



EUROPEAN POLICYBRIEF



FLAGSHIP

Forward Looking Tools and Methods for Answering Major Societal Challenges

Beyond Perseverance: Challenges to and policies towards a metamorphosis scenario in Europe

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C. Alcidi, CEPS & C. Sessa, A. Ricci, ISIS

1. INTRODUCTION

This is the last of five policy briefs produced in the framework of the FLAGSHIP project. It summarises the project's key insights into Grand Societal Challenges (GSC) from a policy-relevant point of view. To this end, the brief draws heavily on previous policy briefs and also reflects the evolution of the project's concept and findings. As such, the paper combines stylised findings from models on economic and environmental dynamics and an analysis of global-legal and local governance under two different visions of the future of Europe, driven by contrasting paradigms.

The first vision, called *Perseverance*, is driven by mainstream conventional thinking based on projections of current trends. In this vision, GDP growth is the main concern of decision-makers and policies tend to be reactive rather than aim to anticipate and affect change from the outset. The second vision, *Metamorphosis*, is bolder and more normative in nature. It assumes that a fundamental and systemic change is needed to build a future that is more just, environmentally healthy and generally more legitimate. In this vision, the well-being of citizens and a greater democratisation of the system (including politics, information, knowledge, capital ownership etc.) are the main goals of policy-makers who try to anticipate future challenges and aim to influence emerging trends.

The *Metamorphosis* vision implies going beyond GDP as the main target of policy but does not imply that GDP will no longer be relevant: GDP will be just one of the policy objectives, and not necessarily the most important one. The EU's objectives of smart and inclusive growth will remain relevant, but under the metamorphosis scenario their realisation is driven by radical shifts in preferences and policies.

Moving towards a metamorphosis vision requires timely and appropriate policy initiatives to address society, energy and the environment, economy and finance, technology and

governance challenges. In order to develop an appropriate strategic approach, the nature of the challenges and the trends underpinning them must be well understood. Facing such challenges may require adapting to change, mitigating its effects and shaping a new socio-economic and political system to meet the needs and expectations of citizens. There are a number of pre-conditions to building a system that is more legitimate and hence more resilient.

In a context that combines complex and changing geopolitical landscapes, the risk of secular stagnation in advanced economies and policy responses driven by short-term priorities and populist reasoning, what is required is a balance between realism and ambition. To achieve this balance, the alternative futures of the FLAGSHIP project aim to inspire decision-makers and society at large.

The project argues that the vision that will prevail in the long term depends on policy actions taken now at the EU and global level. It also depends on how society evolves; the acceptance of certain values and changes in the behaviour of individuals and communities. These factors, which are not fully under the control of policy-makers, are sufficiently powerful to trigger dramatic and disruptive transformations.

This policy brief briefly presents the main features of the two (qualitative) visions; summarises the key findings from the modelling exercises that aimed to quantify the impact of the two different visions on the economy and on the environment; identifies areas where transformative dynamics could emerge and either favour or inhibit certain future scenarios; and describes how the different levels of governance can help to improve the legitimacy of the governing system. Particular attention is paid to how EU governance can evolve and the risks that could inhibit further integration. Conclusions on key policy challenges and options are then offered.

2. TWO VISIONS OF THE FUTURE: PERSEVERANCE AND METAMORPHOSIS

This section gives an overview of the conceptual framework surrounding the two visions used in FLAGSHIP. This framework, based on the futures technique known as the 'Three Horizons Model'¹ connects the present with desired futures, and helps to identify the divergences that may emerge as result of a trade-off between the present and these imagined futures.

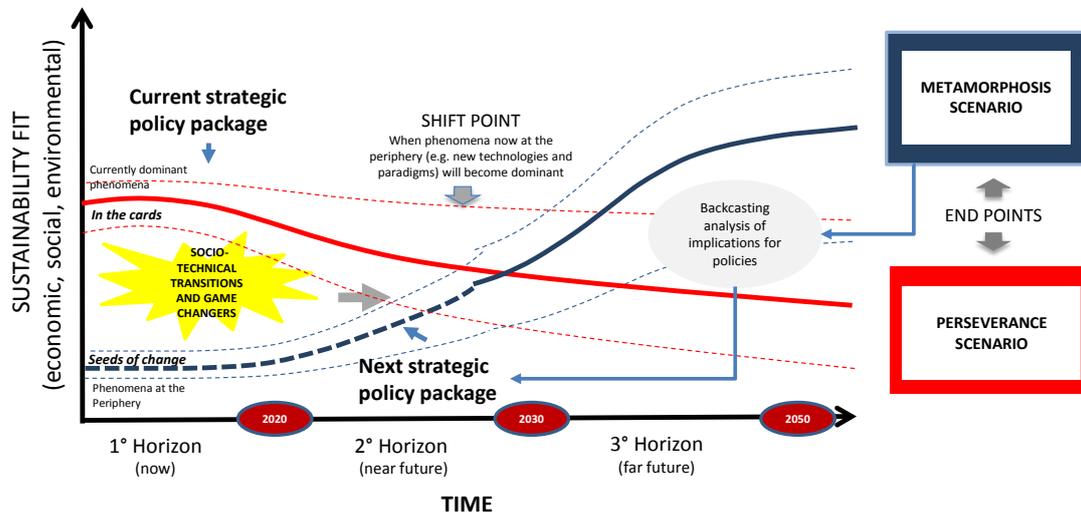
Figure 1 illustrates the application of this technique to the FLAGSHIP framework and represents, in a qualitative fashion, the time pattern of the two visions, *Perseverance* and *Metamorphosis*, according to their fit with the strategic objectives. The plot is conceptual, not empirical, and the sustainability fit can be interpreted as a kind of composite measurement of the achievement of economic, environmental and social goals. The sustainability yardstick is represented on the vertical axis of the diagram below, which shows the unfolding of time over three horizons along the horizontal axis: i) the imminent future where current paradigms and policies prevail (until 2020); ii) the medium-term (2020-30) future when different options are open and new paradigms may emerge to make the third horizon change happen, where current conflicts and challenges can be solved – or at least evolve – , new strategies and policies be implemented, and the whole context of society may be shaped in new directions. In a nutshell, it is the space in which new future outcomes can be enabled by policy or social changes, where game changers may show their effects and new paradigms emerge as dominant elements of the landscape (shift point); iii) the distant future (until 2050), when new outcomes can emerge if current phenomena at the periphery – 'weak signals' – grow and become wider drivers of change, delivering radical transformations and paradigm shifts in the long term. The

¹ The section is mostly based on excerpts from the seminal paper of Curry, A., Hodgson, A., (2008), "Seeing in Multiple Horizons: Connecting Futures to Strategy", *Journal of Future Studies*, August 2008, 13(1): 1-20.

'metamorphosis' outcome may eventually deliver the best fit to sustainable goals in the year 2050 (the dark blue line).

