



Working Plan on Innovation 2026-2027



***WORKING PLAN ON INNOVATION***

***BETWEEN***

***BRAZIL AND SWEDEN***

***(2026-2027)***



## Working Plan on Innovation 2026-2027

### *INTRODUCTION*

The cooperation in science, technology, and innovation between Brazil and Sweden is based on the Additional Protocol on Cooperation in High Industrial and Innovative Technology, signed in 2009, within the framework of the Economic, Industrial and Technological Cooperation Agreement, signed between the Brazilian and the Swedish governments in 1984 and in force since 1986.

In 2016, Brazil and Sweden signed a Memorandum of Understanding for Sustainable Mining Cooperation, in which the promotion of the use of Science, Technology and Innovation in sustainable mining is one of its priority areas.

The technological spill-over effects from the aeronautical sector derived from the partnership established by the Gripen NG project. The cooperation on aeronautics have brought researchers and entrepreneurs together from both countries with concrete results for the benefit of the overall bilateral STI cooperation.

In the 4<sup>th</sup> meeting of the Steering Group on Innovation (SGI), under the Additional Protocol on Cooperation in High Industrial and Innovative Technology, held in 2019 in Stockholm, both parties agreed to develop a working plan in order to provide guidance for the bilateral activities in priority areas coordinated by the Brazilian Ministry of Science, Technology and Innovation, and the Swedish Ministry of Enterprise and Innovation. The SGI encourages the Funding Agencies of both countries to finance the activities according to the prioritized areas established in this document.

In the update on the 29<sup>th</sup> of October 2021, new projects and events were included as well as a new column in table 1 (Annex I) describing the projects' state of the art in October 2021.

In the new action plan approved 9<sup>th</sup> of November 2023, the four thematic areas have been maintained, with an adjustment to “Smart Cities” to expand the concept of “Sustainable Cities”.

In 2025, both sides agreed to renew the partnership in sustainable cities and sustainable mining, which includes green metallurgy. The sustainable cities initiative will be further developed from the our thematic areas, identified in 2025; Low Carbon Transport & mobility, Intelligent water Management, Sustainable and inclusive Urban planning and Sustainable Energy solutions. All the thematic areas will be based on the quadruple helix model as well as covering several perspectives for transition eg. policy, tools for digital transformation all explained further in the annex IV.

The sustainable mining agenda will include, among other aspects, a focus on green metallurgy. The new working plan (2026-2027) will also focus on involving startups. Several annexes have been updated. Annex I now divide projects into ongoing (approved and funded) and planned (not yet funded), with the "State of the art" column detailing the next steps for planned projects. **Annex II** lists related bilateral projects outside of this collaboration, and **Annex III** provides additional information on relevant activities. **Annex IV** outlines' priorities and activities for both Brazil and Sweden for each thematic area. Lastly, **Annex V** lists the contact information for the funding agency working group, which will be updated frequently.



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SIGI highlights that the Brazil-Sweden cooperation on innovation is dynamic, and this Working Plan reflects the dynamism of the bilateral relationship. In this context, it is desirable that new activities be added during the established period. In this case, they should be reported to the Executive Committee on Innovation (ECI).

### ***PRIORITY AREAS***

Both countries express interest in continuing to strengthen the relationship in Science, Technology, and Innovation in fields of interest defined as such by the SIGI.

The WP presented here may be amended at any time. The SIGI will approve the amendments put forward by the Executive Committee on Innovation (ECI).

The prioritized areas of the WP are:

- Sustainable Mining
- Sustainable Cities
- Bioeconomy, and
- Digital Health

Ongoing and planned activities that will be carried out under this WP are listed in Annex I and IV. In Annex II are listed ended projects. In Annex III are listed bilateral projects, known to this group but not handled within this collaboration.

The costs for the activities carried out within the framework of the bilateral cooperation will be borne by each national institution involved, as jointly decided between them, subject to availability of funds. The ECI and SIGI meetings are planned according to Annex IV, with the possibility of extra meetings, if agreed by both parties. Annex IV also contains information on other important activities for the collaboration and will be updated frequently. Common understandings reached by both countries in each of the priority areas of this WP are detailed in Annex V.



