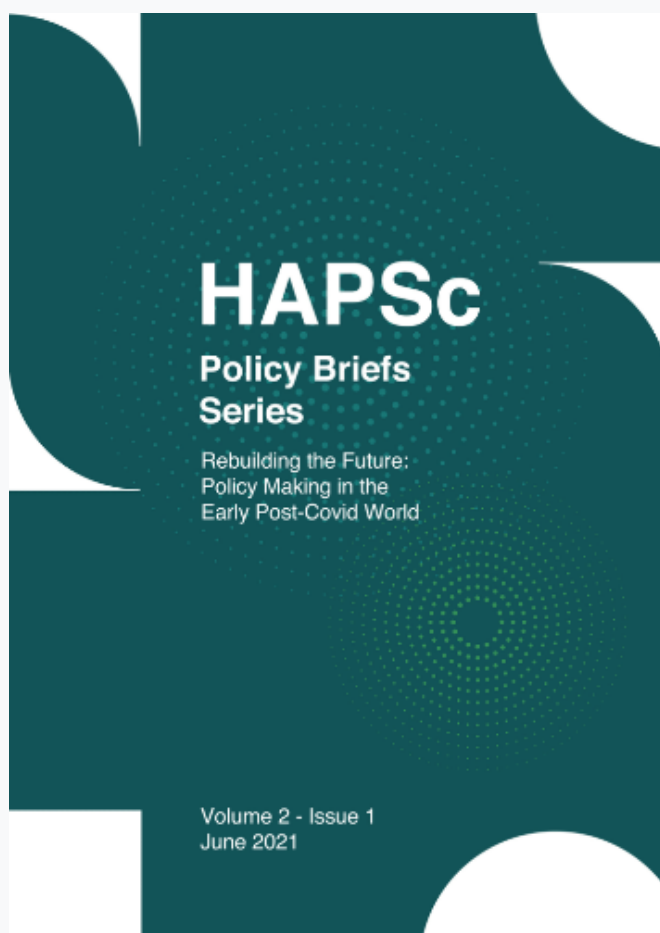


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### European Green Deal: Slowing Down Multi-Speed Integration with Innovation

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# European Green Deal: Slowing Down Multi-Speed Integration with Innovation<sup>1</sup>

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## Abstract

With the creation of the Green Deal, the European Union aims to achieve the goal of climate-neutrality by 2050. Multi-speed European integration is very likely to take place during the procedure of transition, if the proper precautions are not taken. Although this would not necessarily be a reason to be concerned about in other cases, in the case of climate-neutrality would be most distressful. That is because of the lack of justness multi-speed transition carries and the nature of the goal itself. Although the EU has created a whole mechanism to reassure that the transition will take place in a fair and just way, it concentrates on regions with specific features (such as fossil and carbon dependency), leaving behind other, less concerning regions. This Policy Brief aims to create a link between the Just Transition Mechanism and the possibility of multi-speed integration and to propose an additional pillar that –even though might seem gentler- may be enough to prevent this issue. That is, the creation of several model-like projects from the European Commission, that could be proposed and applied in almost any region. One of these projects could be the innovative Vertical Agriculture scheme.

**Keywords:** European Green Deal; Just Transition Mechanism; Cohesion Policy; Multi-Speed; Farm to Fork Strategy; Old and Abandoned Buildings; Vertical Agriculture; Aquaponics.

## Introduction

Having the European Green Deal in mind, the EU aims to reform and reshape as many sectors as possible. Although it is –and should be- the first priority for the EU to invest in regions where the transition would be most drastic, the question is, how will the funding be distributed from member-state to member-state –and their regions-, without causing inequality and creating different scales of development.

This Policy Brief, aims to approach that issue with a more versatile perspective. Starting with understanding what multi-speed integration really is and how it may interfere with the goals of Cohesion Policy, the focus will then shift towards the importance of the problem, regarding the implementation of the European Green Deal project. After realizing just how urgent it is to take action against any possibility of creating different development levels and the importance for the European Commission to simultaneously focus and create models of projects which –from their nature- can be applied in any region, the proposal of the Vertical Agriculture Project will arise, as a

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fair and just scheme that will potentially benefit not only each and every member-state (and their region), but also the whole Continent, and the EU in general.

