EU‟s IP policies – promoted by DG-Trade – continue to undermine the efforts of other DGs within the EC and Member states to promote access to healthcare in LMICs. For example, Oxfam and Health Action International recognise the contributions from the EU and its Member states to the financing of the GFATM, which funds two thirds of global malaria and tuberculosis programmes. Alongside these efforts, EU Member states have implemented other programmes to improve access to medicines in developing countries.134 As part of the EU development agenda, the EC‟s funding contributes to financing countries‟ health sectors and general budget support. Such policies enable governments to expand public health services for people living in poverty. It is shameful that EU trade policies undermine all these accomplishments. DG-Trade seems to remain deeply convinced of the need to impose stricter IP protections, even in the field of medicines, purportedly to „save‟ the EU knowledge economy. Rather than changing its policies or engaging in meaningful dialogue on the health impact of EU trade policy, DG-Trade has publicly identified social media as the main reason for ACTA‟s failure.135 This response reflects DG-Trade‟s lack of will to truly take into consideration concerns expressed by civil society, especially when it comes to IP measures and the pharmaceutical industry DG-Trade‟s rigid position in support of strong IP protection is not surprising when considering the amount of corporate lobbying activity. The pharmaceutical industry spends more than €40m annually to influence decision making in the EU, employing an estimated 220 lobbyists.136 These numbers keep increasing, as the US-based pharmaceutical industry lobby (PhRMA) is also establishing a firm presence in Brussels. DG-Trade should no longer be the only DG to set the trade and IP agenda, and should stop using trade policies to advance the interests of EU industry alone, without taking into consideration its impact on the public interest. Other DGs of the EC, the EP and EU Member states should ensure that public health, development and trade policies promoted by the Commission are coherent and complementary, and benefit EU citizens as well as people in developing countries. The principle of „policy coherence for development‟, enshrined in the Lisbon Treaty, should be implemented to ensure that no EU policies contradict the objectives of EU development policies.137 4 RISE OF HEALTH INEQUALITY IN EUROPE THE EU STRUGGLES TO KEEP HEALTH FOR ALL The affordability and availability of medicines is increasingly a problem in the EU, and has been exacerbated by the financial crisis. Public expenditure on pharmaceuticals increased on average by 76 percent across EU countries between 2000 and 2009.138 Costs are rising faster than Member states‟ GDP, mainly due to ageing populations and the increasing cost of medicines (see Chapter 1 for more on this topic). 139 Unnecessary delays in the entry of generic medicines onto the market further affect the affordability of medicines. In EU countries, generic medicines are, on average, a third to a quarter of the price than their respective off-patent originals.140 Prices tend to drop by 25 percent a year after generic entry to the market, and by 40 percent per year from two years after entry.141 New patented medicines introduced on the market are increasingly expensive and form the key drivers of increases in expenditure. The rise in expenditure on patented medicines outpaces the savings brought through the use of generic medicines.142 More than 100 influential oncologists have recently described current prices of cancer medicines as: „astronomical, unsustainable and even immoral‟.143 When Gilead announced that its new hepatitis C treatment, sofosbuvir (Sovaldi), would be priced in the US at $84,000 for a standard 12-week course of treatment, there was a public outcry. The company sold $2.27bn of Sovaldi in the first quarter of 2014 alone.144 At the same time, EU Member states‟ healthcare budgets are being cut, and there is increasing pressure to make treatment more efficient, while maintaining high levels of quality.145 For example, in April 2014, the UK‟s National Institute for Health and Care Excellence (NICE) rejected ado-trastuzumab emtansine (Kadcyla), a new breast cancer medicine from Roche, whose treatment course cost £90,831 per patient, because it was too expensive for the National Health Service (NHS). 146 This unsustainable situation risks polarising European society and reinforcing inequality in access to healthcare. There is a risk that only those wealthy enough to pay will be able to benefit from the latest treatments. The high costs of medicines, in combination with concerns about innovation and delayed generic entry to the market, are a source of serious concern for the EC. The 2009 DG-Competition Inquiry report into the pharmaceutical sector found that an excessive focus on IP litigation was hampering generic competition and weakening innovation in Europe.147 DG-Competition should take bold and effective actions to stop and sanctions these abuses. Box 7. The financial crisis and austerity measures threaten access to medicines in Europe Following the financial and economic crisis, the majority of EU Member states have made policy adjustments in order to reduce health costs. The most worrying consequence of this is the increase in co-payments by patients, and medicine shortages in some countries, which lead to a reduction in access and an increase in inequality. Measures imposed by the Troika (EU, IMF, European Central Bank) on Member states that have loans, force governments to decrease health budgets as a percentage of GDP in order to achieve 'fiscal balance'. Access to medicines is an essential element of the right to health that has been undermined on such occasions. These developments, together with austerity measures undermining social protection systems, have led to serious problems for access to medicines in the most hard-hit countries, such as Spain, Portugal and Greece. In Greece, for example, widespread medicine shortages have been reported in pharmacies, as wholesalers turn to markets with higher profits. 148 BIG PHARMA PROFITS IN TTIP The TTIP agreement that the EU is now negotiating with the US does not bode well for access to medicines. In the midst of controversies around EU‟s democratic deficit, trade policies and the capture of EU institutions by industrial lobbies149 , TTIP represents a huge threat to European public health systems and the public interest for the benefit of multinational industry‟s profits. Leaked pharmaceutical industry “wish list” demonstrates that the originator industry seeks harmonization on patentability standards, as well as a „voice‟ in EU Member states‟ pricing and reimbursement policies.150 The US government has made similar demands in previous and ongoing trade agreements with the EU. 151 As the US has lower patentability standards, this would effectively lead to more patents in the EU, which would in turn lead to less generic competition and more expensive medicines.152 Granting even stronger IP protection would also seem contrary to DG-Competition‟s findings about the abuse of monopoly power by originator companies. Moreover, increased influence for companies in how medicine price and reimbursement policies are set would challenge Member states‟ sovereignty to take measures to control expenditure on medicines.153 This could have, for example, weakened recent policies by Member states that cut medicine prices to curb spending in times of austerity. It could also harm Germany‟s recently revised reimbursement policy, which takes into account the costs/benefit ratio of new patented medicines in relation to existing treatments.154 Box 8. TTIP: A threat to EU citizens' health TTIP provisions would harm the affordability of medicines for EU citizens by delaying the availability of cheaper generic medicines, as well as keeping medicine prices high. Several provisions would result in stronger IP protections, linking pricing and reimbursement decisions to the market value of patented pharmaceutical products – as already included in some FTAs (e.g. US -South Korea, EU-South Korea) – and giving companies the power to intervene in government decision-making. In addition, TTIP represents a real threat to the public’s access to clinical trial data through the IP and regulatory cooperation chapters.155 Both the USA and the DG-Trade are pressing for the agreement to include an ISDS. This would allow US pharmaceutical companies to sue EU Member states, and potentially claim millions of dollars in compensation, by arguing that government measures to promote access to medicines will negatively affect future earnings on their IP or other investments in the EU.156 Such legal challenges could be brought against measures like price controls, reimbursement and therapeutic formulary decisions, marketing approvals and pharmacovigilance decisions, or stronger patentability standards. The potential for US pharmaceutical companies that invest in the EU to use this form of arbitration against EU Member states (or EU companies against the USA) and challenge pro-public health measures is evidenced through suits recently brought forward by major US, Canadian and French companies under ISDS provisions in other investment treaties. 157 Including ISDS in TTIP is unjustified and unnecessary, given the high level of investment protection that the domestic EU and US legal systems already provide. Using ISDS to restrict countries‟ legitimate rights to implement specific health measures poses a considerable threat to the ability to address the issue of accessibility and affordability of medicines in Europe. Furthermore, TTIP poses a threat for access to medicines beyond the EU and the US since it could set a new global standard for strict IP protection they will surely seek to impose on developing countries through future trade deals.158 5 CONCLUSION AND RECOMMENDATIONS The right to health requires governments to promote and protect access to needed medicines. This responsibility must not be traded away to accommodate the expanding monopoly power of multinational pharmaceutical companies. The balance between protecting commercial interests and public health interests has been lost. New medical technologies come at a tremendous cost to health systems and patients, and the percentage of pharmaceutical expenditure as a part of total health budgets has been rising steadily. Increasing IP protection has not led to more innovation, since the IP-based model is critically flawed in its ability to promote innovation that addresses priority public health goals. As a result, pharmaceutical companies have failed to deliver medicines that people need at a sustainable price for health budgets worldwide. Even in the EU, the affordability and availability of medicines are in jeopardy. Unfortunately, the EU‟s trade policy agenda does not reflect the recognition that excessive IP protection results in increased medicine costs and hampers biomedical innovation. Decreasing levels of innovation have led companies to retain and strengthen monopoly power over their products and to look for higher revenues in LMICs by leveraging that power, which in turn hampers generic competition and limits access for poor populations. EU trade policy is one avenue through which companies attempt to export stronger IP rules. EU trade policies are harming access to medicines across the world. The EU is not doing enough to explore new models of innovation to address urgent health needs and deliver innovation at a sustainable cost. Resistance against those EU trade policies that undermine health and development commitments undertaken by the EU and Member states is now coming from many angles. TTIP which will be in the spotlight for quite some time risks increasing medicine prices in Europe and increasing the financial burden on already strained health systems. In addition, TTIP intends to become the global standard that will apply to other trade agreements across the world. It is time for the EU to amend its trade and innovation policies to better serve the public interest in Europe and the world.

