

Call for Papers "Geopolitics & Values: wha	nt is the real power of the EU?"
THE DIGITAL ECONOMY AND RESILIENCE BU EUROPEAN UNION'S DEVELOPMENT FINAN	
	Author: Anaïs MARIE

**Brussels, December 2020** 

AT THE HEARTH OF EU'S DEVELOPMENT FINANCING IN SUB-SAHARAN AFRICA?



© Institute of European Democrats, 2020

Rue Montoyer, 25 1000 Brussels Belgium

Web: www.iedonline.eu

This Research Paper was elaborated on the basis of independent research. The opinions expressed here are those of the Contractor and do not represent the point of view of the Institute of European Democrats.

With the financial support of the European Parliament





#### **EXECUTIVE SUMMARY**

This paper aims to reflect on the soft power of the EU, through the values and priorities that it is promoting internationally, and specifically towards the African continent through its development financing.

The shifts that have occurred, due to the COVID-19 crisis, in the European Union development cooperation with Africa are unpacked in this research. Since the formalisation of the five partnerships in the communication "Towards a Comprehensive Strategy with Africa" in March 2020 up to the latest communication on the Multiannual Financial Framework in July, flows of finance and development practitioners' discourses and practices have been analysed. Specifically, resilience and digital transformation are sectors of intervention that are scrutinised in this paper.

This research showed that the digital economy and resilience building have been prioritised as sectoral interventions in the EU approach to development financing with Sub-Saharan Africa.

This paper details the direction of the evolving EU-Africa relationship. Learning emerging from how the COVID-19 pandemic has been managed can be used to build on relevant and appropriate developmental work in and with Africa. These lessons are key to strengthening the EU-Africa relationship.

#### Short bio

Anaïs Marie is a researcher, based in Brussels, with international experience in Africa on urban resilience, sustainable development and environmental justice. With a Master's degree in International and European Institutions from Science Po Lille, she obtained a second Master's on Climate Change and Sustainable Development from the University of Cape Town. Her interest lies in international relations and African development, and particularly around the implementation of resilient development pathways in urban contexts and its environmental and socio-economic implications.



### **Table of Contents**

1.	INTRODUCTION	6
1.1 1.2 1.3		6
2.	RESEARCH AIM	8
	TOWARDS A RENEWED PARTNERSHIP BETWEEN THE EU AND THE AFRICAN	8
	EUROPEAN COMMISSION'S RESPONSE TO THE GLOBAL PANDEMIC IN AFRICA	
	.1. THE TEAM EUROPE APPROACH	
	EUROPEAN COMMISSION'S FINANCIAL SUPPORT TO AFRICA	
4.	RECOMMENDATIONS	14
5.	CONCLUSION	15
6.	SELECTED REFERENCES	16
7.	ANNEXES	20
	Table of Figures and Tables	
Fig	ure 1. Comparison of internal and external European Commission recovery budgets (in €bn)	9
Fig	ure 2. Team Europe's pillars: actions and goals	9
Fig	ure 3. Proposed Theory of change for the EU-AU resilience and recovery strategy in 2021	22
	ble 1. European Commission communications on strategies and programmes related to African tners prior and after March 2020	10
Tak	ole 2. The Next Generation EU and Multiannual Financial Framework 2021-2027	20
Tak	ble 3. Detailed objectives of the EU MFF 2021-2027 programmes	21



# THE DIGITAL ECONOMY AND RESILIENCE BUILDING: AT THE HEARTH OF EU'S DEVELOPMENT FINANCING IN SUB-SAHARAN AFRICA?

## **Table of Acronyms**

AfCFTA	African Continental Free Trade Area		
ASGS	Annual Sustainable Growth Strategy		
AU	African Union		
CDC	Centres for Disease Control and Prevention		
COVID-19	Corona Virus Disease (outbreak of 2019)		
DG-ENV	Directorate General for Environment		
DSSI	Debt Service Suspension Initiative		
EBRD	European Bank for Reconstruction and Development		
EC	European Commission		
EDCTP	European and Developing Countries Clinical Trials Partnership		
EFSI	European Fund for Strategic Investments		
EIB	European Investment Bank		
EU	European Union		
ICT	Information and Communications Technology		
MFF	Multiannual Financial Framework		
NATO	North Atlantic Treaty Organization		
NDICI	Development and International Cooperation Instrument		
NGEU	NextGenerationEU		



#### 1. INTRODUCTION

#### 1.1. The EU-AU partnership: a manifestation of the EU soft power

Theorised by Joseph Nye in the 1980s, the political scientist gave his analysis of the EU soft power in 2019 during an interview related by Paul Ramond. After recalling what soft power is – the ability to obtain what one wishes by its power of attraction, rather than its ability to coerce – J. Nye explains that the concept of soft power is usually understood and used at a national level. Nevertheless, he argues that the European Union (EU) also has a potential soft power, given that it is an ensemble with explicit objectives and motives, which promotes liberal and democratic values (Ramond, 2019).

Inherited from the Cold War, when the countries of Central and Eastern Europe were drawn to the North Atlantic Treaty Organization (NATO) and the European Commission (EC) as organisations protecting these democratic values, the soft power of the EU and its institutions still exists today. Nye develops the idea that advocating for and endorsing these values, promoting democracy and a liberal approach to development, is a way for the EU soft power to remain and grow internationally in view of the recent changes observed on the international scene (such as the Brexit or the COVID-19 pandemic) (Ramond, 2019).

As foreign policy and development aid are value-driven, it is logical to see programmes, strategies and partnerships of the EU towards developing countries as an expression of its soft power. As Nye identified it, "foreign policy" along with "culture" and "political institutions" are sources of soft power (Nye, 2004). Therefore, the diplomatic relationship between the EU and the African Union (AU) can be seen as a manifestation of the EU soft power approach, which aims at developing beneficial relationships with foreign governments through peaceful diplomatic strategy such as development aid (Center for European Studies at University of North Carolina, 2020).

#### 1.2. The EU-AU partnership and the "digitisation" priority

The COVID-19 pandemic and its social and economic impacts have highlighted the importance of digitalisation and the digital economy for resilience building. Investing in digital skills and appropriate infrastructure could offer new opportunities for Africa, and build momentum towards a digital economy supporting the recovery to the crisis. Africa's growth of digital technologies is important, with over 400 million mobile internet users and opens numerous opportunities for innovation (ECDPM, 2020a). The pandemic has proven that businesses and people on both continents require the appropriate skills for the digital economy and its services to be an inclusive and sustainable development pathway, along with strong and enabling (regulatory and physical) infrastructure. In other words, businesses and people on both continents require the implementation of digitisation also called digital transformation. As a response to the health crisis, the digital economy is a booming sector which fosters democratic governance, liberties and laws, sustainability, economic growth and solidarity in times of social distancing.

