



The Potential of EU Connectivity through Missions and Smart Specialization

El potencial de la conectividad de la UE a través de las misiones y la especialización inteligente

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Abstract

Mission-oriented innovation and smart specialisation are internationally familiar concepts. They hold the potential to add more profundity to the EU thinking and modelling of its connectivity approach towards Asia and the world in general. The existing policy, governance frameworks and implementation instruments of smart specialisation and innovation could provide connectivity with evidence-informed lessons learnt and research findings from various parts of the world. Both frameworks for innovation and research could steer the EU connectivity approach away from controversies tied to the weaponised interdependence and strategic autonomy, including the bundle of concepts that come along with this vulnerabilities-oriented intellectual current. Research-intensity and mutual learning are elements that the mission-oriented innovation and smart specialisation could bring to the overall spectrum of thematic dimensions and implementation measures of the EU approach towards sustainably and trustfully connecting to Asia and other parts of the world.

Keywords: Asia-Europe relations, connectivity, missions, smart specialization

Resumen

La innovación orientada a la misión y la especialización inteligente son conceptos conocidos internacionalmente. Tienen el potencial de añadir más profundidad al pensa-

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miento de la Unión Europea y a la modelización de su enfoque de conectividad hacia Asia y el mundo en general. Los marcos políticos y de gobernanza y los instrumentos de aplicación de la especialización inteligente y la innovación existentes podrían aportar a la conectividad las lecciones aprendidas y los resultados de la investigación de diversas partes del mundo. Ambos marcos de innovación e investigación podrían alejar el enfoque de conectividad de la Unión Europea de las controversias vinculadas a la interdependencia armada y la autonomía estratégica, incluido el conjunto de conceptos que acompañan a esta corriente intelectual orientada a la vulnerabilidad. La intensidad de la investigación y el aprendizaje mutuo son elementos que la innovación orientada a la misión y la especialización inteligente podrían aportar al espectro general de dimensiones temáticas y medidas de aplicación del enfoque de la Unión Europea hacia una conexión sostenible y de confianza con Asia y otras partes del mundo.

Palabras clave: relaciones Asia-Europa, conectividad, misiones, especialización inteligente

Introduction

Focus on connectivity is on the rise. This article is written in the context of the European Union (EU) facing a complex international setting.¹ To counter the erosion of certain established multilateral forums and a shift towards “exclusionary policies”,² the EU sustainable connectivity captured by the Joint Communication “Connecting Europe and Asia-Building Blocks for an EU Strategy” is examined to argue how it could benefit from mission-oriented innovation and smart specialisation to continue sustaining a level of engagement with other parts of the world amidst the on-going geopolitical tectonic shifts.

The purpose of the article is to elaborate how some elements of the existing conceptual and policy toolbox of the EU, namely, mission-oriented innovation and smart specialisation could advance the goals captured by the EU strategic approach towards connectivity with Asia. The primary focus is on the Asian side of the Asia-Europe Meeting. However, such a geographic choice respects that ASEM does not assemble all countries geographically located across Europe and Asia. Moreover, the EU connectivity approach towards Asia will be complemented with the EU Global Connectivity Strategy to be launched in 2022.³

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1. Suzana Anghel et al., *On the Path to “Strategic Autonomy”: The EU in an Evolving Geopolitical Environment* (Brussels: European Union, 2020).
 2. Tomas Ries, “Security Aspects of Policy”, *Security Policy Brief* 115 (2019): 2, <https://bit.ly/3ZvgJhp>.
 3. Council of the European Union, *A Globally Connected Europe: Council Conclusions (12 July 2021)*, July 12th, 2021, 4, 10629/21; Maaïke Okano-Heijmans and Wilhelm Vosse, “Promoting Open and Inclusive Connectivity: The Case for Digital Development Cooperation”, *Research in Globalization* 3 (2021): 3, <https://doi.org/10.1016/j.resglo.2021.100061>.

Thus, suggestions captured in this article should be considered as applicable in a broader context or beyond Asia as well.

Following the ASEM agreement, connectivity is defined as “bringing countries, people and societies together; enhancing Europe-Asia ties on economic, political, security, social and cultural issues; establishing connectivity in respect of transport, digital links, energy, education, research, tourism and institutions; and contributing to the UN 2030 Agenda for Sustainable Development”.⁴ Building on the trusted connectivity approach, two non-negotiable pillars promoted by the leaders of the EU are transparency and accountability.⁵ Mission-oriented innovation is understood as an approach towards research and development that “requires not just adaptation, but also institutional innovations and dynamic capabilities within public organisations that create new markets and reshape the existing ones”.⁶ The missions’ approach is founded on systems thinking with a focus not solely on growth but also on the direction of innovation.⁷ Smart specialisation stands for an EU implemented and internationally promoted approach towards national or regional research and innovation strategies. Smart specialisation aims at building upon the existing regional or national knowledge strengths and potential for smart growth and the knowledge economy with the support of the EU expertise and funds.⁸

This article brings to the existing body of literature on connectivity insights from the EU research-intensive support frameworks and instruments, including the latest analysis on these policy initiatives and assistance measures. Besides the multifaceted connectivity model and findings elaborated in the EU supported ASEM Sustainable Connectivity Portal,⁹ there is a wealth of intellectual output at the disposal of the EU international connectivity

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4. Enrico D’Ambrogio, *Prospects for EU-Asia Connectivity: The “European Way to Connectivity”* (Brussels: European Union, 2021), 3.
 5. Kaja Kallas and Charles Michel, “Trusted Connectivity: The European Value Proposition”, *European Council*, September 14th, 2021, <https://bit.ly/3Yywen6>.
 6. Mariana Mazzucato, Antonio Andreoni and Rowan Conway, “Mission-Oriented Innovation in the USA. Shaping Markets toward Grand Challenges: A New Industrial Policy Frontier”, *UCL Institute for Innovation and Public Purpose*, policy paper 1, June 2021, 2, <https://bit.ly/3ZyZlbl>.
 7. Mariana Mazzucato and Olga Mikheeva, “The EIB and the New EU Missions Framework: Opportunities and Lessons from the EIB’s Advisory Support to the Circular Economy”, *UCL Institute for Innovation and Public Purpose*, policy report, November 2020, 20, <https://bit.ly/3JqbpWX>.
 8. Karen Schlüter, “(Regional) Smart Specialisation: A New Push for Regionalism in Europe?”, *L’Europe en Formation* 1, n.º 379 (2016): 180, <https://bit.ly/41Yli4k>.
 9. William Becker et al., “Exploring the Link between Asia and Europe Connectivity and Sustainable Development”, *Research in Globalization* 3 (2021), <https://doi.org/10.1016/j.resglo.2021.100045>.

builders that can serve the overall purposes to build the trusted connectivity in close alignment with the lessons learnt from the EU evidence-informed policy making.

