Special Edition

Next Generation Report

Curiosity-driven and Agenda-driven Research

KAST

SVERIGES UNGA AKADEMI

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Foreword

South Korea's rapid rise as one of the world's most research-intensive nations was built on steady public investment and the dedicated efforts of its researchers. Yet that very success now leads us to ask whether our funding structures do enough to support the curiosity-driven inquiry from which breakthrough discoveries so often emerge. In this joint report by the Young Academies of Sweden and South Korea, we look at how two countries with similarly high R&D commitments but different research cultures seek to balance curiosity-driven and agenda-driven research. The question is both timely and important: getting the balance wrong risks either limiting the creative freedom that drives long-term innovation or overlooking the societal challenges that call for coordinated scientific responses. This collaboration also reflects our shared belief that open, cross-border scholarly dialogue is more important than ever. We hope the findings presented here will encourage policymakers and researchers alike to pursue funding models that support both intellectual freedom and societal needs.

2026 March

Chair, YKAST Prof. Cheolmin Park

Research systems are a pillar of democratic societies and they are shaped, in turn, by the public funds that society makes available. How that funding is managed and allocated matters enormously: it determines whether researchers pursue daring questions driven by their own curiosity, or follow a coordinated agenda to meet what are perceived as society's most pressing needs. In this report by the Young Academies of South Korea and Sweden, we investigate curiosity-driven and agenda-driven research, grounding our analysis in the research systems of our two countries. Both invest heavily in research and face, despite their differences, strikingly similar dilemmas. This is a pressing topic at a time when academic freedom is under threat in many parts of the world. The report also stands as a strong example of international scholarly collaboration in an era when geopolitical tensions increasingly foster isolationism. I hope it will stimulate continued discussion on how to ensure that public funding models serve research well - and through research, the societies that fund it.

2026 March

Chair, YAS Prof. Gabriele Messori

Contributors

Prof. Ann-Kristin Kölln | University of Gothenburg

Prof. Dongyeop Oh | Korea University

Prof. Gabriele Messori | Uppsala University

Prof. Hyo Jae Yoon | Korea University

Prof. Inkyung Jung | KAIST

Prof. Lisa Hellman | Lund University

Prof. Sangwoo Kim | Yonsei University

Prof. Soon-Kyeong Kwon | Gyeongsang National University

Prof. Youjung Shin | Jeonbuk National University

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Introduction to the importance of research funding

In today's information-rich societies, the flow of knowledge is both more abundant and more contested than ever. Governments, businesses, and citizens face unprecedented streams of data, expert assessments, and competing narratives. High-quality decisions require access to reliable facts. Yet at the same time, the rise of misinformation and disinformation threatens not only individual beliefs but the integrity of democratic deliberation itself. These dynamics may distort public debate and erode trust in the institutions that mediate expertise[1]. In such a context, the quality, independence, and diversity of the research being funded become essential public goods.

A central pillar of such a robust knowledge system is curiosity-driven research. When societies invest in this form of open-ended inquiry, they invest in their own long-term capacity to understand the world, to innovate, and to adapt to new challenges. Public funding for research driven by intellectual curiosity generates knowledge that no market incentive would create and no government strategy could fully anticipate. It is precisely this kind of inquiry — pursued for the sake of understanding — that often yields the foundational insights on which later technological, medical, or social breakthroughs depend. At the same time, protecting the freedom of researchers to choose their own questions helps maintain a diversity of perspectives and approaches, strengthening the resilience of the entire research ecosystem. Democracies rely on such resilience if they are to make decisions grounded in evidence rather than ideology or misinformation[2]. Curiosity-driven inquiry thus plays a distinctive role: it expands the frontier of knowledge, encourages intellectual risk-taking and supplies the raw material from which new ideas emerge — sometimes unexpectedly, and often with long-lasting societal benefit.

But public research funding is not only about supporting open-ended inquiry. Societal and political expectations mean that research is increasingly asked to contribute solutions to urgent challenges – climate change, public health, digital transformation, defence, economic competitiveness. This has strengthened the role of agenda-driven research, in which resources are directed toward predefined goals, themes, or policy priorities. Agenda-driven funding can mobilise expertise efficiently and deliver visible results, but it also carries risks: overly narrow agendas may constrain scientific creativity, reduce diversity in research topics, or favour short-term returns at the expense of long-term discovery.