Figure 1. The three horizon conceptual framework

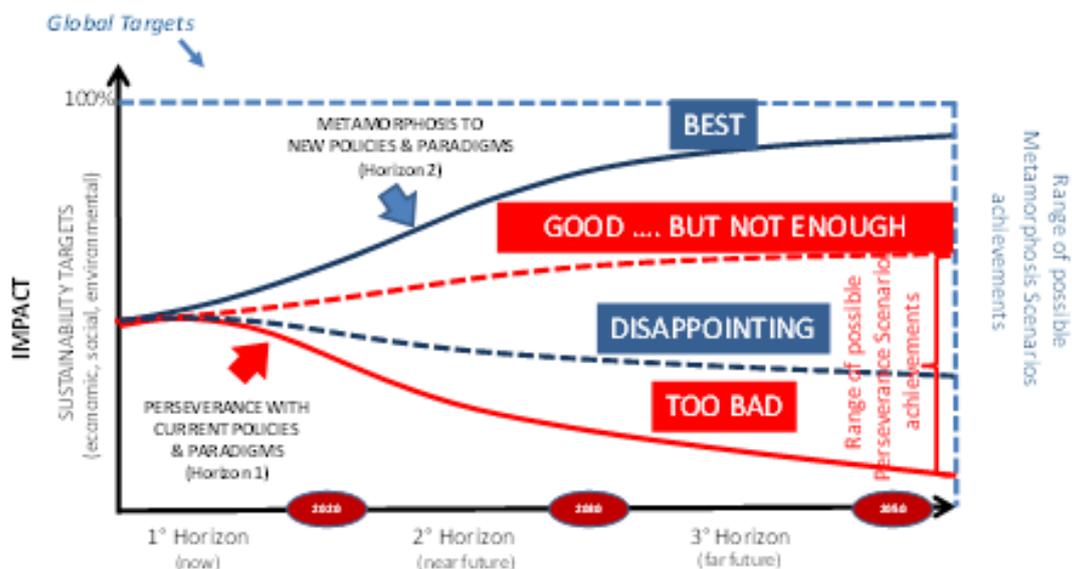
FORWARD LOOKING FRAMEWORK – THREE HORIZONS FRAMEWORK PLOT



Source: Own elaboration.

Figure 2 shows the range of impacts expected for the two scenarios. The overall sustainability-fit achievements for the metamorphosis scenarios is deemed to be higher than what can be expected from the perseverance scenarios. However, the metamorphosis outcomes may prove to be 'disappointing', i.e. achieving a lower sustainability fit than that achieved in the best perseverance scenario case. The latter would deliver a positive outcome, but still not enough if compared to what may be achieved in the best metamorphosis scenario. This reflects high degree of uncertainty around the specific patterns which can materialize as combination of many drivers within each of the visions. It is important to note that here we are only speculating on ranges of expected impacts for the two scenarios, without considering the expected costs of policies and interventions that the scenarios would entail.

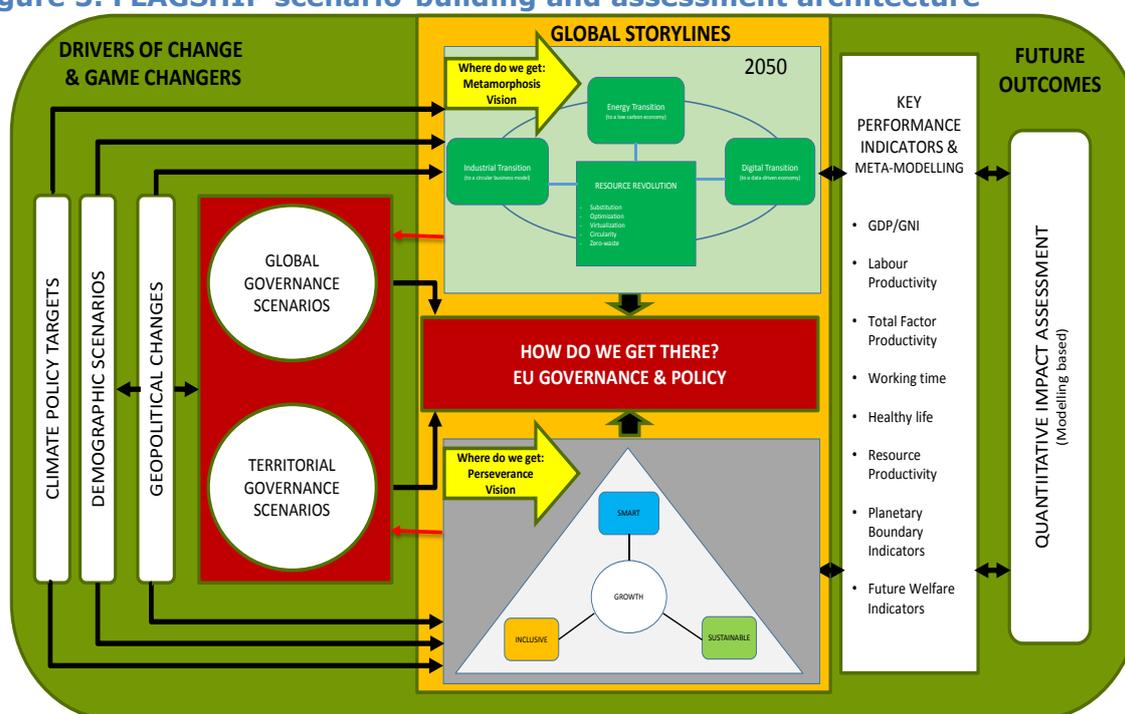
Figure 2. Scenarios Impact Plat (global targets achievement)



Source: Own elaboration.

This conceptual framework has been applied to the architecture of the scenarios and their assessment, as illustrated in Figure 3.

Figure 3. FLAGSHIP scenario-building and assessment architecture



Source: Own elaboration.

Reading the diagram from left to right, the whole framework considers:

- **Drivers of change and game changers** – encompassing climate policy targets, demographic trends, geopolitical transitions and wild cards - and how these might shape the perseverance and metamorphosis visions. Geopolitical changes and wild cards are also assumed to influence, on the one hand, the demographic scenarios – especially migration patterns affecting Europe – and, on the other hand, the governance scenarios.
- **Global and territorial governance scenarios** that describe alternative institutional framework conditions prevailing, respectively, in the global arena and within the European Union. The global and territorial governance scenarios are assumed to be somehow influenced and shaped differently in the perseverance and metamorphosis scenarios (backward red arrows) and they in turn affect the evolution of the governance of the EU itself (forward black arrows). These are, respectively, the Union’s external functions and the multi-level governance of matters within the Union, and the feasibility and effectiveness of different EU policy options and strategies for the 2020-30 horizon.
- **Two global visions, perseverance and metamorphosis**, and how they are evaluated in terms of different future outcomes, analysed both through a ‘light’ meta-modelling of Key Performance Indicators, and in more depth through the FLAGSHIP modelling-based quantitative assessment of socio-economic and environmental impacts.
- **Back-casting approach (‘how do we get there?’)** to identify which strategic EU policy decisions would be helpful to shape Europe’s trajectory towards the two alternative visions: continuing on the existing pathway (*Perseverance* vision) or shifting towards a new paradigm (*Metamorphosis* vision)?

The assumption underpinning the whole exercise is that both visions aim at a sustainable development of Europe in the context of a sustainable global economy. But the *Perseverance* pathway is likely to prove unfit for purpose because of certain features inherent in the current system. Risks of collapse and failure will emerge over time – more markedly so after 2020. The quest for a system that best fits the sustainability target will become more urgent as the disappointment of citizens turns to outright rejection of the system. This is the time for policy action to anticipate new challenges and drive change towards a new paradigm that can produce a better system. These policies are different from responding to challenges through quick fixes and ad hoc solutions.

The FLAGSHIP project starts from a reflection about key societal challenges and why the current paradigm, as well the socio-economic and political system, are unlikely to address them in a satisfactory way. The analysis of the *Perseverance* vision aims to identify the specific features of the current system along with weaknesses in the policy approach. In the exercise the quantitative models are key to identifying the assumptions and the way the system operates. The findings of this part of the project are the basis for the *Metamorphosis* vision, which is normative in nature. Policy implications and guidelines are drawn accordingly, i.e. what should be done to undertake a pattern which better meets the expectations and needs of citizens and is environmentally, economically and socially sustainable? As will be shown below, given the constraints imposed by fast-evolving technology and its social impacts, and the geopolitical changes in an increasingly multipolar world, this requires dramatic change that goes well beyond policy.

3. WHY PERSEVERANCE WILL NOT BE ENOUGH

The global *Perseverance* vision is likely to be unfit for purpose because the current policy paradigm either fails to respond satisfactorily to key challenges or to take them into consideration in the first place, and this is becoming clear to most observers. Failure to address the challenges posed by an ageing society; persistent low GDP growth and high structural unemployment; increasing inequality and the transformations introduced by technology into all aspects of life; also, following the current approach will lead to a system that is less and less legitimate, with results that are at best mediocre.

