PUBLIC PRIVATE FINANCE SCHEMES AND EVOLVING SUBSIDIES ARE DIRECTIONAL MARKERS TO DE-RISKING GREEN FINANCING

DIRECT AND INDIRECT SUBSIDIES INTO SUSTAINABLE PROJECTS ENABLE BANKS TO RECOGNIZE THE FOCUS AND SPEED OF CLIMATE CHANGE MITIGATION/ADAPTATION.

Climate Risk Perspectives

EMERALD PATHWAYS

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The gap that exists between the funding requirement of the transition to a greener global economy, and the budgeted plans from world governments, is currently estimated to be in trillions of dollars. Private finance is expected, and needed, to fill this gap, and banks will be the main conduit for the flow of funds.

Individual projects represent an increased credit risk. This can be a difficult determination for banks to make, as the success or otherwise of green projects is largely dependent upon the support provided by government funding. This 'de-risking' of specific projects is vital to attracting private funds, particularly those where the returns are expected over a longer timeframe, such as the many city infrastructure projects that are required to underpin the sustainability transition.

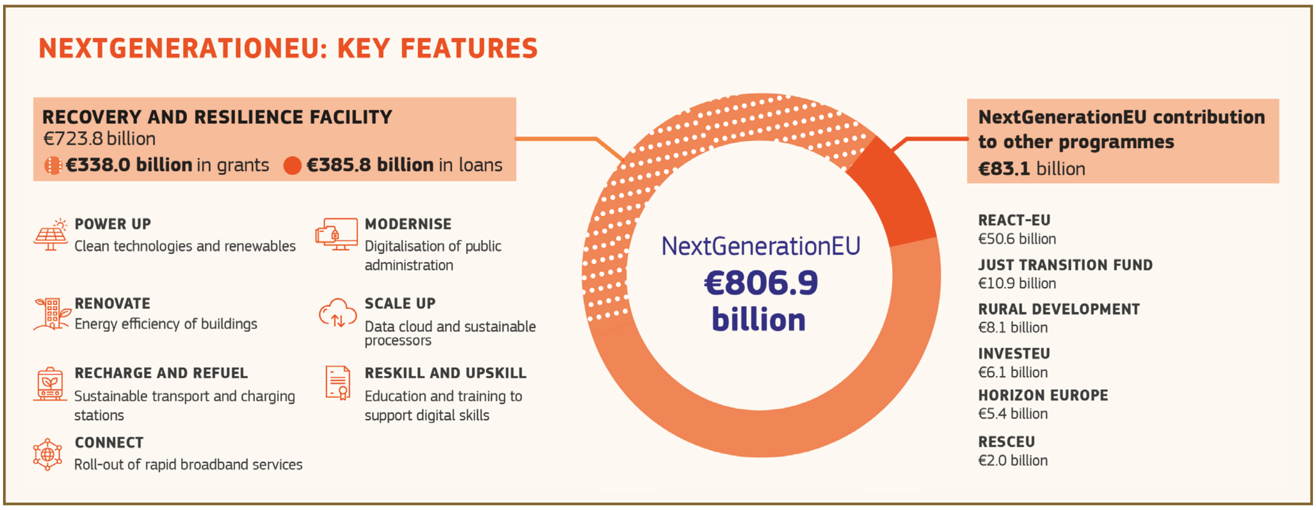
Regional and national governments are already putting down these 'market markers'...

The EU, as an example, has developed its 'NextGenerationEU' (NGEU) and 'Recovery and Resilience Facility', which are designed to stimulate a sustainable recovery across the bloc.

The NGEU represents the regional ambition across its core sustainable objectives as specified in the 'Green New Deal' which is:

- No net emissions of greenhouse gasses by 2050
- Economic growth decoupled from resource use
- No person and no place left behind

The NGEU aims to mobilize 800 billion euros of funding in the form of grants and loans to make the EU Green Deal a reality.



