

From H2020 to Horizon Europe Smooth sailing over troubled waters?

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FIGURE 1: *Source - horizon-eu.eu*

vector 
drug development from bench 2 bedside

From H2020 to Horizon Europe

Smooth sailing over troubled waters?

The early 2020s have been nothing short of demolishing for the world economy. The turn of the decade brought with it a worldwide pandemic and an abrupt stop to the economic growth in most countries. Now, when the world was ready to start over, a severe war has struck Europe, with inflation galore, energy crisis, and several economic and social consequences, which brings a whole new set of challenges for European countries, especially the peripheric ones, such as Portugal.

These are, without a doubt, the most testing times for most, if not all, Portuguese companies, overlapping with institutional transitions that would be challenging on their own. It is important to recall last year's political turmoil, resulting from the Government Yearly Budget being rejected by the Parliament which caused for early

elections. This caused for a big headache for institutions and companies, with the delay of payments in the already approved funding projects and with lots of constraints in the analysis and approval of new projects, which are influenced by a smooth public administration. The major funding programmes, such as Portugal 2020, go through the Government Budget, which means that these constraints can be critical for companies, institutions, and research centres.

In a national perspective, the beginning of the decade marks the passage from the Portugal2020 programme to the new Portugal2030 framework. However, due to all the needs that rose from the pandemic and the war, an intermediary programme was created: the Portuguese Recovery and Resilience Plan (Plano de Recuperação e Resiliência - PRR). This programme will cover the urgent needs for institutions and companies, easing the transition between major funding frameworks.

The fact that a part of the European Funding can be constrained by national bureaucracy means that other types of

funding are of vital importance to soften the impact of financial shortage. This is the case with the European programmes that support research and innovation. The beginning of the 2020's decade also marks the transition between major operational programmes for Research & Innovation, as the H2020 programme closes, and Horizon Europe takes its first steps.

The only way for these less vibrant economies to stay in line with the European average growth is to explore the areas where there is a relative **competitive advantage**.

This is where the Portuguese research and innovation sector takes centre stage.

The early 2020's marks the passing of major funding programmes for the member states. H2020 reaches its deadline, and a new and improved Horizon Europe takes place.

In Portugal, we reach the end of the Portugal2020 programme and are now entering the new Portugal2030 framework, with a transitional Recovery and Resilience Plan taking place.

It is important to mention that the European cooperation and the mechanisms of support and funding from the European Union to the member states are of vital importance, moreover for countries such as Portugal, which still trail the wealthiest nations.

For countries like Portugal, due to the lack of size and resources, it is difficult to compete with the big European companies in the vast majority of production areas.

So, it is necessary to take advantage of areas where the sheer number of resources is not a decisive factor for success. It becomes clear that "catch-up" countries need to make a strong investment in areas such as technological development and research and innova-

-tion. Portugal has a very rich tradition of scientific breakthroughs and technological achievements, supported by “top-notch” Universities, so this is the time to accept that heritage and use it to trail the path of growth that is desired.

With the beginning of Horizon Europe, Portugal has a crucial opportunity to continue the work done with H2020 and keep leveraging its potential, further closing the gap to the European leaders.



FIGURE 2: *Source - evendo*

From H2020 to Horizon Europe

The old Horizon 2020 was the EU's research and innovation funding programme for the period between 2014 and 2020, with a budget of nearly €80 billion. It was the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness.

Now, it is time for a new programme to take place and help Europe sail calmly through these troubled waters. The new Horizon Europe takes place as the funding programme for research and innovation until 2027. It overpasses its predecessor as the biggest European R&I programme ever. With a budget of €95.5 billion, the aim of the programme is to tackle several issues, creating a structured and sustainable environment that will boost the EU's competitiveness and growth.

There are many lines of action in Horizon Europe:

- It addresses climate change, a continuous concern for Europe, that must not be relaxed.
- It is an important instrument that helps to achieve the UN's Sustainable Development Goals.
- It creates jobs and fully engages the EU's talent pool, which is a major objective for countries such as Portugal, where there is a very high number of qualified workers that are either unemployed or working outside of their field of expertise.

- It will boost economic growth, promoting industrial competitiveness and optimizing investment impact within a strengthened European Research Area.
- It facilitates collaboration and strengthens the impact of research and innovation in developing, supporting, and implementing EU policies while addressing global challenges. It motivates creating and better dispersing of excellent knowledge and technologies.

The structure of the programmes has changed slightly, with the concern of addressing new issues, namely technology and social issues.

The transition from H2020 to Horizon Europe means that new elements have been added to the European process of funding:

- European Innovation Council: Support for innovations with potential breakthrough and disruptive nature with scale-up potential that may be too risky for private investors. This is 70% of the budget earmarked for SMEs.
- Missions: Sets of measures to achieve bold, inspirational, and measurable goals within a set timeframe. There are 5 main mission areas as part of Horizon Europe.