According to neo-classical growth theory, where GDP growth is the main variable of interest, three factors of production, namely capital, labour and total factor productivity, are at play. When combined with a flexible structure of the economy, where factors are mobile and trade intense, they are expected to generate growth, employment and broad economic stability, which results in social and political stability. The reality is that structural problems exist in each of the factors and this prevents such a combination from delivering the expected stability.²

The accumulation of physical **capital** is likely to decline across the world because of population trends, the shift in production from manufacturing to services and technological changes. Such trends will not only characterise advanced economies but emerging economies too, especially China where the investment-output ratio is already unsustainably high.

On the one hand, the **working-age** population is declining in most advanced countries and in order to compensate for it European countries need to attract millions of additional migrants from other continents. But a smooth immigration and migrants' integration process should be in place, while the refugee crisis has shown that this is both politically and socially problematic, and economically may take a long time to deliver. The shrinking working age can be partially offset by an increasing **labour** market participation rate, especially among women and the elderly, but it would not be able to fully compensate for the labour shortage caused by population decline. On the other hand, in many countries,

² See Flagship Policy Brief October 2014 for a more extensive discussion of such disruptive dynamics.

the economic and production system seems unable to absorb existing labour supply, resulting in high unemployment, especially among the young. This may be due to problems of skill-matching, among other factors.

Until recently, **technology** has been seen as a tool to improve living standards, to reduce costs and boost productivity, hence cementing or promoting a country's position on the technology frontier. But pessimism is creeping into many people's understanding of the impact of certain innovations. The fundamental proposition of economic theory, according to which technology enhances labour and productivity, is turning into a fear that technology is making labour redundant. As information technology creeps into occupations that have always relied on intellectual skills, many jobs are now under threat. The share of income taken by workers has been shrinking around the world while corporate profits have made up the largest ever share of national income. This seems to signify that something structural is happening to the economy and that the capital share could continue to increase.

One implication of this phenomenon is that technology is playing a role in widening the income gap between the tech-savvy and others. Even if the economy is only going through one of its 'natural transitions', it is an extremely painful one for many workers, and one that will have to be addressed somehow.

Free movement of capital and goods and services and rising international economic integration, or **globalisation**, has brought many opportunities. Firms have been able to enter new and expanding markets and access new sources of finance and technology. Consumers have been able to access a greater variety of goods at lower prices. This has opened up the prospect of significant gains. The European Commission estimates that about one-fifth of the increase in EU-15 living standards over the past 50 years is attributable to integration of the world economy.³ Between 1980 and 2002 global trade tripled while global output only doubled.⁴ Historically, this is exceptional and unlikely to persist. The globalisation of trade is expected to slow down as some of its main driving factors, such as China's expansion, falling trade barriers and transport costs, are exhausted.⁵ But there are other factors that could slow down globalisation and move towards a different system of production and consumption.

Since the crisis, public opinion has tended to associate globalisation with job losses, downward pressures on wages and the deterioration of working conditions. These views are based on fears that increased competition from countries with lower labour costs and no employment protection puts excessive pressure on local producers and workers, and may lead to the relocation of factories abroad and unemployment. While these concerns are not new, they have increased with the rapid rise of China and India on the world trading scene, but also with the widespread use of information technologies that reduce the need for labour input and erode the boundaries between what can and cannot be traded.

Such transformations have led to a process of adjustment that entails a shift of production factors, such as capital from activities, firms and regions that cannot withstand the increased pressure of competition towards those that can benefit from it.

Even if there is no evidence that globalisation has been associated with employment losses at global level, the adjustment of economic structures has costs that are unevenly distributed across firms, activities and regions. In this process mature economies are likely to carry most of the burden due to more rigid labour, capital and product markets. This

³ http://ec.europa.eu/economy_finance/international/globalisation/index_en.htm

⁴ Dean and Sebastia-Barriel (2004) "Why has world trade grown faster than world output?" In http://www.econ.brown.edu/fac/Mark_Dean/Other_Paper_1.pdf,

⁵ See Alcidi and Gros (2013), The Global Economy in 2030: Trends and Strategies for Europe, <http://europa.eu/espas/pdf/espas-report-economy.pdf>

means that in these regions globalisation may increasingly be seen as responsible for growing numbers of 'losers' in society.

Inequality has grown in recent decades in most countries, in both emerging and advanced economies.⁶ In the US this results in a shrinking middle class, which is considered by many to be a major threat to future economic growth and political stability in the country. Indeed, in the unstable political environment that can be created by high income-inequality, investment is discouraged by a higher risk of expropriation and voters' preferences for more re-distributional policies. Ultimately, this can degenerate into violent conflicts. It is no accident that after World War II it was accepted that workers' rights needed to be protected, wage and labour conditions improved, and a welfare state created to redistribute wealth. The rise of the social-welfare state was a response (often in market-oriented democracies) to the threat of popular revolution, populism and communism. From the late 1940s to the mid-1970s – a period of relative social and economic stability – inequality fell sharply and median incomes grew rapidly. This lesson was forgotten by the 1980s and the model that has emerged since then has failed. Any economic model that does not properly address inequality will eventually face a crisis of legitimacy. This requires rebalancing the relative role of the market and the state. Otherwise discontent and unrest grow and social and political instability eventually damage long-term prosperity and welfare.

Falling transport and communications costs, on the one hand, and liberalising economic policies, on the other, have been among the main drivers of globalisation and have had several unintended consequences. One of these is limiting the ability of the traditional **nation state** to exert **sovereignty**; a natural reflection of democratic systems. In the countries with the most advanced and internationally integrated economies, governments' ability to tax and redistribute incomes, regulate the economy, and monitor the activity of their citizens has become more difficult. Collecting taxes is becoming harder due to a long list of factors undermining the foundations of taxation regimes: cross-border shopping; the increased mobility of skilled labour; the growth of electronic commerce; the development of new financial instruments and intermediaries growing trade within multinational companies; and the possible replacement of bank accounts with electronic money, but also new forms of collaborative economy.

The combination of economic liberalisation, globalisation and technology advances is making taxation significantly more challenging. Taxes on spending may have to be partially recast. The taxation of corporate profits may have to be radically redesigned to be effective. Finally, the ability of governments to impose taxes that bear no relation to the benefits provided may be more constrained than before.

One consequence of this is that redistributive policy is more difficult to enact, thereby reducing government instruments to address citizens' discontent. This is in a context in which fiscal restraint is an important priority in many advanced and developing economies, particularly in Europe. The euro-area crisis has exposed serious shortcomings in the EU's ability to deliver results in line with citizens' expectations in terms of prosperity and response to crisis. As providing for more opportunities and prosperity has always been the EU's main source of legitimacy, this poses an existential problem for the EU.

Assuming that the status quo is not sustainable, increasing and overwhelming anti-European and anti-establishment parties could jeopardise the European project and, more generally, the peace and stability of the region.

In this scenario persevering only with a traditional policy approach is likely to lead to disappointment, as the power of some traditional policy tools appears exhausted and solutions are ineffective vis-à-vis economic, societal and political trends that are difficult to control or revert.

⁶ See among other <http://www.imf.org/external/np/fad/inequality/>

In this gloomy scenario transformative dynamics could still emerge that favour less negative outcomes. This will require dramatic changes at all levels, however. Policy alone will not be enough for such a radical transformation. A truly new system requires a shift in individuals' behaviour and preferences. This can be driven by push factors developing with societal dynamics; a new production system and awareness of environmental and societal issues, which are not completely within the control of policy-makers.