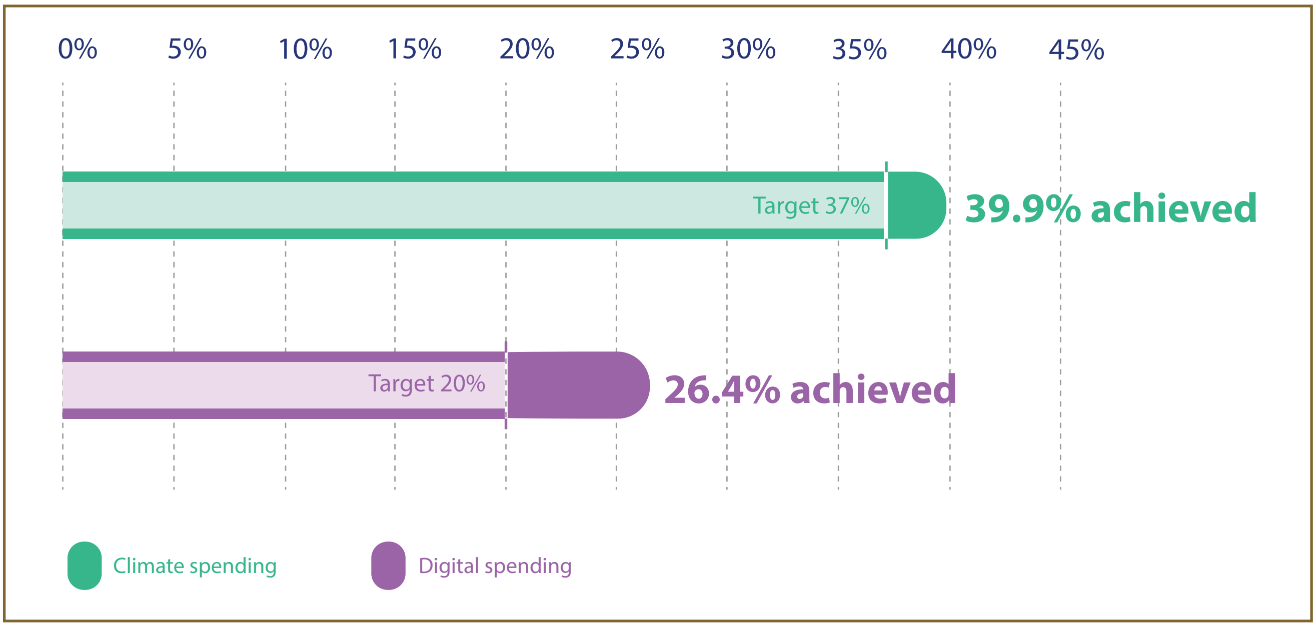
Source: European Commission

The ‘Recovery and Resilience Facility’ (RRF) is a major offshoot of the NGEU, aiming to fund the following areas of the EU’s long-term growth:

- **Power up -** Greening the energy mix of the union
- **Renovate -** Greening the built environment
- **Recharge and refuel -** Greening European transport
- **Scale-up -** Greening the cloud facilitation
- **Connect -** Rapid broadband availability
- **Modernize -** Digitalization of the EU administration
- **Reskill and upskill -** Skills for a modern greener economy

As can be seen, the RRF supports two growth ambitions within the EU - climate neutrality and digital transition. It is a temporary facility, wherein commitments have been made regarding investment allocation, to assist member states in kick-starting their individual investment plans.

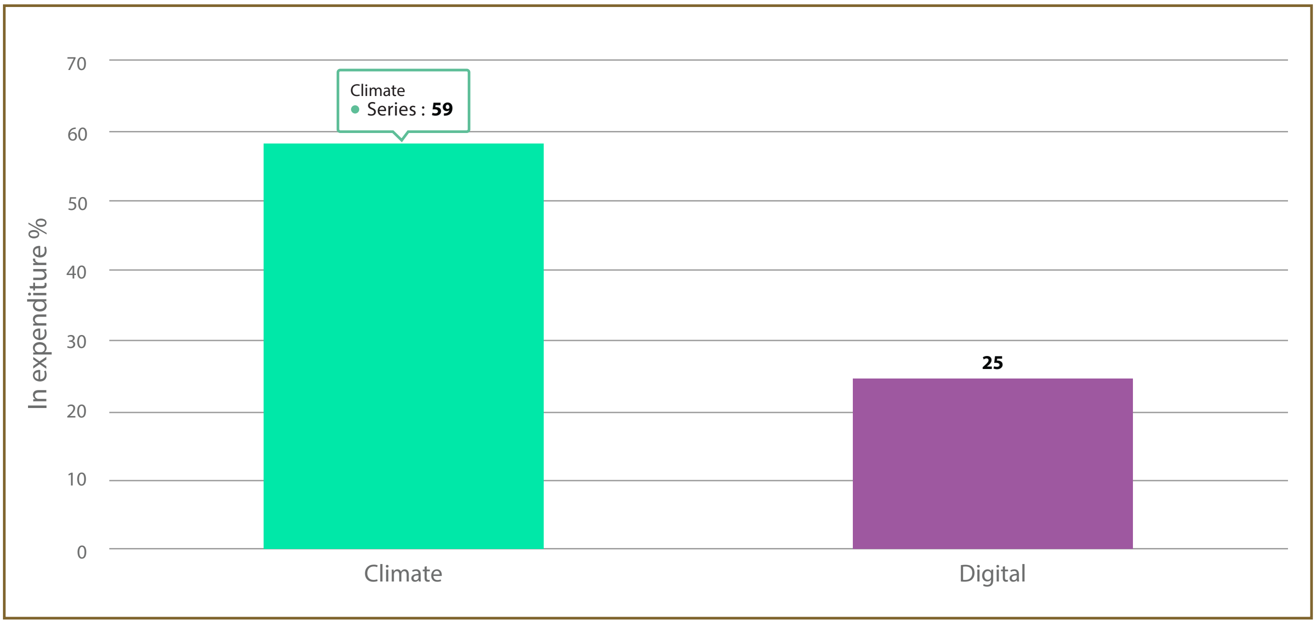
Across the 27 states that form the European Union, 22 have submitted resiliency plans. Targets set by the EU for climate mitigation and digitalization include 37% and 20% allocations within these plans, respectively.



