



TRANSATLANTIC VISION 2030 Renewing the partnership

Stimulating debate through thought papers

A Transatlantic Partnership for Sustainable Development?

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Introduction

Our socio-economic model and **our existence are seriously challenged**. This was nicely summarised by a well-known Slovenian philosopher Slavoj Žižek who said: *“It is clear that we are approaching the ecological and digital apocalypse ... but we should not lose our nerves.”* He added a famous quote from Mao Zedong “Everything under heaven is in utter chaos; the situation is excellent”. The challenge is huge and urgent, but so are the opportunities, particularly if the European Union and the United States can find the pragmatic means and ways to catalyze and lead the response. But first, we need to properly understand the facts of the “utter chaos” we face, which has been extensively researched and documented¹.

According to the United Nations, the global population will reach 9.7 billion people by 2050. Each year, we add the current population of Germany to the number and every four years, that of the United States of America. Most of this increase will occur in the least developed part of the world, where people rightly aspire to the same level of wellbeing already enjoyed in the developed world. Nearly 800 million people are hungry and over 2 billion suffer from micronutrient deficiencies. Yet more than 2 billion people are obese and we throw away more than one third of the food we produce.

According to the Living Planet Index, we have lost 60% of our biodiversity in the last 40 years. Biomass of the mammals living in nature has been reduced in recent decades by 82%. A million plastic bottles are bought every minute, with nearly 80% ending up in landfill sites or simply tipped into the environment, causing enormous damage to our eco-systems and oceans.

It is estimated that globally 7 million people die prematurely due to air pollution and this will be the first generation more likely to die as a result of lifestyle choices than infectious diseases. All of this is a result of our unsustainable economic, social and environmental behaviour, pushing us beyond our planetary limits and driving a dangerously changing climate.

Almost all climate scientists have now said that we have just twelve years to halve CO² emissions, in order to limit global average temperature rises to 1.5 degrees Celsius. Beyond this level, the consequences for natural resources, biodiversity, health and well-being, will be dire or catastrophic. We will have reached the danger point of no return, triggering lasting changes and transforming life as we know it. We urgently need to marshal all our collective efforts – economic, political, social, technological and environmental – if we are to again live within our planetary limits. It will almost certainly require a fundamental change to our socio-economic model, which looks increasingly flawed.

¹ Many of the key reports are summarised in Appendix 1 to this report

Far from being overwhelmed by or resistant to this change, we should embrace the enormous opportunities that this presents to us, as well as rapidly agreeing on the solutions to the challenges. The partnership between, and leadership from, the European Union and the United States, will go a very long way to determining our success. Indeed, it could be argued that it is the essential ingredient.

1. The political economy context

For the first time in human history we face the emergence of a single, tightly coupled human **social-ecological system of planetary scope**. We are more interconnected and interdependent than ever and our individual and collective responsibility for our future has enormously increased.

The **Club of Rome** nicely summarises this by arguing that we are moving from an empty world, dominated by nature to the full world, dominated by humans. In the empty world, labour and infrastructure were the limiting factors of human wellbeing. In the full world, the limiting factors of human wellbeing are the natural resources and environmental sinks.

Nations around the world have almost universally agreed to address global warming (UNFCCC Paris Agreement), biodiversity loss (CBD Aichi Targets) and sustainable development (SDGs and Agenda 2030). These agreements were underpinned by the increasing scientific clarity that human security in the near future will not be possible without massively improving on these areas. While some regions and low-income groups are often at greater risk, the impacts of uncontrolled global warming, loss of species and ecosystems and the consequences of global inequality and poverty would endanger the safe operating space for all countries.

The agreement on the Sustainable Development Goals (SDGs) is connecting the world through a holistic approach, a logical and shared action, that addresses the challenges we have created. By calling for integrated action on all three of the dimensions of sustainability, the SDGs recognise the deep systemic changes needed. As Steven Lang summed up in his recent article *Existential Threat: Great Collapse or Great Correction* “We have a unifying template for a better world. The 2030 Global Goals provide a powerful focal point to strive for the world we need to create. Officially adopted by 193 countries, they provide humanity’s ultimate scorecard. One to which we must now hold ourselves accountable. Certainly, one that future generations will judge us against. In this we have a clear North Star and there can be no excuses for not finding all means necessary to deliver them.”

It is not so difficult to argue and agree that most of the above listed challenges can be attributed to the increasing economic activity of the growing human population, which has resulted in the remarkable socio-economic development of some people but also in an unequal, and arguably, unjust distribution of wealth; inequalities in health and well-being; and an increase in environmental and climatic pressures on parts of the world which are least equipped to deal with them.