The central policy question is how to strike an effective balance between these two modes of research. How can funding systems sustain the freedom and independence needed for breakthroughs, while also supporting coordinated efforts to meet pressing societal needs? What mix of institutional arrangements ensures that curiosity-driven inquiry and agenda-driven research reinforce rather than crowd out each other?

1) Tenove, C. (2020). Protecting Democracy from Disinformation: Normative Threats and Policy Responses. The International Journal of Press/Politics, 25(3), 517-537. Elena Broda, Jesper Strömbäck, Misinformation, Disinformation, and Fake News: Lessons from an Interdisciplinary, Systematic Literature Review, Annals of the International Communication Association, Volume 48, Issue 2, June 2024, Pages 139-166
2) Collins, H., & Evans, R. (2017). Why democracies need science. John Wiley & Sons.

This Next Generation Report explores these questions by examining how South Korea and Sweden structure their public support for research. According to the Organisation for Economic Co-operation and Development (OECD), South Korea's total R&D expenditure reached roughly 4.9 % of GDP in 2023, the second highest share in the world (after Israel). Sweden is the most research-intensive country in Europe and number four in the world with R&D spending at 3.6 % of GDP (2023). Despite similarly high investment levels, the two countries embody different research cultures: Sweden has traditionally sought to balance curiosity-driven and agenda-driven funding but recent (and controversial) policy decisions favour more agenda-driven research. South Korea has a heavy focus on mission-oriented and agenda-driven funding streams. These differences make the two countries a good comparison to explore which institutional structures ensure that societies get the most out of their R&D spending.

II

Characteristics and definition of curiosity-driven and agenda-driven research

Research - the systematic investigation of objects and the analysis of phenomena - has long served as a central driver of humanity's knowledge accumulation. There are many ways to classify research. For example, there is the widely distinction between "basic research" and "applied research." This categorization originates from the influential 1945 science policy report "Science, The Endless Frontier", written by the American scientist and policymaker Vannevar Bush. Here, basic research refers to inquiry that contributes to the advancement of fundamental knowledge by seeking a deeper understanding of the underlying principles of phenomena. In contrast, applied research builds on such foundational insights to address societal problems or pursue concrete applications.

When Bush's report was released with this categorization of research, there was a belief that basic research would naturally lead to applied research – the so-called "linear model." This was effective in mobilizing national support for basic research. However, it soon became clear that basic research did

not always translate into technological applications, and that pressing societal problems often required immediate attention and could not wait for a slow transition from basic research to application. It raised the need to rethink and reconceptualize the various kinds of research and their interrelations. In this process, new categories such as Donald Stokes's notion of "use-inspired basic research" also gained prominence. New categories of research led to new ways of understanding various research and the ways society supports them.

Strictly speaking, the distinction between "curiosity-driven research" and "agenda-driven research" represents a different classification from the traditional distinction between basic and applied research. The basic-applied distinction classifies research according to the nature of the knowledge produced—namely, whether the outcomes of a study are oriented toward solving a specific problem or not. However, this criterion has been criticized for its conceptual ambiguity, since research initially conducted without a particular purpose may later evolve into applied work, and applied research in one context may function as basic research in another.

In response to these limitations, a new classification emerged that focuses not on the outcomes of research but on the process—specifically, on the motivations that drive researchers to pursue their work. This approach led to the categories of "curiosity-driven research" and "agenda-driven research." In this framework, whether the research ultimately generates fundamental knowledge or applied outcomes is not the primary concern. Instead, the motivation and processes are important. Curiosity-driven research refers to inquiry initiated and carried out primarily in response to a researcher's intellectual curiosity. In contrast, agenda-driven research refers to inquiry motivated chiefly by the goal of addressing social or policy agendas.