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*ANNEX I*

*Sustainable Mining*

PoCs	Member	Institution	E-mail
<b>Focal Point</b>	BR - Marisa Monte	CETEM - Centro de Tecnologia Mineral	<a href="mailto:mmonte@cetem.gov.br">mmonte@cetem.gov.br</a>
	SE - Mikael Larsson	SweRim	<a href="mailto:mikael.larsson@swerim.se">mikael.larsson@swerim.se</a>
<b>Altern</b>	BR- TBD		
	SE - Anna Sirkka	RISE - Research Institutes of Sweden	<a href="mailto:anna.sirkka@ri.se">anna.sirkka@ri.se</a>
	SE - Lars Sandberg	SweRim	<a href="mailto:lars.sandberg@swerim.se">lars.sandberg@swerim.se</a>

*Ongoing Projects*

Year	Project	Description project	Brazilian partner	Sweden partner	Instrument(s)	State of the art October 2025
2025	Modelling, simulating and benchmarking a new energy efficient and sustainable comminution technology.	The project aims to investigate and demonstrate the potential of ARBS (Advanced Rock Breakage System) technology applied to iron ore processing, addressing key aspects of performance and impact.	Center for Mineral Technology –CETEM; Mineral Technology Laboratory – LTM (Federal University of Rio de Janeiro; VALE	Comminution Reimagined; Chalmers University Technology	Vinnova and EMBRAPII	Pilot (and bench-scale) site testing Breakage characterization from two samples: Jaspilite from the South System of Carajás Minerals province Compact Itabirite from the Fazendão deposit.



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*Planned Projects/activity*

Year	Project/Activity	Description project/activity	Brazilian partner	Sweden partner	Instrument(s)	State of the art October 2025
2025-2026	To assist contact persons in order to submit projects to VINNOVA/FINEP /Embrapii/Eureka Call 2024	To work together to maximize project approvals by directly hiring between the Embrapii Unit/FINEP and Vinnova.  Several project initiatives have been discussed in relation to joint development and innovation projects. Partner discussions ongoing	Metalmat-UFRRJ; VALE Maranhão; ITV, Pará Federal University.	Swerim, Ltu, Chalmers, LKAB, Kaunis Iron, Boliden	Vinnova; FINEP; Embrapii, mining industries	Ongoing discussions for attending to the joint supporting innovation projects (Brazil and Sweden)  2025 : Vinnova/FINEP/EMBRAPII Eureka call 2026-2027: TBA
2026		Participation in Sweden-Brazil Innovation week	CETEM	Swerim and Rise	Seminars, technical visits and other scientific dissemination activities in Brazil	
2026	Stakeholder meeting/workshop/webinar to stimulate initiation of projects within the mining area	Eco-efficient comminution. More efficient material handling processes/methods; Recycling; More efficient water management; Digitalization, automation, and machine learning for more efficient processes.  Webinar organized in conjunction with the Brazil-Sweden. Green metallurgy methods towards CO2 neutral and sustainable metals production  POC meeting between Sweden and Brazil	CETEM	Swerim and RISE	Open invitation to the Swedish and Brazilian mining cluster including experts from each of the themes. Speakers thematic experts and decision makers within companies and research institutions	New action
2027	Technical visits and visiting researchers	To promote exchanges, so that Brazilian researchers can undertake work abroad with the aim of maintaining contact with competitive Swedish institutes. It also seeks to attract Swedish researchers who want to visit Brazilian research institutes and universities.	CETEM	Swerim and RISE	Professors who work in mining expertise and R&D Centers in Mining / Swedish mining Companies	New action



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### *Sustainable Cities*

PoCs	Member	Institution	E-mail
<b>Focal Point</b>	BR Claudia Morosi Czarneski	MCTI	<a href="mailto:cmorosi@mcti.gov.br">cmorosi@mcti.gov.br</a>
	BR- David Brito Peixoto	MCTI	<a href="mailto:david.peixoto@mcti.gov.br">david.peixoto@mcti.gov.br</a>
	SE - Gina Aspelin Hedbring	IVL	<a href="mailto:gina.aspelin.hedbring@ivl.se">gina.aspelin.hedbring@ivl.se</a>
<b>Altern</b>	SE Eva Stattin	RISE	<a href="mailto:Eva.stattin@ri.se">Eva.stattin@ri.se</a>