**EU legitimacy fosters a multilateral world order to solve every existential threat - specifically, climate change**

Naja **Bentzen**, Sept **2020**, Protecting, promoting and projecting Europe's values and interests in the world //SR

European Council strategic agenda for 2019 to 2024 At its 20 June 2019 meeting, the European Council agreed on an agenda for the EU for the next five years. It focuses on four main priorities: protecting citizens and freedoms; developing a strong and vibrant economic base; building a climate-neutral, green, fair and social Europe; and promoting European interests and values on the global stage. In order to act strategically, boost its capacity to act autonomously to protectits interests, uphold its values and way of life, and help shape the global future, the European Council has agreed to support the UN and key multilateral organisations; promote sustainable development and implementation of the 2030 agenda; cooperate with partner countries on migration; uphold the European perspective for European states able and willing to join the EU; develop a comprehensive partnership with Africa; ensure an ambitious and robust trade policy, within the reformed WTO and at the bilateral level between the EU and its partners; and cooperate closely with NATO. The strategic agenda explicitly underlines the need for the EU to be more 'assertive and effective' in order to defend its interests and values better. The guiding principles of Germany's current, six-month Presidency of the Council of the EU specify that 'In a world of increasing rivalry between major powers, European policy must strengthen Europe's ability to act in the wider world in order to defend European interests and values and to assume our responsibility in the world.' In addition to the commitment to an international order based on rules and human rights, in which the EU plays a role in shaping standards and norms worldwide, Germany wants to boost political dialogue on the rule of law, based on the Commission's new annual rule of law report. Seizing Europe's moment: The way forward As reflected in the EU's global response to coronavirus, its external action is steered by over-arching values and objectives. The EU's future path − carved out by actions rather than words − entails a conscious distinction from the ongoing 'great power rivalry', as the Union moves to promote its interests as the fundamental aim of its foreign policy. In July 2020, the HR/VP, Josep Borrell, argued that, 'As we battle the pandemic and its consequences, Europe must protect the openness of our model and the democratic nature of our system' as 'the source of our success. ... we cannot accept that our choice for democracy is derided or undermined'. Emerging and potential responses to the risks listed above, are outlined below, clustered around five inter-related avenues of action. A Strategic Compass for Europe's future course in the world The European Council's strategic agenda states that the EU's common foreign and security policy (CFSP) and common security and defence policy (CSDP) (its 17 missions and operations making it one of the UN's main peacekeeping partners) must 'be better linked to the other strands of external relations'. In June 2020, anticipating rising global tensions and conflicts on Europe's doorstep, Borrell noted 'increased momentum to strengthen our collective capacity for action' in the preparation of the Strategic Compass. The process towards a common strategic culture will begin with an intelligence-led threat analysis by the end of 2020, with an agreement on the 2021-25 priorities for permanent structured cooperation (PESCO) expected at the same time. Anew €8 billion European Peace Facility should boost the credibility of the EU's efforts to 'collectively promote peace and security beyond our borders'. Borrell has also highlighted the urgent need to boost tools to counter hybrid threats − including disinformation and cyber-attacks − that have become more visible during the pandemic. Pressure on Europe's democratic systems has previously prompted Borrell to argue for a new form of globalisation 'striking a balance between the advantages of open markets and interdependence, and between the sovereignty and security of countries'. The pandemic has sparked reflection on the security dimension of public health and on a number of societal challenges. The EU is recognising public health as an internal and external security issue that highlights the interlinkage of problems, and the multifaceted repercussions of related crises in the EU's neighbourhood, as well as the interdependence of societies and countries in their response. Similarly, recognition of malign information campaigns and conspiracy theories as security issues can help boost political and public awareness and resilience.2 The Parliament's creation in June 2020 of a new special committee on foreign interference, including disinformation, is an important step towards coordinated action on this front, and could provide impetus for cooperation with parliaments across Europe and the world in this crucial field, reinforcing the EP's role in protecting, promoting and projecting democratic values and sharing good practice, including administrative best practice. Defining the concrete threats to democracy will facilitate cooperation with other democracies (such as the US, Canada, Australia and Japan) to find joint action to be replicated by others. Many of the risks facing the EU are linked to developments in the EU's neighbouring regions and Africa, where China is an increasingly assertive systemic rival. The socio-economic and securityrelated repercussions of the pandemic have further highlighted the importance of stability in these regions. A destabilised neighbourhood exacerbates terrorism threats, rekindles conflicts − for example, the conflict between Armenia and Azerbaijan − and challenges stemming from unregulated flows of migrants. Against this backdrop, a new approach to EU enlargement and the recent EU-Western Balkans summit recalled these countries' European perspective. The growing momentum in EU-Africa relations has been reinvigorated by the pandemic, which has underlined the importance of supply chain diversification and the new opportunities this can bring. Against this backdrop, the sixth EU-African Union summit, to be held in the autumn, provides opportunities not only to focus on the repercussions of the pandemic, but also to further boost ties with African partners in the context of a new joint strategy. With the conclusion of negotiations on the new partnership agreement between the EU and the African, Caribbean and Pacific group of states, 2020 will be crucial for a stronger EU-Africa partnership. The German foreign minister, Heiko Maas, has confirmed that closer political and economic cooperation with African countries, with a focus on peace, security and sustainable development, is a priority for his country's six-month presidency of the Council. Boosting multilateralism in a multipolar world The EU's efforts to promote and defend its values in the world through multilateral formats in the areas of trade, climate, security, human rights and development – and by contributing to rules-based multilateral governance in artificial intelligence, cyberspace and space – are part of its very essence. However, this principle has come under increasing pressure in recent years, not only from authoritarian state actors such as Russia and China − who have long challenged the liberal, rules-based order − but also by the US, and this is another trend that has been further accelerated by coronavirus. On 10 July 2020, the HR/VP diagnosed 'a real crisis of multilateralism: the G7 and G20 are absent; the UN Security Council is paralysed, while many "technical" organisations have become arenas where countries compete for influence'. He warned against tensions between respect for science and evidence-based policy-making and the appeal of nationalism and authoritarian politics. Evidencebased multilateral action is key to addressing major global challenges that risk being overshadowed by the acute priorities driven by Covid-19. A case in point is the climate emergency, which requires immediate, sustained action. The first ever European Climate Law, adopted by the Commission in March 2020, commits the EU to achieving climate neutrality by 2050, but requires the rest of the world to join forces if it is to succeed. Similarly, multilateralism is key to coordinating international development aid initiatives aimed at achieving the sustainable development goals by 2030. In further exploring its avenues towards strategic autonomy, the EU is looking into the potential for multilateral partnerships with allies in Europe and beyond − including Canada, Japan and Australia − as well as other partners in vital areas such as security and defence, health, technology, energy, critical infrastructure and intelligence, including protecting and projecting democracy and securing a safe, secure and sustainable infosphere. In the tech realm, the Global Partnership on Artificial Intelligence (GPAI), founded by the European Commission and 14 countries, was launched on 9 June 2020. A nexus for international cooperation for the development of AI, GPAI will draw on international experts to evaluate emerging AI technology and advise its member states accordingly. These efforts feed into the EU's overall efforts to achieve strategic autonomy. Boosting European defence cooperation can result in a 'powerful European pillar within NATO', simultaneously strengthening NATO and a strategically autonomous EU. In addition to intensified cooperation within the G7, the G20, the UN, the Organization for Security and Co-operation in Europe (OSCE) and the Council of Europe, the EU should continue to explore avenues for cooperation beyond 'likeminded' (continental) democracies. With multilateralism at the core of its foreign policy, the EU is playing a lead role in efforts to reform, strengthen and revitalise multilateral institutions. This includes the independent investigation into the WHO's handling of the coronavirus outbreak, as well as work to secure the future financing of the body. In the midst of the pandemic, the WHO and the EU have reinforced their cooperation on universal health coverage to reduce health inequality across the world. The pandemic has demonstrated that 'health is no longer a purely private matter, but a public international good'. By making health a European foreign policy priority, as the EU Institute for Security Studies has suggested, the EU could promote its human-centric approach in new alliances and cooperation, projecting its values and interests even beyond the circle of 'like-minded' democracies. Promoting democracy, human rights and rule of law at home and abroad The EU traditionally plays a prominent role in promoting democracy, human rights and rule of law abroad. Butsome academics see a third wave of autocratisation eroding democracy, also in Europe, from within. While earlier waves have occurred by sudden, obvious changes − military coups or invasions − the subtle and gradual nature of the third wave, often veiled in legal changes, makes it 'increasingly difficult to pinpoint the end of democracy'. Anu Bradford argues that, as the work to promote human rights and rule of law abroad is eroded by violations of these rights in some Member States, the EU should increasingly use its regulatory power to project the EU's 'power and relevance, at home and abroad', as it 'can more easily be insulated from its internal struggles'. Before the pandemic, the state of the rule of law − as indicated in the World Bank's Worldwide Governance Indicators − gave cause for concern in 17 EU Member States from 2009 to 2018. This led to the initiation of the Article 7 procedure for protecting EU values, by the Commission against Poland (2017), and by Parliament against Hungary (2018). Freedom House's Freedom in the World 2020 report found that democracy has been in decline for 14 years in a row. This trend has also been fuelled by the pandemic: governments across the world have used emergency powers to curb the spread of the virus, sometimes undermining human rights and democratic processes. In the EU, restrictive measures in response to the pandemic have enabled states to limit freedoms and checks and balances temporarily. Human rights groups warn that authoritarian regimes are using the crisis to silence critics and tighten their political grip, sidelining parliaments to evade oversight. Against this backdrop, the EU has teamed up with the International Institute for Democracy and Electoral Assistance (International IDEA) to launch the Global Monitor of coronavirus's impact on democracy and human rights. The tool draws on expertise from think-tanks, universities and organisations in gathering and sharing information on the situation in 162 countries, including the EU itself. The need to support democracies both at home and abroad − not least in the EU's neighbourhood − continues to top the EU's and the Parliament's agendas. Unprecedented support for Ukraine, under hybrid attack from Russia, is a case in point, and a good example of cooperation with partners across the world, including democratic state actors, NATO, the OSCE, the UN and international financial institutions. Support for democracy in the Western Balkans seems particularly pertinent. Before the current pandemic, the region had seen over a decade of democratic backsliding, rising support for strongmen and declining support for democracy. Similarly, in Africa, choice of system − one based on individual rights, sustainable development and governments accountable to the people, or an 'alternative' − will shape the continent's future, with potential long-term repercussions for Europe. Authoritarian technology and science diplomacy, with underlying hard power considerations, pose a threat to democracy and human rights across the world. Use of surveillance technology has accelerated during the pandemic, benefiting not least Chinese surveillance tech companies. Recent media reports on cooperation by Danish researchers with scholars linked to Chinese tech company Hikvision − sanctioned by the US over human rights abuses in the surveillance of minorities − on the development of surveillance algorithms have prompted the creation of a committee to explore security-related and ethical boundaries for research collaboration with foreign partners. In order to avoid situations where Member States inadvertently facilitate digital authoritarianism via research cooperation, the EU could consider setting up a special task force − for example under the Single Intelligence Analysis Capacity (SIAC) − to help universities screen foreign cooperation partners. To preserve its credibility, the EU must practise what it preaches and avoid facilitating the advance of authoritarian forces, even if only passively. An EPRS European Added Value Assessment, feeding into a legislative own-initiative procedure, diagnosed a gap between the proclamation of fundamental rights and values and actual compliance, owing to 'weaknesses in the existing EU legal and policy framework on democracy, the rule of law and fundamental rights'. This gap weakens the EU's attractiveness and credibility. The Parliament has called repeatedly − most recently in January 2020 − for an EU 'pact' on fundamental rights, to complement existing mechanisms such as the EU Justice Scoreboard, the European Semester for coordination of Member States' economic policies, and the Cooperation and Verification Mechanism for Bulgaria and Romania.

**Climate change causes extinction**

**Schultz 16** (Robert Schultz [Retired Professor and Chair of Computer Information Systems at Woodbury University] “Modern Technology and Human Extinction,” <http://proceedings.informingscience.org/InSITE2016/InSITE16p131-145Schultz2307.pdf>) RW