Open access to the digital economy is the most important value-added energy service of our time. An energy package is sufficient if it enhances the user's access to information and connectedness. According to Shenglin *et al.* (2018), global advances in information and communications technology (ICT) have not only altered production and business practices, but have also reshaped day-to-day lives, and international relations, making the internet one of the "most fundamental and vital" services in the modern world (Shenglin, B *et al.*, 2019). A service that the EU has promoted broadly throughout the Schengen zone since 2017 and the 'Roam Like at Home' rule.

The growing African economy (although heterogeneous across the continent and slowing down since 2016) has contributed to a shift in EU-Africa relations moving away from an asymmetric and unilateral donor-based model towards a jointly identified long-term cooperation based on mutual and complementary interests (ECDPM, 2020). The shift began when Jean-Claude Juncker,



former President of the EC met with the AU in November 2017 at the 5<sup>th</sup> Summit and called for a "new alliance" with Africa in his 2018 State of the Union speech. Since then, the EU foreign ministers declared 2020 the pivotal year of the EU cooperation relationship with Africa, and President von der Leyen sent a strong political signal by making the AU, her first official trip outside of Europe. This Summit culminated with the strategy with Africa in March 2019 (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020b).

The Joint Communication to the European Parliament and the Council on the Strategy with Africa, was shared publicly, exactly 100 days after the president Von der Leyen started her mandate, showing the appetite for partners to enact this relationship. It highlighted five pillars (or partnerships), as priorities for the EU-African Union cooperation, listed in Box 1. Obviously, partnership number two relates greatly to the "digitisation priority" of the EU, however, to respond to the digitisation need of the African continent, partnership number one would be crucial, and should be addressed jointly to ensure digital and resilient development. Partnerships three, four and five are also highly related to the digitalisation of the continent, in the sense that digital services can enhance the tools and means to achieve the partnership, and therefore should also be envisioned in light of the digitisation priority, to not fall short in their implementation. Overall, digitalisation is an integrated objective in EU programmes, which is not fully grasped with by developing partners and even more difficult to quantify in terms of European project reporting processes.

Box 1. Highlight of the EU-Africa partnerships as in the EU Strategy with Africa

#### **EU-Africa Partnerships (March 2019)**

- 1. A partnership for green transition and energy access;
- 2. A partnership for digital transformation;
- 3. A partnership for sustainable growth and jobs;
- 4. A partnership for peace and governance; and
- 5. A partnership on migration and mobility.

Source: (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020b)

Of course, these partnerships are also the results of years of cooperation between the EU and the African continent, and for instance the Africa-EU digital economy taskforce, which adopted a report in 2019 outlining a set of agreed principles and policy recommendations to promote Africa's digital economy (African Union Commission and European Commission, 2019).

#### 1.3. The impact of COVID-19 on soft power

A global pandemic has consequences on soft powers in terms of the ability of countries to carry on their foreign policy initiatives and financial engagements, but also reveals the leadership of some countries and ensembles over others in the face of adversity. Promoting a model to cope with the pandemic, such as the one promoted by China, with a diplomacy based on the delivery of medical equipment and technical support to other nations that could learn from its experience, is a way to increase its aura and power of attraction (Haski, 2020). A country able to absorb, cope, and build back better in the face of a shock (such as a pandemic) will be perceived as a model to follow, which will increase its power of attraction.

The last global crisis, in 2008 due to the flaws of the economic and banking system, saw two types of reaction strategies: retrenchment or consolidation. The first strategy is based on an inward-looking strategy that protects the status quo – this can be illustrated by the position adopted by the United States in the past four years - when the latter is rather focused on collaboration with allies to foster collaboration, prosperity and provide security (Portland, 2019). As in 2008, the European



Union seems to have bet on the consolidation strategy to face the COVID-19, with the announcement from the Commission President, Ursula von der Leyen, of a common European defence and financial strategy and the implementation of the Team Europe global response strategy (von der Leyen, 2020).

#### 2. RESEARCH AIM

In view of the COVID-19 pandemic and its social and economic impacts on both continents, we explored the **potential shift in the development partnership between Europe and Africa**, and specifically the importance of the digitisation priority in the COVID-19 crisis management and **particularly in building resilience in the upcoming recovery period**.

The public health crisis has forced global and national development goals and targets to be reprioritised to, first, deal with the immediate crisis at hand, and second, ensure that the response to and recovery from the crisis promotes sustainability and resilience. At the EU level the State of the Union speech of Ursula von der Leyen, in September, highlighted the priorities for EU's internal development and external actions in the medium and long-term and cemented a strong emphasis on resilience and health issues (von der Leyen, 2020).

Given the EU implications towards developing countries and Africa, we are interested in the potential shift in the EU in programmes and strategies, which would reveal the impacts of COVID-19 on the priorities and values promoted by the EU, and in turn on its soft power. The COVID-19 pandemic is rapidly and deeply changing discourses and practices from leaders and decision-makers, which has cascading effects from the international cooperation imperatives and objectives, to the work and practices of development practitioners.

To this aim, this research scrutinised the communications and strategies emerging from the EU through an analysis of formal communication emerging from the European Commission (publication, budget and strategies) and of informal engagements (through webinars and interviews) of Commissioners, Members of Parliament and experts of the European Union relationship with the African continent. These interviews support the arguments and recommendations put forwards in this paper.

# 3. TOWARDS A RENEWED PARTNERSHIP BETWEEN THE EU AND THE AFRICAN CONTINENT

Through this research, we analysed the cooperation programmes between the EU and the African continent in place before and since the pandemic outbreak, to unveil potential shifts in development aid programmes. The findings of this research indicate that the EU seems to make **use of existing programmes and partnerships** to implement its support to African countries in their response to the COVID-19 crisis, **while reinforcing its collaboration at the continental level**, with the African Union. There does not seem to be a transformational shift in the EU programmatic approach induced by the COVID-19 pandemic but rather a **(re)alignment of priorities, and a move to improve inter and intra-continental cooperation.** 

European and African development practitioners have continuously debated and reflected on the nature of the EU-AU partnership and its strategic direction throughout the second half of the year. The analysis of the content of these debates and conversations adds a refined layer of analysis on the soft power of the EU within the EU-Africa relationship. What is happening and being said on the ground is the focus of this section, interrogating the preliminary hypotheses of this research.