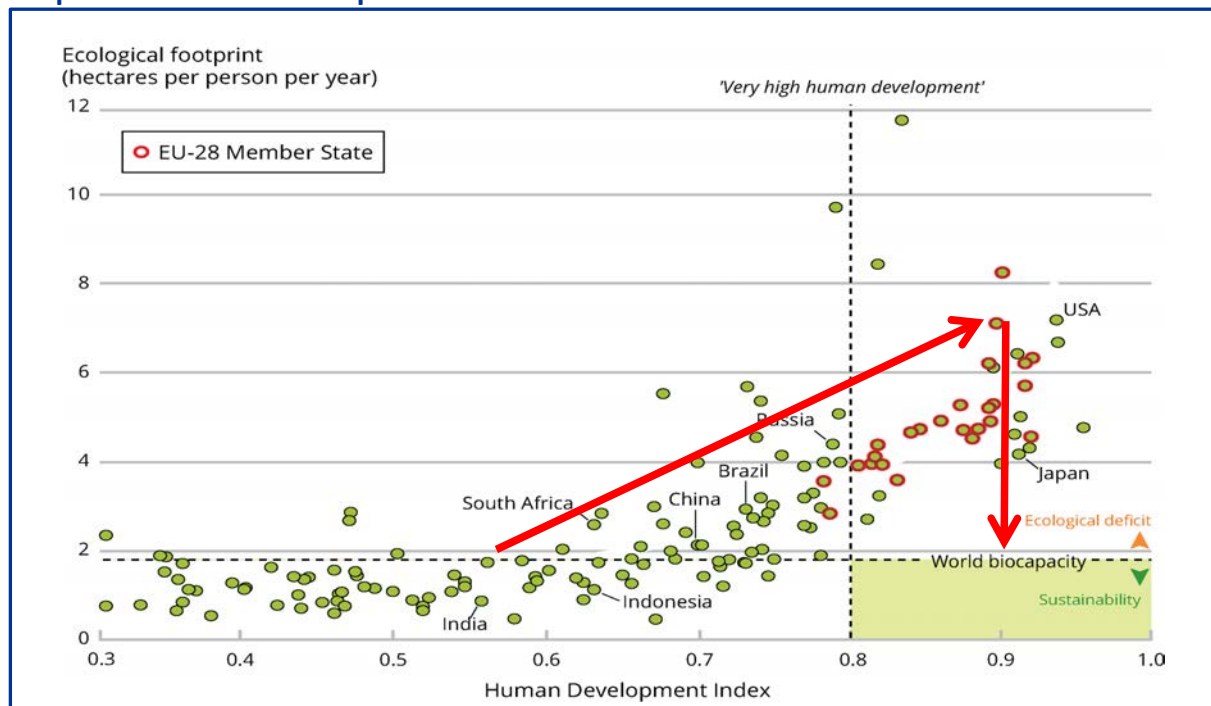
In short, it resulted in social, economic and environmental imbalances. Human capital, for example healthy citizens, is in many cases undervalued and natural capital, such as healthy ecosystems, not valued at all. Since ‘the market’ is the main mechanism guiding our production and consumption decisions, and price signals are as they are, we should not be

surprised by these existing imbalances at all. They are just the logical consequence of the market signals sent to all market players and in a way a proof that markets work.

In economic theory, this phenomenon is known as **externalities**. Costs which do exist, but which we deny, which we do not account for, and which producers and consumers do not pay for. These costs are very real, however, for those who pay them: the health system or, in the majority of cases, the next generation. Luckily enough for the current generation, the next, unborn, generations cannot complain. In short, we live within an economic model, where to a large extent profits are privatised – often by a privileged few – and the costs are socialised, to be paid for by future generations.

This is to some extent captured by the following graph, which contains the development path of the countries of the world. Understanding this **development path** is critical for action and proper policy design, for the necessary transformations.

Graph 1: Countries Development Path



Source: Global Footprint Network, 2012; UNDP, 2014a

On the horizontal axis, the Human Development Index represents the level of human development, whilst the vertical axis, shows the Ecological footprint. The green dots represent the countries of the world, (those with a red outline are the E.U. Member States). The further to the right that a country is on the graph, the better is its level of wellbeing and the higher it is, the bigger is its environmental footprint. It should be of grave concern, that not one country appears to be living within the planetary boundaries, represented in the green zone, in the bottom right hand corner of the graph. Instead, what we see are three groups of countries:

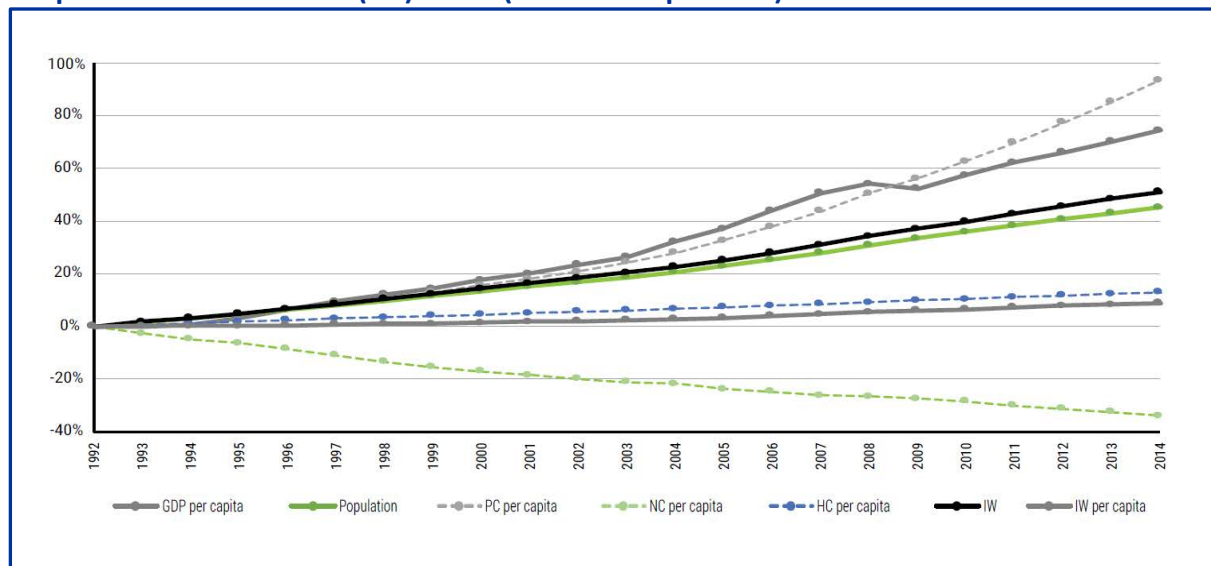
- **The developed countries (right and high)**, where most of responsibility for the current situation and future developments lie. These countries need to show that they are ready and able to move down the scale, by lowering their environmental footprint. These countries also to a large extent still master the knowledge and innovation necessary to make the required transformations happen.