This article is written with a full appreciation of the Baltic Sea Region (BSR) being the source of inspiration for the EU Connectivity Strategy Towards Asia.¹⁰ The latest developments in the BSR thinking on sustainable smart specialisation strategies (S4) and global supply and value chains deserve wider attention as a way how the EU via its connectivity approach could avoid further propensity towards the confrontational sentiment fuelled by the intellectual currents of weaponised interdependence. Mission-oriented innovation and S4 as the cross-cutting European way has the potential to guide the exploration of new cooperative ties in innovation, research and entrepreneurship in a win-win fashion both within the EU, as well as between EU-based entities and collaboration partners elsewhere in the world. Consequently, the EU approach towards connectivity with Asia, especially cooperation in research and innovation which forms part of the people-to-people domain of connectivity, is not seen in a siloed manner but as deeply intertwined in a broader international context.

A review of EU documents, relevant academic literature and policy analysis results in a proposal to channel mission oriented and S4 focused elements into the EU connectivity approach not only towards ASEM participating entities but Asia in general, not excluding the applicability to a broader international context as well. The proposed approach takes into consideration that the EU is far from the sole proponent of connectivity in Europe and Asia. The first section outlines the theoretical logic of network institutionalism that serves as a point of departure. The second part taps into the conceptual thinking that has been discussed in relation to 'connectivity', 'weaponised interdependence', 'strategic autonomy' and 'mission-oriented innovation', 'smart specialisation', as well as how these terms are seen in relational terms. The third part outlines the main features of connectivity of the EU Connectivity Strategy Towards Asia (captured in the 2018 Joint Communication) and presents some compatibility measures on how the on-going work on mission-oriented innovation and S4 can support the goals of this initiative. The fourth part

10. European Commission, *Joint Communication to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank: Connecting Europe and Asia. Building Blocks for an EU Strategy*, September 19th, 2018, 8, JOIN(2018) 31 final.

maps out other driving forces of connectivity in Europe and Asia and why those are relevant in future considerations on the EU approach towards connectivity. The concluding part sums up the key findings.

Network Institutionalism

The core logic of network institutionalism is the starting point for this study of connectivity. Networks are intermediary constructs that have a role in the institutionalisation of organisations.¹¹ Furthermore, “[r]elationships that connect individuals, groups, and organizations are assumed to be complex, in the sense that linkages between them are overlapping and cross-cutting”.¹² Empirical findings on the engagement of global policy networks in post-war settings illustrate this assumption.¹³ This specific feature is especially valuable for analysing multi-level governance’s modalities of the EU and its implications on the external ties forged with the support of the EU. These dynamics occur in an ever-denser context that weaves together supranational, international, transgovernmental and transnational with frequent references to the governance.¹⁴

Therefore, the next crucial characteristic of the network institutionalist conceptual lens is of great help in understanding the complexity of ties developed because of the implementation of the EU strategic initiatives both internally, as well as between the EU-based entities and external partners. “[N]etworks mobilize information, social influence, resources, and social capital in highly differentiated ways”.¹⁵ This tacit collective potential is a moving target characterised by fluidity and multifaceted characteristics.

One of the novel governance examples that is heavily reliant on collective actions steered via a dense layer of interlinked networks is the EU macro-regional

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11. Chris Ansell, “Network Institutionalism”, in *The Oxford Handbook of Political Institutions*, ed. Sarah Binder, Roderick Rhodes and Bert Rockman (Oxford: Oxford University Press, 2008); Anna Ohanyan, “Network Institutionalism and NGO Studies”, *International Studies Perspectives* 13, n.º 4 (2012): 367, <https://doi.org/10.1111/j.1528-3585.2012.00488.x>.
 12. Ansell, “Network Institutionalism”, 2.
 13. Anna Ohanyan, “The Effects of Global Policy Networks on Peacebuilding: Framework of Evaluation”, *Global Society* 24, n.º 4 (2010), <https://doi.org/10.1080/13600826.2010.508365>.
 14. H. George Frederickson, “Whatever Happened to Public Administration?: Governance, Governance Everywhere”, in *The Oxford Handbook of Public Management*, ed. Ewan Ferlie, Laurence Lynn and Christopher Pollitt (Oxford: Oxford University Press, 2007), 19.
 15. Ansell, “Network Institutionalism”, 2.

strategies. These transnational consultative and coordination frameworks pool resources with various conditionalities and assemble diverse expert networks and working groups to reach the critical mass of effort to tackle specific challenges.¹⁶ Each strategy has a tailored model of the structure and thematic network pattern. Each strategy focuses on specific challenges of a given part of Europe and involves local, regional, national, and transnational entities in project-based activities.

BSR is not only a source of inspiration for crafting the connectivity towards Asia. Besides, it is the pioneering area that launched the first macro-regional framework – the EU Strategy for the BSR. The macro-regional framework placed in this geographic, historical, economic and political context brings together the past and future prospects in a manner that, in comparison to other peer EU macro-regional areas, might be less prone to what Ohanyan refers to as the “territorial trap of statehood”, namely, a narrow focus on the states in the studies of regionalism.¹⁷ The EU Strategy for the BSR underwent a comprehensive analysis to scan the future S4 thematic avenues.¹⁸ These findings and suggested ways forward could be considered as a source of inspiration (not direct replication) also beyond the BSR.