#### 3.1. European Commission's response to the global pandemic in Africa

#### 3.1.1. The Team Europe approach

The main strategy announced by the European Commission concerning the management and recovery of the COVID-19 pandemic towards developing partners and the African continent was

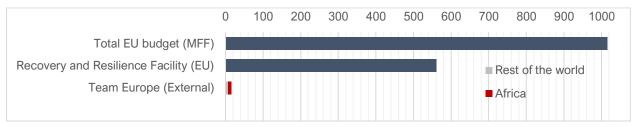


centred around the "Team Europe" approach. This European effort, presented in the Communication on the Global EU response to COVID-19, in April 2020, aims to address COVID-19 impacts on a global scale, and specifically to

"addresses the humanitarian, health, social and economic consequences of the crisis" in "the most affected countries in need of health support, such as countries in Africa,..." (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020a).

Through this programme, the EU has mobilised more than €36 billion to fight the coronavirus in partner countries, meaning outside of the European Union, out of which, €8 billion has been for Africa (Urpilainen, 2020a). Team Europe is pulling together resources from the European Commission (€15.6 billion), European Member States and European financial institutions, including the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD). Such financial support to partner countries, although planned with a short-term purpose, is small, as shown in figure 1, compared to the budget allocated to EU member States through the Recovery and Resilience Facility. This Facility, presented in the European Commission's Annual Sustainable Growth Strategy of the EU and the Multiannual Financial Framework (MFF) 2021-2027, aims to mitigate the economic and social impact of the coronavirus in the next seven years in the European member States (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020a).

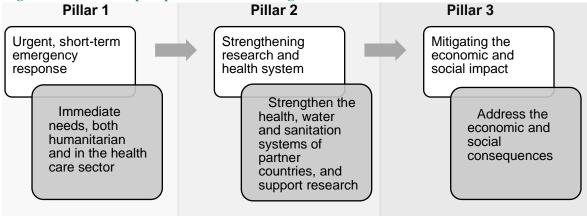
Figure 1. Comparison of internal and external European Commission recovery budgets (in €bn)



Source: Author's calculations. Data from (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020a) and (European Council, General Secretariat, 2020).

Nonetheless, the **Team Europe** effort is important in the EU-AU partnership and recovery from the COVID-19 crisis, not for its value in euros, but because it **sets priorities for action**, and builds on existing cooperation with African countries and continental organisations, in turn shaping this collaboration. Team Europe's support to developing partners is organised along three strategic pillars, as described in figure 2. This is along these objectives, and through existing channels of cooperation (regular EU external action programmes), that the COVID-19 response towards the world and Africa from the EU has been designed and financed in the last few months.

Figure 2. Team Europe's pillars: actions and goals





Source: adapted from (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020a)

The communications from the EU on this cooperation first emphasises the action of the EU in terms of immediate needs support and emergency relief. Various examples of the EU response to support African countries are put forward as examples of the assistance provided by the EU, showcasing the relevance of the existing EU-AU collaboration on developmental issues to be efficient in times of crisis. The main example of this, is the allocation by the European Commission of €25 million to the European and Developing Countries Clinical Trials Partnership (EDCTP). This continental public-private partnership between countries in Europe and sub-Saharan Africa is supported by the European Union. This contribution to an institution, which enhances Africa-European research and innovation collaboration for more than 15 years on scientific research and improved health, acknowledges the capacity and ability of continental organisations, and its national members, to manage global crisis with more investments. In times when research and virology would help find a solution to an on-going pandemic, international collaboration of research institutes is key. And this relies on digital technologies to create and share knowledge across borders.

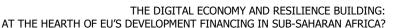
Such emergency support is by nature a donor-recipient relationship and can follow traditional flaws such as being based on donor interests, have deep and inert roots guiding development pathways, such as budget support, for instance in Ethiopia for €10 million. But this support was needed and relied on strong and strategic cooperation ties and used international and multi-lateral channels to be implemented, for instance the contribution to the United Nations Coronavirus Response Plan in Nigeria for €50 million.

#### 3.1.2. On multilateralism and priority setting

Post the outbreak of the COVID-19 pandemic, changes in the EU communication have been adopted. Table 1 captures discussion topics that are key to the EU-Africa relationship, as they appear in EU strategic communication. These are analysed in more details further below.

Table 1. European Commission communications on strategies and programmes related to African partners prior and after March 2020

Discussion	EU strategy (communications)					
topic key to the EU-Africa relationship	Before COVID-19 outbreak in Europe	Since COVID-19 outbreak (March 2020- onwards)				
Economic partnership	Towards a Comprehensive Strategy with Africa 5 partnerships	Financial and technical support: internally (Annual Sustainable Growth Strategy) and externally (Team Europe - 8 April)  European Commission: Africa remains a				
		<b>priority</b> (Fox, 2020) (Vines, 2020)				
Vulnerability and Resilience	"Resilience" in the context of disaster risks and climate action and specifically measures to adapt to climate change and reduce disaster risks.  Concepts also used in Conflict Resolutions and Peace Building programmes (Build Back Better).	Concept of " <b>resilience</b> " used in the recovery phase of the management of the pandemic with regards to health systems, economic and individual resilience.				
Health	Programmes parts of the MFF of the European Commission, including in developing countries and Africa.	COVID-19 strategic response (von der Leyen, 2020), (Vié, 2020)				





Digitalisation	Recommendations from the <b>AU-EU Task Forces on Digital Economy</b> , Transport and Connectivity, and Sustainable Energy Investment.	Team Europe: strong focus on European Green Deal and Digital Agenda, within Europe and outside its boundaries.		
		Annual Sustainable Growth Strategy: core pillar of the strategy for investments within Europe		

Source: author's compilation

Given the task at stake and the resources available, the EU has been using its particular role, in various international arenas and in its different capacity, to advocate for specific measures that would serve its internal and external interests. The EU, above the financial support it provides, plays an important **diplomatic role** on the international stage, and particularly in the midst of the COVID-19 crisis management. Being the first actor of the European construction and its role as facilitator of global peace and development missions puts the EU in the spotlight when it comes to co-designing and implementing policies across national borders, while navigating various interests. The African Union agreed upon and produced a COVID-19 strategy, under President Ramaphosa, from South Africa, to respond to the pandemic through its five "Africa Centres for Disease Control and Prevention (CDC) Regional Collaborating Center" (African Union and Africa CDC, 2020). This and the support from the EU to regional medical research made the AU response to the COVID-19 efficient and strategic.