- **Developing countries (middle)**, including China, Brazil, Russia, (but one could add also Indonesia, South Africa and India). All of these countries are on a (fast) development path and represent the majority of the global population. Consider, just for a second, the fact that China used more concrete in its development between 2011-2013, than the United States did in the whole of the 20th Century. The development path in these countries is critical for future global sustainability. It is essential that they do not repeat the mistakes of the developed countries. Instead, they need help from developed countries as well as a clear understanding of their own national responsibilities.
- **Least developed countries (left and down)**, containing the majority of African countries and other least developed countries, which is also where the most serious effects of a fundamentally changed climate will be immediately felt with all their attendant consequences for everyone else. They are in need of substantive help from all other countries, in particular developed ones, and their development is central if one is serious about the commitments made in the Sustainable Development Goals.

A new compass to guide our response

It is now more or less widely accepted that using (only) **Gross Domestic Product (GDP)** as an indicator of wellbeing and development is no longer appropriate. One could maybe best summarise GDP by saying, that one will not reach the goal by walking faster, if walking in the wrong direction! We, therefore, have to fix a broken compass, starting with the GDP measurement, which may help to explain our past success but is of little use in guiding our future priorities and efforts. This is clearly borne out by the new Inclusive Wealth Index, published last year by the United Nations.

Graph 2: Inclusive Wealth (IW) Index (and its components) evolution 1992-2014



Source: UN, 2018 Inclusive Wealth Report 2018

The Index clearly shows that between 1992 and 2014, the Production Capital (PC) per capita has almost doubled, Human Capital (HC) per capita has only slightly increased and Natural Capital (NC) per capita has fallen for almost 40%. As we can see from the graph, production capital was, during this period, more or less on the same growth path as GDP per capita, which leads us to the conclusion that growth of GDP in the last decades has been achieved at the cost of depleting natural capital and that not all growth we are recording using the GDP

measurement is actually a “good” growth. To a large extent this could be explained by the fact that the core mechanism defining the equilibria on the markets are price signals and that natural capital is undervalued or not valued at all.

To summarise, we should aim to **redefine and reorganise our economic model to be consistent with the SDGs**. This is an enormous challenge, in particular if social considerations are also taken into account, but it would also clearly provide us with new economic opportunities and jobs. Our economic model has been created and is maintained by governments, international organizations, as well as by education and social institutions. The model, has been created with good intentions and it is difficult to change it, because by now it is perceived as almost ‘natural’ - however, humans have created it and humans can, and must, change it. A strengthened and renewed partnership between the European Union and the United States, could create the essential leadership and momentum to do this.

However, It will require a clear focus on **natural resource use and its impacts**, in order to fix the compass and provide a new guiding framework for truly sustainable growth, accounting for all the externalities, and minimising the trade-offs between SDGs. **Resources and resource management** have been the missing link in policy making. Yet the delivery of 12 out of 17 SDGs is directly linked to natural resources and their importance is clearly revealed in the recent **Global Resource Outlook 2019, (GRO)**. **Global resource use** (biomass, fossil fuels, metals, non-metallic minerals, land and water) has more than tripled since 1970 and global material demand per capita grew from 7.4 tons in 1970 to 12.2 tons per capita in 2017, which means that an important part of the increased demand could be linked to higher economic activity. **Material productivity**, the efficiency of the use of resources, was growing until the end of the century and then started to decline and has stagnated in recent years. Even if material productivity was growing in all countries during that period, it was declining on the global level. How could that be possible? It can be attributed to the structural shift of production from countries that are more resource efficient to countries that are less resource efficient. To put it differently, more products we are buying today compared to few decades ago, are produced in Indonesia, China, and India and less in countries like Japan, Europe or U.S.

In addition to that the consumption of materials is unequally distributed. If measured by **Domestic Material Consumption** per capita, (i.e. all materials, domestic or imported, which are used on in a country), then upper-middle income countries are already the highest consumers. The key drivers are the huge material requirements, in particular of non-metallic minerals in fast developing countries like China, which are needed for the development of new infrastructure and the construction of entire cities. If measured by per capita **Material Footprint**, (i.e. where materials and products are actually consumed), then high-income countries are still consuming 60% more than the upper-middle-income countries and 13 times the level of the low-income countries. The reason for that is outsourcing of material and resource intensive production, including all connected direct environmental pressures, from high-income countries to other parts of the world.

One of the conclusions following the previous IRP work is also that: “In the mid-term, except in specific cases, resource shortage will not be the core limiting factor of our economic development. The **core limiting factors** are, and will be even more in the future, environmental and health consequences caused by this excessive and irresponsible use of resources.” This is entirely in line also with the mentioned conclusions of the Club of Rome. It is not the shortage of oil that brought together the national leaders in Paris to agree the

necessary, (although arguably insufficient), steps to address climate change, but the dramatic consequences of the changing climate. It was not the shortage of steel or any other material, which forced the Chinese government to close around 2000 companies around Beijing a couple of years ago, but rather the polluted air in Beijing, (to which these same companies have contributed with their activities).