Vulnerability Through Connectivity

‘Connectivity’ is a widely used term in various compartments of social sciences theories. The limited space of this article does not allow to delve into the diversity of nuances of various definitions. The guiding understanding of the term is the one indicated in the EU Connectivity Strategy without elaborating on further intricacies whether it corresponds to the notions of one or another theoretical definition. The definition of connectivity agreed by the

16. Zane Šime, “EU Strategy for the Baltic Sea Region: A New Space for a Study of Novel Forms of Diplomacy”, *Regions & Cohesion* 10, n.º 3 (2020), <https://doi.org/10.3167/reco.2020.100310>.

17. Anna Ohanyan, “Regional Fracture and Its Intractability in World Politics: The Case of the Late Ottoman Empire”, *Nationalities Papers* 50, n.º 3 (2021), <https://doi.org/10.1017/nps.2021.27>.

18. Nordic Council of Ministers, *Ten Trends For the Sustainable Bioeconomy in the Nordic Arctic and Baltic Sea Region* (Copenhagen: Nordic Council of Ministers, 2020); Alasdair Reid, Elina Griniece and Vladimir Cvijanović, *High Level Value Chain Mapping in the Baltic Sea Region: Guidance Manual* (Brussels: EFIS, 2020); Elina Griniece, Alasdair Reid and Vladimir Cvijanović, *High Level Value Chain Mapping in the Baltic Sea Region: Pilot Exercise on Circular Bioeconomy* (Brussels: EFIS, 2020); Johanna Leino and Alison Hunter, *Smart Specialisation in the Baltic Sea Region: Learning towards Macro-Regional Specialisation* (Tampere, FI: Interreg / European Union, 2020).

Asia-Europe Meeting (ASEM) and re-confirmed in the EU Connectivity Strategy Towards Asia¹⁹ is treated as the supportive element for further exploration how following the networked institutionalist logic various other related terms expand the understanding of contextual factors and implications that come along with connectivity, especially its research collaborative side corresponding to the people-to-people domain.

ASEM defines connectivity as “bringing countries, people and societies closer together. It facilitates access and is a means to foster deeper economic and people-to-people ties”. ASEM connectivity “encompasses the hard and soft aspects, including the physical and institutional social-cultural linkages that are the fundamental supportive means to enhance the economic, political-security, and socio-cultural ties between Asia and Europe which also contribute to the narrowing of the varying levels of development and capacities”.²⁰ This definition is instrumental in understanding how not only advantages but also risks are articulated. The next paragraphs elaborate in further detail via what terms and notions the EU and analysts of the EU have articulated their stances on the risks.

The term ‘weaponised interdependence’ captures the contestation of the former understanding that increased interdependencies and integration brings more peace and prosperity.²¹ Real-world dynamics paint a more complex picture. ‘Weaponised interdependence’ builds upon the identified gap in the existing body of international relations’ theory. There is a lack of “guideposts as to how states may leverage network structures as a coercive tool and under what circumstances”.²² Various examples of economic ties have been stated to argue how certain countries suffer from their vulnerability in terms of dependence on certain goods or export of their own produced products or services when faced with politically motivated backlashes.²³ The term travels far and wide. It

19. Bart Gaens, “The EU-Asia Connectivity Strategy and Its Impact on Asia-Europe Relations”, in *Trade and Economic Connectivity in the Age of Uncertainty*, ed. Christian Echle and Megha Sarmah (Singapore: Konrad-Adenauer-Stiftung, 2019), 23.

20. European Commission, *Joint Communication to the European Parliament*, 1.

21. Amrita Narlikar, “A Grand Bargain to Revive the WTO”, *Centre for International Governance Innovation*, May 11th, 2020, <https://bit.ly/3YGiZkl>; Henrique Choer Moraes, “The Turn to Managed Interdependence: A Glimpse into the Future of International Economic Law?”, *EJIL Talk!*, August 24th, 2018, <https://bit.ly/3J5FysW>.

22. Henry Farrell and Abraham Newman, “Weaponized Interdependence: How Global Economic Networks Shape State Coercion”, *International Security* 44, n.º 1 (2019): 43, https://doi.org/10.1162/isec_a_00351.

23. Chia-Chien Chang and Alan Yang, “Weaponized Interdependence: China’s Economic Statecraft and Social Penetration against Taiwan”, *Orbis* 64, n.º 2 (2020), <https://doi.org/10.1016/j.orbis.2020.02.002>.

goes as far as exploring the weaponization of tourism with a focus on the management of China's outbound tourist flows.²⁴ Likewise, it is used by analysts who seek to identify what implications these dynamics bring to Europe.²⁵

Interlink between weaponised interdependence and strategic autonomy²⁶ can be traced in a comprehensive, cross-sectoral manner in reflections on the EU connectivity.²⁷ Tocci defines strategic autonomy as “[t]he ability of the Union to decide autonomously and have the means to act upon its decisions”.²⁸ Strategic autonomy requires attention towards the divergence between official policy stance and scholarly understanding of the term. “Academics argue that strategic autonomy does not apply exclusively to the realm of security and defence policy from which it originates, but covers all EU-related policy areas, thereby requiring a horizontal, cross-policy, approach and the discontinuation of the existing silo approach to EU policies”.²⁹ Although the official endorsement in the EU refers to the strategic autonomy solely in relation to the defence sector, this article embraces the zest witnessed among the researchers to refer to it in a comprehensive manner.