There is consensus that there is a relatively short window to reduce carbon emissions before drastic effects occur. Recent credible projections of the result of lack of rapid drastic action is an average temperature increase of about 10o F by 2050. This change alone will be incredibly disruptive to all life, but will also cause great weather and climate change. For comparison purposes, a 10 degree (Fahrenheit) decrease was enough to cause an ice layer 4000 feet thick over Wisconsin (Co2gether, 2012). Recently relevant information has surfaced about a massive previous extinction. This is the Permian extinction, which happened 252 million years ago, during which 95% of all species on earth, both terrestrial and aquatic, vanished. The ocean temperature after almost all life had disappeared was 15 degrees (Fahrenheit) above current ocean temperatures. Recent information about the Permian extinction indicates it was caused by a rapid increase in land and ocean temperatures, caused by the sudden appearance of stupendous amounts of carbon in the form of greenhouse gases (Kolbert, 2014, pp. 102-144). The origin of the carbon in these enormous quantities is not yet known, but one possibility is the sudden release of methane gases stored in permafrost. This is also a possibility in our current situation. If so, extinction would be a natural side effect of human processes. There is also a real but smaller possibility of what is called “runaway greenhouse,” in which the earth’s temperature becomes like Venus’ surface temperature of 800o The threat of extinction here is not entirely sudden. The threat is, if anything, worse. Changes in the atmosphere--mainly increases in the concentration of greenhouse gases in the atmosphere-- can start processes that can’t be reversed but which take long periods of time to manifest. “Runaway greenhouse” may be the worst. Once again, suggestions of technological solutions to this situation should be treated with some skepticism. These proposals are often made by technophiles ignoring all the evidence that technology is very much subject to unanticipated side effects and unanticipated failures. What has happened concerning the depletion of the ozone layer should be a clear warning against the facile uses of technology through geoengineering to alter the makeup of the entire planet and its atmosphere. The complicating factor in assessing extinction likelihood from climate change is corporations, especially American fossil fuel corporations such as Exxon-Mobil and Shell. Through their contributions, they have been able to delay legislation ameliorating global warming and climate change. As mentioned before, recently released papers from Exxon-Mobil show that the corporation did accept the scientific findings about global warming and climate change. But they concluded that maintaining their profits was more important than acting to ameliorate climate change. Since it is not a matter of getting corporations to appreciate scientific facts, the chances of extinction from climate change are good. To ameliorate climate change, it is important to leave a high percentage of fossil fuel reserves in the ground. But this is exactly what a profit-seeking fossil fuel corporation cannot do. One can still hope that because fossil fuel corporations are made up of individuals, increasingly bad consequences of global warming and climate change will change their minds about profits. But because of the lag in effects, this mind change will probably be too late. So I conclude we will probably see something like the effects of the Permian extinction perhaps some time around 2050. (The Permian extinction was 95% extinction of all species.) This assumes the release of methane from the arctic will take place around then.

**Also solves nuke war**

Yuval Noah **Harari 18**, Professor of History at Hebrew University of Jerusalem, 9/26/18, “We need a post-liberal order now,” The Economist, <https://www.economist.com/open-future/2018/09/26/we-need-a-post-liberal-order-now>

The second thing to note about this vision of friendly fortresses is that it has been tried—and it failed spectacularly. All attempts to divide the world into clear-cut nations have so far resulted in war and genocide. When the heirs of Garibaldi, Mazzini and Mickiewicz managed to overthrow the multi-ethnic Habsburg Empire, it proved impossible to find a clear line dividing Italians from Slovenes or Poles from Ukrainians. This had set the stage for the second world war. The key problem with the network of fortresses is that each national fortress wants a bit more land, security and prosperity for itself at the expense of the neighbors, and without the help of universal values and global organisations, rival fortresses cannot agree on any common rules. Walled fortresses are seldom friendly. But if you happen to live inside a particularly strong fortress, such as America or Russia, why should you care? Some nationalists indeed adopt a more extreme isolationist position. They don’t believe in either a global empire or in a global network of fortresses. Instead, they deny the necessity of any global order whatsoever. “Our fortress should just raise the drawbridges,” they say, “and the rest of the world can go to hell. We should refuse entry to foreign people, foreign ideas and foreign goods, and as long as our walls are stout and the guards are loyal, who cares what happens to the foreigners?” Such extreme isolationism, however, is completely divorced from economic realities. Without a global trade network, all existing national economies will collapse—including that of North Korea. Many countries will not be able even to feed themselves without imports, and prices of almost all products will skyrocket. The made-in-China shirt I am wearing cost me about $5. If it had been produced by Israeli workers from Israeli-grown cotton using Israeli-made machines powered by non-existing Israeli oil, it may well have cost ten times as much. Nationalist leaders from Donald Trump to Vladimir Putin may therefore heap abuse on the global trade network, but none thinks seriously of taking their country completely out of that network. And we cannot have a global trade network without some global order that sets the rules of the game. Even more importantly, whether people like it or not, humankind today faces three common problems that make a mockery of all national borders, and that can only be solved through global cooperation. These are nuclear war, climate change and technological disruption. You cannot build a wall against nuclear winter or against global warming, and no nation can regulate artificial intelligence (AI) or bioengineering single-handedly. It won’t be enough if only the European Union forbids producing killer robots or only America bans genetically-engineering human babies. Due to the immense potential of such disruptive technologies, if even one country decides to pursue these high-risk high-gain paths, other countries will be forced to follow its dangerous lead for fear of being left behind. An AI arms race or a biotechnological arms race almost guarantees the worst outcome. Whoever wins the arms race, the loser will likely be humanity itself. For in an arms race, all regulations will collapse. Consider, for example, conducting genetic-engineering experiments on human babies. Every country will say: “We don’t want to conduct such experiments—we are the good guys. But how do we know our rivals are not doing it? We cannot afford to remain behind. So we must do it before them.” Similarly, consider developing autonomous-weapon systems, that can decide for themselves whether to shoot and kill people. Again, every country will say: “This is a very dangerous technology, and it should be regulated carefully. But we don’t trust our rivals to regulate it, so we must develop it first”. The only thing that can prevent such destructive arms races is greater trust between countries. This is not an impossible mission. If today the Germans promise the French: “Trust us, we aren’t developing killer robots in a secret laboratory under the Bavarian Alps,” the French are likely to believe the Germans, despite the terrible history of these two countries. We need to build such trust globally. We need to reach a point when Americans and Chinese can trust one another like the French and Germans. Similarly, we need to create a global safety-net to protect humans against the economic shocks that AI is likely to cause. Automation will create immense new wealth in high-tech hubs such as Silicon Valley, while the worst effects will be felt in developing countries whose economies depend on cheap manual labor. There will be more jobs to software engineers in California, but fewer jobs to Mexican factory workers and truck drivers. We now have a global economy, but politics is still very national. Unless we find solutions on a global level to the disruptions caused by AI, entire countries might collapse, and the resulting chaos, violence and waves of immigration will destabilise the entire world. This is the proper perspective to look at recent developments such as Brexit. In itself, Brexit isn’t necessarily a bad idea. But is this what Britain and the EU should be dealing with right now? How does Brexit help prevent nuclear war? How does Brexit help prevent climate change? How does Brexit help regulate artificial intelligence and bioengineering? Instead of helping, Brexit makes it harder to solve all of these problems. Every minute that Britain and the EU spend on Brexit is one less minute they spend on preventing climate change and on regulating AI.  In order to survive and flourish in the 21st century, humankind needs effective global cooperation, and so far the only viable blueprint for such cooperation is offered by liberalism. Nevertheless, governments all over the world are undermining the foundations of the liberal order, and the world is turning into a network of fortresses. The first to feel the impact are the weakest members of humanity, who find themselves without any fortress willing to protect them: refugees, illegal migrants, persecuted minorities. But if the walls keep rising, eventually the whole of humankind will feel the squeeze.