The Global Resources Outlook 2019 also includes the analyses of **environmental impacts** in the value chain related to resource extraction and processing. 90% of global land-use related biodiversity loss and water stress can be explained by resource extraction and processing. Over 80% of both is linked to biomass, the majority to agricultural activity. Indeed, there is no solution to land-use related biodiversity loss and water stress without the transformation of the current agriculture model, and the broader food system, to one which is more sustainable.

Resource use and management are the **linking elements behind the major problems and solutions** of all major environmental and health challenges. They are the bridge between drivers and pressures caused by human activity (economy, competitiveness, jobs) and the states and impacts visible in a dangerously changing climate, biodiversity loss and increasing pollution of various types. It is therefore essential to decouple the growth of human wellbeing and economy from the use of resources and from environmental pressures and impacts. This theoretical concept is called **decoupling** and it is the essential ingredient for reorganising economic activity into a more sustainable model.

The analyses done by Material Economics² showed that a more circular economy approach is an **essential ingredient in the efficient fight against climate change**. Switching from a linear to a circular economy could reduce E.U. CO² emissions from materials (e.g. steel, plastics, aluminium, cement) by 56% compared to the base line, which already includes the applied energy related measures. And according to the same analyses shifting from the current private to the shared mobility scenario could save up to 70% of CO² emissions. **Circular economy** should be understood as an instrument to deliver decoupling and as a part of the bigger picture of economic, societal and cultural transformation needed to deliver the SDGs. The European Union, where the concept is already well understood and accepted, has already recognised the importance of the circular economy concept for future sustainability as well as for future European competitiveness. But it would be essential that the concept is accepted and developed on a global level. This is necessary due to the challenges we are facing together as humanity, as well as due to the fact that the economy is globalised and the rules governing the transition to the new economic model would need to be aligned transnationally.

There is no doubt that the responsibility for the implementation of the SDGs lies to a large extent in the **developed countries** and thus also in the European Union and the United States. As already mentioned, we need to show we are willing and able to change our current model of production and consumption, address our high environmental footprint and move to a more sustainable economic and social model.

The transition to a more sustainable economy and society is **unavoidable** unless we and future generations are prepared to live with the catastrophic consequences. What is still missing, however, particularly among policy makers, and perhaps more importantly, political decision-makers, is the **understanding of the urgency and inevitability of change**.

² <https://materialeconomics.com/publications/overview>

The key to unlocking the necessary transition is likely to require both a political and economic mindset shift, which recognizes the **enormous economic, technological, social and environmental opportunity**, in making this change. Far from being daunted or overwhelmed by the “utter chaos”, we should embrace it and seize the opportunity.

As an economist, I easily recall the **concept of comparative advantage and the principle of creative destruction**. Both are important for the developed countries’ lesson in today’s context of rapidly rising global demand for resources, from minerals to energy, and from land to water. Resource-poor, population-intense and economically rich areas have a clear comparative disadvantage in producing resource-intensive products and a clear interest in maximising returns on resource inputs. As input costs for factors of production such as raw materials and energy make certain sectors and companies less competitive, those that do not adapt will fail, and be replaced by others that correspond better to relative resource scarcities. **Creative destruction** will ensure that companies remain efficient.

In the end **competitiveness and sustainable development** are about efficient resource allocation. The beauty of business is in its capacity to innovate and invest to mobilise resources quickly and efficiently through effective markets. The problem for leading companies here is that they face many systemic lock-ins to the linear model, from infrastructure to financing, and from consumer behaviour to regulation. But that does not mean that being “kind” to business will lead to competitiveness. In the short term it might be tempting to protect businesses from reality, but **we should not kill businesses with kindness**. This sounds like a hard message, but maybe that’s why people talk about the hard laws of economics. In fact, the resource pressures we witness today has more to do with the soft laws of economics colliding with the hard laws of physics. We have one planet, with finite resources; for the first-time human activity is compromising the ability of our planet to cope, and planetary boundaries are starting to impose limits on our economic growth, even if only measured by GDP. It is private sector **entrepreneurship, innovation and investment** that hold the key to unlocking such efficiency leaps in both rich, emerging and least developed economies. Just as companies responded to higher labour costs by revolutionising labour productivity, so there are exponential gains possible in revolutionising resource management. Our **future growth and prosperity** will be determined by our ability to deal with these constraints and get more value out of each tonne of materials, each hectare of land, each cubic meter of water, and each joule of energy. We need a development model that enables the rich economies to improve their sustainability whilst continuing to maintain – or indeed improve – living standards, and one that enables emerging economies to develop while decoupling human development from natural resource use, at least in relative terms, and in particular environmental impacts.

In short, we urgently need a transition to sustainable society and economy, we need more creative destruction, rather than destructive creation. And if you are still not convinced if that makes sense, please take the advice given by Prof. Guy McPherson: *“If you think the economy is more important than the environment [or your health], try holding your breath while counting your money”*.

And why are the changes to a more sustainable economy and society so difficult to realize?

Firstly, while the challenges we face require a deep systemic change and long-term rethinking of the way how we govern our societies, political cycles, public and financial institutions, to a large extent also private companies, have an inbuilt **short-term focus and logic**. This inconsistency limits our ability for efficient and strategic action and needs to be addressed

urgently.