Among the definitions associated with strategic autonomy is one which incorporates relational aspects as well: “the ability to act autonomously, to rely on one’s own resources in key strategic areas and to cooperate with partners whenever needed”.³⁰ It proves to be highly salient for the purposes of this article. Both connectivity and strategic autonomy share a focus on

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24. Darren Lim, Victor Ferguson and Rosa Bishop, “Chinese Outbound Tourism as an Instrument of Economic Statecraft”, *Journal of Contemporary China* 29, n.º 126 (2020), <https://doi.org/10.1080/10670564.2020.1744390>.
 25. Zhao Minghao, “The Belt and Road Initiative and its Implications for China-Europe Relations”, *The International Spectator* 51, n.º 4 (2016): 115, <https://doi.org/10.1080/03932729.2016.1235819>; Amrita Narlikar, “Managing the World of Weaponized Interdependence”, *The Security Times*, February 2020, <https://bit.ly/3kSUov7>.
 26. The terms ‘strategic autonomy’ and ‘strategic sovereignty’ are treated as synonyms in this article.
 27. Romana Vlahutin, “Reconnected: How the EU Can Assert Its Sovereignty after the Pandemic”, *European Council on Foreign Relations*, April 21st, 2020, <https://bit.ly/3ZUstjU>; Romana Vlahutin, “Sustainable Connectivity: The European way” (keynote speech, Asia-Europe Sustainable Connectivity Scientific Conference [AESCON], March 22nd-24th, 2020).
 28. Nathalie Tocci, “Interview with Nathalie Tocci on the Global Strategy for the European Union’s Foreign and Security Policy”, *The International Spectator* 51, n.º 3 (2016): 3, <https://doi.org/10.1080/03932729.2016.1216744>.
 29. European Commission, *Joint Communication to the European Parliament*, 3.
 30. Anghel et al., *On the Path to “Strategic Autonomy”*, 1.

multilateralism.³¹ Such interlinkages also serve as a good context for accommodating the earlier suggested study of “the concept of flow security and its applicability to the EU context”.³² To strike the right balance between being optimally connected but at the same time remaining capable to act autonomously (when necessary) is an ambitious task for the EU to accomplish.

Furthermore, by bringing strategic autonomy into the connectivity discussion ‘smart power’, ‘sharp power’, ‘shaping power’³³ tag along. These power terms can help to carve out more details of what ‘weaponised interdependence’ would entail in terms of foreign policy implications. However, this bundle of concepts is left outside of the scope of this concise article. The existing scholarly literature does not seem to indicate a strong connection between these power concepts and missions, smart specialisation. Instead, Nye’s invitation to reorient towards “open and rules-based order” to manage the tectonic shifts of international interdependence³⁴ is noted as a perspective that has more like-mindedness with the EU focus on strengthening multilateralism through jointly agreed and respected forms of engagement discussed in the subsequent section.

Missions and Smart Specialisation

Strategic autonomy is a term that is not without its controversy. The EU efforts aimed at strengthening its autonomy pose a risk of additional costs, international tensions, and protectionism.³⁵ To manage the potential misunderstandings between the EU and its partners in Asia and worldwide³⁶ it is worth bringing mission-oriented innovation and S4 into the picture. Both terms refer to widely discussed and researched concepts among the scholarly circles and a policy framework adopted by policy planners in the EU, as well as examined and tested elsewhere in the world. Missions and S4 could be instrumental for translating at least some proportion of the visionary and strategic seren-

31. Ibid., 28; Council of the European Union, *Connecting Europe and Asia: Building Blocks for an EU Strategy. Council Conclusions (15 October 2018)*, October 15th, 2018, 2-3, 13097/18.

32. Ries, “Security Aspects of Policy”, 6.

33. Anghel et al., *On the Path to “Strategic Autonomy”*, 1.

34. Joseph S. Nye, Jr., “Power and Interdependence with China”, *The Washington Quarterly* 43, n.º 1 (2020): 17-8, <https://doi.org/10.1080/0163660X.2020.1734303>.

35. Anghel et al., *On the Path to “Strategic Autonomy”*, 10.

36. Sven Biscop, “The Power to Engage: Giving Punch to a New EU Global Strategy 2020”, *Security Policy Brief* 114 (2019): 3, <https://bit.ly/3Jpk37T>.

dipity outlined in the EU Connectivity Towards Asia into more tangible implementation terms. Missions and S4 could be considered among a range of selected instruments from the EU toolbox for a clearer projection of the European way for a sustained international engagement.³⁷ Both have a role to play in translating specific research, innovation, and industrial objectives, as well as reconfiguration of international supply and value chains into tangible actions and results. Likewise, both are internationally known due to the widespread preponderance towards Mazzucato's promoted approach towards innovation and earlier EU work not only in terms of EU-wide implementation of smart specialisation but also its promotion to the other parts of the world.³⁸

In short, back in 1967, some American tastemakers were of an opinion that "mission-oriented is a terrible expression".³⁹ However, the terminology stood the test of time. The contemporary international hype around missions builds on a premise that "[c]ountries around the world are seeking economic growth that is smart (innovation-led), inclusive and sustainable".⁴⁰ Mazzucato is the contemporary intellectual protagonist. Her framework places the resurging international focus on missions as a directionality offering approach for pooling cross-disciplinary forces into the context of present-day policy-making terminology, such as Sustainable Development Goals and grand societal challenges.⁴¹ Her often used example of technological achievements sparked by investments in missions are Apple products.⁴² If in the previous century the basic principles of missions were put into the wording encouraging not to neglect "long-range science and technology",⁴³ then in the contemporary national and European governance contexts it is echoed by a recommenda-

37. Idea aligned with the suggestions expressed by Steven Blockmans, "Why the EU Needs a Geopolitical Commission", *Centre for European Policy Studies*, September 15th, 2020, <https://bit.ly/3kWN1Tp>.

38. Mikel Landabaso, "From S3 to S4: Towards Sustainable Smart Specialisation Strategies", *European Commission*, February 27th, 2020, <https://bit.ly/3kZGRSp>.

39. T. L. Campbell, "Basic Science in Mission-Oriented Endeavor", *Science* 156, n.º 3775 (1967): 670, <https://doi.org/10.1126/science.156.3775.670>.

40. Mariana Mazzucato, "Mission-Oriented Innovation Policy: Challenges and Opportunities", *UCL Institute for Innovation and Public Purpose*, working paper, September 2017, 5, <https://bit.ly/315L6vB>.

41. *Ibid.*, 9 and 14; Douglas Robinson and Mariana Mazzucato, "The Evolution of Mission-Oriented Policies: Exploring Changing Market Creating Policies in the US and European Space Sector", *Research Policy* 48, n.º 4 (2019): 937-8, <https://doi.org/10.1016/j.respol.2018.10.005>.