4. WHAT THE MODELS SAY

One of the main ambitions of the FLAGSHIP Project is to combine quantitative analysis based on a set of models with the elaboration of qualitative storylines of possible futures.⁷ The quantitative modelling exercises have focussed on two of the grand societal challenges: the economic and environmental challenges including their linkages to technology, demographics, energy developments and the impact on climate change.

One of the features of the FLAGSHIP set-up is that the two scenarios generated by the models, as the two visions of the project, are "additive" rather than fully alternative. They both aim at achieving improvements in terms of economic, environmental and social sustainability for the European Union and at global level. The key difference is that the metamorphosis scenario is normative (desirable) in nature and meant to add new features and opportunities that are conducive to a better sustainability fit and hence result in a system that is more legitimate and resilient.

This exercise entails two degrees of complexity. Beyond the difficulties encountered in any forecast exercise in generating projections for a distant future, a key feature of FLAGSHIP project is that the Metamorphosis scenario is defined and characterised in a highly qualitative fashion, and adds new phenomena that are not observable or measurable. This starkly contrasts with the fact that models need quantitative inputs. Another difficulty relates to the fact that in order to generate projections, models rely on key trends observed in the past and key fixed relations (equations). The global financial crisis and the euro-area crisis on the one hand and the likelihood that we are leaving an era of rapid and large technological change, on the other, may imply that past trends will be of limited guidance for imagining the future. Given this limits, the models have first generated a perseverance scenario, which is based on the continuation of existing paradigms and policies. Besides predictive forecasting and its likelihood, the exercise allows us to understand what is needed in terms of policies and changes in key drivers in order to achieve a certain outcome (through back-casting reasoning) or why certain outcomes are disappointing.

A general conclusion from the Perseverance scenario is that the underlying paradigm has inherent limits to further economic, social and environmental development which reduce the room of improvement through policies.

The findings of the two models⁸ lead to two sets of recommendations, which are closely interlinked. First, while R&D policies are important, they will not be sufficient on their own to increase employment and generate prosperity at large. Boosting productivity but also improving social inclusion and being able to reap the full benefits of the knowledge economy requires a more holistic approach to technological innovation that goes beyond R&D spending. This approach should include development of ICT and of intangible capital,

⁷ The project also includes a meta-modelling approach to bridge the quantitative and qualitative counterparts of the scenario-building exercise.

⁸ See for the economy B. Boitier, A. Fougeyrollas, B. Le Hir, P. Le Mouel and P. Zagame (2015), "New innovation mechanisms: Introducing ICT and intangible capital into the NEMESIS model", FLAGSHIP Project Working Paper D2.2, SEURECO-ERASME, and for the environment Computable General Equilibrium model EXIOMOD and the Integrated Assessment Model GCAM (BC3 version), Arto, I., Capellán-Pérez, I., Dhavala, K., González-Eguino, M., Markandya, A., Román, M.V., Husby, T, Chahim, M., Chen, M., Fujiwara, N. (2015). Results of policy simulations and main recommendations. Deliverable 5.3 of the FLAGSHIP Project.

as complementarities and spillovers among them are of crucial importance. A second key finding is that in order to take the economy onto a different path where environmental and social concerns are fully accounted for, a change in preferences and values needs to be assumed. Traditional maximisation of profits for firms and of material consumption for individuals account only for purely monetary objectives, while the advocated changes in preferences point in the direction of including additional (possibly more important) objectives than consumption and profits, as a more realistic expression of welfare for either individuals or firms. Such changes usually take a long time to happen but they are possible and can be accelerated by social and/or technological changes and/or disruptions.

Faced with such changes, on the one hand, the economy will have to adapt to incorporate the new preferences by producing in a more sustainable way and policy-making will have to reflect new demands from citizens. On the other hand, policies can stimulate and even accelerate (through education, campaign of awareness, tax incentives, etc.), or on the contrary slow down, the pace of change. The latter crucially depends on the goals set by policy makers.

In a similar vein, the first key finding of the investigation of the environmental challenge suggests that the metamorphosis scenario can be achieved if policies are sufficiently proactive and anticipatory to cope with the energy transition beyond oil consumption. For this to be possible, GDP growth cannot be the only goal policy makers want to achieve and policies should have a longer time horizon. This would also reflect a shift in preferences.

At the same time, pledges to mitigate climate change will not be enough. Developed countries will have to undertake to finance additional mitigation action in developing countries, and China will have to accept playing a more prominent role.

5. Metamorphosis can lead to a better outcome

The metamorphosis vision builds on insights from the models on the Perseverance scenario and is especially informed by its limits and failures in addressing key challenges. It is based on the idea that the existing production system is unable to generate sufficient employment and fully take into account environmental concerns. More in general, it presumes that the current paradigm combined with continuing technological change is leading to an ever less equal and legitimate system. Building on these considerations, the *Metamorphosis* vision is characterised by two main pillars; the first is a new production and consumption system: **the circular economy and the “resource revolution”**; the second pillar is **the transition of the digital society towards an inclusive model of development**.

Circular economy and resource revolution

The vision assumes a shift in Europe’s industrial system to a circular economy paradigm.

The main feature of the circular economy is that it replaces the key concept of the current production system’s disposability with that of restoration. At its core, it aims to move away from the ‘take, make, and dispose’ system by designing and optimising products for multiple cycles of disassembly and reuse. This starts with materials that are viewed as valuable stock to be re-used, not as elements that flow through the economy once.

The circular economy aims to eradicate waste – not just from manufacturing processes, as lean management aspires to do, but systematically, throughout the various life cycles and uses of products and their components. Moreover, a circular system introduces a strict differentiation between a product’s consumable and durable components. In a circular economy, the goal for consumables is to use non-toxic and pure components, so they can eventually be returned to the biosphere, where they could have a replenishing effect. The goal for durable components (metals and most plastics, for instance) is to reuse or upgrade them for other productive applications through as many cycles as possible. Europe needs

to reconstruct its industrial system by adopting a circular business model in all sectors, and by becoming the world leader in this respect.

This approach contrasts sharply with the mind-set embedded in most of today's industrial operations, where even the terminology: value chain, supply chain, end user, expresses a linear view. Since restoration is the default assumption in a circular economy, the role of consumer is replaced by that of user. For companies, this change requires a different way of thinking about their implicit contract with customers. For example, in a buy-and-consume economy, the goal is to sell a product. In a circular economy, the aspiration might be to rent it out to ensure that its materials are returned for reuse. Where products must be sold, companies would create incentives to guarantee their return and reuse.

According to Heck and Rogers (2014)⁹, the circular business model is at the core of the so-called 'resource revolution' formula, which: i) combines information technology, nanoscale-materials science and biology with industrial technology, yielding substantial productivity increases; ii) achieves high-productivity economic growth in the developing world to support the 2.5 billion new members of the middle class; iii) requires new policy and business management approaches to capturing such opportunities; iv) reduces the current resource and sustainability constraints, spreading a new model of circular economy; v) reduces the current social tensions, creating new labour-intensive activities and job opportunities. The job creation potential, also in entry-level and semi-skilled jobs, is one distinctive feature of the circular economy, and it is also what makes the resource revolution concept more attractive from the societal perspective, as it is inherently and deeply inclusive. Indeed, the key engine of the circular economy is resource savings innovation as opposed to smart growth scenarios, where conventional industrial profit-making strategies at the expense of labour inputs are the dominant business strategy.¹⁰ The 'resource revolution' will be achieved through five distinct approaches, either individually or in some combination:

- Substitution: replace scarce materials with less scarce, high-performing materials
- Optimisation: embed intelligent software in industry and service processes
- Virtualisation: move processes out of the physical world or simply not do things
- Circularity: find value in products after their initial use
- Waste elimination: achieved by means of lean production design innovation

It is a huge challenge to integrate the five 'resource revolution' and drivers/mechanisms presented so far into a systemic transformation of the way companies, consumers – and policy-makers and investors – operate, organise and behave.