**Extinction**

**Starr 15** [Steven, Senior Scientist for Physicians for Social Responsibility (www.psr.org) and Director of the Clinical Laboratory Science Program at the University of Missouri. Starr has published in the Bulletin of the Atomic Scientists and the Strategic Arms Reduction (STAR) website of the Moscow Institute of Physics and Technology] “Nuclear War: An Unrecognized Mass Extinction Event Waiting To Happen.” Ratical. March 2015. https://ratical.org/radiation/NuclearExtinction/StevenStarr022815.html TG

A war fought with 21st century strategic nuclear weapons would be more than just a great catastrophe in human history. If we allow it to happen, such a war would be a mass extinction event that ends human history. There is a profound difference between extinction and “an unprecedented disaster,” or even “the end of civilization,” because even after such an immense catastrophe, human life would go on. But extinction, by definition, is an event of utter finality, and a nuclear war that could cause human extinction should really be considered as the ultimate criminal act. It certainly would be the crime to end all crimes. The world’s leading climatologists now tell us that nuclear war threatens our continued existence as a species. Their studies predict that a large nuclear war, especially one fought with strategic nuclear weapons, would create a post-war environment in which for many years it would be too cold and dark to even grow food. Their findings make it clear that not only humans, but most large animals and many other forms of complex life would likely vanish forever in a nuclear darkness of our own making. The environmental consequences of nuclear war would attack the ecological support systems of life at every level. Radioactive fallout produced not only by nuclear bombs, but also by the destruction of nuclear power plants and their spent fuel pools, would poison the biosphere. Millions of tons of smoke would act to destroy Earth’s protective ozone layer and block most sunlight from reaching Earth’s surface, creating Ice Age weather conditions that would last for decades. Yet the political and military leaders who control nuclear weapons strictly avoid any direct public discussion of the consequences of nuclear war. They do so by arguing that nuclear weapons are not intended to be used, but only to deter. Remarkably, the leaders of the Nuclear Weapon States have chosen to ignore the authoritative, long-standing scientific research done by the climatologists, research that predicts virtually any nuclear war, fought with even a fraction of the operational and deployed nuclear arsenals, will leave the Earth essentially uninhabitable.

## Solvency

**Thus the plan - The member states of the European Union ought to reduce intellectual property protections for medicines. Cx checks all interps to deter frivolous theory and maximize substance. Normal means allows people to freely create medicines and share info during a pandemic**

**Corporate Europe Observatory**, 03/**2021**, EU risks global public health in its protection of big pharma monopolies<https://corporateeurope.org/sites/default/files/2021-03/Pharma%20briefing.pdf> //SR

Call off the dogs In pandemic times, the EU’s role in blocking global access to affordable medicines deserves every criticism. Along with the US, the EU is constantly on guard to protect the interests of big pharma, even in a situation that so obviously demands a different approach. “The European Commission needs to call off the dogs now. They need to understand that we are in a very special situation, and that patents and other forms of intellectual property will have to be shared,” as Ellen ‘t Hoen observes. Having the Commission claim that the existing rules provide the necessary space to start generic production, is not only not true, it is also highly hypocritical. If anything, the EU has over the years engaged in a structured attempt to undo generic production entirely, in effect acting as a key obstacle to international access to affordable medicines. That tide needs to be turned, and it is a job that needs to be done in the main by people in Europe. A push to change the stance of the European Union on patents on vaccines, testing equipment, and medicines is urgently needed. Whatever happens with the current proposal for a waiver in the short term, this crucial issue will not go away any time soon.  TAKE ACTION The ‘Right to Cure’ campaign has launched a European Citizens’ Initiative calling upon the EU to “make anti-pandemic vaccines and treatments a global public good, freely accessible to everyone”. The campaign aims to collect one million signatures in EU member states, in order to pressure the European Commission to implement this crucial demand. Sign the initiative here: noprofitonpandemic.eu Corporate Europe Observatory has filed several Freedom of Information (FOI) requests to the European Commission to throw light on the Commission’s interactions with Big Pharma lobbyists on the issue of the TRIPS waiver for COVID-19 vaccines and treatments. We have requested access to documents from the European Commission on its exchanges with pharma lobby groups.

## Framing

**The metaethic is naturalism - ethics divorced from experience are impossible and epistemically inaccessible**

**Papineau 7**, David Papineau, “Naturalism,” Stanford Encyclopedia of Philosophy, 2007//SS

However, any such non-naturalist view of morality faces immediate difficulties, deriving ultimately from the kind of causal closure thesis discussed above. If all physical effects are due to a limited range of natural causes, and if moral facts lie outside this range, then it follow that moral facts can never make any difference to what happens in the physical world (Harman, 1986). At first sight this may seem tolerable (perhaps moral facts indeed don't have any physical effects). But it has very awkward epistemological consequences. For beings like us, knowledge of the spatiotemporal world is mediated by physical processes involving our sense organs and cognitive systems. If moral facts cannot influence the physical world, then it is hard to see how we can have any knowledge of them

