Delivering the Green Deal needs capital investment on a massive scale. There is no shortage of capital as such but capital needs to be allocated to Green Deal delivery in preference to other uses and/or returning to stakeholders (whether private shareholders or public taxpayers). Delivery of the Green Deal will happen in reality only because of the investment decisions made by a multitude of stakeholders in both the private and public sectors.

The aim of regulatory policy should consequently be to encourage preferential investment in Green Deal delivery and to remove regulatory obstacles. This needs a strong understanding amongst policy makers of how capital allocation decisions are actually made and a focus on Better Regulation as a key tool for delivering Green Deal investment.

This ERIF Highlights Note focuses on the importance of investment, through the allocation of capital by the private sector, for delivery of the EU’s goals. It identifies regulatory challenges that may inhibit the allocation of private sector capital to the EU and explains how Better Regulation philosophies, processes and tools can be used to strengthen the framework for Green Deal investment. It concludes by setting out a number of recommendations for enhancing the Green Deal investment framework in line with Better Regulation principles and guidelines.

**EU GOALS AND CAPITAL ALLOCATION**

Delivering the Green Deal, whilst at the same time sustaining prosperity in the face of external stresses, will require the allocation of very large sums of private sector capital within the EU. It is estimated, for example, that additional investments of Euro 170 billion to Euro 290 billion per annum in excess of funds required to sustain existing productive assets, will be required to bring about the far-reaching changes envisaged by the EU’s Green Deal strategy.

New capital will be required for investment in innovation in operating technologies, materials, products and services, as well as in new process and production facilities and in infrastructure. Major investments will be required to bridge the gap between existing technologies and those needed to deliver the Green Deal, many of which either do not yet exist, or remain a considerable distance from viable commercial scale.

Public funding and investment will play an important role. At the same time, sustained large-scale private sector investment will also be needed to overcome public sector capacity constraints, to close the ‘investment and technology gap’ and ultimately to carry the risks of bringing new and greener technologies to market at the scale and pace required. The challenge for governments is to create and sustain the conditions for private sector investors to preferentially allocate capital and human resources within the EU for Green Deal delivery.

The Green Deal has embedded within it two different and distinct aspects of investment activity by the private sector. The first is likely to be a series of ‘negative’ decisions, whereby existing technologies, materials, and products will cease to be used: the ‘status quo’ is to be discontinued. In some instances, this may involve the destruction of capital that retains potential to deliver financial returns, thus imposing significant costs on businesses. The second, as envisaged by the Green Deal, will be a series of ‘positive’ decisions, leading to investment in new, more environmentally benign production, products and material technologies.

However, ‘negative’ decisions will not necessarily or of themselves lead to ‘positive’ ones. For the latter ‘positive’ investments to occur, there must be a reliable regulatory framework designed to support and
accelerate investment in new ideas, technologies and processes. This requires decision-makers to be informed by a deep understanding of the nature of allocation of capital decisions by the private sector.

None of this investment will be risk free for investors or indeed for the EU as a whole. The consequences of poor investment decisions (or non-decisions) may be fundamentally damaging and long-lasting.

Better Regulation philosophies, processes and tools provide a critical means of helping policy makers understand the process of private sector capital allocation and the risks surrounding investment decisions, and to design policy and regulatory interventions that fully support Green Deal delivery.

**ALLOCATION OF CAPITAL FOR INVESTMENT – KEY FACTORS**

The allocation of capital process that takes place within companies determines where and when investment (in ideas, processes, products, materials etc) takes place, the type of projects that will be eligible for funding, and whether or not specific projects are undertaken. This ‘investment’ process is separate from and, in general, not influenced by financing decisions.

Within the allocation of capital process, there are three inter-linked groups of decisions, and public policy interventions can affect all of them:

(1) **Strategic Risks – allocation of corporate resources recognises that there are differences in the types of risk that investments face in different regional economies.** Typical areas of focus are market risks, risks to property rights (including intellectual property), legal certainty and the rule-of-law, regulatory unpredictability, lack of monetary and fiscal stability, regulatory restrictions on market access or on the use of critical technologies and diversion of investment resources away from innovation, thereby limiting the development and protection of competitiveness.

Within this framework of strategic risk assessment by private sector firms, the EU must compete with other regional economies, such as North America, South America and Asia, for the allocation of capital.

The EU has many attractions as an investment location, including political, monetary and fiscal stability and the size and maturity of the Single Market. However, some recent policy and legislative initiatives have begun to create significant new strategic risks. These initiatives include, for example, new tests of market access for technologies (such as ‘essentiality’) that pose significant challenges for property rights, legal certainty, rule of law and regulatory predictability. There are also well-recognised shortcomings in the risk-management framework that can act to create uncertainty, restrict market access, limit the use of technologies and divert resources away from innovation. (See ERIF Monograph Risk Management and the EU Administrative State: Implementing Law through Science, Regulation and Guidance 2019).