The *Metamorphosis* vision can be achieved if the challenge is tackled by accelerating the transition to a circular economy in a timescale consistent with the response to climate change, water scarcity and other global challenges. Smart regulation is enacted to reward private-sector leadership and align incentives along the supply chain – e.g. to deliver a step-change in remanufacturing rates.

Measuring progress towards a circular economy will involve a much more detailed mapping of how resources move within the economy than currently and tracking both resources

⁹ S. Heck, M. Rogers, Are you ready for resource revolution, McKinsey Quarterly, March 2014

¹⁰ To put this in context, think back to Adam Smith's "The Wealth of Nations" (1776), which identified three primary business inputs: labour, capital, and land (defined broadly as any resource that can be produced or mined from land or disposed of as waste on it). The two industrial revolutions the world has thus far seen focused primarily on labour and capital. The first gave us factories and limited liability corporations to drive growth at scale. The second, from the late 1800s to the early 1900s, added petroleum, the electric grid, the assembly line, cars, and skyscrapers with elevators and air conditioning, and it created scientific management, thus enabling corporate globalisation. But neither revolution focused on Smith's third input: land and natural resources. The new resource revolution industrialisation will be mostly based on exploiting resource-saving technologies.

and value flows. This may enable the use in the standard national accounting systems of 'resource intensity' indicators and targets.¹¹

Moreover, it is important to note that some of the resource revolution mechanisms may have a controversial impact on GDP growth. Substitution, optimisation, virtualisation, and circularity may easily cause a reduction of progress in the short term as measured conventionally by means of GDP – at least as long as the new circular business models imply a reduction of traditional products sold on the market, only partially compensated by the market value of new services and intangible products (e.g. the substitution of cars with car-sharing services). This means that in the 'global metamorphosis' storyline a primary innovation comes to reform the way in which society measures future progress, and the indicator – or rather the set of indicators and targets – to which the macro-economic and societal policies will have to be anchored.¹²

This links to another crucial aspect: the quality of institutions. One of the risks is that only advanced societies where the quality of institutions is high in terms of rule of law, transparency, freedom and democratic support will be able to promote information and awareness that can make such a radical change possible and successful. In the end, the production system is itself an institution, whose functioning depends on the features and functioning of other institutions. This means that policies have to be conceived in a broad and systemic context.

Transition of the digital society towards an inclusive model of development

The second pillar of the global *Metamorphosis* vision looks at the potential positive impact of information technology from another angle: the opportunity to shape the transition to a digital economy towards a new model of inclusive development, reducing the growing inequalities and not only the consumption of natural resources and release of waste in the environment.

"The information society", writes the philosopher Luciano Floridi, "has been brought about by the faster growing technology in the history. No previous generation has ever been exposed to such an extraordinary acceleration of technical power over reality, with corresponding social changes and ethical responsibilities."¹³ The increase in computer power eventually:

- Enabled a complex global finance system, underpinning the growth of the money supply as digital systems replaced the need for cash.
- Enabled the physical re-distribution of production and supply to the emerging markets, where labour was cheap.
- De-skilled the engineering worker, made the labour of semi-skilled workers redundant and accelerated the growth of low-skilled service work.

The disruptive effects of the information society are all increasingly visible around us. According to P. Mason (2015),¹⁴ recognizing that since the mid-1990s a revolution in the way we process, store and communicate information has created the beginnings of a network economy, the key insight is that the same info-tech revolution has started to corrode the traditional market exchange foundations in the following ways:

- It corrodes the price mechanism for digital goods, as understood by mainstream economics, by pushing the cost of reproducing information goods towards zero.

¹¹ Slower resource flows – with very durable products – might have a lower environmental impact in the short term, but faster flows might enable growth and encourage green innovation.

¹² The issue here is not substituting the current 'totemic' GDP, labour productivity and total factor productivity indicators, rather complementing them with – and giving more emphasis to – resource efficiency indicators, because achieving resource efficiency is the key profit-making driver of the circular business model, and new welfare and intangible benefit indicators (also for future generations), because quality of life and well-being is increasingly achieved through the consumption of immaterial goods and services.

¹³ L. Floridi, *The Philosophy of Information*, Oxford 2011, p.4, quoted in P. Mason, *PostCapitalism, A Guide to Our Future*, Penguin Books, 2015

¹⁴ P. Mason, *PostCapitalism, A Guide to Our Future*, Penguin Books, 2015

- It adds a high information content to physical goods, sucking them into the same zero-price vortex as pure information goods – and often making their value dependent more on socially created ideas (the brand) rather than the physical cost of production.
- It is in the process of revolutionizing the productivity of physical things, processes and energy grids, as machine-to-machine internet connections begin to outnumber person-to-person links.

If information corrodes value, then corporations are responding with “survival” strategies, encompassing the creation of monopolies on information, the vigorous defense of intellectual property, and the attempt to capture and exploit socially produced information such as consumer data. However, alongside corporate responses, we are seeing the rise of non-market production: horizontally distributed peer-production networks that are not centrally managed, producing goods that are either completely free, or which – being Open Source – have very limited commercial value.

Moreover, the rapid change in technology is altering the nature of work, blurring the distinction between work and leisure and requiring us to participate in the creation of value across our whole lives, not just in the workplace.

Technologically, we are headed for zero-price goods, unmeasurable work, an exponential takeoff in productivity and the extensive automation of physical processes. Socially, we are trapped in a world of monopolies, inefficiency, the ruins of a finance-dominated free market and a proliferation of precarious jobs. As an “out of the box” vision to sort out from this, it is possible to imagine a transition to a “zero society” wider than the zero-waste society – because it aims towards a zero-carbon energy system, the production of machines, products and services with zero marginal costs, and the reduction of necessary labor time as close as possible to zero.¹⁵ The top level aims of such new model of society should combine:

- Rapidly reduce carbon emission so that the world is warmed by only two degrees Celsius by 2050, prevent energy crisis and mitigate the chaos caused by climate events.
- Stabilize the finance system between now and 2050 by socializing it, so that ageing populations, climate change and the debt overhang do not combine to detonate a new boom-bust cycle and destroy the world economy.
- Deliver high levels of material prosperity and wellbeing to the majority of people, primarily by prioritizing information-rich technologies towards solving major societal challenges, such as ill health, welfare dependency, gender exploitation and poor education.
- Gear technology towards the reduction of necessary work to promote the rapid transition towards an automated economy. Eventually, work becomes voluntary, basic commodities and public services are free, and economic management becomes primarily an issue of energy and resources, not capital and labor.¹⁶

To promote the transition, we need a decisive turn to collaborative business models. They, too, have to evolve, however. It is not enough for them to be just non-profit business; the inclusive model of the co-op would try to expand the non-market, non-money based activity against the baseline of market activity it starts from. What is really needed for an inclusive model of development to thrive are co-ops where the legal form is backed up by a real, collaborative form of production or consumption, with clear social outcomes achieved by non-profit as well as for profit firms. There can be indeed profitable peer-to-peer lenders, cab companies and holiday rental firms, for example, but they would have to operate under regulations that limited their ability to contribute to social injustice.

¹⁵ Again this vision is proposed in P. Mason (2015)

¹⁶ P. Mason, op. cit., p. 269-270

This pillar of the Metamorphosis vision is currently far from the mainstream economic thinking. The basic idea is that humanity need to cooperate, not struggle against technology-enabled automation. Once exponential technological change cascades over from silicon chips to food, clothing, transport systems and healthcare, then the reproduction costs of labour-power is going to shrink dramatically. At this point, the economic problem that has defined human history will shrink or disappear. At the end of the day, all we are trying to do is move as much of human activity as possible into a phase where the labour that is necessary to support very rich and complex human life on the planet falls, and the amount of free time grows. And in the process, the division between the two gets even more blurred.