**Our experiences are derived from pleasure and pain, all other frameworks collapse**

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Pleasure is not only one of the three primary reward functions but it also defines reward. As homeostasis explains the functions of only a limited number of rewards, the principal reason why particular stimuli, objects, events, situations, and activities are rewarding may be due to pleasure. This applies first of all to sex and to the primary homeostatic rewards of food and liquid and extends to money, taste, beauty, social encounters and nonmaterial, internally set, and intrinsic rewards. Pleasure, as the primary effect of rewards, drives the prime reward functions of learning, approach behavior, and decision making and provides the basis for hedonic theories of reward function. We are attracted by most rewards and exert intense efforts to obtain them, just because they are enjoyable [10].  Pleasure is a passive reaction that derives from the experience or prediction of reward and may lead to a long-lasting state of happiness. The word happiness is difficult to define. In fact, just obtaining physical pleasure may not be enough. One key to happiness involves a network of good friends. However, it is not obvious how the higher forms of satisfaction and pleasure are related to an ice cream cone, or to your team winning a sporting event. Recent multidisciplinary research, using both humans and detailed invasive brain analysis of animals has discovered some critical ways that the brain processes pleasure [14].  Pleasure as a hallmark of reward is sufficient for defining a reward, but it may not be necessary. A reward may generate positive learning and approach behavior simply because it contains substances that are essential for body function. When we are hungry, we may eat bad and unpleasant meals. A monkey who receives hundreds of small drops of water every morning in the laboratory is unlikely to feel a rush of pleasure every time it gets the 0.1 ml. Nevertheless, with these precautions in mind, we may define any stimulus, object, event, activity, or situation that has the potential to produce pleasure as a reward. In the context of reward deficiency or for disorders of addiction, homeostasis pursues pharmacological treatments: drugs to treat drug addiction, obesity, and other compulsive behaviors. The theory of allostasis suggests broader approaches - such as re-expanding the range of possible pleasures and providing opportunities to expend effort in their pursuit. [15]. It is noteworthy, the first animal studies eliciting approach behavior by electrical brain stimulation interpreted their findings as a discovery of the brain’s pleasure centers [16] which were later partly associated with midbrain dopamine neurons [17–19] despite the notorious difficulties of identifying emotions in animals.  Evolutionary theories of pleasure: The love connection BO:D  Charles Darwin and other biological scientists that have examined the biological evolution and its basic principles found various mechanisms that steer behavior and biological development. Besides their theory on natural selection, it was particularly the sexual selection process that gained significance in the latter context over the last century, especially when it comes to the question of what makes us “what we are,” i.e., human. However, the capacity to sexually select and evolve is not at all a human accomplishment alone or a sign of our uniqueness; yet, we humans, as it seems, are ingenious in fooling ourselves and others–when we are in love or desperately search for it.  It is well established that modern biological theory conjectures that organisms are the result of evolutionary competition. In fact, Richard Dawkins stresses gene survival and propagation as the basic mechanism of life [20]. Only genes that lead to the fittest phenotype will make it. It is noteworthy that the phenotype is selected based on behavior that maximizes gene propagation. To do so, the phenotype must survive and generate offspring, and be better at it than its competitors. Thus, the ultimate, distal function of rewards is to increase evolutionary fitness by ensuring the survival of the organism and reproduction. It is agreed that learning, approach, economic decisions, and positive emotions are the proximal functions through which phenotypes obtain other necessary nutrients for survival, mating, and care for offspring.  Behavioral reward functions have evolved to help individuals to survive and propagate their genes. Apparently, people need to live well and long enough to reproduce. Most would agree that homo-sapiens do so by ingesting the substances that make their bodies function properly. For this reason, foods and drinks are rewards. Additional rewards, including those used for economic exchanges, ensure sufficient palatable food and drink supply. Mating and gene propagation is supported by powerful sexual attraction. Additional properties, like body form, augment the chance to mate and nourish and defend offspring and are therefore also rewards. Care for offspring until they can reproduce themselves helps gene propagation and is rewarding; otherwise, many believe mating is useless. According to David E Comings, as any small edge will ultimately result in evolutionary advantage [21], additional reward mechanisms like novelty seeking and exploration widen the spectrum of available rewards and thus enhance the chance for survival, reproduction, and ultimate gene propagation. These functions may help us to obtain the benefits of distant rewards that are determined by our own interests and not immediately available in the environment. Thus the distal reward function in gene propagation and evolutionary fitness defines the proximal reward functions that we see in everyday behavior. That is why foods, drinks, mates, and offspring are rewarding. There have been theories linking pleasure as a required component of health benefits salutogenesis, (salugenesis). In essence, under these terms, pleasure is described as a state or feeling of happiness and satisfaction resulting from an experience that one enjoys. Regarding pleasure, it is a double-edged sword, on the one hand, it promotes positive feelings (like mindfulness) and even better cognition, possibly through the release of dopamine [22]. But on the other hand, pleasure simultaneously encourages addiction and other negative behaviors, i.e., motivational toxicity. It is a complex neurobiological phenomenon, relying on reward circuitry or limbic activity. It is important to realize that through the “Brain Reward Cascade” (BRC) endorphin and endogenous morphinergic mechanisms may play a role [23]. While natural rewards are essential for survival and appetitive motivation leading to beneficial biological behaviors like eating, sex, and reproduction, crucial social interactions seem to further facilitate the positive effects exerted by pleasurable experiences. Indeed, experimentation with addictive drugs is capable of directly acting on reward pathways and causing deterioration of these systems promoting hypodopaminergia [24]. Most would agree that pleasurable activities can stimulate personal growth and may help to induce healthy behavioral changes, including stress management [25]. The work of Esch and Stefano [26] concerning the link between compassion and love implicate the brain reward system, and pleasure induction suggests that social contact in general, i.e., love, attachment, and compassion, can be highly effective in stress reduction, survival, and overall health.  Understanding the role of neurotransmission and pleasurable states both positive and negative have been adequately studied over many decades [26–37], but comparative anatomical and neurobiological function between animals and homo sapiens appear to be required and seem to be in an infancy stage.  Finding happiness is different between apes and humans  As stated earlier in this expert opinion one key to happiness involves a network of good friends [38]. However, it is not entirely clear exactly how the higher forms of satisfaction and pleasure are related to a sugar rush, winning a sports event or even sky diving, all of which augment dopamine release at the reward brain site. Recent multidisciplinary research, using both humans and detailed invasive brain analysis of animals has discovered some critical ways that the brain processes pleasure.  Remarkably, there are pathways for ordinary liking and pleasure, which are limited in scope as described above in this commentary. However, there are many brain regions, often termed hot and cold spots, that significantly modulate (increase or decrease) our pleasure or even produce the opposite of pleasure— that is disgust and fear [39]. One specific region of the nucleus accumbens is organized like a computer keyboard, with particular stimulus triggers in rows— producing an increase and decrease of pleasure and disgust. Moreover, the cortex has unique roles in the cognitive evaluation of our feelings of pleasure [40]. Importantly, the interplay of these multiple triggers and the higher brain centers in the prefrontal cortex are very intricate and are just being uncovered.  Desire and reward centers  It is surprising that many different sources of pleasure activate the same circuits between the mesocorticolimbic regions (Figure 1). Reward and desire are two aspects pleasure induction and have a very widespread, large circuit. Some part of this circuit distinguishes between desire and dread. The so-called pleasure circuitry called “REWARD” involves a well-known dopamine pathway in the mesolimbic system that can influence both pleasure and motivation.  