42. Mazzucato, "Mission-Oriented Innovation Policy", 22.

43. Rodney Nichols, "Mission-Oriented R & D: Senator Mansfield's Questions Sharpen Congressional Uncertainties About Federal R & D Patterns", *Science* 172, n.º 3978 (1971): 35, <https://doi.org/10.1126/science.172.3978.29>.

tion to embrace “patient, long-term, committed finance” for radical and incremental innovations.⁴⁴

Although not a complete novelty in certain 21st century national contexts in Europe,⁴⁵ missions have succeeded to become the name of the game not only EU-wide but also internationally, including Latin America.⁴⁶ The EU adopts a thematically wide approach to missions (climate, cancer, ocean, cities, soil) to be funded by the EU Framework Programme “Horizon Europe” among other instruments. Researchers avidly explore domains, such as renewable energy, to map potential modalities of future international comparisons on mission-type of initiatives, and modalities of analysing food systems transformation through the framework of ‘mission-oriented innovation system’.⁴⁷ This thematic focus corresponds to the latest prioritisation chosen for the BSR S4 directions. Thus, this is a good example of how the empirical focus of both conceptual frameworks benefits from the compatibility of certain thematic directions.

Since the European Research Area (ERA) is open to international collaborations, then EU chosen areas for missions⁴⁸ should be seen as a cross-cutting EU

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44. Mariana Mazzucato, *Mission-Oriented Research & Innovation in the European Union: A Problem-Solving Approach to Fuel Innovation-Led Growth* (Brussels: European Commission, 2018); Mariana Mazzucato, “Catch-Up and Mission-Oriented Innovation”, in *How Nations Learn: Technological Learning, Industrial Policy, and Catch-Up*, ed. Arkebe Oqubay and Kenichi Ohno (Oxford: Oxford University Press, 2019), 66; Mariana Mazzucato and George Dibb, *A Mission-Oriented Vision for Innovation-Led Economic Growth* (London: UCL Institute for Innovation and Public Purpose, 2018); Mariana Mazzucato and Caetano Penna, “The Rise of Mission-Oriented State Investment Banks: The Cases of Germany’s KfW and Brazil’s BNDES”, *Science Policy Research Unit*, working paper, 2015-2016, 8 and 29, <https://dx.doi.org/10.2139/ssrn.2744613>; Nichols, “Mission-Oriented R & D”, 35; Giovanni Dosi et al., “Mission-Oriented Policies and the ‘Entrepreneurial State’ at Work: An Agent-Based Exploration”, *UCL Institute for Innovation and Public Purpose*, working paper, 2021, <https://bit.ly/3J6vOPg>.
45. Kaare Aagaard and Niels Mejlgaard, “Research Policy Transformations and Tensions”, in *The Oxford Handbook of Danish Politics*, ed. Peter Munk Christiansen, Jørgen Elklit and Peter Nedergaard (Oxford: Oxford University Press, 2020).
46. UCL Institute for Innovation and Public Purpose, “IIPP Taking the Lead in Latin America on Post-COVID Recovery”, *UCL*, July 29th, 2020, <https://bit.ly/3L42AmS>.
47. Laurens Klerkx and Stephanie Begemann, “Supporting Food Systems Transformation: The What, Why, Who, Where and How of Mission-Oriented Agricultural Innovation Systems”, *Agricultural Systems* 184 (2020), <https://doi.org/10.1016/j.agsy.2020.102901>; Hudson Mendonça, Teresia van Aduard and Marcus de Araújo, “Working towards a Framework Based on Mission-Oriented Practices for Assessing Renewable Energy Innovation Policies”, *Journal of Cleaner Production* 193 (2018), <https://doi.org/10.1016/j.jclepro.2018.05.064>.
48. Areas: cancer; adaptation to climate change including societal transformation; healthy oceans, seas coastal and inland waters; climate-neutral and smart cities; soil health and food. European Commission, “EU Missions in Horizon Europe”, *European Commission*, accessed March 8th, 2023, <https://bit.ly/3IV5lnC>.

policy strand that allows to distance from the potential controversies associated with the strategic autonomy. Instead, missions support a cooperative spirit that minimizes the vulnerability towards dependence on external know-how and help to make most of the international collaborations to facilitate mutual learning among the involved parties, including further strengthening the EU research potential and expertise.

Mazzucato has developed the mission-oriented innovation framework as highly compatible with smart specialisation.⁴⁹ “The original smart specialization concept [...] emerged out of discussions led by a team of expert analysts investigating the growing ‘Transatlantic Productivity Gap’ [...] and the puzzling lack of innovative and entrepreneurial dynamism in many parts of Europe in the light of the potential market opportunities offered by newly emerging technologies”.⁵⁰ Smart specialisation “is a systematic policy process with the aim to make European regions more competitive through innovation”.⁵¹ Most importantly, smart specialisation is a meta-policy or a policy process rather than a policy. It introduces changes in policies through distilling criteria and priorities for other policies to follow.⁵² The strength of smart specialisation is an elaborate toolbox of methodological steps, assistance measures and expert debates facilitated primarily by the Joint Research Centre of the European Commission. It offers a comprehensive set of terminology for international engagement and a detailed learning process on how to unlock the entrepreneurial and growth potential of a region or a country.

An international ‘mission-oriented turn’ in the innovation policies further increases the viability of smart specialisation as a world-wide learning-by-doing discovery process of home-grown industrial strengths.⁵³ This coupling

49. Mazzucato, “Mission-Oriented Innovation Policy”, 18; Mazzucato, “Catch-Up and Mission-Oriented Innovation”, 70.

50. Dominique Foray, Philip McCann and Raquel Ortega, “Smart Specialization and European Regional Development Policy”, in *The Oxford Handbook of Local Competitiveness*, ed. David Audretsch, Albert Link and Mary Walshok (Oxford: Oxford University Press, 2015), 459. For a concise overview of the development of the policy framework for this theoretical line of thinking consult the following article: Ninetta Chaniotou and Zane Šime, “Baltic Sea Region-Wide Research-Business Cooperation: What Benefits for Sparsely Populated Areas and Smart Specialisation?”, *European Structural and Investment Funds Journal* 6, n.º 3 (2018), <https://bit.ly/3yoBT1b>.