As a matter of fact, technological change has been the most overwhelming transformation of recent decades, affecting every aspect of individuals' lives and institutions in general. The financial system, media, nation states, universities and schools, governments, democracy, work, science, health care, energy and transport, have all been radically affected by technological change which is posing huge challenges to their way of functioning and their effectiveness. In this transformation, technology has empowered a few talented individuals and digital conglomerates, while dislocating labour markets defined by old industries and skills, making many workers long-term unemployed. This has resulted in a severe bipolarisation of wealth. Far from pushing up wages across the board, globalisation and the digital economy have been keeping them flat while rewarding few controlling technologies and capital accumulation.¹⁷

The question is whether the digital economy can offer widespread prosperity, making a model of inclusive development a real outcome. Some argue that the block-chain (the complex technology behind the bitcoin) when scaled up can lead to a new, second wave of internet with extremely disruptive effects for the current structure. Indeed, one of the features of this new system is that intermediaries, i.e. platforms gathering all those who by concentrating information manage to attract the gains, become unnecessary and are eliminated. This implies that the returns on the value created remain where it is created; it is not transferred to the intermediaries that control specific aspects of innovations. As an example, in the different forms of collaborative economy, a large part of the gains from the sharing of things and services accrue to and are concentrated in the few companies managing the applications and centralising the information. As information is decentralised in very large networks gains are also decentralized, reducing the need for ex-post redistribution.

Of course, in such a context the role of state and governments is reduced drastically. The enforcement of contracts and security relies on other mechanisms than law and regulation.¹⁸

Finally, the fruits of technological change and increased labour productivity should be translated not only into a more equitable distribution of labour earnings or other income opportunities, but also into equitably distributed reductions in the working week as time goes on. The specific question here is how to allocate the gains made possible as the productivity of the economy improves between earning more, or having more free time available without reductions of available income.¹⁹

¹⁷ To cite certain trends: between 1991 and 2012 the average annual increase in real wages in the UK was 1.5% and in the US 1%, according to OECD. That was less than the rate of economic growth over the period and far less than in earlier decades. Other OECD countries fared even worse. Real wage growth in Germany from 1992 to 2012 was just 0.6%; Italy and Japan barely saw any increase. Critically, those averages conceal much variation. Real pay for most workers remained flat or even fell, whereas for the highest earners it soared. The income shares of the top 1% and 10% earners soared for most OECD countries between 1980 and 2012.

¹⁸ States are enormous economic entities. In the context of an inclusive model of digital society, the state should act more like the staff of Wikipedia: to nurture the new economic forms to the point where they take off and operate organically, favoring widespread social innovation. The state could contribute indeed to reshape markets to favor sustainable, collaborative and socially just outcomes. The state should act as an enabler of new technologies, but always with an eye on how they comply with the strategic aims of the transition.

¹⁹ Indeed, in the US the typical working week decreased from roughly 70 hours in 1850, to 60 hours in 1900, to 50 hours in 1920, and – allowing for variation during the Depression and World War II – stabilised at a little over

Quite apart from the equities involved, more free time is also one of the most important requirements of any serious long-term system-wide approach to building solid foundations for individual liberty in the 21st century.²⁰ In the Metamorphosis vision, democracy will eventually progress globally – as complement to the global expansion of the middle-class and affluent societies – but it will become much more than simply voting for representatives. It will be about building consensus around the kind of world citizens really want. The global communications made possible by the Internet will make sharing visions and scaling up real democracy feasible. This basic community-oriented emphasis can also be found in a line of arguments urging decentralisation of government within large cities so as to increase opportunities for genuine participation.²¹

6. WHAT ROLE FOR GOVERNANCE?

In FLAGSHIP's articulation of visions, governance, together with climate change targets, demographic and geopolitical dynamics, are classified as 'external' drivers of change. But unlike the others, governance also describes the institutional framework with actors, their roles and powers, as well as procedures and legal constraints, in which the policy decisions are taken. These elements affect the evolution in policy-making and the feasibility, efficacy and legitimacy of alternative policy options and strategies.

Technology is likely to affect governance at all levels, from the territorial to the global, because digital innovations both transform and threaten the effectiveness of most institutions, from education systems, to media, governments and nation states.

This is also likely to have a huge impact on governance, which will have to adapt to such changes and most likely cause (regardless of the scenario) a shift of decision-making powers from the national level to a) large framework-like decision-making at the international level and, at the same time, to b) more small-scale decision-making at the local and regional levels.

At the level of territorial governance arrangements, addressing the issue of building a more democratic system in a context where technology will empower citizens at the individual level will have to consider real co-decision-making processes to complement the final decision-making power of public authorities. Local and regional communities are likely to become increasingly self-organised. This will have to be combined with actions to adjust and redesign policies, leaving scope to test new approaches.

At the global level, the legal and governance environment is a critical factor in determining the policy approaches that would need to be adopted. In particular, the policy reviews conducted under the project suggest that the fundamental role of policy-makers can be very different. Policy-makers can have an active role in the preparation, design and implementation of policies or their role reduced to that of regulator and facilitator. This raises the question of the importance of a minimally effective role for the state. It seems

40 hours by the middle of the century. The pattern is different in Europe, but the drop in average working time over the whole year is confirmed. It is clear that as technological progress continues – and as the capacity of one hour's work to produce three, four, or possibly even five times what it now produces continues to increase – further changes in the work-week are likely to be feasible, and at some point during the coming century a greater work-time reduction – in principle with no diminution of living standards (and plausibly an increase) for the vast majority of people in the wealthier economies – is conceivable.

²⁰ Individual liberty can never be fully realised if men and women must work for most of their time simply to feed and shelter their families. Only if individuals have time they can dispose of freely as they see fit can liberty be truly meaningful. There is also a relevant gender issue here.

²¹ It is important to emphasise here that different forms of knowledge should be made available to citizens to empower them and enable different degrees of democratic practice. Something far more powerful than knowing your rights and the law (the minimal knowledge required by weak democratic politics) will be needed, and this requires very different ways of acquiring knowledge for more responsible and active citizens (by means for example of civic innovation services or programmes engaging the citizens)

reasonable to expect a stable, transparent and predictable regulatory framework to be in place. This is less easily conceivable under the auspices of a multitude of stakeholders from business, civil society and various other walks of life.

Given the global nature of most challenges, a scenario that assumes a world of strong state-led international cooperation and effective joining up of the global, international, national and local levels of governance seems to be the most desirable. In this case policies would thus tend to be harmonised, consensual and backed by international legitimacy. However the profound transformations introduced by technological change currently seem to point to a system with increasing internet policy-making entities which lack of accountability and legitimacy.

7. EU GOVERNANCE: OPPORTUNITIES

In ordinary times, any substantial change in the structure and institutions of the European Union would appear unrealistic. However, in the next 5 to 15 years from now many events could change the course of history even more radically, and open up a more realistic prospect of further integration. The creation of a European Political Union (EPU) would complete the project of the founding fathers.

There are at least three factors, or 'tensions', that could drive the future of continental Europe towards building a truly political union:

- **Financial tensions** in the eurozone, which call for completing the European project that accompanies monetary and banking union with fiscal and political union.
- **Democratic tensions**, such as the growing divide between EU technocracies and citizens; the divide between the employed and unemployed; the haves and have-nots; youth and elderly; and, increasingly, the gap between citizens of more stable north European economies and those enduring precarious conditions in southern Europe
- **External tensions and terrorism:** civil wars that could spread in the southern Mediterranean (Syria, Libya, but also Egypt, Tunisia and possibly other countries are at risk) and in the Eastern neighbourhoods (Ukraine). These tensions call for more unity and coordination of the EU's defence and security policies; more cooperation with the neighbourhoods to sustain democracy and help to address societal and economic challenges ahead; and a more profound dialogue and integration with the populations of immigrants to Europe, of first or second generation.