The EU is also playing an influential role in the international arenas, on **economic policies** implementing outside what was working internally as an economic, social and environment, and political union (Schuster *et al.*, 2020). Indeed, the EU, and its member States contributed to discussions and negotiations since July on the COVID-19 Debt Service Suspension Initiative (DSSI), an initiative agreed with the G20 to postpone until at least the end of 2021 the reimbursement of sovereign debt and interests from the poorest members to the International Monetary Fund and World Bank (Bery, Brekelmans and García-Herrero, 2020), which are mainly Sub-Saharan countries. Although a simple postponement of the payment, with no restructuration of the debt in the future is not a solution *per se* (Schuster *et al.*, 2020), it has at least given some fiscal space to African partners.

Unsurprisingly, the issue of **health has become a prominent topic of discussion** when discussing both European recovery and future development (President von der Leyen, 2020) and the future of the EU-Africa partnership (Urpilainen, 2020b). Nonetheless, the difference of priorities between immediate support and long-term resilience building has started to be voiced and the links with green transition and digital transformation articulated (Abou-Zeid et al., 2020). Although emergency support is key in the fight against the COVID-19, resilience of health systems and economies in the face of any disastrous event is the long-term objectives pursued by stakeholders acting in the development space. It seems as though the health sector is making its way more strongly into the sustainable development train, but without the bigger picture and green digital transition in mind, the response to the COVID-19 crisis can lead to difficult tomorrows. The COVID-19 did not only re-shift the international relations and their multilateralism (Dworkin and Gowan, 2019) but also the words and language used to speak about the priorities and to convey messages.

The concept of **vulnerability**, even in economic and financial discussion rooms, has been driving **investment prioritisation** and cooperation. Social and health issues are at the centre of the interests of regional organisations, and national governments and scientific councils and medical task forces around the world are being heard by decision-makers as part of their decision-making processes. Mostly related to the field of disaster risk management and climate change, the concept of vulnerability is the cornerstone of the concept of resilience (Adaptation Community, no date). Since climate change is seen as one of the biggest threats due to its disaster risks, the general public



accepted the idea that people and governments were vulnerable to certain climate risks, and needed to adapt or mitigate disaster risks to become resilient to it. However, and since then already, resilience has been a concept applicable and relevant to all sorts of threats, subjects or geographies. Its meaning is not to be redefined but the importance of the concept of resilience in a context of various vulnerabilities, which are being addressed to recover, while building back better, needs to be emphasised. Resilience has come back greatly in debates and conversations, becoming a useful concept to frame and prioritise investments towards the recovery phase. However, the components that make up resilience, and therefore the causal links that render health systems vulnerable are not fully comprehended and understood.

Another message that was raised to a large extent in conversations about the EU-Africa relationship and about the recovery package is the **importance of the green deal and digitalisation as part of recovery strategies**, programmes, and packages yet to be implemented. By prioritising resilient action for the medium and long-term, the EU is setting the scene for the recovery phase and further cooperation engagements in the long-term with African countries, as conceded by EU High Representative Josep Borrell (Fox, 2020). The European institutions have presented European and external policy priorities in recent communications on digital transformation. As part of the soft power and transformational change that the EU is driving, the EU has been **implementing digital technologies** to respond to the pandemic on the continent and elsewhere (European Commission, 2020a). This is another sign of the EU "showing by doing" approach, where the EU is embracing the digital transformation and can implement it in its external cooperation.

The medium and long-term priorities set by the EU in the response to COVID-19 outside of Europe – through Team Europe – are twofold: strengthening research and health systems (Pillar 2) and mitigating the economic and social impact of the crisis (Pillar 3). These objectives are said to be attainable only if they "integrate the strategic objectives [of] the EU as set out in the European Green Deal and the Digital Agenda, which remain fully valid" (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020a). From the European Directorate General for Environment (DG-ENV), an African-wide programme (Africa Nature) will be implemented, and the circular and green economy are strategic objectives that will bring quick wins for an inclusive development, building resilient future in Africa (Schomaker, Adam and Ouedraogo, 2020). The European Directorate General for Development and Cooperation (DG-DEVCO) highlighted that education and human development were key in fighting inequalities that have been exacerbated by the COVID-19 crisis (Jager, 2020).

If the EU Response to the COVID-19 pandemic with and towards its partners is a very appealing strategy, it seems to have followed the existing channel of cooperation, while being displayed as an example of multilateralism and cooperation. The important changes brought by the global pandemic to the EU-Africa partnership and its financing are to be found in the details of the resources allocated to the implementation of the fight against and recovery from the COVID-19 crisis in the long-term.

#### 3.2. European Commission's financial support to Africa

As presented in the previous section on strategies and communications from the EU mostly on the Team Europe approach, **existing programmes have continued to be implemented** with African partners but have been partially diverted to respond to the emergency of the global pandemic. It is important to note that the financing cycles of the EC are seven years long, and therefore long-term programming could not have been shifted in a blink of an eye. This section is looking at the impacts of COVID-19 in the EU partnership towards African partners, from a budgetary perspective (detailed analysis of the MFF budget are in Annex A).



There is a **decisive opportunity** arising from the new Multiannual Financial Framework (MFF), which is the budget (or investment plan) of the European Union for 2021-2027, reviewed by the European Council in July 2020, and under discussion as this paper is written. Moreover, the 11<sup>th</sup> EU-AU summit was supposed to be held in November 2020 and has been postponed to January 2021, and preparatory meetings are being held between commissioners in the months of November and December. Therefore, any strategic shift from the EU financial framework could impact on its soft power and in turn on the future EU-AU relationship.

At first sight, Team Europe and the European recovery from the COVID-19 relies solely on NextGenerationEU (NGEU), presented as an "additional budget", a "new temporary recovery instrument" due to the particular circumstances. The EU budget has actually been built to be able to respond to emergencies internally and externally, while building long-term resilience and development. The EU budget for the next seven years is actually composed of 74% of the NGEU funding and amounts to a total of €1 015.3 billion (in comparison to €959.51 billion for the last period). The NGEU is as a "new temporary recovery instrument" in the sense that the reasons for the EC to borrow capital (specific sectoral investments for health) and the means to distribute it (tools) under this MFF have been modified in light of the COVID-19 recovery needs. The NGEU is an important part of the regular EU budgeting process but the programmes and tools put in place for its implementation are different than the usual, in their functions and targets.