To date, curiosity-driven research has been regarded as having a high research freedom in setting research questions, selecting methods, and determining the time and place of inquiry. It has a high level of uncertainty, but also the possibility of serendipity. One of the representative examples is Gregor Mendel's study of pea plants, driven by his curiosity about how traits are passed from one generation to the next—a project he pursued for nearly eight years, ultimately laying the foundation for modern genetics. In contrast, agenda-driven research is driven by external agendas — commonly social, economic, and political agendas — such as addressing food security challenges, developing military technologies, or responding to public health crises. It has relatively low freedom and limited room for serendipity, but clarity regarding its expected outcomes. A notable example is the Apollo program in the 1960s, which was driven largely by national and political agendas aimed at demonstrating technological leadership and securing strategic dominance in space. Although the program generated valuable scientific knowledge, its core mission was defined by clear objectives, fixed timelines, and predetermined technological goals.

Distinguishing these different types of research allows us to recognize their respective characteristics and potential impacts. Such differentiation also helps cultivate a diverse ecology of research in which multiple forms of inquiry can coexist and complement one another.

Table 1 Summary of salient characteristics of curiosity-driven versus agenda-driven research.

Category	Curiosity-Driven Research	Agenda-Driven Research
Definition	Research initiated by investigators' own scientific questions, driven by intellectual curiosity and the pursuit of fundamental understanding.	Research guided by predefined missions, societal needs, industrial challenges, or government priorities.
Research Freedom	Very high. Researchers determine topics, methods, and scope autonomously.	Limited to moderate. Direction is constrained by mission goals, roadmaps, and targeted outcomes.
Problem Framing	Open-ended questions such as "Why?" and "How?"	Mission-oriented questions such as "What problem must be solved, by when, and how?"
Time Horizon	Long-term (5-20+ years), unpredictable timelines and outcomes.	Mid- to short-term (3-10 years) with defined milestones and deliverables.
Knowledge Production	Generates new concepts, principles, theories; potential for paradigm shifts.	Develops technologies, solutions, and applications to address concrete societal or industrial problems.
Efficiency/Return on Investment(ROI)	Low short-term efficiency; high long-term transformative potential.	High short-term efficiency and measurable returns; performance is tied to KPIs and deliverables.
Risk Profile	High uncertainty; higher probability of failure; unpredictable trajectories.	Lower risk; outcomes more predictable due to structured planning.
Team Structure	Small, PI-centered groups emphasizing individual creativity and intellectual autonomy.	Often intersectoral groups involving academia, industry and potentially other sectors.
Funding Model	Investigator-initiated grants (e.g., NSF, ERC, national basic science programs).	Mission-driven programs (e.g., Moonshot projects, national strategic R&D, defense & industrial programs).
Evaluation Metrics	Peer review emphasizing novelty, originality, and long-term impact.	KPI-based assessment: TRL progression, prototypes, policy impact, commercialization.
Representative Examples	Discovery of DNA structure, graphene, CRISPR mechanisms, dark matter research.	Manhattan Project, Apollo Program, COVID-19 vaccine development, national AI strategies, semiconductor & battery initiatives.
Strengths	Enables breakthroughs and paradigm-shifting innovation; expands the boundaries of knowledge.	Directly solves urgent societal needs; accelerates technology deployment; high policy relevance.
Limitations	Uncertain outcomes, long timelines, lower immediate societal visibility.	Constrains researcher creativity; may favor incremental advancements; vulnerable to political shifts.

Of course, it is not always easy to draw a clear line between curiosity-driven research and agenda-driven research, and there are cases in which curiosity-driven initiatives overlap with agenda-driven activities. An example is the research behind space exploration, notably for the Moon. Much of the early work which later enabled lunar exploration was conducted in the absence of a clear socioeconomic or political agenda, and often with limited financial availability. An example of this is R. H. Goddard's work on liquid-fueled rockets in the first and middle part of the 20th century. Much of this was conducted with limited means and partly during Goddard's leaves of absence from his employment at Clark University . At the same time, this research was very applied in nature, and resulted in patents at an early stage. It later became an important basis for research conducted as part of the space race between the United States of America and the Soviet Union. This is arguably one of the most wide-ranging agenda-driven research initiatives in human history, yet it also resulted in important scientific discoveries without immediate ROI, for example that of the Van Allen radiation belt (a zone of energetic charged particles from several hundreds to several tens of thousands of kilometers above the Earth's surface). Research for space exploration was thus initially curiosity-driven and characterised by long-term uncertainty, yet generated patents and technological spillovers in the short-term. It's later phase, which was heavily agenda-driven, contributed to important scientific discoveries of the type normally associated with curiosity-driven research. In some ways, research for space exploration during the middle part of the 20th century thus represents a hybrid model where fundamental curiosity and national mission goals coexist.