## 1. Explanation of the problem

In this part, the main goal is to provide the reader with a basic idea of the multi-speed European Union, why this could potentially interfere with the Cohesion's Policy interests and how important it is for the EU to avoid multi-speed integration for the sake of climate-neutrality.

### *Multi-speed European Union*

Before showing just how urgent it is for the EU to avoid climate-neutrality setout with a multi-speed approach, it is only natural to explain the meaning of multi-speed integration. According to the White Paper of the European Union for the future of Europe (European Commission, 2017), there are several possible approaches on the way the European Union will develop in the future. One of the possibilities is that the member-states which are more likely to be on the same level, to cooperate with each other and continue their integration, while others join them only when they are equally prepared. There are pros and cons with that.

Yet, when it comes to climate-neutrality, it is pointless. That is, because this goal is only achievable and long-term viable when every single member-state and its regions participate in the transition. There are two reasons for that; firstly, when the EU reaches its goals of climate-neutrality without every member-state transitioning, it will mean that some member-states changed drastically their economy while others took small –if any- steps to change, for example, their carbon-dependent regions. This outcome would devastate the unity of the Union and would surely deepen the gap between some member-states, leading to even more injustice (Rosamond, 2004). Secondly, climate problems by default don't take into consideration borders. As much as some member-states may try to achieve climate-neutrality all by themselves, the real change is to come only with the participation of all of them.

Besides, after the first shock from the COVID-19 hit (Melidis & Tzagkarakis, 2020), EU began a massive campaign under the "NextGenerationEU" title, where European Commission found an opportunity window to promote the Union's integration through billions of investments, taking a step even further for the unity of EU and decreasing in that way a possibility of two (or three)-speed integration (Mitsos, 2020).

## ***Cohesion Policy***

In order to avoid multi-speed transition while reaching for climate-neutrality, it is important for the EU to respect the goals of Cohesion Policy. By confining differences, the Cohesion Policy aims to invigorate economic cohesion and social connectivity between all the member-states. Cohesion's Policy main -but not the only- goal is to support the less developed regions (Andreou, 2016). In this case, even though it still remains of great importance to support the most vulnerable regions, it is vital to prevent any further injustice by doing so.

The current period of the Cohesion Policy starts in 2021 up until 2027 and during this period the European Union will focus more on innovation, ecology and regional development (European Commission, 2019). The EU funds each region of each member-state through European Regional Development Fund (ERDF), European Social Fund (ESF) and the Cohesion Fund (CF). Approximately 75% of ERDF and CF resources will be distributed to create a smarter Europe, with innovative cities, developed regions and a greener and carbon free Europe, based on a circular economy. These two priorities will be the main focus on regional investments (European Commission, 2018). Since it is the purpose of Cohesion Policy to stabilize the differences and achieve cohesion, what better solution than to also fund model-like projects that have the potential to be applied almost in any region. Thus, this proposal could, also, benefit from Cohesion's Policy funds (European Commission, 2021).

## ***The Importance of the Problem***

There is a main issue regarding the implementation of EU's Green Deal projects; the possibility of an increasing multi-speed Union (Melidis & Russel, 2020), since some countries like Sweden are far more climate-neutral than Poland for example<sup>3</sup>. This underlines the need to focus not only on some specific regions, but also to any region regardless of its economic, population and geographic status and it shows exactly why it is of vital importance for the European Commission –now more than ever- to create smaller, regional-friendly, innovative projects and provide them to the member-states. This Policy Brief will, thus, propose a pioneering project –as an example- that could tackle this issue and still provide the EU with one more mean to reach the 2050 goal of climate-neutrality.

So, the goal is firstly, to find a way to avoid from the beginning any further multi-speed integration due to the ambitious and complex goal of a climate-neutral European Union and secondly to maintain

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<sup>3</sup> As Worland (2020) notes, Poland is very skeptical about the 2050 climate-neutral transition, in fact a large amount of its economy still depends on carbon.

the focus on the quantity of regions where projects may apply. This means that -apart from the regions, for instance with highly carbon-intensive activities, that will need the most attention due to the transition-, the EU should simultaneously invest in creating, promoting and proposing projects that may have the potential to be applied to as many regions as possible and create a whole new approach to the Just Transition Mechanism (according to *European Commission's 2020* press publication: “[...] *the territorial just transition plans will identify the most impacted territories that should be supported*”).