Secondly, production and consumption systems are based on the **logic of consumerism fuelled by quantity-driven profits and growth measured in GDP**. There is a lack of strategic identification of risks and long-term, even mid-term, risk management and there is a clear lack of understanding what really matters for our wellbeing in all institutions focusing on GDP. Thirdly, a transition to a more sustainable economy and society will only be possible if it is **just, fair and inclusive**. We have to make our societies more equitable and do more in the fight against poverty. Social unrest is growing even in high-income countries and it is high time to hear the echo of the streets and the voice of a frustrated young generation.

A Transatlantic Partnership for sustainable development: the opportunity for renewed cooperation

Although the “*utter chaos*” is daunting, it should not be overwhelming or lead to despondency. By understanding it, as described in the previous section, we can start to identify the great opportunities for economic, social, environmental and technological renewal. And a renewed and strengthened Transatlantic Partnership is essential to seizing this opportunity. This may be considered to be idealistic, but the European Union and the United States are still masters of knowledge, ingenuity, innovation, and the entrepreneurial spirit. They still possess much of the financial capability to effect change. Together, they can set standards and hold each other, and the world to account. Europeans and Americans can still influence social and cultural norms and behaviours, and provide political leadership. It’s a partnership that has done much for the world.... But it now needs to do more and is, perhaps, facing its greatest challenge, in this area of sustainable development.

The thoughts and ideas put forward below are not intended to be prescriptive, definitive, or exhaustive. They are simply designed to provoke critical thinking and challenge and catalyse the generation of new ideas by others who are, perhaps, better placed to do so. They should, therefore, serve as a starting point for a fruitful and informed debate.

i. Basic principles for cooperation

The US and EU share responsibility for the sustainable future and are in a unique position to work together and use their combined leverage to address the challenges, and exploit the opportunities, of the 21st Century, including accelerating progress on tackling climate change and sustainable development.

The economic context is a vital component of any cooperation in this area. Investment, rather than trade, drives US - EU commercial relations. Europe invests more in the United States than do investors from any other part of the world. The US also invests more in Europe than all other countries of the world combined. Together, this has the potential to be a huge driver of innovation and adaptation, particularly if we have a broader definition of, and incentives for, ‘good growth’, than that reflected in the narrow GDP calculation.

It is better to **respect the differences**, which do exist, than to allow them to get in the way of cooperation. Of course, it would be better if the United States ratified the Paris Climate Change agreement and threw its weight behind the concept of the circular economy. But we should also recognize that signing agreements alone is not enough. For example, there are substantive actions being taken at the City, State, and even Federal Government, to tackle the effects of unsustainable development and climate change, which go beyond those of

other countries, which are signatories to the Paris Climate Change agreement. We need to build on this and be open to learn from each other, rather than focusing on points of disagreement. On the other hand, the United States should respect the fact that the **precautionary principle** is one of the fundamental principles of the European Union governing policies related to the environment, health and food safety. It should, of course, be used as originally intended, respecting the existing scientific knowledge and an objective assessment of all available evidence, but it is an important factor in the European reality. Both of these examples serve to remind us that perfection should not be the enemy of the good in this area of sustainable development, and whilst constructive criticism and challenge should always be welcome, it should be based on a healthy respect for each other's different approaches.

It is clear that an important factor in the failure to conclude the last attempt at a comprehensive bilateral agreement with the United States was the **public scepticism** towards safety, transparency and overall strategic benefit of the agreement³. European citizens saw too many risks and too little vision for a truly better future. If we want to develop a partnership in this area, we need to engage our electorates on both sides of the Atlantic now, and ensure the benefits are as clear to those living in Louisiana and Ljubljana, as they are to politicians in Brussels and Washington.

The core of any new partnership in this area, must therefore, **embrace a new perspective and narrative of opportunity demonstrating a long-term strategic approach to competitiveness and peace**. First, sustainable development, with a focus on the urgent management of global warming and species loss, must be seen as a profitable investment into long-term-successful innovations, instead of a cost. Scenario modelling across all the reports analysed above showed that financing the necessary innovations in technology and economic systems is not only without alternative to secure human wellbeing, it is also an effective strategy to boost economic development beyond a business as usual scenario, even an optimistic one. Second, sustainable development based on smart resource management is the new investment and innovation paradigm that will determine businesses' and countries' competitiveness. Some businesses and sub-national governance entities are already pursuing this mindset both in the U.S. and the E.U. (as well as outside), which should be supported on every level possible, and should be the norm not the exception.

ii. Fixing the compass together

The compass needs to be fixed on a policy level (public) as well as on a business sector or an individual company level, based on the old maxim that. *"What you measure, you value"*, because it will influence and drive behavior. As already mentioned, it is more or less widely accepted that using (only) **Gross Domestic Product (GDP)** as an indicator of wellbeing and sustainable development is not appropriate. There are many initiatives already under way, at an international level, such as that of the OECD⁴, to fix the compass. It would be good if the E.U. and U.S. would explicitly join and reinforce these efforts. **Natural Capital Accounting** could also be a logical choice for cooperation.