As evidenced in Table 1, both curiosity-driven and agenda-driven research come with strengths and limitations. Korea's agenda-driven growth model, based on large-scale, mission-oriented projects, has enabled over the past decades one of the fastest advancements in manufacturing, heavy industry, and infrastructure of any country in the world. At the same time, this push has often addressed domains with modest scientific complexity, focussing on engineering optimization, production know-how, and incremental improvements. High-volume, mid-to-high-quality production has been prioritised, over the capability to engage in frontier science and high-risk breakthrough research. Due to the desire to replicate the past success of

agenda-driven research in Korea, the country now offers few ecosystems for curiosity-driven, exploratory research, and weak support for high-risk, high-reward innovation programs. This inhibits disruptive, curiosity-driven innovation and risks leading to long-term stagnation for next-generation industrial initiatives. Sweden has a long tradition of curiosity-driven research, and a very high number of researchers with respect to its population. Swedish research has produced a number of research breakthroughs since the post-war years, such as ultrasound technology, car safety equipment or the planetary boundaries framework for gauging humanity's impacts on the Earth System. These examples all come from university environments, although they have had widespread commercial applications in different sectors. In recent years, the performance of the Swedish research system according to quantitative bibliographic indicators such as number of publications per capita or citation levels have fallen short of the level of R&D funding, and the success rate of Swedish researchers for excellence grants part of the European R&D Framework Programmes could be strengthened further. This has prompted discussions on allocation of funding and need for increased profiling in selected areas of excellence.

3) https://www.vr.se/download/18.36e83d9319a7bc560c0217ef/1764151667966/Forskningsbarometern%202025.pdf [last accessed 28th January 2026]

III

Country profiles of Korea and Sweden with focus on R&D

Sweden has a well-developed and internationalised R&D system. Public and private R&D spending is high by international standards (around 3.6% of GDP in 2023), and is dominated by private-sector investment. Public funding accounts for a little over 20% of R&D funding. The use of the funding is relatively compartmentalised, with most of the private R&D staying in the private sector and higher-education institutions mostly relying on public funding sources. Indeed, higher-education institutions account for a little over 20% of Swedish R&D in terms of financial turnover. Next to academic research and higher-education institutions, Sweden also has a number of large research institutes, in many cases partly or wholly controlled by the state. Examples of these are RISE (industry research and innovation, testing and certification), SMHI (Sweden's national meteorological and hydrological institute, which provides both operational services and conducts basic research on climate-related topics) and IVL (non-profit research institute in environmental science).

The framework for public funding is given by the research proposition: a steering document developed by the government in 4-year cycles. In practical terms, public funding is vehiculated through several different funding bodies, the larger of which are the Swedish research council Vetenskapsrådet (fundamental research), and more specialized research councils for sustainable development (FORMAS), health, working life and welfare (FORTE), and innovative capacity for sustainable growth (Vinnova). Collectively, the grants of these public funding bodies and of other national and regional agencies and public research foundations account for about a third of the revenue from all research grants going to Sweden's higher education institutions. These funding bodies generally provide both curiosity-driven and agenda-driven research opportunities, with the exception of Vinnova which focuses primarily on the latter. Sweden is also fully integrated in the European Union's funding landscape, and higher-education institutions depend for around 7% of their funding from European and international financing. This again includes both curiosity-driven and agenda-driven research.