The convergence of these tensions may contribute to drive European policy towards more union, although it is clear that some tensions may also affect the scenario in the opposite direction. For instance, the democratic tensions may also cause the breakdown of the European Union, or at least some fragmentation and the exit of some partners, if populist and nationalistic movements that call for a return to nation state power prevail in some countries (they are signs of this in the UK, for instance).

The path towards a European Policy Union has been open since the very foundation of the EU, it does not need to be reinvented. There is a long tradition of reflections on European political integration, beyond the economic integration of member states in a Single Economic Market, in particular with a federalist orientation. In the past, the federalist perspective has been the subject of controversy and opposition. This is primarily for two reasons: first, those who are opposed to it associate a federal structure with a state – e.g. the United States of America – which they do not accept as the desired result of integration; second, they consider a federal structure to represent centralisation (a European 'super-state') at the expense of sovereign nation states.

However, the federal principle does not automatically imply the creation of such a federal super-state (the 'United States of Europe'). The fundamentals of the present and future EU is still the subject of intense debate. This debate, although characterised by prejudice

and confusion about what federalism and the federal principle really mean, and how they can contribute to European Political Union, helps to clarify structural principles that can provide guidance for a re-launch of the European constitutional process.

It is increasingly clear, however, that the only way to return to stability and continue with a virtuous process of development of the European project is to restart the process where it was left off, and promote a new European Political Union that will help to address the financial, democratic and external tensions and challenges outlined above.

The main driver leading to fiscal and political union has been the eurozone crisis, which raised a more general question about the overall architecture of the EU. Monetary union was supposed to lead naturally and inexorably to political, fiscal, and budgetary union; to ever closer cooperation among member states. To some extent this has been true, but in the aftermath of the global financial crisis, and with the outstanding issue of how to manage public debt in Europe, especially in southern Europe, the entire process has not proved to be 'natural' at all – rather it has risked derailing the whole project.

The eurozone would need to empower a **European budgetary parliament** to decide on a European budget. The best way to do this would be to draw members of this parliament from the ranks of national parliaments, so that European parliamentary sovereignty would rest on the legitimacy of democratically elected national assemblies. Finally, if a budgetary parliament had to decide what the eurozone's debt should be, then there needs to be a **European finance minister** answerable to that body and charged with proposing a eurozone budget and annual deficit.

Additional institutional reforms include the possibility for the European Political Union to directly manage a range of fiscal tools, including the **harmonisation of national VAT rates**, to avoid distortion of competition between member states; a **European Carbon Tax** to stimulate the reduction of emissions; private investments in clean technologies, and public infrastructure investments to adapt to climate and a **European Tax on Corporate Profits**. Tax competition among European states has been fierce since the early 1990s, in particular because several small countries – with Ireland leading the way, followed by several Eastern Europe countries – have made low corporate taxes a key element of their economic development strategies. This type of competition is sub-optimal from the point of view of the competitiveness of European industry as a whole. It became increasingly clear that the right approach would have required corporations to make a single declaration of their profits at the European level and then tax that profit in a way that is less subject to manipulation than the current system of taxing the profits of each subsidiary individually.²² With the European tax on corporate profits it made more sense to give up the idea that profits could be pinned down to a particular state or territory; instead, the revenues from corporate taxes could eventually be apportioned on the basis of sales or wages paid within each country.

A **European Tax on Financial Transactions** (Tobin Tax), to counter excessive speculation in the financial market could also find its place in the reform package, along with, most importantly, the introduction of a **European Wealth Tax**, of which a blueprint was first proposed by Piketty in 2014.

New common foreign, defence and security policies

In 2030, the EPU vision further entails that Europe speaks with one voice on the global arena, protects the territorial borders of the EPU and cooperates in peace-keeping operations - whenever these are claimed by the global governance institutions (United Nations or new institutions at the time) – with one army. The EPU army comprises member states' armies. Central services, the coordination and strategic functions of the army are maintained through the European budget, while member states maintain the local troops and weapons on their own territory. In any event, the power to declare war is moved to

²² The problem with the current system is that multinational corporations often end up paying ridiculously small amounts because they can assign all their profits artificially to a subsidiary located in a place where taxes are very low; such a practice is not illegal, and in the minds of many corporate managers is not even unethical.

the European level; no member state acts alone. By the same token, internal security is ensured through tightly coordinated national security services. This higher level of coordination has been necessary, particularly since 2015, to cope with the increased threat of international terrorism.

Enhanced community energy and climate, agriculture and fisheries, migration, employment and social security, external trade policies

These sectorial policies continue to be governed mostly by nation states, but coordination and common strategies at Community level are strongly enhanced. For instance, there is really one strategy leading the whole Europe energy interdependence and transition to a low-carbon economy, not independent energy transition policies in the member states. In addition, ad hoc partnerships have been developed to bridge policies and share strategic co-development goals with southern Mediterranean countries and the Middle East, in particular on energy matters, agriculture and fisheries, migration, education and human capital development issues. A Community social security system – following the example of the United States Federal system - would have required the transfer of much more fiscal power to the European government, notably to achieve a budget level of about 25-30% of European GDP instead of 5-10%. This was not feasible and even not desirable in the European context. However, a stronger Community policy in the employment and social security sector has ensured a better harmonisation of national pensions and security systems, and citizens benefit from comparable treatments across the entire continent. By the same token, trade policies are mostly national, as each member state has different comparative advantages to exploit. However, the much greater stability of the eurozone – ultimately achieved through the political and fiscal union of its members – and the harmonisation of VAT and corporate tax rates has transformed the competition landscape within the EUP. As a result, in 2030 the massive and growing disequilibria in the balances of payments of the single countries are a thing of the past (i.e. the crisis we are still experiencing today), while external trade policy is sufficiently coordinated to ensure that gains for European industries are mostly pursued on the global market.

8. EU GOVERNANCE: THE CHALLENGES AND THE RISKS

The reform of EU governance, and in particular EMU governance, dominates the current political and policy debate. This debate is driven by the need to create (in the long term) a 'genuine monetary union' that is characterised by greater economic and political integration. This would require critical institutional changes, which in turn imply relinquishing national sovereignty in favour of a Union that adopts a more federal style.

Such a scenario would fit well in the *metamorphosis* vision, where a fully-fledged European Federation, or United States of Europe, would offer a more suitable institutional framework by making available more effective European policies and strategies.

The current reality, however, reveals a profound gap between this aspiration and the facts. Political discourse seems to overlook the fact that EU dynamics are driven by centrifugal forces that can radically undermine the rationale for the existing degree of integration, much less for further integration. The assumption that the *perseverance* scenario will be largely driven by inertia with no significant political change implies that such forces are likely to become even stronger.

Some of these forces are the result of, or have been intensified by the crisis; others are simply the consequence of global trends. Each of them represents a specific challenge for policy-makers in the short term, with possibly huge implications in the longer run.

Trade and Investment

Increasing trade and financial transactions among EU member states and a sharing of their gains have always been among the key motivations to move towards the single market and the single currency. Trade transactions among EU member states have increased

significantly over time and have represented the largest part of total trade for many countries. During the past decade, intra-EU trade has grown, at least in line with extra-EU trade, but this might no longer be the case in the future. The main reason for this divergence is the reduction in the size of the European economy relative to emerging economies, which will naturally make extra-trade more important.

This is an emerging trend that has attracted little attention. Today, intra-EU trade accounts for about 60% of the total trade of the average EU member country, but in terms of trade in value added, the proportion is lower and now already closer to 50%. This means that in terms of jobs, which are correlated with the creation of added value, extra-EU trade is already now as important as intra-EU trade. The expectation based on projections of the past for the next 15 years is that the share of extra-EU trade will increase to 50% from the current 40%. When one translates this into value-added shares, the result might well be that extra-EU trade will become more important than intra-EU trade. This argument may be particularly sensitive in countries like the UK, for which extra-EU trade today accounts for about 60% of total value added in UK exports and may lead to bilateral trade agreements with a strong national dimension.