The top-down planning is already paying dividends, with the 22 plans collectively allocating above the target levels in both ambitions.

Individual countries' plans may go deeper with their green market markers...

Denmark's plan is a specific example of a resiliency plan, wherein 59% (or 923 million euros) represents green investments.



This includes:

- Green tax reform
- Reprioritization of the registration tax of vehicles
- Research program in a green solution
- Carbon-rich soils
- Energy-efficient measures

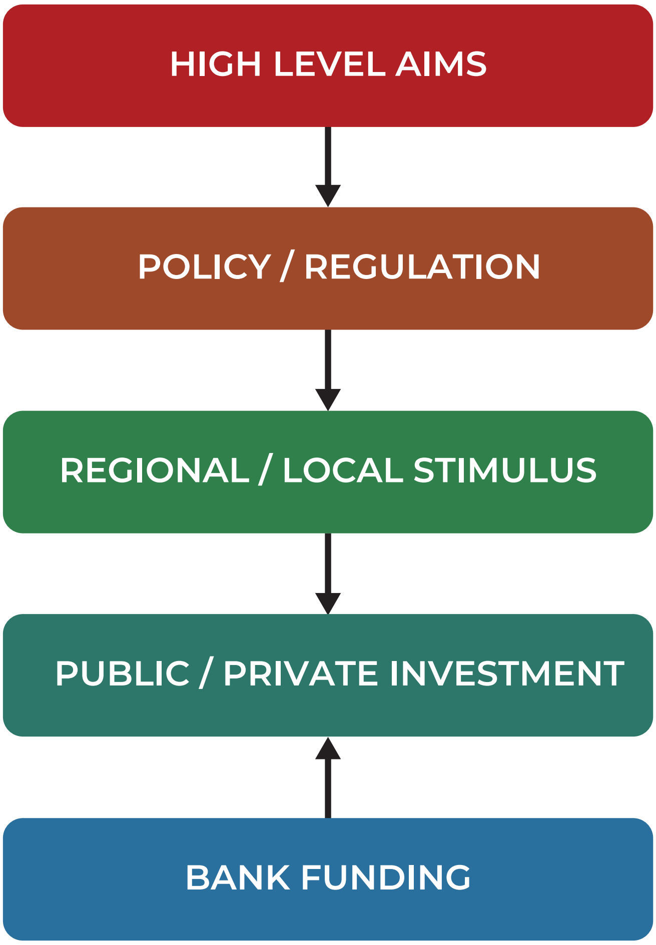
These are all geared to act as incentives rather than complete solutions. An example is the green tax reform, which initially increases taxes based on a business's energy consumption but will ultimately become a Greenhouse Gas (GHG) emission tax.

Environmental resiliency plans are emerging globally...

The examples cited in this paper are just a small sample of the policies and initiatives underway across the world. Each region has aims, policies, public funding, and private investment plans. The uniting characteristic is de-risking of the green transition.

Banks need to monitor plans to gauge the rate of green transition...

The overarching aim of resiliency plans is to stimulate growth and de-risk private investments. The top-line ambition is translated into specific targets and plans, which lead to public-private ownership of the transition and the capital required to make it real.



The industries and projects that attract support through tax incentive schemes, direct grants, or subsidized loans will enjoy an increasingly benign business environment and lower credit risk on any additional private investment.