NGEU is mostly **financing programmes in EU member states**. The biggest part of NGEU (74,7%) will be allocated to the Recovery and Resilience Facility as set out in the Annual Sustainable Growth Strategy (ASGS). It funds the Facility in its entirety. The NGEU is also fully funding the European Fund for Strategic Investments (EFSI). Similarly, NGEU is greatly contributing to React EU, InvestEU, the Health Programme (EU4Health), the SSI and the Just Transition Fund (between 75 to 92% of each programme). All these programmes are solely directed at European member countries. For a recalling of the objectives and details of these programmes, refer to the table in Annex B.

When it comes to **funding for developing partners**, including the African continent, the analysis of the new MFF highlights a few important points that can shape the future discussions and directions of the EU-Africa cooperation.

Firstly, four main EU programmes are targeted at African partners, representing altogether 4,1% of the additional financing put on the table by the NextGenerationEU budget, namely:

- The Neighbourhood, Development and International Cooperation Instrument (NDICI);
- Horizon Europe;
- RescEU; and
- Humanitarian Aid.

African counterparts will not receive all the allocated budget under these four programmes, as these are global. According to the Team Europe factsheet, €15,6 billion have been allocated by NGEU to external action (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020a), and €8 billion to Africa (Urpilainen, 2020a). This total represents just over 2% of the total NGEU budget and is mainly to be found in the Humanitarian Aid and NDICI programmes.

It is interesting to note that the NDICI is a newly created programme. The NDICI intends to "radically overhaul the manner in which the financing of the European Union's external action is administered" (European Parliament, no date) by adopting a revised approach to European external action. The traditional geographical areas (cutting the African continent into 2 different zones) will be accompanied by two other approaches: a thematic and a rapid-response one. 12% of the NDICI comes from the NGEU budget, and this represents 1,4% of the total amount of NGEU. There will be various windows in the NDICI, and one specifically directed at Sub-Saharan



African countries, and worth €26 billion, which is about 30,23% of the amount allocated to the new Cooperation Instrument. This shows a **renewed, more pragmatic and resilient way of implementing development cooperation** with the rest of the world.

Other pre-existing programmes, such as Horizon Europe and RescEU have also been highlighted in the communication from the EU as critical to the European cooperation with African and developing partners (European Commission and High Representative of the Union for Foreign Affairs and Security Policy, 2020a). Horizon Europe, specifically, supported the EDCTP in conducting coronavirus research, with about 0,03% of the budget of the European programme. Horizon Europe, as the Research and Innovation Programme of the EU, is said to be a promising platform to ensure cooperation, at continental level, and reinforce the role of the AU (ECDPM, 2020b) in thematic and strategic areas such as health, research, and digital transformation.

It seems as though, the longer-term initiatives financed and implemented due to the COVID-19 pandemic since March 2020 have not only been emergency relief action but also intrinsically transforming the EU cooperation with Africa toward a **strategic partnership by bridging aid and development support.** Indeed, support on debt relief negotiations and budget supports have been necessary as an immediate response, but emergency actions have also allowed the EU and African partners to ensure that previously agreed economic agreements such as the African Continental Free Trade Area (AfCFTA) or the European Green Deal, would not fall behind in the face of the crisis. The EU-Africa relationship and its response to the COVID-19 crisis shows that emergency aid and longer-term development objectives can be aligned through budgeting and communication. The programmes and financial support provided by the EU both as part of the COVID-19 response and the longer-term NDICI instruments are incremental signs of a shift toward a more equal EU-Africa relationship that is mutually beneficial (Gabarova, 2020; Urpilainen, 2020b).

#### 4. RECOMMENDATIONS

The emerging steps and shifts that occurred since March 2020 must be acknowledged and built upon to ensure that the EU-Africa relationship becomes, indeed, equal and mutually beneficial. In 2021, the EU-AU Commissioners preparatory meetings and events gathering development practitioners from the two continents should ensure that green digital transitions are priorities of the upcoming recovery period and build longer-term resilience. The following recommendations describe how to do so.

- Moving the relationship forward and navigating the new normal requires policymakers in the AU and EU to **move beyond old habits and offer (financial) space to act domestically** (Knies, 2020). Rhetoric and actions need to be adapted to meet the requirements of this strategic partnership towards "a prosperous African continent [that] is in the EU's interest" (Kappel, 2020). The COVID-19 pandemic has prepared us better for the upcoming challenges by revealing common interests that became a strong basis for a future beneficial and sustainable EU-Africa cooperation (Gabarova, 2020).
- African partners are working towards **resilient development pathways** that ensure the prosperity of the African continent and energy access as stated in the AU's 'Agenda 2063' (African Union, 2015). Such pathways include **decarbonized energy solutions and digitalisation** to build resilient futures. The new approach to developmental cooperation and the workstreams established by Team Europe are a great preamble to the implementation of a partnership of equals.
- Digital transformation is relying on **digital infrastructure** and the ability of African countries to develop and maintain these. The renewed EU-Africa partnership should look at digital infrastructure, not only in terms of stock but also in terms of the enabling environment needed to develop these infrastructures.



- The first year after a global pandemic, the EU-Africa relationship could give birth to an integrated programme to build African (and in turn European) resilience and recovery like the DG-ENV's Nature Africa programme for instance. Such relationship outcomes would lead to a green and just transition fostering digitalisation, understood as safe and equal access to digital services (more details in the theory of change in Annex C).
- The global pandemic has shifted the debates related to development financing and shifted the attention of development practitioners. They were moved from traditional sectoral support serving medium-term unilateral interests to common economic sectors' vulnerability and their social causes and consequences. This has led to more deliberate decision-making processes and considered action. Risks and vulnerabilities are guiding public action, rather than being driven by electoral charts, private interests or inadequate guidance and reasoning.
- This evidence-based approach to decision-making should be used further and become the base for development cooperation priorities. Evidence has revealed that green and just transition through digitalisation are key to the social, economic, and environmental resilience of people, health systems, cities, sectors and countries. The adoption of the MFF, and its further implementation, including budget for recovery should be put into digital transformation, and green recovery. Using such a holistic and cross-sectoral, interdisciplinary approach to cooperation, the partnership can realign its priorities to sustain a strategic direction.
- Through the partnership and **research and innovation programmes** such as Digital Europe and the Horizon Europe programme (ECDPM, 2020b), quick wins can be identified in terms of digitization and resilience building for Africa. The new NDICI, without geographical bonds, is also an opportunity to develop a cross-sectoral and interdisciplinary approach to development work, included in the implementation of green and just recoveries and transitions.