³ <https://www.politico.eu/article/opinion-how-to-revive-ttip/>

⁴ <https://www.oecd.org › publications › beyond-gdp-9789264307292-en>

A joint action on **Non-financial reporting** could develop common metrics, reporting protocols and environmental accounting principles, which would reduce the burden from divergent reporting frameworks while still allowing transparency on non-financial aspects. Several U.S. companies that have an interest in circular economy and resource efficiency, including (but not limited to) Dell, HP, Lockheed Martin, and Walmart, could be engaged, along with the WEF and WBCSD to provide corporate weight and momentum to this effort. More specifically, and building on the historical role as rules makers, there might be a big prize for the E.U. and U.S. to work together to set the **International standard for climate accounting**. Four potential options currently exist in what one could understand as a new discipline and this could help to drive decision making in both the public and private sector:

- 1) **extraction-accounting** - attributes emissions to where the fossils are dug out;
- 2) **production-based accounting** - attributing the emissions to the place where the goods or services are produced;
- 3) **consumption-based accounting** - attributes the emissions to the place where the good or service is consumed; or
- 4) **shared based accounting** - which takes on the fiendishly difficult task of trying to account for historical emissions, amongst others.

iii. Governance

It is good to have an agreement on how to deal with the challenges we face on a local/city level, it is better to have it on a national/state level, it is even better to have it on a regional level (for example EU, AU, G7, G20 ...), and it is the best to have a global agreement. But saying that it is clear that efforts and leadership are needed on all levels, including the private sector, academia, and civil society.

One of the conclusions of the **World Economic Forum 2018** was that: *“The challenge seems to not be one of inadequate scientific evidence anymore; rather one of **cooperation and implementation**. The complexity and scale of these challenges requires a space that allows actors with responsibility for environmental governance mechanisms to be able to experiment with both new forms of collaboration and more “systemic” approaches ... through promoting multi stakeholder cooperation, more agile governance (including sub-state actors, such as cities, states and provinces), the use of new technologies, and enhanced accountability and transparency.”*

There may be multiple routes to the destination, and whilst international agreements are a guiding force, a North Star if you like with binding commitments, they are not the only way to drive change. The U.S. and E.U. should **cooperate on all levels** and focus, in particular, on those where the most traction and impact can be gained.

As the world becomes more interconnected and interdependent, it seems clear that no one country will be able to ‘go it alone’ or isolate itself for long from the effects a changing climate or unsustainable development. If one accepts this, then surely **Multilateralism** will not only remain and but will have increase in the future. There will be a clear need for efforts which would lead to greater **sharing of sovereignty** rather than owning it. While the E.U. and U.S., with the right commitment, will be able to make important advances in the transition that is necessary to reach a safe operating space for humanity, they cannot achieve enough transition alone. While leadership is crucial, this must be based on close exchange and cooperation with other countries in an increasingly multipolar world.

The **recent increases in bilateral trade cooperation** have been disputed regarding their value for global trade and peace⁵. While many argue, often with some justification, that multilateral institutions have reached a deadlock⁶, (i.e. are currently not able to adapt to address the new global challenges) the pursuit of solutions on a bilateral or regional cooperation cannot fully answer the inherently global challenge of climate change. Global trade, financial, health, and security agendas must all interact with the climate plans and other environmental needs. To achieve this alignment, not only must **multilateral decision making be revived in the existing institutions**, but in addition we might need a **new institution that strategically monitors, and potentially manages, the systemic interaction between agendas**.

“Systemic” interactions, between any global agenda and those aspects most important to reach the safe operating space, might sound insurmountably complex at first. However, that is where the main value of the recent Global Resources Outlook 2019 comes in. It suggests that a **resource-flow lens is an effective instrument to understand the drivers and effect-stages of any human economic activity towards environmental, economic and social effects**.

Almost any environmental impact can be connected to its cause in the use of natural resources, conditioned by the amount, processing, location, access or pricing of the related natural resource use. Thanks to new scientific tools⁷ developed, among others, by those institutions involved in the production of the Global Resources Outlook 2019, it is now possible to trace almost any effects through the value chain of natural resource use. An **international agreement** (for example in the shape of a protocol to the existing Rio 1992 conventions or, preferably, in the shape of a new convention) **for sustainable natural resource management**, would likely be an essential asset in our global ability to truly manage the transition towards a world that is liveable in 2050 and beyond – responding to the ‘better governance’ calls across recent assessment reports. **The E.U. and U.S. in cooperation are in a unique position to initiate the development of such an institution. Doing so would ensure our legacy of the 21st century.**

Deliberative stakeholder engagement processes have shown good potential in new forms of international policy making, for example in the consolidation of Nationally Determined Contributions (NDCs) to the Paris Agreement⁸. A **transparent and inclusive approach to international agreements** would not only increase the likelihood of their success, they would also be an innovative model of international policy making that revives democratic values in a new globalized context beyond trade. While new models of more democratic global policy making will not work perfectly from the beginning, we clearly need to start the innovation process urgently given rising public fears of “being left behind” and “losing control” in increasingly connected and automated world and economies. Any such new policies should include processes of impact monitoring, regular self-reflection and improvement, accompanied by further research.

⁵ <https://www.tandfonline.com/doi/abs/10.1080/13562570701722089>

⁶ <https://www.cfr.org/blog/multilateralism-hard-do>

⁷ See for example: <https://www.ncbi.nlm.nih.gov/pubmed/31154209>

⁸ *On the advantages of stakeholder involvement for the legitimacy and success of international policy instruments, see for example* <https://carbonmarketwatch.org/2016/12/16/civil-society-participation-in-indcs-building-on-the-legacy-of-namas/>.