(2) **Framework conditions – where public policy and the regulatory environment play a major role in creating incentives for companies to invest, particularly in innovation.** At the same time, regulatory factors, including policy, law-making and the implementation of legislation, can distort framework conditions and inhibit investment.

Framework conditions for investment in innovation are driven by three groups of factors:

- **Social attitudes**, particularly towards new ideas, risk-taking, precaution and new technologies;
- **Demand factors**, including access to markets, consumer confidence, use of competitive strategies, market size and adoption of new ideas and technologies; and
- **Availability of critical inputs**, particularly ideas (including access to upstream and other ‘platform’ technologies) and capital, and their diversion into Defensive R&D.

There have been notable successes at EU-level in establishing favourable framework conditions for investment in innovation. The Single Market legal framework, through common product standards and restrictions on non-tariff barriers, facilitates access to more than 450 million customers. Well-designed high quality, science-based rules for the use of technologies, such as the framework for Medical Devices, have strengthened consumer confidence and trust. A further example is the success of the Orphan Drug regulatory framework in stimulating investment in innovation.

However, there are also well-recognised shortcomings in the EU’s framework conditions for innovation, including risk averse social attitudes, stigmatisation and loss of access to certain technologies, extended time-to-market and high levels of Defensive R&D. (See ERIF Highlights Note 07 Risk Regulation and Innovation 2016).

(3) **Investment economics – the balance of risk and reward identified for individual investment projects.** These assessments are generally based on widely accepted principles of corporate finance and specifically the following:

- Successful projects must meet or exceed the risk-adjusted cost of capital, after taking account of project-specific risks;
- Project-specific analyses take into account expected positive cash flows (enhanced margins or reduced costs) less negative cash flows (capital expenditure, development costs, operating costs) discounted at the cost of capital over the project horizon. This ensures that cash flows received in later periods are worth less and has the effect of penalising delays, including those induced by regulatory testing and approval requirements and by processes that slow down time-to-market;
• The cost of capital used for investment decisions is a risk-adjusted opportunity cost set by global capital markets using well-understood techniques, such as the Capital Asset Pricing Model. It is not, in general, determined by sources of financing;
• Financing decisions are separate from investment decisions;
• Financing decisions focus on factors such as gearing, solvency, liquidity, ‘matching’ (cash flows and types of assets and liabilities) and servicing costs; and
• Funding for companies is derived, ultimately, from two sources: decisions by ‘savers’ to defer consumption or protect assets and use of retained earnings generated by previous corporate profitability.

Corporate valuations reflect forecast future cash flows discounted at the cost of capital, recognising the many complex and sophisticated factors that can impact future performance, including intangibles such as reputation, property rights and management quality.

Well-designed public policy can improve the balance between risk and reward for individual investment decisions. For example, the work of the Gates Foundation has improved the availability of vaccines in developing countries, by persuading donors of aid to support demand, reduce capital expenditure for producers, and cut drug development costs, whilst also working with local regulators to speed up pre-market safety approvals. A broadly similar public-private strategy was used to accelerate the development of COVID-19 vaccines.

REGULATORY CHALLENGES

Recent ERIF research has identified a series of regulatory issues affecting the process of allocation of private sector capital for investment in the EU. These include:

(1) Regulation of risks posed by technologies – traditionally based on assessment of the likelihood of harm, drawing on the use of best available scientific evidence. This approach has served well in delivering a high standard of safety for consumers and the environment, along with safe enjoyment of benefits, and a predictable regulatory process for investors. However, this has begun to change. Emphasis is increasingly being placed on intrinsic properties as a basis for regulation, without evidence of likelihood of harm, together with unweighted reliance on weak, poor quality or outdated scientific evidence and disproportionate risk management measures. These changes are shifting the risk-reward balance for investors and may have the effect of limiting access to technology, increasing uncertainty, limiting market development and eroding the industrial eco-system, without demonstrable improvements in safety for people or nature. (See ERIF Monograph Scientific evidence in consumer safety. Insights for the Better Regulation Agenda 2022).

(2) Novel regulatory philosophies (including the Essential Use Concept) – new and largely untried ideas are being introduced at EU-level to manage the use and introduction of many technologies. These new tests, such as ‘essentiality’, focus on ‘non-toxic harms’ and are applied in essence on the basis of judgments by officials. After banning all applications of technologies on the basis of intrinsic properties, applications that officials deem to be ‘essential’ may remain on the market, in effect a form of derogation and a weak property right. The use at EU-level of novel philosophies to regulate use and introduction of technologies, will create strategic risks through erosion of legal predictability, by-passing of the rule of law, weakening of property rights and the amplification of regulatory uncertainty. Over time it will be the judgements of officials, rather than the choices made by customers, that will determine the availability of goods and services. In these circumstances, companies will very reasonably focus on safeguarding the rents provided by these weak property rights, rather than generating profits from successfully competing to satisfy the needs of customers. Such a form of economic organisation will pose significant strategic risks for private sector companies and for the economy as a whole. (See ERIF Highlights Note 16 Essentiality, Better Regulation, and Management of Risk from Technologies 2021).