#### 5. CONCLUSION

In the wake of COVID-19, cooperation, coordination and delivery are needed to facilitate post-pandemic recovery. Though the situation is changing on a daily basis, in the past months a number of notable trends in the EU-Africa cooperation have emerged from the EU-Africa response to the COVID-19 pandemic, presented and discussed in this paper.

In the year 2020 the EU-AU relationship has been based on a robust cooperation to meet urgent needs and to manage the sanitary, health and then economic crisis. The COVID-19 pandemic hit the world globally and unveiled the root causes of development issues in Africa and on the European Continent. But it also was also an opportunity to think through longer-term cooperation priorities which will be discussed and agreed upon in 2021.

The EU-Africa relationship has proved to be able to respond to the immediate needs resulting from the crisis, while bridging humanitarian and development aid. Investments targeted through pre-existing programmes has allowed rapid and relevant short-term aid and emergency relief to be provided on the African continent. The intervention of the AU in the COVID-19 response, supported by the EU, comforted its position as a continental leader in the field of medical emergency. However, the role of the AU, as a regional and continental cooperation leader in Africa remains to be cemented. The implementation of the AfCFTA relies on continent-wide collective action.

The nature of the EU financing cycle and its existing financing programmes, such as the MFF, allows for continuity in programming and support. Therefore, the long-lasting EU-Africa collaboration has reacted rapidly and efficiently, using its existing programmes, and avoided the



risks of "ad-hoc" responses to the health crisis, which could have created risks of erratic and short-term investments. Integrating resilience building and pandemic recovery within the EU traditional financing cycle is paving the way to a partnership of equal.

Without proper planning, adequate policy formulation and a robust socio-economic response, the long-term impacts of the global pandemic in Europe and in Africa will be widely felt. The implementation of the MFF for the period 2021-2027, if delivering premises of a digital transformation, can pave the way to an EU-Africa resilient partnership.

#### 6. SELECTED REFERENCES

- Abou-Zeid, A., Simson, K., Correia Sacko, J.L., & Ogunbiyi, D. (2020) 'Creating a mutually beneficial partnership for Africa-Europe: Building a greener and fairer future'. *Debating Africa-EU*, Friends of Europe, 10 September. Available from: https://www.friendsofeurope.org/events/creating-a-mutually-beneficial-partnership-for-africa-europe-building-a-greener-fairer-future/ [Accessed 14th October 2020].
- Adaptation Community. (no date) 'Vulnerability / Risk Assessment', *Adaptation Community*. Available from: https://www.adaptationcommunity.net/vulnerability-assessment/ [Accessed 11<sup>th</sup> September 2020].
- African Union. (2015) *Goals & Priority Areas of Agenda 2063*. Available from: https://au.int/agenda2063/goals [Accessed 10<sup>th</sup> November 2020].
- African Union. & Africa CDC. (2020) *Africa Joint Continental Strategy for COVID-19 Outbreak*. Available from: https://africacdc.org/download/africa-joint-continental-strategy-for-covid-19-outbreak/ [Accessed 13<sup>th</sup> November 2020].
- African Union Commission. & European Commission. (2019) New Africa-Europe Digital Economy Partnership. Accelerating the Achievement of Sustainable Development Goals. AU-EU Digital Economy Task Force. Available from: https://ec.europa.eu/digital-single-market/en/news/new-africa-europe-digital-economy-partnership-report-eu-au-digital-economy-task-force [Accessed 12th November 2020].
- Bery, S., Brekelmans, S. & García-Herrero, A. (2020) *Debt relief for Sub-Saharan Africa: what now?*, July. Available from: https://www.bruegel.org/2020/07/debt-relief-for-sub-saharan-africa-what-now/ [Accessed 9<sup>th</sup> November 2020].
- Center for European Studies at University of North Carolina. (2020) *The EU and Soft Power*. Available from: https://europe.unc.edu/iron-curtain/power-and-politics-the-prisoners-dilemma/the-eu-and-soft-power/ [Accessed 9<sup>th</sup> October 2020].
- Dworkin, A. & Gowan, R. (2019) *Rescuing multilateralism*, *ECFR*. Available from: https://ecfr.eu/publication/rescuing\_multilateralism/ [Accessed 9<sup>th</sup> November 2020].
- ECDPM. (2020a) *Africa and EU-Africa partnership insights: input for Estonia's new Africa Strategy*, (266). Available from: https://ecdpm.org/wp-content/uploads/Africa-EU-Africa-Partnership-Insights-Input-Estonia-New-Africa-Strategy-ECDPM-Discussion-Paper-266.pdf. [Accessed 12<sup>th</sup> November 2020].
- ECDPM. (2020b) *International collaboration in Horizon Europe: A new approach to partnering with Africa*. Available from: https://ecdpm.org/publications/international-collaboration-horizon-europe-new-approach-partnering-with-africa/ [Accessed 12<sup>th</sup> November 2020].
- European Commission. (2020a) *Digital technologies actions in response to coronavirus pandemic* | *Shaping Europe's digital future*. Available from: https://ec.europa.eu/digital-single-market/en/content/digital-technologies-actions-response-coronavirus-pandemic [Accessed 13<sup>th</sup> November 2020].