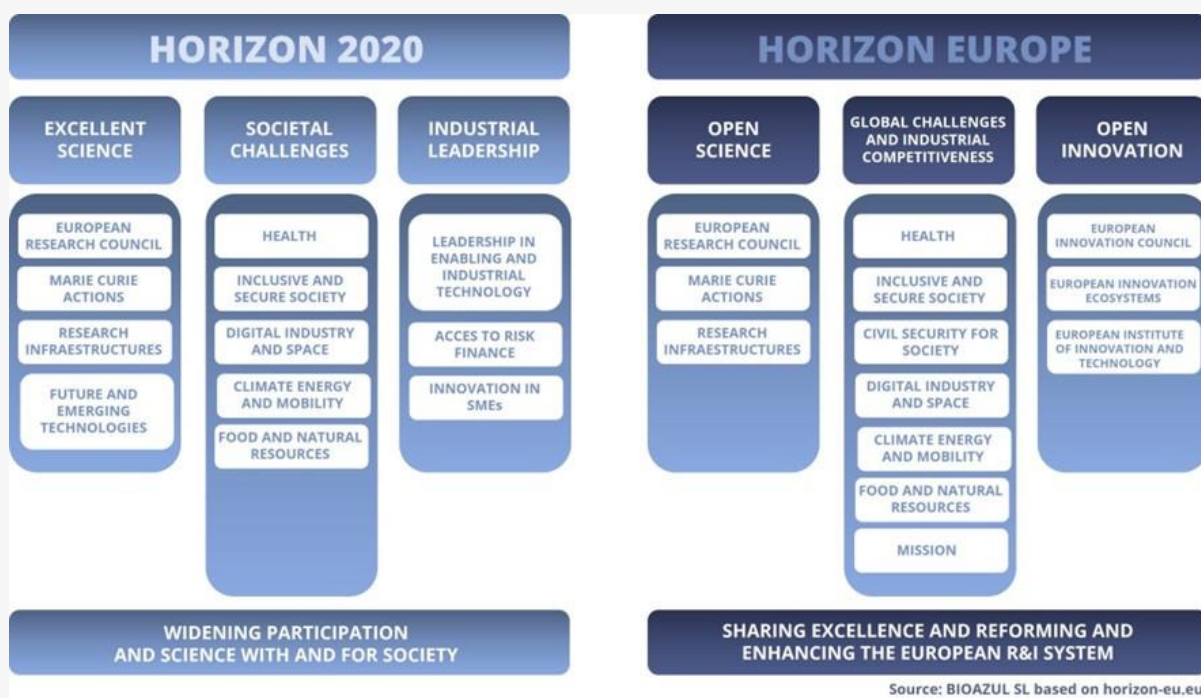


FIGURE 3: Source - horizon-eu.eu

- Open science policy: Mandatory open access to publications and open science principles are applied throughout the programme
- New approach to partnerships: Objective-driven and more ambitious partnerships with industry in support of EU policy objectives



FIGURE 4: Source - horizon-eu.eu

As we have said, these funds are vital for less vibrant economies such as the Portuguese one and, without them, it would be very hard for these countries to catch up with the fastest-growing countries in Europe.

These funds are particularly important for Portugal, as the country has a very high potential in terms of scientific and technological research. Through the Research Innovation Strategies for Smart Specialization, the country's potential can be unleashed, making the most use of its resources and know-how and investing in them, without worrying about taking money and resources from the sectors of the society that need them the most.

Associations such as VectorB2B are at the forefront of the Portuguese scientific and medical research sector. VectorB2B is a clear example of the top tier services that our country offers to the world, contributing to Portugal's affirmation as a cutting-edge service provider, in an ever-changing world. Specifically, VectorB2B gathers the scattered capabilities of the Portuguese scientific research sector, leading to the accumulation of know-how and the increase in R&D competitiveness internationally, a cornerstone of the Euro-

It is not just about giving money to the governments and companies of these countries but to assure that there is a concrete strategy and that the funding truly helps the countries explore their economic specializations and maximize their growth.

-pean Strategy for countries like Portugal.

As a collaborative laboratory to whom was granted funding from the Portugal 2020 and PRR operational programmes, VectorB2B is the embodiment of the spirit within the whole European Strategy, with a clear emphasis on highly qualified human resources, not just scientific, but in all the other company departments.

Starting up in such a demanding area as biotechnology research is extremely hard, which makes European funding a very important part of the project implementation. These funds are critical for the kick-start of companies like VectorB2B, creating the foundations for an effective employment of these highly qualified workers. In the future, such companies will have their full financial independence, while occupying a relevant position in the Portuguese medical research sector and in the national economy as well, contributing to improve the country's image to the world.

With this strategy, the European Union guarantees that each countries' specific advantages are explored in the most efficient way and that companies, in smaller countries such as Portugal, can compete with their counterparts in more developed countries.

References

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VectorB2B - Drug Development

VectorB2B provides highly qualified services of drug discovery and development from the bench to bedside (B2B). It gathers the scattered capacities of the academic and industrial shareholders in the pharmaceutical sector to provide integrated services in drug discovery and screening, project design and implementation, pre-clinical and clinical scientific management, process development, and contract manufacturing (GMP). The stakeholders are a strong and complementary set of academic partners and pharmaceutical companies renowned in the health sector in Portugal. Together, we form a robust asset of knowledge and innovation.