(3) Time-to-Market (approval and testing, licensing) – market access rules and processes, designed to restrict the introduction of new technologies and to retain existing ones on the market, seek to protect citizens and the environment and to build consumer confidence. However, despite recent reforms, there is a continued lack of consistency in the quality and performance of the EU’s approval and licensing processes. Many of these processes remain slow, costly or unpredictable in terms of timeline and decision-making criteria. In some sectors, further delays imposed by Member States exacerbate the effect of these undesirable outcomes. Taken together, these shortcomings increase the capitalised cost of development, erode incentives to innovate, reduce the availability of technologies (and its benefits), create risk-risk trade-offs, establish barriers to market participation for SMEs and trigger delocalisation of capital. (See ERIF Highlights Note 15 Time-to-Market, Innovation, and Better Regulation 2021).

(4) Regulation of new technologies – there is an inconsistent approach at EU-level to the regulation of new technologies. In some areas, such as nanotechnology, regulation is based on application-specific risks, if any, posed by the use of the technology. Assessments of the likelihood of harm can consequently be based on high quality scientific advice. However, in other cases, most notably GMOs, gene editing, and artificial intelligence, regulation is technology-specific and framed in terms of intrinsic properties, based on social concern and anchored in precaution. This stigmatises the use of important platform technologies without scientific foundation and takes large swathes of important technologies ‘off agenda’ for investors in the EU, with no
commensurate measurable social benefit for consumers.

(5) Defensive R&D – this regulatory outcome occurs whenever scarce innovation resources are mandatorily diverted away from new market opportunities towards compliance of existing products with new or revised regulatory goals. In a growing number of sectors, Defensive R&D has become a significant problem at EU-level, in excess of global norms. Instead of building user confidence and reducing harms, this has eroded incentives to innovate, reduced availability of capital and technologies, slowed down productivity growth, reduced the attractiveness of the EU for investment and created additional risks for citizens. (See ERIF Highlights Note Defensive R&D and Innovation 2016).

(6) Failings of the EU Administrative State – to meet the demands of citizens for high standards of protection of health and the environment, the EU has established an extensive framework of legislation, supported by complex implementing mechanisms undertaken or co-ordinated at EU-level (the ‘EU Administrative State’). Whilst steps have been taken by the EU institutions to strengthen governance of this branch of the State, in too many cases implementation decisions remain disproportionate, unpredictable, unduly precautionary or take too long and impose unjustified costs. These shortcomings lead to an increase in net risk and uncertainty, reduced investment in innovation, disruption of value chains, erosion of business sustainability and a diminution in the attractiveness of the EU for global investors. (See ERIF Highlights Note 09 Management of Risk and the EU’s Administrative State 2018).

(7) Design of the Green Deal – the European Green Deal seeks to achieve a carbon-neutral, toxic-free economy over a relatively short time span. Effective law-making and administrative implementation will be critical to successful delivery of these policy goals in a timely, efficient and equitable manner. To achieve this, policymakers need to address a series of crucial issues, including trade-offs in the design of laws and coherence in legislative implementation, so as to avoid loss of key technologies; design of policies to promote the innovative development and application of new technologies; and the introduction of more effective Better Regulation processes to assess and understand risk-risk trade-offs, distributional impacts, human consequences, incentives to innovate and allocation of capital. (See ERIF Highlights Note 13 The Green Deal and Better Regulation 2020).

**BEETTER REGULATION – GOVERNANCE AND ALLOCATION OF CAPITAL**

Better Regulation has become an important component of good governance throughout the OECD area. It seeks to strengthen consent to law-making and to the actions of the State needed to implement legal requirements. Better Regulation is at its most relevant when governments set out to deliver complex and far-reaching policies such as the EU Green Deal, that require extensive legislative and regulatory action. As a global leader in the application of Better Regulation principles and guidelines, the EU is well placed to use this expertise to support the allocation of capital needed to deliver the Green Deal.