- European Commission. (2020b) *The pillars of Next Generation EU, European Commission European Commission*. Available from: https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/recovery-plan-europe/pillars-next-generation-eu\_en [Accessed 5<sup>th</sup> November 2020].
- European Commission. & High Representative of the Union for Foreign Affairs and Security Policy. (2020a) *Communication on the Global EU Response to COVID-19*. Joint Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels: European Commission and the High Representative of the Union for Foreign Affairs and Security Policy. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020JC0011 [Accessed 19th October 2020].
- European Commission. & High Representative of the Union for Foreign Affairs and Security Policy. (2020b) *Towards a Comprehensive Strategy with Africa*. Joint Communication to the European Parliament and the Council. Brussels: European Commission and the High Representative of the Union for Foreign Affairs and Security Policy. Available from: https://ec.europa.eu/international-partnerships/system/files/communication-eu-africa-strategy-join-2020-4-final\_en.pdf [Accessed 22<sup>nd</sup> June 2020].
- European Council, General Secretariat. (2020) *Conclusions of the Special European Council, 17-21 July 2020*. European Council. Available from: https://www.consilium.europa.eu/en/press/press-releases/2020/07/21/european-council-conclusions-17-21-july-2020/ [Accessed 19<sup>th</sup> October 2020].
- European Parliament. (no date) *Legislative train schedule*, *European Parliament*. Available from: https://www.europarl.europa.eu/legislative-train [Accessed 10<sup>th</sup> November 2020].
- Fox, B. (2020) Pandemic has derailed EU-Africa strategy, concedes Borrell', www.euractiv.com, 22 September. Available at: https://www.euractiv.com/section/botswana/news/pandemic-has-derailed-eu-africa-strategy-concedes-borrell/ [Accessed 9<sup>th</sup> November 2020].
- Gabarova, M. (2020) 'How Europe-Africa relations were liberated from decades-old thinking', *ECDPM Great Insights Magazine*, 9(3). Available from: https://ecdpm.org/great-insights/navigating-eu-au-post-covid/europe-africa-relations-liberated-old-thinking/ [Accessed 12<sup>th</sup> November 2020].
- Haski, P. (2020) 'Les grandes puissances ont perdu la bataille du « soft power » à l'heure du coronavirus', *Geopolitique*. 15 May. Available from: https://www.franceinter.fr/emissions/geopolitique/geopolitique-15-mai-2020 [Accessed 8<sup>th</sup> October 2020].
- Jager, M. (2020) 'Closing Remarks'. 9th Africa Day. Africa and the EU: Cooperation for a Sustainable Future, Online: Chatham House, 10 November. Available from: https://www.chathamhouse.org/events/all/research-event/africa-and-eu-cooperation-sustainable-future [Accessed 10<sup>th</sup> November 2020].
- Kappel, R. (2020) 'Africa-Europe Economic Cooperation: Using the Opportunities for Reorientation.', *Together towards Justainability*, p. 11.
- Knies, G. (2020) European-African Relations: Learning from the Pandemic goes beyond Crisis Management. Available from: https://www.fes.de/en/africa-department/more-posts/european-african-relations-learning-from-the-pandemic-goes-beyond-crisis-management [Accessed 28th October 2020].
- Mohammed El Fadil, H. E. A. (2020) 'Health, welfare and prosperity: an EU-Africa partnership for a people-centred approach to human development'. *Debating Africa-EU*, Friends of Europe, 24 September. Available from: https://www.friendsofeurope.org/events/beyond-



- borders-an-eu-africa-partnership-for-a-people-centered-approach-to-migration-mobility-and-human-development/ [Accessed 16<sup>th</sup> October 2020].
- Nye, J. (2004) 'Soft power in Power in the global information age', Routledge, 76-88.
- Portland. (2019) *The Soft Power 30. A Global Ranking of Soft Power*. Available from: https://softpower30.com/wp-content/uploads/2019/10/The-Soft-Power-30-Report-2019-1.pdf [Accessed 9<sup>th</sup> October 2020].
- President von der Leyen, U. (2020) State of the Union Address by the President of the European Commission to the Parliament, European Commission European Commission. Available from: https://ec.europa.eu/commission/presscorner/detail/en/SPEECH\_20\_1655 [Accessed 19th October 2020].
- President von der Leyen, U. (2020) *Speech at the European Parliament Plenary on the conclusions of the Special European Council meeting of 17-21 July 2020.* Available from: https://ec.europa.eu/commission/presscorner/detail/en/SPEECH\_20\_1396 [Accessed 16<sup>th</sup> October 2020].
- Ramond, P. (2019) 'Le soft power de l'Union européenne doit reposer sur la dimension déjà transnationale de la culture européenne », conversation avec Joseph Nye', *Le Grand Continent*, 11 Octobre. Available from: https://legrandcontinent.eu/fr/2019/10/11/conversation-avec-joseph-nye/ [Accessed 8<sup>th</sup> October 2020].
- Schomaker, A., Adam, J.-P. & Ouedraogo, O. (2020) 'Enhancing EU-Africa Cooperation on Climate Policy and the Green Economy (Session 1)'. 9th Africa Day. Africa and the EU: Cooperation for a Sustainable Future, Online: Chatham House, 10 November. Available from: https://www.chathamhouse.org/events/all/research-event/africa-and-eu-cooperation-sustainable-future [Accessed 10<sup>th</sup> November 2020].
- Schuster, J., Iller, D., Bollrich, E., & Mutazu, T. (2020) *Debt Reductions for Africa the sustainable way forward*. EU Office of Friedrich-Ebert-Stiftung, 10 November. Available from: https://www.fes-europe.eu/news-list/e/debt-reductions-for-africa-the-sustainable-way-forward/?L=432&cHash=a12cbd9ccbfa50f449b159b98ad0208b [Accessed 10<sup>th</sup> November 2020].
- Shenglin, B., Li, W., Bosc, R., Zhang, R., & Simonelli, F. (2019) 'Digital infrastructure: Overcoming Digital Divide in Emerging Economies', *G20 Insights*, 9.
- Urpilainen, J. (2020) 'Health, welfare and prosperity: an EU-Africa partnership for a people-centred approach to human development'. *Debating Africa-EU*, Friends of Europe, 24 September. Available from: https://www.friendsofeurope.org/events/beyond-borders-an-eu-africa-partnership-for-a-people-centered-approach-to-migration-mobility-and-human-development/ [Accessed 14th October 2020].
- Urpilainen, J. (2020a) 'Keynote Address'. 9th Africa Day. Africa and the EU: Cooperation for a Sustainable Future, Online: Chatham House, 10 November. Available from: https://www.chathamhouse.org/events/all/research-event/africa-and-eu-cooperation-sustainable-future [Accessed 10<sup>th</sup> November 2020].
- Urpilainen, J. (2020b) 'The Next Generation of Africa Europe Relations, with Commissioner Jutta Urpilainen'. *Debating Africa-EU*, Online: Friends of Europe, 30 June. Available from: https://www.friendsofeurope.org/events/the-next-generation-of-africa-europe-relations-the-debating-africa-eu-series-with-jutta-urpilainen-european-commissioner-for-international-partnerships/ [Accessed 14<sup>th</sup> October 2020].
- Vié, F. (2020) *La Commission et le Parlement relancent les priorités de l'Union*. Available from: https://mouvementeuropeen62.eu/2020/09/29/mon-europe-n46-octobre-2020-la-





commission-et-le-parlement-relancent-les-priorites-de-lunion/ [Accessed 29<sup>th</sup> September 2020].