At this point in time it is important to note that European Commission leadership is currently in transition. While climate change is high on the priority list of the new Commission, and the E.U. institutions as a whole, the stance of US political leaders is still unclear. It will be important for subnational actors, officials and convening organizations, such as Transatlantic Policy Network, to prepare for and initiate **innovative cooperation for sustainable leadership** as soon and as much as possible, in order to enable fast full implementation when possible.

For the **short term** it would be interesting to see what the U.S. (with a cooperation of EU) could advance as **chair of the G7 in 2020**. The G7 Alliance on Resource Efficiency was a good start and is worth building on. **UNCBD**, based on IPBES's recent findings, is aiming to shortly set new global targets for biodiversity and ecosystem protection, which will outline the more specific changes deemed necessary for a sustainable eco-systems future. This list of drastic impacts and necessary changes explains the urgent call, across the major reports in this area, for deeply transformative governance and investment. Better and deeper cooperation, particularly between the U.S. and E.U. on this field would show that the level of the challenge, not related only to the climate change, is well understood and that renewed efforts will be made to address it.

iv. Regulation

The E.U. and U.S. should continue working actively to bringing together the leading business actors. Many businesses say that they are **not afraid of more regulation but of unfairness, free riders and uncertain risk**. They need a **level playing field**. If we make policies fair, consistent and reliable - we can work together across policy and business actors for a real transition.

A **possible approach** in the area of regulatory cooperation could be based on an idea to take some of the components of PCA and consider building them into a framework for regulatory cooperation that more broadly would enable the recognition of procedures in one country as essentially conforming or being equivalent to those in the other. One could **build on progress already made in TTIP**, to make it easier for stakeholders to participate more fully in the development of product standards across the Atlantic, and how to take into account those standards, and specifically apply this for sustainable development and climate change. **This could include efforts for Global standard setting for "circularity"**. In a perspective where sustainability increasingly becomes the driver of global competitiveness (those that will best be able to create value within the economic, social and ecological limits will be the most competitive), the establishment of standards for innovatively sustainable technologies, products and services will be essential to create markets (including markets for secondary raw materials).

Trans-Atlantic standards would provide scale and scope for innovative solutions (including new business models, such as product or a service, remanufacturing) that will not only grow demand (and decrease the risk of unsustainable development) but could also impose themselves on other big powers like China. Contrary to regulation, standards are driven by business. And contrary to previous work on trans-Atlantic standards, one could be looking here at standards for new solutions and new markets that do not yet have vested interests. This could work, for example, on a bilateral level with respect to **packaging**. Imagine how much one could achieve if U.S. and E.U. companies/ industries, would all sign up to a commitment and standard to use alternative, renewable materials in packaging, rather than

single or limited use plastic. Or if the major food retailers, on both sides of the Atlantic, agreed that only reusable containers/ bags, could be used for certain fruits, vegetables, cereals, pasta, or rice. This would lead to both a change in consumer behavior AND stimulate innovation in reusable containers and bags. This may seem naive, but then so did the idea of banning all plastic carrier bags in grocery stores, just a year ago. There are many other good examples of initiatives existing on both sides of the Atlantic that could be scaled up. One worth mentioning is Recycle Across America/Recycle Across the World initiative (RAA/RAW) trying to set **society-wide standardized label** solution to align **recycling** standards and address the recycling crisis.

It seems clear that there is a great potential for the E.U. and U.S. to work together to **pioneer standards in new economic areas and for new technologies that could push the boundaries on what is possible for sustainable development.**

v. A renewed transatlantic market for R&D, Innovation, Technology, Talents, and Investment?

US investments in the EU and EU investments in the USA are essential to ensure the knowledge exchange that we need for the transformation to a sustainable economy. Investments, for example in new businesses, and flows of technology and knowledge intensive services must focus on technologies and sectors with strategic long-term potential. These include low carbon industry technology and business solutions to electrification, hydrogen fuels, and carbon capture (find more details for example in “Mission Possible”, an assessment by the Energy Transitions Commission⁹). These also include nature-based value creation models. Examples are sustainable forestry business models¹⁰, soil health business models, or organic plant-based food solutions. Investment exchanges can also improve and extend new business models focused on “smarter” use of products and services, such as shared mobility, spatially adaptable buildings, as well as energy efficiency solutions across sectors.

Building on extraordinary strength and investments of **R&D and Innovation** existing on both sides of Atlantic one could concretely:

- Explore ways to incentivize public and private sector actors in R&D and Innovation to work together to develop solutions that can accelerate sustainable development and tackle climate change. One possibility would be to create a **transatlantic alliance between scientists** for SDGs, whereby the aim could be to charge the scientists to translate the findings from IPCC, IPBES and IRP into a specific transatlantic context, addressing questions such as: what is the weight/share of EU-US in the pressures on our planet? what are pressing knowledge gaps? what could be the most cost-effective measures to initiate the six big transformations for sustainable development?¹¹
- **Promote greater and easier labor mobility** between the United States and the European Union for essential skilled talent working on innovative solutions for sustainable development.
- Exploit possibilities given by **Horizon Europe**, the biggest, multinational programme for public funding of science and innovation that is not only entirely oriented towards the

⁹ <http://www.energy-transitions.org/mission-possible>

¹⁰ <https://www.efi.int/publications>

¹¹ <http://www.iiasa.ac.at/web/home/research/twi/Report2018.html>

SDGs but also the most open programme in the world for international cooperation. The proposal for Horizon Europe foresees the possibility of associating third countries, like Canada, to the Framework Programme, and why not the United States. The **Horizon Missions** that the Commission is about to launch¹² could be compelling ventures for cooperation with US scientists, innovators and companies. These missions have an international vocation and should lead to lots of place-based experimentation with solutions that could be scaled up if and when successful. They also have an ambition to make science and innovation much more relevant for the larger public, based on a very public participation model.