51. Leino and Hunter, *Smart Specialisation in the Baltic Sea Region*, 5.

52. Fabrizio Guzzo and Carlo Gianelle, *Assessing Smart Specialisation: Governance* (Luxembourg: European Commission, 2021), 7.

53. Zane Šime, “Multi-Level Governance of Innovation and Smart Specialisation”, *Baltic TRAM*, October 31st, 2017, 14, <https://bit.ly/3ZS2oLv>.

of missions and smart specialisation provides diverse support for research and development to the ‘sleeping giants’, ‘excited goblins’ and ‘hungry dwarfs’.⁵⁴ In 2019, this poetic typology of enterprises received some further honing via the definition of six strategic value chains.⁵⁵ The Mazzucato reports with a focus on the role of co-design, co-creation, co-implementation and public procurement⁵⁶ show certain like-mindedness with the principles of the smart specialisation’s triple and quadruple helixes.⁵⁷

While smart specialisation is humbler about the knowledge and expertise of the state and drops the “omniscient central planner”,⁵⁸ missions represent a somewhat bolder compartment of EU policies. According to the mission logic, the market-shaping efforts launched by the public sector should result in tilting the playing field towards a set of directions that channel pressing challenges into concrete problems and solutions tailored to resolve them.⁵⁹ Due to the fact that missions should be based on various funding sources, the interlinks with the S4 that is largely grounded in the EU Cohesion Policy and funds linked to this policy gains even more prominence.⁶⁰

These on-going attempts of tilting and smartly specialising do not restrict involved experts from sharing the lessons learnt so far of this hands-on approach with interested parties located in various parts of the world. Since 2016,⁶¹ such key elements as the entrepreneurial discovery process have been discussed during the annual SMARTER conferences. It is one of the

54. Definitions of these typologies of enterprises are outlined in European Parliament, “Smart Specialisation and Europe’s Growth Agenda”, *European Parliament*, accessed March 8th, 2023, 4, <https://bit.ly/3JqPkaM>.

55. These six chosen areas are connected, clean and autonomous vehicles; hydrogen technologies and systems; smart health; industrial internet of things; low-carbon industry; cybersecurity. Reid, Griniece and Cvijanović, *High Level Value Chain Mapping in the Baltic Sea Region*, 5.

56. Mazzucato, *Mission-Oriented Research & Innovation in the European Union*, 18; Mariana Mazzucato, *Governing Missions in the European Union* (Luxembourg: European Union, 2019), 12; Mariana Mazzucato, “Mission-Oriented Public Procurement: International Examples”, *UCL Institute for Innovation and Public Purpose*, policy report, 2020, <https://bit.ly/42b3S51>.

57. Definitions and explanation of triple and quadruple helixes are provided in Elias Carayannis and Ruslan Rakhmatullin, “The Quadruple/Quintuple Innovation Helixes and Smart Specialisation Strategies for Sustainable and Inclusive Growth in Europe and Beyond”, *Journal of the Knowledge Economy* 5 (2014), <https://bit.ly/3ZBQJB0>.

58. Foray, McCann and Ortega, “Smart Specialization and European Regional Development Policy”, 11.

59. Mazzucato, *Governing Missions in the European Union*, 12.

60. *Ibid.*, 20.

61. European Commission, “1st SMARTER Conference on Smart Specialisation and Territorial Development”, *European Commission*, accessed March 8th, 2023, <https://bit.ly/3mHc50X>.

key forums that gathers experts interested in offering their assessments on the achieved progress and future directions of smart specialisation, how specific geographic areas reinterpret relatedness and connectivity.⁶² Continuous tapping into the expertise on smart specialisation, especially paying attention to the recent research on the role of extra-local connectivity and innovation pipelines,⁶³ would be one of the ways how to build more solid foundations for the implementation of the EU connectivity approach.

EU Connectivity Strategy

The Joint Communication “Connecting Europe and Asia – Building Blocks for an EU Strategy” was prepared for the 12th ASEM Summit in October 2018.⁶⁴ Instead of being a strategic blueprint for action, it is judged to correspond to a technical document a list of the EU’s instruments.⁶⁵ The subsequent paragraphs outline how this inventory of useful EU frameworks and tools could be broadened to accommodate missions and smart specialisation, thus strengthening the future actionable dimension of the EU Connectivity Strategy Towards Asia.

Overall, the document is outward-looking and explains how the EU seeks to build or maintain ties across ASEM (and Asia more broadly) in a variety of policy domains. Thought, certain thematic areas have gained more prominence than others. Digital is among those areas that analysts invite to pay more attention to.⁶⁶ The recommendations for improving digitalisation and technological development in Central Asia,⁶⁷ earlier mentioned EU industrial focus on cyber security and BSR S4 propensity towards prioritising the

62. Such spatial concepts as “domain”, “relevant size”, “connectedness”, “embeddedness”, “relatedness” and “connectivity” are no strangers to the smart specialisation literature. Foray, McCann and Ortega, “Smart Specialization and European Regional Development Policy”, 12.

63. Andrés Rodríguez-Pose, “The Research and Innovation Divide in the EU and Its Economic Consequences”, *European Commission*, working paper, 2020, <https://bit.ly/3l0UeBS>.

64. European Commission, *Joint Communication to the European Parliament*, 1.

65. Jacopo Maria Pepe, “Connectivity in Post-COVID-19 Eurasia: Chances for the EU”, *German Council on Foreign Relations*, September 1st, 2020, <https://bit.ly/3Fehzqv>.

66. Maaïke Okano-Heijmans, “How to Strengthen Europe’s Agenda on Digital Connectivity”, *Clingendael*, policy brief, July 2019, <https://bit.ly/3YB0FJJ>; Okano-Heijmans and Vosse, “Promoting Open and Inclusive Connectivity”.

67. Dmitry Erokhin, “Comparative Analysis of Digital Development in Central Asian Countries”, *OSCE Academy in Bishkek*, policy brief 63, September 2020, 9, <https://bit.ly/3YBqjOr>.

development of new digital solutions shows that there are good grounds for building complementarities between the EU internal policies and their extensions towards Asia.