These are the indicators that allow banks to construct matrices that map out the correlation between 'brown to green' transition pathways (scenarios) and the impact on individual sectors, firms and projects.

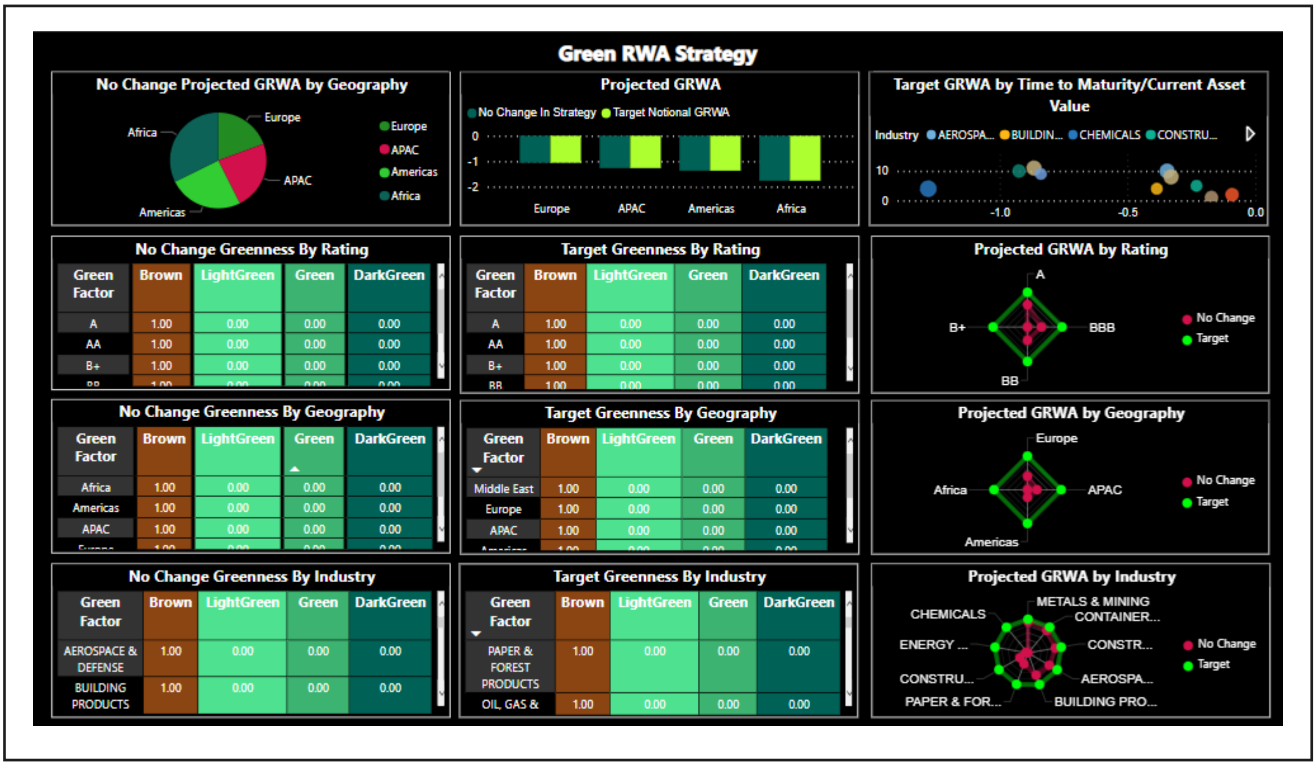
Once this is built, green funding, or at least loans into clearly supported areas can be made at interest rates that reflect the lower risk they represent to the bank. From the amount that needs to be held as risk capital, the risk can be quantified and translated into an appropriately lower spread on the interest rate.

- Assess the loan in terms of the borrower's current credit profile
- Calculate the risk capital requirement of the loan
- Adjust the profile to reflect the correlation to established green transition planning
- Calculate the green risk capital adjustment
- Adjust the interest rate spread that is required

Banks can use this to either improve the monitoring of climate-related risks on their balance sheets or establish internal centers of expertise in green lending.

GreenCap can help...

GreenCap is a climate-specific 'Risk as a Service' (RaaS) that enables banks to build climate pathway-specific risk analysis for their current and future balance sheets. The system is designed to work as a calculator to assist in risk management and specific green finance pricing.



Visit greencap.live for more information about the system as well as further insights into financing the sustainability transition.