Vines, A. (2020) 'Closing Remarks'. 9th Africa Day. Africa and the EU: Cooperation for a Sustainable Future, Online: Chatham House, 10 November. Available from: https://www.chathamhouse.org/events/all/research-event/africa-and-eu-cooperation-sustainable-future [Accessed 10<sup>th</sup> November 2020].



### 7. ANNEXES

#### ANNEX A

Table 2. The Next Generation EU and Multiannual Financial Framework 2021-2027

	(in €bn)					
Programme names	Total in MFF	Financed by the NGEU	Financed by EU budget	Proportion of programme financed from NGEU	Programme proportion compared to total NGEU	African focus? Y/N/Partially
Horizon Europe	94,4	13,5	80,9	14%	1,8%	Partially European and Developing Countries Clinical Trials Partnership (EDCTP) - support research on the coronavirus and strengthen research capacities SSA (25m = 0,03% Horizon programme)
NDICI	86	10,5	75,5	12%	1,4%	Partially SSA window (26bn = 30,23%)
RescEU	3,1	2	1,1	65%	0,3%	Partially Algeria, Burkina Faso, Burundi Cameroon, Central African Republic, Chad, DRC, Ethiopia, Kenya, Libya, Mali, Mauritania, Mozambique, Niger, Nigeria, Sahel, Somalia, SAIO, South Sudan, Sudan, Uganda, Zimbabwe (no SADC, no ECOWAS)
Humanitarian Aid	14,8	5	9,8	34%	0,7%	Partially
Rural Development	90	15	75	17%	2,0%	No (mainly the Common Agricultural Policy)
Health Programme - EU4Health	9,4	7,7	1,7	82%	1,0%	No
EFSI	15	15	0	100%	2,0%	No
InvestEU	16,6	15,3	1,3	92%	2,0%	No
Solvency Support Instrument (SSI)	31	26	5	84%	3,5%	No
Just Transition Fund	40	30	10	75%	4,0%	No
ReactEU	55	50	5	91%	6,7%	No
Recovery and Resilience Facility	560	560	0	100%	74,7%	No
TOTAL	1015,3	750	265,3	74%	100%	

Source: Author's calculations. Data from (European Council, General Secretariat, 2020) and (European Commission, 2020b).

The final allocation of the budget remains to be approved, while this article is being written.



#### ANNEX B

Table 3. Detailed objectives of the EU MFF 2021-2027 programmes

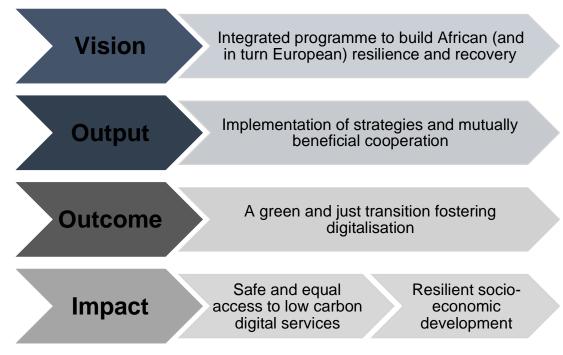
PROGRAMME NAMES	OBJECTIVES AND DETAILS		
NEIGHBOURHOOD, DEVELOPMENT AND INTERNATIONAL COOPERATION INSTRUMENT (NDICI)	The new instrument will contain an investment framework for external action to raise additional financial resources for sustainable development from the private sector. It will consist of the European Fund for Sustainable Development (EFSD+) and the External Action Guarantee (MFF proposal of May 2020 €60 billion to a ceiling of €130 billion, thanks to a €10.5 billion top-up from the EU Recovery Instrument). While all the initial proposal's other aims, priorities, principles, areas of cooperation, etc. remain unchanged, this targeted increase will help boost the post-COVID-19 recovery process in countries covered by NDICI and IPA III.		
HORIZON EUROPE	Research and Innovation Programme of the EU.		
RESCEU	European Union's Civil Protection Mechanism. Response to Disaster.		
Humanitarian Aid	European Civil Protection and Humanitarian Aid Operations (ECHO) department shares competence with EU Member States and together they are one of the leading global humanitarian donors. When it comes to civil protection, the EU assumes a supporting role, coordinating voluntary contributions of in-kind assistance from countries participating in the EU Civil Protection Mechanism.		
RURAL DEVELOPMENT	European Agricultural Fund for Rural Development to support rural areas in making the structural changes necessary in line with the European Green Deal.		
JUST TRANSITION FUND	Investments leading to substantial emission cuts and job protection: economic diversification and reconversion of EU regions to adapt to green economy.  This means backing productive investments in Small and Medium-sized Enterprises, creation of new firms, research and innovation, environmental rehabilitation, clean energy, up- and reskilling of workers, job-search assistance and active inclusion of jobseekers' programmes, as well as the transformation of existing carbon-intensive installations		
HEALTH PROGRAMME - EU4HEALTH	To build resilient health systems in the EU to better equip us for the future.		
SOLVENCY SUPPORT INSTRUMENT (SSI)	The new strategic European investment window will focus on building stronger European value chains in line with the strategic agenda, to tackle the lack of confidence and investment which resulted from the economic and financial crisis, and to make use of liquidity held by financial institutions, corporations and individuals at a time when public resources are scarce, through the EIB.		
REACTEU	To prevent such companies from falling into insolvency, recapitalise by raising new equity.		
InvestEU	Transition towards climate neutrality via funds from Next Generation EU.		
EUROPEAN FUND FOR STRATEGIC INVESTMENTS (EFSI)	Strategic investment facility for crisis and repair measures. 2014-2020 European Regional Development Fund (ERDF), the European Social Fund (ESF), and the European Fund for Aid to the Most Deprived (FEAD).		
RECOVERY AND RESILIENCE	As set out in the Annual Sustainable Growth Strategy (ASGS): Loans (360 bn) and Grants (312.5).		
FACILITY	Large-scale financial support to reforms and investments undertaken by Member States, with the aims of mitigating the economic and social impact of the coronavirus.		

Source: each programme webpage from the European Commission's website (https://ec.europa.eu/info/)



#### ANNEX C

Figure 3. Proposed Theory of change for the EU-AU resilience and recovery strategy in 2021



Source: author's development