The Connectivity Strategy aims at promoting synergies with such frameworks tailored for specific geographic areas as the EU Central Asia Strategy.⁶⁸ However, since the launch of the EU Connectivity Strategy Towards Asia other major agreements have been reached. Thus, its success should be considered dependent also on such documents as the Joint Statement of the EU-India Leaders' meeting convened in 2021 in Porto, including the EU-India Strategic Partnership: A Roadmap to 2025. Remarks presented by India-based connectivity researchers⁶⁹ have a lot of similarities with the EU logic of cohesion policy and subsequently S4. Thus, there is a potential to forge complementarities.

The leading voice on the EU for the connectivity, Ambassador Romana Vlahutin, avoids rose-tinted glasses via references to the weaponised interdependence.⁷⁰ An international propensity towards the US-China geopolitical interaction does not escape the EU policy-making radar. However, to reiterate Nye's suggested open and rules-based governance, this article follows this more cooperative spirit with a suggestion to explore the full potential that missions and smart specialisation could bring to the EU connectivity approach towards Asia. The European way stands for the international flows of goods, services, people, and ideas organised in a sustainable and rules-based manner and entails 'soft connectivity' of "promoting consistent rules and standards".⁷¹

The European way is considered in this article to be similar to open and rules-based governance. It is more multilateralism-oriented and mutual expertise enhancing direction for future engagement that would invite to consider incorporating either in the overall approach or wording of the EU core docu-

68. European Commission, *Joint Communication to the European Parliament*, 8; Martin Russell, "Connectivity in Central Asia: Reconnecting the Silk Road", *European Parliament*, briefing, April 2nd, 2019, <https://bit.ly/3F9Q7Ky>.

69. P. V. Rao, "Development through Connectivity: India's Maritime Narrative", *Journal of the Indian Ocean Region* 15, n.º 3 (2019): 256, <https://doi.org/10.1080/19480881.2019.1640578>; Garima Mohan and Darshana Baruah, "Charting EU-India Cooperation on Connectivity", *EU-India Think Tanks Twinning Initiative*, January 7th, 2019, <https://bit.ly/3L9I8kk>; Maaïke Okano-Heijmans and Jagannath Panda, *Managing Connectivity Conflict: EU-India Cooperation and China's Belt and Road Initiative* (Stockholm: Institute for Security & Development Policy, 2018).

70. Vlahutin, "Sustainable Connectivity".

71. Manuel Widmann, "The EU Connectivity Strategy: Putting Words into Action", *European Institute for Asian Studies*, briefing paper 2, August 2021, 2 and 9, <https://bit.ly/3Yvpbvv>.

ment Mazzucato's thinking of the EU (and in national contexts-the state) as the market shaper, not a fixer. Practically, one potential way how to translate this shift of the approach in the overall narrative revolving around connectivity⁷² would be to revisit points raised in the joint communication about the aim to 'level the playing field' and evaluate those in the context of the mission-oriented 'tilting towards a direction' among the willing ones. The EU selected areas for missions, industrial priorities and BSR S4 trends offer plenty of guidance for potential Europe-Asia tilting directions and multi-stakeholder partnerships of smart specialisation projects.

Other Connectivity Proponents

Connectivity has several proponents present in Europe and Asia. It is shown by the references to the "geopolitics of connectivity"⁷³ that marks a shift away from the previous preoccupation with territorial geopolitics.⁷⁴ Even if this article focuses on the EU connectivity potential towards Asia, it respects the unmatched US network power. The US is still considered a system maker and a privilege taker.⁷⁵ Much ink has been spilt over the study of the other prominent connectivity leaders, namely, China and its Belt and Road Initiative,⁷⁶ Japan with quality infrastructure, India with several infrastructure projects, and Russia with the Eurasian Economic Union and the Collective

72. A example would be Carole Lecomte, "Ambassador Romana Vlahutin: The EU's Connectivity Strategy", *Belfer Center for Science and International Affairs*, May 10th, 2019, <https://bit.ly/2VtOC5g>.

73. Nadine Godehardt and Karoline Postel-Vinay, "Connectivity and Geopolitics: Beware the 'New Wine in Old Bottles' Approach", *SWP Comment* 35 (2020): 1, <https://bit.ly/3YAes0>.

74. Ayaz Rzaev, "Towards Greater Connectivity: The South Caucasus as a Railway Hub between the EU and China", *UNU-CRIS*, policy brief 1, 2019, <https://bit.ly/3l0ZVje>.

75. Daniel Drezner, "The Song Remains the Same: International Relations after COVID-19", *International Organization* 74, n.° 51 (2020), <https://doi.org/10.1017/S0020818320000351>.

76. The reason why the EU internal connectivity should not be neglected is the sheer proportion of involved countries. "[...] 14 out of 28 EU member states have already signed bilateral endorsements of the BRI, with Italy in 2019 being the first G7 nation to join the initiative". Constantin Holzer, "Identity Narratives in China and the EU's Economic Diplomacy: Comparing the BRI and the EU Connectivity Strategy for Asia", in *Chinese National Identity in the Age of Globalisation*, ed. Lu Zhouxiang (Singapore: Palgrave Macmillan, 2020), 196. See also Jakub Jakóbowski, "Chinese-Led Regional Multilateralism in Central and Eastern Europe, Africa and Latin America: 16 + 1, FOCAC, and CCF", *Journal of Contemporary China* 27, n.° 113 (2018), <https://doi.org/10.1080/10670564.2018.1458055>; Minghao, "The Belt and Road Initiative"; Werner Pascha, "Belts, Roads, and Regions: The Dynamics of Chinese and Japanese Infrastructure Connectivity Initiatives and Europe's Responses", *Asian Development Bank Institute*, working paper 1114, April 2020, <https://bit.ly/3T1VvFc>.