In simplest terms, the well-established mesolimbic system is a dopamine circuit for reward. It starts in the ventral tegmental area (VTA) of the midbrain and travels to the nucleus accumbens (Figure 2). It is the cornerstone target to all addictions. The VTA is encompassed with neurons using glutamate, GABA, and dopamine. The nucleus accumbens (NAc) is located within the ventral striatum and is divided into two sub-regions—the motor and limbic regions associated with its core and shell, respectively. The NAc has spiny neurons that receive dopamine from the VTA and glutamate (a dopamine driver) from the hippocampus, amygdala and medial prefrontal cortex. Subsequently, the NAc projects GABA signals to an area termed the ventral pallidum (VP). The region is a relay station in the limbic loop of the basal ganglia, critical for motivation, behavior, emotions and the “Feel Good” response. This defined system of the brain is involved in all addictions –substance, and non –substance related. In 1995, our laboratory coined the term “Reward Deficiency Syndrome” (RDS) to describe genetic and epigenetic induced hypodopaminergia in the “Brain Reward Cascade” that contribute to addiction and compulsive behaviors [3,6,41].  Furthermore, ordinary “liking” of something, or pure pleasure, is represented by small regions mainly in the limbic system (old reptilian part of the brain). These may be part of larger neural circuits. In Latin, hedus is the term for “sweet”; and in Greek, hodone is the term for “pleasure.” Thus, the word Hedonic is now referring to various subcomponents of pleasure: some associated with purely sensory and others with more complex emotions involving morals, aesthetics, and social interactions. The capacity to have pleasure is part of being healthy and may even extend life, especially if linked to optimism as a dopaminergic response [42].  Psychiatric illness often includes symptoms of an abnormal inability to experience pleasure, referred to as anhedonia. A negative feeling state is called dysphoria, which can consist of many emotions such as pain, depression, anxiety, fear, and disgust. Previously many scientists used animal research to uncover the complex mechanisms of pleasure, liking, motivation and even emotions like panic and fear, as discussed above [43]. However, as a significant amount of related research about the specific brain regions of pleasure/reward circuitry has been derived from invasive studies of animals, these cannot be directly compared with subjective states experienced by humans.  In an attempt to resolve the controversy regarding the causal contributions of mesolimbic dopamine systems to reward, we have previously evaluated the three-main competing explanatory categories: “liking,” “learning,” and “wanting” [3]. That is, dopamine may mediate (a) liking: the hedonic impact of reward, (b) learning: learned predictions about rewarding effects, or (c) wanting: the pursuit of rewards by attributing incentive salience to reward-related stimuli [44]. We have evaluated these hypotheses, especially as they relate to the RDS, and we find that the incentive salience or “wanting” hypothesis of dopaminergic functioning is supported by a majority of the scientific evidence. Various neuroimaging studies have shown that anticipated behaviors such as sex and gaming, delicious foods and drugs of abuse all affect brain regions associated with reward networks, and may not be unidirectional. Drugs of abuse enhance dopamine signaling which sensitizes mesolimbic brain mechanisms that apparently evolved explicitly to attribute incentive salience to various rewards [45].  Addictive substances are voluntarily self-administered, and they enhance (directly or indirectly) dopaminergic synaptic function in the NAc. This activation of the brain reward networks (producing the ecstatic “high” that users seek). Although these circuits were initially thought to encode a set point of hedonic tone, it is now being considered to be far more complicated in function, also encoding attention, reward expectancy, disconfirmation of reward expectancy, and incentive motivation [46]. The argument about addiction as a disease may be confused with a predisposition to substance and nonsubstance rewards relative to the extreme effect of drugs of abuse on brain neurochemistry. The former sets up an individual to be at high risk through both genetic polymorphisms in reward genes as well as harmful epigenetic insult. Some Psychologists, even with all the data, still infer that addiction is not a disease [47]. Elevated stress levels, together with polymorphisms (genetic variations) of various dopaminergic genes and the genes related to other neurotransmitters (and their genetic variants), and may have an additive effect on vulnerability to various addictions [48]. In this regard, Vanyukov, et al. [48] suggested based on review that whereas the gateway hypothesis does not specify mechanistic connections between “stages,” and does not extend to the risks for addictions the concept of common liability to addictions may be more parsimonious. The latter theory is grounded in genetic theory and supported by data identifying common sources of variation in the risk for specific addictions (e.g., RDS). This commonality has identifiable neurobiological substrate and plausible evolutionary explanations.  Over many years the controversy of dopamine involvement in especially “pleasure” has led to confusion concerning separating motivation from actual pleasure (wanting versus liking) [49]. We take the position that animal studies cannot provide real clinical information as described by self-reports in humans. As mentioned earlier and in the abstract, on November 23rd, 2017, evidence for our concerns was discovered [50]  In essence, although nonhuman primate brains are similar to our own, the disparity between other primates and those of human cognitive abilities tells us that surface similarity is not the whole story. Sousa et al. [50] small case found various differentially expressed genes, to associate with pleasure related systems. Furthermore, the dopaminergic interneurons located in the human neocortex were absent from the neocortex of nonhuman African apes. Such differences in neuronal transcriptional programs may underlie a variety of neurodevelopmental disorders.  In simpler terms, the system controls the production of dopamine, a chemical messenger that plays a significant role in pleasure and rewards. The senior author, Dr. Nenad Sestan from Yale, stated: “Humans have evolved a dopamine system that is different than the one in chimpanzees.” This may explain why the behavior of humans is so unique from that of non-human primates, even though our brains are so surprisingly similar, Sestan said: “It might also shed light on why people are vulnerable to mental disorders such as autism (possibly even addiction).” Remarkably, this research finding emerged from an extensive, multicenter collaboration to compare the brains across several species. These researchers examined 247 specimens of neural tissue from six humans, five chimpanzees, and five macaque monkeys. Moreover, these investigators analyzed which genes were turned on or off in 16 regions of the brain. While the differences among species were subtle, there was a remarkable contrast in the neocortices, specifically in an area of the brain that is much more developed in humans than in chimpanzees. In fact, these researchers found that a gene called tyrosine hydroxylase (TH) for the enzyme, responsible for the production of dopamine, was expressed in the neocortex of humans, but not chimpanzees. As discussed earlier, dopamine is best known for its essential role within the brain’s reward system; the very system that responds to everything from sex, to gambling, to food, and to addictive drugs. However, dopamine also assists in regulating emotional responses, memory, and movement. Notably, abnormal dopamine levels have been linked to disorders including Parkinson’s, schizophrenia and spectrum disorders such as autism and addiction or RDS.  Nora Volkow, the director of NIDA, pointed out that one alluring possibility is that the neurotransmitter dopamine plays a substantial role in humans’ ability to pursue various rewards that are perhaps months or even years away in the future. This same idea has been suggested by Dr. Robert Sapolsky, a professor of biology and neurology at Stanford University. Dr. Sapolsky cited evidence that dopamine levels rise dramatically in humans when we anticipate potential rewards that are uncertain and even far off in our futures, such as retirement or even the possible alterlife. This may explain what often motivates people to work for things that have no apparent short-term benefit [51]. In similar work, Volkow and Bale [52] proposed a model in which dopamine can favor NOW processes through phasic signaling in reward circuits or LATER processes through tonic signaling in control circuits. Specifically, they suggest that through its modulation of the orbitofrontal cortex, which processes salience attribution, dopamine also enables shilting from NOW to LATER, while its modulation of the insula, which processes interoceptive information, influences the probability of selecting NOW versus LATER actions based on an individual’s physiological state. This hypothesis further supports the concept that disruptions along these circuits contribute to diverse pathologies, including obesity and addiction or RDS.