Green Deal from its core is meant to be applied to all the member-states. This means that climate-neutrality is a goal that can only be reached when certain steps are followed by as many regions as possible. It is, thus, of most importance to focus on a just transition, not only from region to region inside each member-state, but also from member-states' to member-states' regions. In other words, it is vital for the EU's Green Deal to adopt the values and the goals of Cohesion Policy, in order to avoid an even greater division of integration.

Even though there is undoubtedly a focus on a just distribution of the funds via the projects, the truth is that there is more to be done. The reason is that the Just Transition Mechanism (European Commission, 2020), as thoughtful and well-functioning as it is, is not enough. To be able to really make sure that the transition towards a climate-neutral Europe will not take place while the distance between the development of the regions of each member-state becomes greater than ever, the European Commission should respectively give a fair amount of time and energy to create pioneering projects (for example, with an additional skill to InvestEU Advisory Hub or TSI programs<sup>4</sup>, to not only create certain projects for each member-state separately, but also to promote and propose model-like projects) that could apply in any member-state, adopting it of course to the specific features of each one of them, and thus avoid the creation of a developmental gap between them.

## 2. The Solution: Vertical Agriculture Project

The Vertical Agriculture Project, which is this policy brief's proposition for a just and climate-neutral project, was first conceived as an innovative idea from Dr. Despommier Dickson from the University of Columbia. It fits perfectly for the EU's purposes, since it focuses on agriculture, environment and energy goals, at a local-regional level. It may not drastically change the performance of the whole

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<sup>4</sup> InvestEU Advisory Hub and Technical Support Instrument are programs that EU launched in order to create and promote projects for member-states.

Continent, yet small steps are equally important not only to achieve but also to maintain climate-neutrality.

This project will on the one hand provide a potential of new job vacancies to any EU region, and also enhance their productivity, boost their economy and the goal of becoming a low-carbon, eco-friendly, climate-neutral Continent will be one step closer to its achievement. In addition, all the fresh goods that will be cultivated are going to be sold to the local markets, focusing mainly on the Green Deal's goal of Agriculture and Food (and specifically the "*Farm to Fork Strategy*"), but also covering themes from other goals, such as environment and energy.

The Vertical Agriculture Project could be proposed as a model-like solution for every region where buildings no longer serve their purpose. We are talking about buildings where renovation is most costly, buildings whose construction has stopped due to lack of funds and finally, abandoned buildings. Those buildings could change their form and become the vessel of innovation. The main theme is, instead of demolishing or completely abandoning them, to have a local interior vertical garden, with all the equipment necessary for it to be self-functional. Something similar to recycling, but with buildings.

In order to promote and propose this project from top-down (from the European Council to the member-states and their regions), randomization is the key. That is, because firstly if counting on randomness the European Commission will be released from a blame-game of intentionally supporting some regions over the others and secondly, due to the overall justness it carries. Random selection is a fair way of choosing one thing over another due to its lack of biases and the presence of the conditioning that each region has equal chances to implement the project (Duxbury, 2012). In this policy brief, randomness lies on the location of abandoned/old and left-under-construction buildings. Wherever there is such a building, there is an opportunity for its region to thrive.

Additionally, it goes without saying that this proposal is only complementary and certainly not as urgent as it is the support of regions where the transition will drastically change the lives, jobs and economic situation of their people. Yet, even if it may seem trivial to some extent for now, if such a small addition would take place, it could drastically change the course of EU's unity.

Finally, the key for this project to really thrive is for each region to make adaptations according to its population (diversity, density, demographics), local conditions, access to labor and the preferences of its consumers (Martin et al., 2016).

### 3. Proposals and Benefits for the EU and its Member-States

By providing the reader with several proposals, in this unit, the focus will be on the technical issues regarding the implementation of the Vertical Agriculture Project and the potential benefit of its adaptation for both the European Union and its member-states.