Security Treaty Organisation.⁷⁷ This growing body of literature shows that connectivity has a remarkable density of layers, forms of established ties, supporting institutions and initiatives, as well as historical context that might be promising patterns to build upon.⁷⁸

Connectivity, similarly to a range of other terms that recently have caught international attention, refers to a process with deep historical roots but its contemporary meaning allows to categorise it as a relatively novel buzzword.⁷⁹ Its current thematic strands have not yet stood the test of time to make it possible to discern the signature features, such as whether the further debate will go down the road of ‘weaponised interdependence’ with a propensity towards safeguarding from vulnerabilities or lean more towards the internationally welcoming European way of trusted connectivity and the open and rules-based governance. The terms and interlinks between them matter. It helps to capture the political sentiment and state of relations between the main connectors, as well as implications this general mood have on so-to-say ‘connecters’ or countries and actors that seek international engagement with like-minded leading forces to sustain and enhance their prosperity.

Since the EU is not the sole connectivity proponent with an interest in developing mission-oriented innovation initiatives, the well-elaborated structural patterns of the ERA and the EU Framework Programmes (as the implementation enablers) offer a good international collaboration mode to extend the EU connectivity goals in a number of domains.

Likewise, the support offered by smart specialisation to the EU industrial policy and the well-elaborated framework of transferring smart specialisation conceptual and policy blueprint to other parts of the world, including

77. Mathieu Duchâtel et al., “Eurasian Integration and the EU”, in *Absorb and Conquer: An EU Approach to Russian and Chinese Integration in Eurasia* (London: European Council on Foreign Relations, 2016); Sinikukka Saari, “Connecting the Dots: Challenges to EU Connectivity in Central Asia”, *European Union Institute for Security Studies*, brief, June 2019, <https://bit.ly/3Jr4Ra6>.

78. Mario Esteban and Ugo Armanini, “The EU-Japan Connectivity Partnership: A Sustainable Initiative Awaiting Materialisation”, *Real Instituto Elcano*, February 4th, 2020, <https://bit.ly/3Jr1YGF>.

79. Similar remarks have been made in relation to science diplomacy. Zane Šime, “Science Diplomacy in the Context of the EU-India Strategic Partnership: Looking beyond the European Sandbagging Contest”, *Science Diplomacy. India’s Global Digest of Multidisciplinary Science* 4, n.º 4 (2021), <https://bit.ly/3J6TyCK>.

but not exclusively China,⁸⁰ India⁸¹ and Latin America⁸² as well, proves that it is a conducive enabler of connectivity with substantial potential to offer not only an interactive collaboration but also a sound framework for monitoring, analysing and measuring the achieved results. While connectivity is a lot about relations, having some clarity about specific achievements would strengthen certainty about the value of the EU chosen strategic approach and practical course of actions.

Conclusions

This article proposes to incorporate mission-oriented innovation and smart specialisation in the EU connectivity approach towards ASEM and Asia more generally in order to offer access to established EU mechanisms for assembling rich networks of research-intense expertise. The EU existing structures and intellectual infrastructure developed for the implementation of missions and S4 provides a valuable support measure for additional depth and substance of the overall meaning associated with the EU connectivity.

Some of the conceptual underpinnings of the EU policies that have not attracted attention in Asia-Europe relations should be taken on board as promising conveyors of the results that the EU Connectivity Strategy Towards Asia aspires to deliver. The mission-oriented innovation and smart specialisation are excellent concepts and policy steering tools that have accumulated internationally grounded empirical evidence and should be considered as instrumental in delivering several industrial policies, innovation, and entrepreneurial goals of the EU Connectivity Strategy Towards Asia.

The next edition of this policy document or the EU Global Connectivity Strategy would be an excellent occasion to build on the new generation of smart specialisation captured by S4, industrial policy priorities and directions chosen by the inspirational BSR expert circles. The elaborate networked structure of the ERA serves as an excellent springboard for launching project portfolios as implementation structures for the EU chosen missions with tailored

80. Can Huang, Xiao Jin and Lanhua Li, *RIO Country Report 2015: China* (Sevilla: European Union, 2016).

81. Technology Park Ljubljana, "Ganesha: EU/SLO-India Smart Specialisation Initiative for Internationalization", *Technology Park Ljubljana*, February 26th, 2018, <https://bit.ly/3l0IPLA>.

82. Belén Barroeta et al., *Innovation and Regional Specialisation in Latin America* (Luxembourg: European Union, 2017).

international interlinks chosen for each topic. It does not require international participants (that are located outside of the EU) to commit to ambitious integrationist schemes. Instead, Horizon Europe will serve as one of the bedrocks for the missions' kick-off provide a structured engagement model for mutual learning and expertise-enhancing collaborative encounters among interested institutions. It is highly compatible with the EU promoted connectivity logic. Thematic directions of the areas chosen for the EU missions show some thematic affinities with the priorities set for the EU Connectivity Strategy Towards Asia.

The incorporation of missions-guided initiatives into the EU connectivity approach would contribute towards shifting away from the potential controversies associated with 'weaponised interdependence' and 'strategic autonomy'. Instead, the elaborate implementation framework that the EU has devised for missions and S4 would strengthen the overall propensity of the EU connectivity and engagement with Asia towards open and rules-based order. It would help to bring more complementarities into the overall discussions on the future directions of connectivity. Additionally, it would help to position connectivity as an integral part of the EU approach towards innovation, research, and entrepreneurship.

A considerable number of major connectivity diffusors are located or operate in Europe and Asia. Thus, Europe and Asia form a promising test bed for crafting the future of connectivity through learning-by-doing collaborative encounters. Missions and smart specialisation projects could be one of such treasure troves where to look for a wealth of evidence so that future EU visions would keep on being closely attuned to evidence-informed approaches, appreciative of the established networks of experts and less falling into the trap of too many references made to the concepts of 'weaponised interdependence' and 'strategic autonomy' that might spark unnecessary and destabilising adversarial sentiment among either main connectivity heavyweights, such as the US, China, Japan, India and Russia, or other countries in Europe or Asia. The risk of alienating important cooperation partners should be avoided.

Missions and smart specialisation are amicable, collaboration-based and mutual gain-oriented tools that can serve both the EU internal needs of continuously building competitive capacities among the 'sleeping giants', 'excited goblins' and 'hungry dwarfs', as well as enriching expertise and building prosperity elsewhere in the world in close cooperation with like-minded experts in innovation, research and entrepreneurship.

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