A further important source of funding for Swedish higher-education institutions comes from private foundations. The largest of these, the Knut and Alice Wallenberg (KAW) foundation, provides funding amounting to around 1/3 of that provided by Vetenskapsrådet, the largest of the public research councils. KAW also provides both curiosity and agenda-driven research. They have a flagship curiosity-driven programme (Wallenberg Fellows and Wallenberg Scholars) providing long-term research funding, but have also engaged in large-scale directed calls, notably on artificial intelligence (Wallenberg AI, Autonomous Systems and Software Program – WASP) and materials science (Wallenberg Initiative Materials Science for Sustainability – WISE).

Finally, Swedish universities receive base funding from the government. There is no national-level summary of how this is used in terms of supporting curiosity driven or agenda driven research.

Korea is widely recognized for its exceptionally high level of R&D investment. Based on 2023 statistics, the nation's total R&D expenditure reached 119.074 trillion KRW. This corresponds to approximately 4.96 percent of GDP, the second-highest share in the world. Like Sweden, Korea is thus a research-intensive country; a second common feature is the large share of R&D driven by the private sector. Approximately 76.4% of total R&D investment in Korea originates from the private sector, while public funding accounts for approximately 23.6%. Given the dominance of large corporate R&D, most private research activity remains within firms, whereas universities and public research institutes depend predominantly on government-supported funding. Universities account for roughly 10–12% of Korea's total R&D expenditure, with the remaining share carried out by private industry and government-funded research institutes. These include institutions such as the Korea Institute of Science and Technology (KIST), the Korea Research Institute of Bioscience and Biotechnology (KRIBB), and the Electronics and Telecommunications Research Institute (ETRI). Similar to Sweden's RISE or SMHI, these institutes conduct a mixture of strategic national technology research alongside both basic and applied scientific work.

Public research funding in Korea is channeled through multiple ministries and specialized funding agencies. The National Research Foundation of Korea (NRF) serves as the central institution overseeing publicly funded research, placing particular emphasis on disciplinary basic science and investigator-driven, curiosity-based inquiry. Alongside the NRF, Korea operates a series of sector-specific funding bodies such as the Korea Evaluation Institute of Industrial Technology (KEIT), Korea Energy Technology Evaluation and Planning (KETEP), the Institute of Information and Communications Technology Planning and Evaluation (IITP), and the Korea Institute of Planning and Evaluation for Technology in Food, Agriculture and Forestry (IPET). These agencies concentrate their resources on agenda-driven projects that directly support industrial competitiveness and advance national priorities in manufacturing, energy, ICT, and agri-food systems. The Korea Health Industry Development Institute (KHIDI) and the Korea Disease Control

and Prevention Agency (KDCA) further complement this landscape by supporting research in health innovation, biomedical advancement, and reinforcing the national capacity to respond to medical challenges and emerging threats. In addition, the Korea Institute of S&T Evaluation and Planning (KISTEP) plays a system-level role by conducting strategic planning, performance assessment, and budgetary analysis to help ensure that government R&D resources are allocated and managed efficiently across the entire innovation ecosystem. Collectively, these agencies account for a significant portion of the research funding received by Korean universities. As in Sweden, the funding landscape includes a mix of curiosity-driven and agenda-driven research. However, Korea's strong focus on strategic technologies and mission-oriented government programs means that agenda-driven projects occupy a proportionally larger share of the budget.

In the domain of private foundations, Korea lacks a single large-scale foundation comparable to KAW; however, several major corporate or philanthropic foundations play a significant role. These include the Samsung Science and Technology Foundation, LG Sciencepark research programs, the POSCO Cheongam Foundation, and the Hanwha Science Challenge. These foundations support both curiosity-driven and agenda-driven research in fields such as basic science, materials, and ICT.

Korean universities receive basic operational funding from the government, as well as institutional support through national programs such as BK21 (Brain Korea 21). However, there is no national-level accounting of how this base funding is allocated specifically between curiosity-driven and agenda-driven research. In the case of national universities, basic funding largely serves educational and administrative needs rather than research. As a result, most research activity continues to rely heavily on competitive external grants. The share of international R&D funding in Korean universities is relatively small.

IV

Survey results from the two academies

A survey gauging attitudes towards curiosity- and agenda-driven research was fielded amongst members of both young academies between 9th and 19th January 2026. After one reminder, the realised response rates were 60% (97, YKAST) and 37 % (14, YAS).