**The best way to ensure pleasure is through looking at the consequences**

**Sinnot-Armstrong 92** -- Walter (prof. of philosophy @ Yale University, Philosophical Perspectives, 6, Ethics, “An Argument for Consequentialism”, p. 415-416)

All of this leads to necessary enabler consequentialism or NEC. NEC claims that all moral reasons for acts are provided by facts that the acts are necessary enablers for preventing harm or promoting good. All moral reasons on this theory are consequential reasons, but there are two kinds. Some moral reasons are prevention reasons, because they are facts that an act is a necessary enabler for preventing harm or loss. For example, if giving Alice food is necessary and enables me to prevent her from starving, then that fact is a moral reason to give her food. In this case, I would not cause her death even 416 / Walter Sinnott-Armstrong if I let her starve, but other moral prevention reasons are reasons to avoid causing harm. For example, if turning my car to the left is necessary and enables me to avoid killing Bobby, that is a moral reason to turn my car to the left. The other kind of moral reason is a promotion reason. This kind of reason occurs when doing something is necessary and enables me to promote (or maximize) some good. For example, I have a moral reason to throw a surprise party for Susan if this is necessary and enables me to make her happy. Because of substitutability, these moral reasons for actions also yield moral reasons against contrary actions. There are then also moral reasons not to do what will cause harm or ensure a failure to prevent harm or to promote good. What makes these facts moral reasons is that they can make an otherwise immoral act moral. If I have a moral reason to feed my child, then it might be immoral to give my only food to Alice, who is a stranger. But this would not be immoral if giving Alice food is necessary and enables me to prevent 'Alice from starving, as long as my child will not starve also. Similarly, it is normally immoral to lie to Susan, but a lie can be moral if it is necessary and enables me to keep my party for Susan a surprise, and if this is also necessary and enables me to make her happy. Thus, NEC fits nicely into the above theory of moral reasons. NEC can provide a natural explanation of moral substitutability for both kinds of moral reasons. I have a prevention moral reason to give someone food when doing so is necessary and enables me to prevent that person from starving. Suppose that buying food is a necessary enabler for giving the person food, and getting in my car is a necessary enabler for buying food. Moral substitutability warrants the conclusion that I have a moral reason to get in my car. And this act of getting in my car does have the property of being a necessary enabler for preventing starvation. Thus, the necessary enabler has the same property that provided the moral reason to give the food in the first place. This explains why substitutability holds for moral prevention reasons. The other kind of moral reason covers necessary enablers for promoting good. In my example above, if a surprise party is a necessary enabler for making Susan happy, and letting people know about the party is a necessary enabler for having the party, then letting people know is a necessary enabler for making Susan happy. The very fact that provides a moral reason to have the party also provides a moral reason to let people know about it. Thus, NEC can explain why moral substitutability holds for every kind of moral reason that it includes. Similar explanations work for moral reasons not to do certain acts, and this explanatory power is a reason to favor NEC.17

**The standard is maximizing expected wellbeing. To clarify, hedonistic act util**

**[1] Actor spec—governments must use util because they don’t have intentions and are constantly dealing with tradeoffs—outweighs since different agents have different obligations. Limited resources means limited state capabilities, as if the state runs out of resources it can no longer provide for citizens or exist**