#### *Proposals*

While keeping in mind that each member-state (and each region of each member-state), has different needs and possibilities, the main goal is to present to them a basic model so that they can either follow it by the book or make any necessary changes. The final call, though, may be at the discretion of the region or the State.

The buildings may keep their shape as it is though they will obtain a new interior and exterior form. The main goal is to recreate those abandoned/ semi-build/ old houses so that they can become fully functional.

About the energy goal, on the rooftop of each building, there will be placed solar smart-flowers, a kind of photovoltaic that absorbs almost 50% more solar energy than a traditional photovoltaic. In that way, this renewable source of energy could be used in two ways; firstly, to provide the needed energy for the functioning of the building and secondly the rest of it could be used where is necessary, or can be stored for local use (Tatang et al, 2018).

As for the environment goal, in each building, the outer side will be covered with plants from several different species, gaining the so-called vertical agriculture look, while also respecting the biodiversity of each region. This will improve the air quality, will balance out the temperature of the roads and blocks close to it and provide the passengers with a more beautiful sight.

Finally, and more importantly, for the agriculture and food goal, seasonal fruits and vegetables (like tomatoes, lettuce, cucumber, sweet potato and strawberries) are going to be cultivated inside those buildings vertically, using mainly aquaponics. Aquaponics is a combination of hydroponics and fish farming. It only utilizes approximately one tenth of the water that soil-based cultivation does and is a process that does not use pesticides. Certain kinds of fish can be used for that, like tilapia (Al-Kodmany, 2018).

In each building there will be a system to monitor crops, for the convenience of the people who work there and a tank of used water or rainwater, which then passes through a filter system and can be used for the aquaponics. In that way, there will be no extra consumption of the city's water. Lastly, there



will be a feeding system, where a mechanism directs a programmed amount of water and light to the individual crops.

This process will hence give to the EU regions a self-sufficiency boost, producing a great deal of energy on their own while depending on renewable energy sources, and will also give them the opportunity to ameliorate their productivity and provide their residents with jobs as well as selling to the people in need fresh, reasonably priced goods like vegetables, fish and fruits, reaching, thus, the farm to fork goal of Green Deal.

### ***Benefits for the European Union***

Firstly, and more importantly, this project is both preventing a problem and providing a solution while simultaneously creating a new area for the implementation of Green Deal's goals. It is less time consuming than any other project, since it is already fixed while also very adoptable and flexible. It has the potential to be applied almost everywhere.

While also focusing on huge projects and drastic changes, the EU will, at the same time, provide the regions with an opportunity to flourish at a local level, which in fact proves the inclusiveness and adaptability of its climate-neutral goals.

By investing in this project, the EU will also achieve a global goal, combining innovation and the protection of the environment, with a project in such a numerically large scale. Nowadays, proving that she can stay strong and coherent despite the COVID-19 crisis and its aftermath is of vital importance.

### ***Benefits for the Member States***

Since it is only a proposal, member-states and their regions are not in the slightest obliged to accept and continue with it. Nevertheless, it is certain that they will. And that is, because; firstly, there will be a project that is already given as a proposal from the European Commission, which provides the opportunity for every region of every member-state to choose an already created and approved project for as many regions as possible and secondly, the aftermath of this project will only be positive. It will provide the people in need with jobs and food (thus the unemployment rate and poverty will be reduced), and to its citizens a cleaner atmosphere. These buildings could even become an attraction for tourists, boosting even more the local economy. Especially for member-states, such as Poland, that may not be ready for a wide transition just yet, starting with small regional projects could be a great solution for both the EU and the country itself.



## Conclusions

Climate-neutrality by 2050 seems like a huge transition with many variables to consider. Different member-states have different potentials to reach this goal, which may lead to a multi-speed EU problem. Focusing mainly on regions (and in a larger scale member-states) highly dependent on fossil fuels and carbon exploitation, is a very reasonable and yet incredibly complex task, and there is no doubt that will create different layers of development through EU's regions. This policy brief proposed an additional, gentler approach through a small-scaled vertical agriculture project with not as massive impact as those mentioned before, but still with lots of benefits to provide.

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