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*Ongoing Projects*

Year	Project	Description project	Brazilian partner	Sweden partner	Instrument(s)	State of the art October 2025
2021-2024	INNOREC	Development of an innovative technology for resource recovery from anaerobic treatment of sewage	Boomatec, SANEPAR, SENAI EQ	ENWA IVL	VINNOVA / EMPRAPII	Successful development of a new technology for Brazilian and Swedish end-users. Successful development of corporation between all partners.
2023-2025	AI-qua-City	AI based system for predictive maintenance of sewage water networks	ICMC-USP SABESP	IVL RISE	EUREKA Global Stars	Waiting for administrative clearance from FAPESP



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*Planned Projects/activity*

Year	Project/Activity	Description project/activity	Brazilian partner	Sweden partner	Instrument(s)	State of the art October 2025
2024	Webinar	Activities developed by Citinova in Florianopolis	MCTI	IVL		Carried out
2024	Webinar	Activities that can be developed by Sweden in Florianopolis	MCTI	IVL		Carried Out
2024	Webinar	Definition of joint activities	MCTI	IVL		Postponed/Moved forward
2024	Mission to Brazil	Visit the project Citinova in Florianopolis	MCTI	IVL		Carried out
2025	Mission to Sweden	Visit synergistic initiatives	MCTI	IVL		Postponed
2024	EMPRAPII - VINNOVA Call	Turning wastewater into highly valuable products through removal of carbondioxide	Embrapii	VINNOVA	Public bilateral call for proposals	did not get funding
2024	PoC Spring Meeting	Checkup meeting for Brazilian and Swedish points of contact.	Points of contact	Points of contact		Regular reconciliations and planning between PoCs.
2024	Visit(s)	Possible visit of Brazilian delegation to Sweden and/or of Swedish delegation to Brazil.	Government, Academic and Business sectors, municipalities, research institutes, R&D&I centers; Individual researchers (networking).	Government, Academic and Business sectors, municipalities, research institutes, R&D&I centers; Individual researchers (networking).		Carried out



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2024	PoC Fall Meeting	Meeting for Brazilian and Swedish points of contact to update the working plan	Points of contact	Points of contact		Carried out
2024	AI and making cities smarter	Monitoring and fostering applications of AI for Smart Cities	TBD	RISE – Research Institutes of Sweden IVL Swedish Environmental Research Institute	TBD	Initial discussions to investigate needs and conditions for bilateral applications.
2024	Interoperable smart city information platforms	Infrastructure that makes it possible to share data in a controlled way – a basis for collaboration and development.	TBD	RISE – Research Institutes of Sweden Smart City Lab IVL Swedish Environmental Research Institute	TBD	Initial discussions to investigate needs and conditions for bilateral applications.
2025	PoC Spring Meeting	Checkup meeting for Brazilian and Swedish points of contact-	Points of contact	Points of contact		Carried out
2025	Visit(s)	Possible visit of Brazilian delegation to Sweden and/or of Swedish delegation to Brazil.	Government, Academic and Business sectors, municipalities, research institutes, R&D&I centers; Individual researchers (networking)	Government, Academic and Business sectors, municipalities, research institutes, R&D&I centers; Individual researchers (networking)		Planned for October 2025  There has been several visits from Brazil to Sweden, both from Cities and relevant SMEs.
2025	PoC Fall Meeting	Meeting for Brazilian and Swedish points of contact to update the working plan	Points of contact	Points of contact		Planned
2025	Webinar	Low carbon emissions from mobility – exchange with Citinova cities	MCTI	IVL RISE		Carried out
2025	Webinar	Public water transport – exchanging experiences and knowledge with CITinova cities – 19th September	MCTI	IVL RISE		Carried out