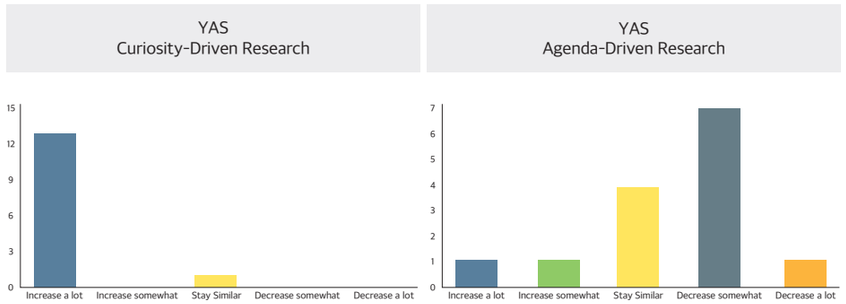
The survey responses from YAS members paint a fairly consistent picture of how current funding streams are perceived. On average, respondents rate Sweden's encouragement of curiosity-driven research as moderate (mean ≈ 3 on a 1–5 scale from "very poorly" to "very well"), while agenda-driven research is seen as being encouraged more strongly (mean ≈ 3.9) . When asked about the balance between the two, a clear majority feel that the system currently encourages "somewhat too much agenda-driven research", with only a single respondent judging the balance to be about right.

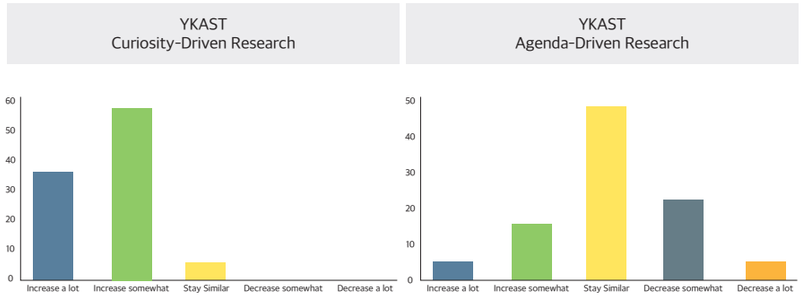
On the other hand, the survey of YKAST members shows a strong perception that Korea's current research funding environment is heavily weighted toward

agenda-driven research. Most respondents rated national support for curiosity-driven research as weak, while support for agenda-driven research was viewed as strong. More than 90 percent reported that Korea encourages too much agenda-driven research, and almost all respondents expressed a desire to increase curiosity-driven funding over the next decade. In contrast, the majority preferred that agenda-driven funding remains stable or decreases.

Most interestingly, looking ahead to the next ten years, preferences are even more pronounced. Regardless of the country, all respondents indicate that funding for curiosity-driven research should increase over the next ten years, with the majority favouring a significant increase rather than only modest growth. This is noteworthy given that respondents are younger researchers who have even longer time horizons for their careers. In contrast, views on agenda-driven research are more restrained. While a small number of respondents support some increase, most prefer that funding either remains at its current level or decreases, suggesting concerns about further expansion of agenda-driven priorities. The distributions for the two funding types diverge sharply: support expansion is overwhelmingly concentrated on curiosity-driven research, whereas agenda-driven research attracts far more neutral or negative responses. Taken together, the results from highlight a strong consensus that future growth in research funding should be channelled primarily toward curiosity-driven research, reflecting a desire to correct what respondents from tow young academies perceive as an existing imbalance in the funding landscape.

Views of YAS and YKAST members on how funding for Curiosity-Driven Research and Agenda-Driven Research should change in the coming 10years





Responses to additional open-ended questions were highly consistent with this view, while offer more nuanced findings on the reasons and arguments for these preferences. Respondents from YAS broadly endorse both curiosity-driven and agenda-driven research, but place particular emphasis on the value of curiosity-driven research for enabling scientific breakthroughs, protecting academic freedom, and insulating research agendas from short-term political pressures. Agenda-driven research is acknowledged as important for addressing clearly defined societal problems, though at times accompanied by concerns about agenda capture and instrumentalisation. Perceptions of policy-makers' arguments largely mirror these views, with curiosity-driven research associated with excellence and knowledge creation, and agenda-driven research framed in terms of problem-solving, competitiveness, and accountability. Overall, while YAS respondents clearly prioritise curiosity-driven research as most important in the research system, they do not reject agenda-driven research, instead viewing it as a complementary funding stream whose legitimacy depends on clear societal needs and appropriate safeguards.