- Or could we go further and establish a **joint financial investment mechanism** which can fund everything from early stage research to scaling start-ups focused on solutions for sustainable development including climate change.
- Encouraging **dialogue, information/best practice, exchange** on tackling climate change and accelerating sustainable development between different levels of government in US and EU (e.g. big city to big city, State to EU regions). This last point could be interesting for example for spatial planning and building policies - how to create smart, climate friendly cities.
- Taking joint efforts to **develop and share in each other's talent pools**. Exploit the possibilities to work together to nurture, develop, and access the skills the United States and the European Union needs to drive sustainable development.

While active promotion of new solutions is crucial, **at least as crucial is the removal of barriers such as unsustainable subsidies**. Price signals received by producers and consumers on the markets are essential and environmental externalities should be urgently addressed by policy makers. Yet, we must honestly assess what has been done here, in recent years, even by those vociferously championing tackling climate change and sustainable development. For example, the OECD Green Growth Indicators 2017¹³ clearly shows that that OECD countries, between 2000-2014, increased fossil fuel subsidies by more than their GDP growth. And this was done while many of them were negotiating climate targets and almost all of vocally supporting the fight against climate change.

Key subsidies to be revised are those to fossil fuel extraction, minerals and metals mining, or non-biodiversity consistent farming practices. Instead of simply removing subsidies, subsidies should rather be reformed in a step by step approach to support producers to innovate towards less resource-intensive models, and to support consumers to access more sustainable alternatives. For example, to avoid social backlashes such as those recently experienced in a few states that increased the price for fuels, rising consumer costs for private transport must be directly accompanied by more sustainable alternative solutions, such as better and cheaper public transport. Ideally, these shifts from one system to the other would be co-designed with those affected most, in a multi-step process including trials and regular improvements of new indirect or direct pricing policies.

vi. Nobody should be left behind – the role of international development budgets

¹² https://ec.europa.eu/info/news/commission-launches-work-major-research-and-innovation-missions-cancer-climate-oceans-and-soil-2019-jul04_en&pk_campaign=rtd_news

¹³ <https://www.oecd.org › environment › green-growth-indicators-2017-978...>

Public opinion polls in many developed countries are showing that citizens are most concerned about future **security and migration flows**, which often are the result of conflict associated with resources, like land, water, oil or precious minerals. In this context, it is important to recognise that the continent with the fastest growing population, which is most exposed to climate change, in many places suffers from chronic instability, and is in most urgent need of development aid, (non-financial, as much as financial) is Africa. We must establish, in people's minds, a clear link between the need for efficient resource management and environmental sustainability, and the effective management of migration and international security. We need to ask, and honestly answer, the question whether a developed country can have a greater impact investing its resources in the last mile toward becoming a zero carbon economy or directing that investment, knowledge, and experience, to the African continent or other parts of the developing world.

Once again, there is a clear opportunity for the E.U. and U.S. to collaborate here, with respect to addressing this question, and delivering on the ground. Two examples come to mind:

- In the area of **agriculture and international development**, there is a scope for the U.S. and E.U. to collaborate in the provision of technical assistance, finance, and R&D, to help parts of the developing world, particularly Africa, to build resilience and self-reliance, specifically in areas of water sustainability, sanitation and agriculture growth. This is necessary for the two sides shared objectives in economic development, security, human welfare, and sustainability.
- There is a huge need for **financing infrastructure for sustainability in third countries**. For example, the infrastructure needs for plastic waste management in South East Asia are enormous, even to only treat their own waste - let alone that coming from EU or US. Trans-Atlantic approach to investing in such infrastructures would certainly make sense.

Conclusion

This paper has set out to describe the challenge we face from climate change and unsustainable development, the urgency of the necessary response, and the opportunity to chart a new path, which can unlock a plethora of opportunities for improved social, economic, and environmental well-being and prosperity.

The paper has also underlined the importance, in this author's view, of re-doubling the effort to forge a transatlantic partnership to drive sustainable development going forward. The ideas on how to do this are thought starters, nothing more. There are stakeholders in government, business, academia, and civil society, then will be able to challenge and/ or substantively build on these. It is vital that all are involved in doing so and that the importance of building transatlantic momentum, based on pragmatism and open-mindedness, will go a long toward determining our global success in this area.

Finally, it is important to note that whilst this think piece is clearly focused on climate change and sustainable development, it is part of a wider series looking at the balance of geo-political power and the challenges to a rules-based system; security and defense; trade and economics; and digital transformation. All of these topics are interlinked and impact on one another. It would be wrong to treat them in silos. World challenges should be understood in all their complexity but so too should the whole range of opportunities. This is why the effort

by TPN, to look across all of them, to renew and strengthen the transatlantic partnership and agenda through to 2030, is so important. It is hoped that this paper has made a useful contribution to that effort.

This thought paper was commissioned by the Transatlantic Policy Network and forms part of a series designed to catalyse new thinking and ideas to renew and strengthen the transatlantic partnership and agenda. The views expressed are those of the author(s) and are not necessarily endorsed by the Transatlantic Policy Network.