An even-stronger trend reversal is likely to materialise in the area of inward foreign direct investment. At present, an overwhelming majority of incoming FDI, about 75%, is for most EU members from other EU members (plus Switzerland). This is likely to change in the future, however. As outward FDI from emerging economies is set to increase more than proportionally to their income, the share of international FDI flows originating in emerging economies is thus set to increase dramatically. This implies that FDI from non-EU countries will become more important in absolute terms as well as in relative terms vis-à-vis FDI from an EU origin. Member countries might be increasingly tempted to compete against each other in attracting investment from savings-rich emerging economies.

North-South divide: Financial fragmentation and sovereign debt

Starting in 2010, euro-area financial markets have experienced significant fragmentation along national borders. The situation has improved over time as a consequence of measures taken by the ECB, but single market mechanisms have shown fundamental weaknesses. Financial integration, which was considered one of most important achievements of the single market, turned out to be a great transmission mechanism of negative shocks rather than an additional source of growth. Banking Union is expected to play a key role in overcoming such dynamics, but integration seems unlikely to return by itself.

The sovereign debt crisis, which started in Greece in 2010 and then expanded to other peripheral countries, has highlighted a significant divide within the euro area, between north and south. Public debt will undoubtedly remain high on average, but it is peripheral countries that will struggle to keep it sustainable. One fundamental question relates to whether these countries will learn to grow with a high level of debt or whether debt will have to be reduced to bring them back to similar conditions as in the core euro area countries. While Greece is certainly a special case, it has shown that default as a solution to lower debt is a difficult one in the EMU.

Energy Union or national energy policies

In the field of energy, there are areas where member states have been pursuing different approaches driven by domestic preferences and interests. Nuclear and renewable energy provide two interesting examples.

Concerning nuclear energy, it is apparent that important member states have taken diametrically opposing approaches. In Germany and some other countries, nuclear power is being phased out, whereas it is being maintained, or possibly even expanded, in other member states like France and the UK. These differences will lead to different structures of the national energy markets (and mixes), which will make it more difficult to achieve an effective Energy Union.

Concerning renewables, differences are more subtle and depend mainly on national financial and other conditions, like the price of oil. Some countries had to limit support for renewables due to fiscal constraints after being hit by the financial crisis (e.g. Spain). A country like Germany has more fiscal space, but even here the pace of deployment has been questioned as the cost to consumers becomes more apparent. The relative importance of renewables will vary strongly from country to country, with many national targets likely to move beyond reach.

Labour Mobility and Threats to National Social Welfare

Labour mobility is a manifestation of one of the fundamental freedoms of the single market and at same time an important source of European integration stability for the single currency area. Contrary to newspaper headlines in several peripheral countries, labour mobility within the EU15 has not changed significantly as a result of the crisis. Labour mobility has changed due to the inclusion of Central and Eastern European countries. Flows of workers from east to west have always been significantly larger than from south to north, even during the crisis.²³

As a result of the crisis, this integration route risks being closely circumscribed. Several countries are favourably disposed to changing rules on the coordination of social security in order to limit benefits to mobile workers from other EU countries, at least for a period. This was implicit in the letter to the European Commission from the Social and Welfare ministers of the Netherlands, the UK, Austria and Germany in the spring of 2013.²⁴ This view is also shared by the Danish Government. Repatriating powers on this issue to the UK is a cornerstone of David Cameron's attempt to re-negotiate EU membership.

Migration Policy – The borders' problem

The influx of migrants from North Africa and the Middle East represents an unprecedented challenge for the EU, whose immediate burden has fallen disproportionately on countries like Italy, Greece and Spain. These countries must bear the economic and social cost of resettling migrants at a time when austerity policies are being imposed and when other member states either do not see it as a priority, or just a priority to tackle with at the border.

The reality is that the migrant crisis is a humanitarian problem and a threat to EU integrity and to further integration. The very short-term effect could be the dismantlement of the Schengen agreement, but in the longer term could become another area where national interests are set above EU interests and solutions.

9. CONCLUSIONS

Broadly speaking, policies can be said to fall into two main categories: anticipatory and reactive.

The latter, most common indeed, typically consist of reacting to challenges, trying to mitigate effects using quick fixes and ad hoc solutions. This approach is characteristic of policy-makers focused on the political cycle and without a real vision for the future.

The former, on the other hand, are based on the idea that policy should anticipate challenges and attempt to shape emerging transformations in society and the economy at large. This requires an 'enlightened' political class, inspired by visions for the future, and able to capture even weak signals of change and understand the magnitude of its political choices, looking beyond the short term..

²³ M. Barslund and M. Busse (2014), "Labour Mobility in the EU: Dynamics, Patterns and Policies", *Intereconomics*, Vol. 49 (3), pp 116-158.

²⁴ Ibid.

The FLAGSHIP project has devised, and implemented, two main visions of the future, reflecting the alternative between the reactive (Perseverance) and the anticipatory (Metamorphosis) approaches.

It is critical to acknowledge that a traditional approach to growth can lead at best to a slow growth or global steady economy (with still large differences across the globe due to different starting points in degrees of economic development). The reasons for this can be found in ageing (declining population growth rates); in the fact that improvements in resource efficiency will lead to better use but will not remove constraints; that physical capital accumulation (given the high level of stock) will have limited effects on growth; that the enhancement of human and intangible capital will have a positive effect to ensure a steady economy but may not be sufficient to guarantee improvements in living standards. We conclude that in a world largely shaped by forces beyond the full control of policy-makers, following the traditional, reactive approach may result in a depressed or even catastrophic scenario, where after-the-fact reactions are insufficient.

It is difficult to imagine how to fully and successfully address the wide range of societal challenges without a radical change in lifestyles, behaviours, and individual and collective preferences. In fact, signals of change are already visible, reflecting the increasing awareness and visibility of ecological and social concerns, although it is difficult to interpret them and understand their causes.

Surely, technology and the digital economy will play a major role in the transformations to come, including for what concerns the functioning and effectiveness of institutions. This inevitably calls for radical reforms of the institutions themselves, and possibly for the establishment of new ones. The combination of a sustained globalization megatrend with the emergence of new socio economic paradigms that increasingly recognise the value of scarce resources, point at cooperation as the logical solution to address the global governance challenge.

Both the economy and society at large are undergoing structural changes that are likely to fundamentally threaten the general acceptance of the existing system. This calls for a shift in the overall socio-economic system and policy paradigm, and these are not possible without fundamental changes to the mind-sets of both policymakers and civil society at large.

Although the tools available to policymakers have limited power, policy choices can still affect medium- and long-term trends and transformations. For instance, devising policy packages that combine different types of incentives - taxation, subsidies and regulation - may allow to successfully affect market dynamics and shape individuals' behaviour.

But to achieve this policy-makers need a vision of the world to which to aspire.

PROJECT NAME	Forward Looking Analysis of Grand Societal Challenges and Innovative Policies (FLAGSHIP)
COORDINATOR	Andrea Ricci, ISIS, Rome, Italy (aricci@isis-it.com)
CONSORTIUM	BC3, CEPS, HiiL, ICS-UL, ISIS, KNAW-NIDI, MCRIT, OEAW-VID, OME, SEIT, SEURECO, SIGMA, Spatial Foresight (S4S), SWSPIZ, TNO
EUROPEAN COMMISSION	Domenico Rossetti European Commission, DG RTD (Domenico.Rossetti-Di-Valdalbero@ec.europa.eu)
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WEBSITE	http://flagship-project.eu
FOR MORE INFORMATION	Andrea Ricci, Istituto di Studi per l'Integrazione dei Sistemi, Rome, Italy (aricci@isis-it.com)
FURTHER READING	http://flagship-project.eu