Better Regulation programmes seek to ensure that laws, and the actions taken to implement them, are (1) necessary, effective, and proportionate; (2) based on credible evidence, particularly science, that supports the use of the powers of the State; (3) informed by a transparent understanding of costs and benefits, particularly the dynamic impacts such as risk-risk, and thereby demonstrating reasonable confidence that the benefits justify the costs; (4) developed using transparent decision-making processes and (5) reviewable over time and subject to appeals and redress mechanisms. The tools of Better Regulation include stakeholder consultation, impact assessment, standards of scientific integrity and ex post evaluation, supported by institutionalised oversight, political commitments and laws of administrative procedure. Used well, Better Regulation provides a way of making and implementing law that helps governments ensure predictability, avoid regulatory failure and sustain legitimacy.

A further strength of Better Regulation as a ‘horizontal’ governance capability is its systemic and adaptive capacity. A Better Regulation approach can be readily adapted to deal with new challenges, such as the allocation of capital for investment in the EU Green Deal, as well as the emergence of new regulatory risks in such areas as legal certainty, property rights and the rule of law. Moreover, Better Regulation has the capacity to be used in all phases of the policy cycle, encompassing policy, law-making, administrative implementation and ex post review. It is also capable, therefore, of being applied to the design and potential impact of new policy and legislative interventions, and to the removal of obstacles to allocation of capital by the private sector arising from the existing regulatory framework and its implementation.

Better Regulation provides a relevant and sophisticated set of principles and tools for ensuring that the EU has the right policy, legal, and regulatory framework in place to attract the huge scale of private sector capital needed to deliver the Green Deal.

**RECOMMENDATIONS**

To meet the challenges of Green Deal delivery, ERIF recommends a number of specific actions:

(1) **Political commitment** – the European Council should formally require the EU institutions to strengthen the framework (and reduce obstacles) for companies to allocate capital for Green Deal investment in the EU, including globally competitive investment by large, international companies.

(2) **Scope and importance of Better Regulation Principles and Tools** – the EU institutions should formally reaffirm the centrality of Better Regulation as a
core pillar of policy formulation and legislative and administrative implementation. Good regulatory practices should be confirmed and applied systematically at all stages of the policy, legislative and administrative implementation cycle.

(3) Innovation Principle – this simply states that innovation is indispensable for meeting policy goals and the impact on innovation (beneficial or otherwise) should consequently be taken into account at all stages of policy formulation and legislative and administrative implementation. New guidance should be drawn up to ensure that impact on innovation is fully and consistently taken into account in Better Regulation principles and guidelines.

(4) New Technology policy – the Commission should develop a formal policy based on global best practices for the regulation of new technologies. Better Regulation principles and guidelines should be revised, to ensure that these policy requirements are fully and consistently respected in the development of new legislative proposals and implementing mechanisms.

(5) Better Regulation strategy and guidelines – a ‘Capital Allocation Test’ (CAT) should be included in Better Regulation policy, supported by appropriate guidelines, and applied to all policy and legislative proposals and implementing mechanisms. The objective is to assess whether proposals are likely to support investment within the EU. Measures considered more likely to dissuade investment should be reported and explained in terms of other policy objectives. The CAT should include consideration of such issues as impact on property rights, legal certainty, access to markets (including time-to-market and restrictions on use of technologies), access to technologies and ideas, rule of law, regulatory certainty and the extent to which financial resources are diverted into defensive R&D. It should also be applied to interventions based on novel regulatory philosophies.

(6) Time-to-Market Benchmarking – the Secretariat-General, as the guardian of the EU Better Regulation agenda, should promote regular benchmarking of the time and cost of product approval processes (encompassing testing and approval for new and existing technologies and additional MS requirements and processes) and draw conclusions and make recommendations for structural improvements. Reports should be published and made available to all EU institutions.

(7) EU Administrative State – a programme of reform should be established to strengthen the governance of the EU Administrative State. This should include:

- Political commitment to full consideration of the Treaty obligation for proportionality at all stages of the policy, legislative and administrative implementation cycle;
- Adoption of a comprehensive law of administrative procedures;
- Implementation of common decision-making processes and standards for the European risk assessment and management agencies based on established principles of good governance;
- Mandatory standards for scientific evidence;
- Strengthened oversight of the processes for obtaining and using scientific evidence; and
- More consistent use of Better Regulation tools for assessment of implementing measures, including substantive guidance.

(8) Ex post evaluation and obstacles – the European Commission should establish, in line with Better Regulation principles and guidelines, a comprehensive programme of review of existing legislation and associated implementing mechanisms, to assess performance relative to policy objectives and to identify where policy and legislation can be strengthened to support the allocation of private sector capital to delivery of the EU Green Deal.

European Regulation and Innovation Forum
September 2022

Richard Meads and Lorenzo Allio, the Rapporteur and Senior Policy Analyst at the European Regulation and Innovation Forum (ERIF), wrote this Highlights Note. However, the views and opinions expressed in this paper do not necessarily reflect or state those of ERIF or its members.