ABOUT **GREENCAP**

- GREENCAP is a turnkey 'Risk as a Service' (RaaS) solution, designed for banks to include climate change as a category in their risk management frameworks.
- The solution allows banks to replicate climate pathways within their scenarios for economic impact and risk analysis.
- Using GreenCap, banks can modify pathways and scenarios to include the timing effects of delayed sustainability transition measures.
- Loans and credit facilities are measured and monitored against risks arising from both ‘physical’ and ‘transition’ impacts.
- GreenCap provides support for risk reporting and governance in the areas of ‘Responsible Banking’ and climate change.
- With GreenCap, banks can ensure that their climate strategies are financially grounded, and loan pricing is optimized throughout the transition to a green global economy.

ABOUT **GREENPOINT FINANCIAL**

- GreenPoint Financial is a division of GreenPoint Global, which provides software-enabled services, content, process and technology services, to financial institutions and related industry segments.
- GreenPoint is partnering with Finastra across multiple technology and services platforms.
- Founded in 2006, GreenPoint has grown to over 400 employees with a global footprint. Our production and management teams are in the U.S, India and Israel with access to subject matter experts.
- GreenPoint has a stable client base that ranges from small and medium-sized organizations to Fortune 1000 companies worldwide. We serve our clients through our deep resource pool of subject matter experts and process specialists across several domains.
- As an ISO certified by TÜV SÜD South Asia, GreenPoint rigorously complies with ISO 9001:2015 and ISO 27001:2013 standards.
- GreenPoint is owned by its founders and principals and is debt free.

Marcus Cree

MANAGING DIRECTOR AND
CO-HEAD OF FINANCIAL TECHNOLOGY AND SERVICES

Marcus has spent 25 years in financial risk management, working on both the buy and sell side of the industry. He has also worked on risk management projects in over 50 countries, gaining a unique perspective on the nuances and differences across regulatory regimes around the world.

As Managing Director, Marcus co-heads GreenPoint Financial Technology and Services and has been central in the initial design of GreenPoint products in the loan book risk area, including CECL and sustainability risk. This follows his extensive experience in the Finastra Risk Practice and as US Head of Risk Solutions for FIS. Marcus has also been a prolific conference speaker and writer on risk management, principally market, credit and liquidity risk. More recently, he has written and published papers on sustainability and green finance.

Marcus graduated from Leicester University in the UK, after studing Pure Mathematics, Phycology and Astronomy. Since graduation, Marcus has continually gained risk specific qualifications including the FRM (GARP's Financial Risk Manager) and the SCR(GARP's Sustainability and Climate Risk). Marcus's latest academic initiative is creating and teaching a course on Green Finance and Risk Management at NYU Tandon School of Engineering.

Sanjay Sharma, PhD

FOUNDER AND CHAIRMAN

Sanjay is the Founder and Chairman of GreenPoint Global - a risk advisory, education, and technology services firm headquartered in New York. Founded in 2006, GreenPoint has grown to over 380 employees with a global footprint and production and management teams located here in the U.S, India and Israel.

During 2007-16 Sanjay was the Chief Risk Officer of Global Arbitrage and Trading Group and Managing Director in Fixed Income and Currencies Risk Management at RBC Capital Markets in New York. His career in the financial services industry spans over two decades during which he has held investment banking and risk management positions at Goldman Sachs, Merrill Lynch, Citigroup, Moody's and Natixis. Sanjay is the author of "Risk Transparency" (Risk Books, 2013), Data Privacy and GDPR Handbook (Wiley,2019) and co-author of "The Fundamental Review of Trading Book (or FRTB)- Impact and Implementation" (RiskBooks,2018).

Sanjay was the Founding Director of the RBC/Hass Fellowship Program at the University of California at Berkeley and is an Adjunct Professor at EDHEC, Nice in France. Sanjay is also Adjunct Professor at Fordham University where he teaches a similar master's capstone course and at Columbia University. He has served as an advisor and a member of the Board of Directors of UPS Capital (a Division of UPS) and is a frequent speaker at industry conferences and at universities. He served on the Global Board of Directors for Professional Risk International Association (PRMIA).

He holds a PhD in Finance and International Business from New York University and an MBA from the Wharton School of Business and has undergraduate degrees in Physics and Marine Engineering. Sanjay acquired his appreciation for risk firsthand as a merchant marine officer at sea where he served for seven years and received the Cheif Engineer's certificate of competency for ocean-going merchant ships. Sanjay lives in Rye, NY with his wife and two teenage sons.