Similarly, responses from YKAST emphasized the need for balance but also pointed out that Korea's system imposes excessive top-down agendas, short-term deliverables, and trend-driven topics that reduce creativity and long-term competitiveness. Many noted that curiosity-driven research is essential for breakthroughs, scientific autonomy, and sustained innovation, yet remains undervalued and often misunderstood as personal curiosity. Respondents

argued that curiosity-driven research should be selectively supported, particularly for researchers with demonstrated excellence, while a greater share of agenda-driven and application-focused R&D should be led by industry rather than government. Structural issues such as short project cycles, heavy administrative oversight, and rigid performance targets were repeatedly mentioned as barriers to meaningful scientific discovery. Respondents largely agreed with the characterization that Sweden provides stronger research autonomy, more balanced funding mechanisms, and greater continuity. They suggested that Korea could learn from Sweden's long-term support structures and mid-career grants, while noting that Korea's competitive and fast-paced environment also has strengths.

For future Korea–Sweden collaboration, respondents from both countries favored either curiosity-driven or balanced approaches. Respondents suggested joint topics spanning genomics, AI, climate science, neuroscience, metabolism, regenerative engineering, and cross-population biological studies. But also a joint PhD or postdoc programme or small grants for research visits. Many stressed that successful collaboration should focus on connecting researchers with compatible values and working styles rather than aligning purely with national agendas.

V

Discussion

The survey results help clarify the central issue raised in the introduction: how to sustain research systems that can both respond to urgent societal needs and support the long-term, open-ended inquiry on which future breakthroughs depend. Importantly, these responses come from members of YAS and YKAST—cutting-edge younger researchers in their respective national contexts, and future research leaders. This report thus speaks not only to present conditions, but to what the upcoming generation of researchers identifies as necessary for the system to remain competitive—and to stay at the forefront internationally.

Section 4 shows that, despite differences between Sweden and South Korea, respondents describe a similar situation. In both countries, agenda-driven research is perceived as more strongly encouraged than curiosity-driven research, and a clear majority in both academies think the current balance encourages too much agenda-driven work. The clearest result concerns future priorities. Both academies show strong agreement that curiosity-driven

funding should increase over the next ten years.

This convergence is particularly noteworthy given that Sweden and South Korea are not low-investment cases. Both countries already invest heavily in R&D, both in terms of % of GDP and per capita contribution, and both are presented internationally as examples of research-intensive economies. The issue raised by the survey is therefore not simply the size of research budgets, but the internal allocation and the research ecology that this allocation produces. In both academies, the results indicate a desire for realignment: not away from agenda-driven funding altogether, but toward a stronger and more protected space for curiosity-driven research.

In a global perspective, the balance between curiosity-driven and agenda-driven research is often framed as a development-stage issue: in World Bank terms, low- and middle-income countries are expected to prioritise agenda-driven research tied to economic upgrading, while high-income OECD countries are assumed to have more room for open-ended inquiry. Yet the results here suggest that even in two highly research-intensive countries, the pressure toward agenda-setting and short-term deliverables is perceived as strong enough to reduce the space for exploratory research. Our respondents acknowledge that both streams contribute to competitiveness. The policy challenge is rather to ensure that agenda-driven priorities do not crowd out the kind of long-term, high-risk research that underpins future long-term competitiveness. The solution might also be similar for the two countries: both Sweden and Korea have well-established national political instruments through which the balance can be managed over time. In Sweden this is the research proposition, which is put forth by the government in 4-year cycles and shapes the research funding during the cycle. In Korea, the balance is shaped through the Five-Year Basic Plan for Science and Technology and the annual national R&D budgeting process. While these instruments allow periodic adjustment of priorities, the survey responses indicate a need for stronger structural safeguards for curiosity-driven research within an increasingly mission-oriented system.