**[2] Extinction first!**

**Pummer 15** [Theron, Junior Research Fellow in Philosophy at St. Anne's College, University of Oxford. “Moral Agreement on Saving the World” Practical Ethics, University of Oxford. May 18, 2015] AT

There appears to be lot of disagreement in moral philosophy. Whether these many apparent disagreements are deep and irresolvable, I believe there is at least one thing it is reasonable to agree on right now, whatever general moral view we adopt: that it is very important to reduce the risk that all intelligent beings on this planet are eliminated by an enormous catastrophe, such as a nuclear war. How we might in fact try to reduce such existential risks is discussed elsewhere. My claim here is only that we – whether we’re consequentialists, deontologists, or virtue ethicists – should all agree that we should try to save the world. According to consequentialism, we should maximize the good, where this is taken to be the goodness, from an impartial perspective, of outcomes. Clearly one thing that makes an outcome good is that the people in it are doing well. There is little disagreement here. If the happiness or well-being of possible future people is just as important as that of people who already exist, and if they would have good lives, it is not hard to see how reducing existential risk is easily the most important thing in the whole world. This is for the familiar reason that there are so many people who could exist in the future – there are trillions upon trillions… upon trillions. There are so many possible future people that reducing existential risk is arguably the most important thing in the world, even if the well-being of these possible people were given only 0.001% as much weight as that of existing people. Even on a wholly person-affecting view – according to which there’s nothing (apart from effects on existing people) to be said in favor of creating happy people – the case for reducing existential risk is very strong. As noted in this seminal paper, this case is strengthened by the fact that there’s a good chance that many existing people will, with the aid of life-extension technology, live very long and very high quality lives. You might think what I have just argued applies to consequentialists only. There is a tendency to assume that, if an argument appeals to consequentialist considerations (the goodness of outcomes), it is irrelevant to non-consequentialists. But that is a huge mistake. Non-consequentialism is the view that there’s more that determines rightness than the goodness of consequences or outcomes; it is not the view that the latter don’t matter. Even John Rawls wrote, “All ethical doctrines worth our attention take consequences into account in judging rightness. One which did not would simply be irrational, crazy.” Minimally plausible versions of deontology and virtue ethics must be concerned in part with promoting the good, from an impartial point of view. They’d thus imply very strong reasons to reduce existential risk, at least when this doesn’t significantly involve doing harm to others or damaging one’s character. What’s even more surprising, perhaps, is that even if our own good (or that of those near and dear to us) has much greater weight than goodness from the impartial “point of view of the universe,” indeed even if the latter is entirely morally irrelevant, we may nonetheless have very strong reasons to reduce existential risk. Even egoism, the view that each agent should maximize her own good, might imply strong reasons to reduce existential risk. It will depend, among other things, on what one’s own good consists in. If well-being consisted in pleasure only, it is somewhat harder to argue that egoism would imply strong reasons to reduce existential risk – perhaps we could argue that one would maximize her expected hedonic well-being by funding life extension technology or by having herself cryogenically frozen at the time of her bodily death as well as giving money to reduce existential risk (so that there is a world for her to live in!). I am not sure, however, how strong the reasons to do this would be. But views which imply that, if I don’t care about other people, I have no or very little reason to help them are not even minimally plausible views (in addition to hedonistic egoism, I here have in mind views that imply that one has no reason to perform an act unless one actually desires to do that act). To be minimally plausible, egoism will need to be paired with a more sophisticated account of well-being. To see this, it is enough to consider, as Plato did, the possibility of a ring of invisibility – suppose that, while wearing it, Ayn could derive some pleasure by helping the poor, but instead could derive just a bit more by severely harming them. Hedonistic egoism would absurdly imply she should do the latter. To avoid this implication, egoists would need to build something like the meaningfulness of a life into well-being, in some robust way, where this would to a significant extent be a function of other-regarding concerns (see chapter 12 of this classic intro to ethics). But once these elements are included, we can (roughly, as above) argue that this sort of egoism will imply strong reasons to reduce existential risk. Add to all of this Samuel Scheffler’s recent intriguing arguments (quick podcast version available here) that most of what makes our lives go well would be undermined if there were no future generations of intelligent persons. On his view, my life would contain vastly less well-being if (say) a year after my death the world came to an end. So obviously if Scheffler were right I’d have very strong reason to reduce existential risk. We should also take into account moral uncertainty. What is it reasonable for one to do, when one is uncertain not (only) about the empirical facts, but also about the moral facts? I’ve just argued that there’s agreement among minimally plausible ethical views that we have strong reason to reduce existential risk – not only consequentialists, but also deontologists, virtue ethicists, and sophisticated egoists should agree. But even those (hedonistic egoists) who disagree should have a significant level of confidence that they are mistaken, and that one of the above views is correct. Even if they were 90% sure that their view is the correct one (and 10% sure that one of these other ones is correct), they would have pretty strong reason, from the standpoint of moral uncertainty, to reduce existential risk. Perhaps most disturbingly still, even if we are only 1% sure that the well-being of possible future people matters, it is at least arguable that, from the standpoint of moral uncertainty, reducing existential risk is the most important thing in the world. Again, this is largely for the reason that there are so many people who could exist in the future – there are trillions upon trillions… upon trillions. (For more on this and other related issues, see this excellent dissertation). Of course, it is uncertain whether these untold trillions would, in general, have good lives. It’s possible they’ll be miserable. It is enough for my claim that there is moral agreement in the relevant sense if, at least given certain empirical claims about what future lives would most likely be like, all minimally plausible moral views would converge on the conclusion that we should try to save the world. While there are some non-crazy views that place significantly greater moral weight on avoiding suffering than on promoting happiness, for reasons others have offered (and for independent reasons I won’t get into here unless requested to), they nonetheless seem to be fairly implausible views. And even if things did not go well for our ancestors, I am optimistic that they will overall go fantastically well for our descendants, if we allow them to. I suspect that most of us alive today – at least those of us not suffering from extreme illness or poverty – have lives that are well worth living, and that things will continue to improve. Derek Parfit, whose work has emphasized future generations as well as agreement in ethics, described our situation clearly and accurately: “We live during the hinge of history. Given the scientific and technological discoveries of the last two centuries, the world has never changed as fast. We shall soon have even greater powers to transform, not only our surroundings, but ourselves and our successors. If we act wisely in the next few centuries, humanity will survive its most dangerous and decisive period. Our descendants could, if necessary, go elsewhere, spreading through this galaxy…. Our descendants might, I believe, make the further future very good. But that good future may also depend in part on us. If our selfish recklessness ends human history, we would be acting very wrongly.” (From chapter 36 of On What Matters)

**[3] Prerequisite - can’t follow their theory if we’re dead**

**[4] Epistemic modesty--substantively true since we can never have 100% certainty on any fw and extinction is obviously worse than a white lie--intuition outweighs since it determines which theories we accept e.g. theories that justify racism are bad even if we don’t know where**

**[5] Yes intent foresight distinction - what we foresee becomes part of our intent**

**[6] Reject calc indicts - hard ethics aren’t impossible and it’s better than doing nothing**

## Underview

**[1] 1AR Theory:**

**[a] AFF gets it to check infinite neg abuse**

**[b] Drop the debater – the short 1AR irreparably skewed from abuse on substance and time investment on theory.**

**[c] No RVI – 6 minute 2n can just dump on a 20 second 1ar shell and win on sheer brute force**

**[d] Competing Interps--6 minutes on a 20 second shell is more than enough to justify their interp**