Rather than pointing to insufficient investment, the survey highlights a systemic governance challenge common to advanced research economies. As public funding becomes increasingly tied to strategic alignment and accountability mechanisms, research systems risk narrowing the space for intellectual risk-taking. The convergence of concerns expressed by younger research leaders in both countries suggests that safeguarding curiosity-driven research is not a luxury of mature systems, but a structural condition for sustaining long-term scientific vitality.

These systemic considerations also have implications for international collaboration. When asked explicitly about future Korean–Swedish cooperation, respondents in both academies showed little support for strongly agenda-driven collaboration. In YKAST, nearly half of respondents favored prioritizing curiosity-driven collaboration, while the remainder supported a balanced combination; only a negligible share supported an agenda-driven focus. A similar pattern was observed in YAS, where respondents were evenly divided between curiosity-driven and balanced approaches, with virtually no preference for predominantly agenda-driven frameworks.

Qualitative responses further reinforce this pattern. Many respondents emphasized researcher-led initiatives, flexible pilot grants, interdisciplinary exploration, and collaboration built around shared scientific questions rather than predefined national missions. Several highlighted that exploratory research offers a more neutral platform for sustained cross-border exchange, particularly when national agendas differ or shift over time.

Taken together, the survey suggests that while agenda-driven funding may be important within national systems, international collaboration appears to function most effectively when grounded in curiosity-driven or balanced frameworks. If funding systems become overly aligned with narrowly defined strategic objectives, opportunities for flexible, bottom-up partnerships may diminish. Conversely, maintaining a robust space for exploratory research can

create common ground for long-term, trust-based scientific cooperation across national boundaries. In this sense, the balance between research streams not only shapes domestic research ecology, but also influences the architecture and sustainability of international collaboration.

VI

Concluding remarks

In summary, Sweden and South Korea differ in research culture, institutional structure, and the policy rationales that shape their funding landscapes. Yet, both countries stand out internationally for their sustained commitment to R&D investment and their recognition of research as a cornerstone of long-term societal development. Against this background, the Young Academy of Sweden (YAS) and the Young Academy of South Korea (YKAST) see a shared opportunity: to strengthen the conditions for curiosity-driven research. This should not be seen as an alternative to agenda-driven or mission-oriented programmes, but as an essential complement that safeguards scientific creativity, independence, the capacity for unexpected breakthroughs and thus long-term competitiveness of the research system.

For both academies, this shared diagnosis also carries a forward-looking responsibility. As representative bodies of younger research leaders, YAS and YKAST recognize their role not only in observing systemic trends, but in contributing constructively to policy dialogue at national and international

levels. Strengthening curiosity-driven research requires sustained institutional safeguards, predictable funding horizons, and governance models that balance strategic coordination with intellectual autonomy.

Moreover, as scientific challenges increasingly transcend national borders, the vitality of international collaboration depends on maintaining space for exploratory, bottom-up initiatives. By fostering bilateral schemes that prioritize flexibility, pilot collaborations, and researcher-led initiatives, Sweden and Korea can jointly model how advanced research systems reconcile strategic ambition with scientific openness. In doing so, both academies reaffirm that safeguarding curiosity-driven research is not merely an internal funding question, but a prerequisite for resilient, globally connected research ecosystems.

The Korean Academy of Science and Technology

The Korean Academy of Science and Technology (KAST) was established in 1994 as a distinguished organization representing leading scholars in the field of science and technology. Approximately 1,000 eminent scientists and engineers are members of KAST, and the organization has been striving to contribute to the advancement of science and technology by bringing together the knowledge and expertise of its members.

The Young Academy of Sweden

The Young Academy of Sweden is an interdisciplinary academy for a selection of the most prominent younger researchers in Sweden. The Academy is an independent platform that gives younger researchers a strong voice in the research policy debate and works to communicate research to children and young people. The young academy was established in 2011 at the initiative of the Royal Swedish Academy of Sciences and has 35-40 members elected for five years.

42, Dolma-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Tel. +82-31-726-7900 Fax. +82-31-726-7909 E-mail. kast@kast.or.kr

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