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2025	Webinar	Application of Artificial Intelligence in sustainable cities – exchanging experiences and knowledge with CITInova cities – 5th November	MCTI	IVL RISE		Planned November 2025
2025	Webinar	Digital solutions for mobility – exchanging experiences and knowledge with CITInova cities – December	MCTI	IVL		Planned October 2025
2025	Mission to Sweden	Session on emission calculations and indicator development is to be planned	MCTI	IVL		Planned initial discussions October 2025
2026	Webinar	Public transportation, planning practices and citizen engagement – exchanging experiences and knowledge with CITInova cities – February	MCTI	IVL		planning ongoing
2026	Webinar	Smart city Digital Incident and Crisis Management	MCTI and Citinova Cities	RISE		Planned for Q1 2026
2026	Webinar	Smart Water Management	MCTI and Citinova Cities	RISE (IVL)		Planned for Q1 2016



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### *Bioeconomy*

PoCs	Member	Institution	E-mail
Focal Point	BR - Bruno César Prosdocimi Nunes	Ministry of Science, Technology, and Innovation – MCTI	<a href="mailto:bruno.nunes@mcti.gov.br">bruno.nunes@mcti.gov.br</a>
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Altern	BR - Luis Gustavo Asp Pacheco	Ministry of Agriculture and Livestock – MAPA	<a href="mailto:luis.pacheco@agro.gov.br">luis.pacheco@agro.gov.br</a>
	SE bd		



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***Funded Projects***



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Year	Project	Description project	Brazilian Partner	Sweden partner	Instrument(s)	State of the art October 2025
2019	Bio-based materials from Kraft lignins (LIGNOMAT)	LignoMat aims to exploit the potential of lignin as one of the major components of woody raw materials. The opportunities to integrate thermoplastic and thermoset production in a pulp mill will be investigated.	Klabin, Federal Rural University of Rio de Janeiro (UFRRJ), SENAI CETIQT	Valmet AB, RenCom AB, RISE	Sweden - Vinnova Brazil - FINEP	The LignoBoost plant was designed, built, tested and Klabin has produced and shipped to Sweden two types of lignin. The first sample was fully characterized and tested by Lignin Industries, former RenCom in thermoplastics. It was also modified by RISE and testing is ongoing. Partners in Brazil received funds from FINEP February 2023. Proje ended May 2025
2019	Ligno-nanocellulosic hybrid as multifunctional ingredients in cosmetics formulations LCNF	The project target valorization of wood and residual biomass as raw materials to produce LCNF to be further used as a multi-functional ingredient for beauty and cosmetic formulations	SENAI CETIQT, SENAI-ISI Biomass, 100% Amazonia, DE Mendes Industria de Chocolates	RISE, African Magic Group	Sweden – Vinnova Brazil – EMBRAPII	Project ended June 2021
2021	Lignin Based Zeolites: Mesopore forming agent for zeolites	Lignin will be used as mesopore forming agents for zeolites as its functional groups could interact positively with zeolite precursors. Mesoporous zeolites have enhanced diffusion properties and, thus, increased lifetime on catalysis applications.	SENAI CETIQT Zeofertil FCCSA	RISE Polyfuels	Sweden – Vinnova Brazil – EMBRAPII	Project ended March 2024
2021	Nano Lignin cellulose in Compression Moulding composites	Production of CNC/CNF Production of lignin Production of nano-lignin -cellulose colloidal Fiber coating <b>Compression moulding</b>	SENAI Klabin	RISE Biosorbe	Sweden – Vinnova Brazil – EMBRAPII	Project ended March 2024
2021	Lignocellulosic Materials (CNF, Lignin) in Personal Care- LCNF-2	CNC/CNF production Lignin production LCNF/LCNC Lignin nano cellulose colloidal <b>Multifunctional beauty products</b>	SENAI ASSESSA Eldorado	RISE FineCELL	Sweden – Vinnova Brazil – EMBRAPII	Project ended March 2024
2021	Bio-based smart materials from Kraft	The project is expected to lead to successful use of lignins in the	SENAI-CETIQT ISI EQ	RISE Bright Day Graphene	Sweden – Vinnova Brazil – EMBRAPII	Project ended March 2023



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	lignins-SmartGraphelignin	environmentally friendly production of Graphene, dramatic food waste reduction, lower emissions of greenhouse gases, sustainable feedstock and green production process	Klabin			
2023	Biorefinery lignin as a source of silicon for synthesis of Zeolites – Zeolignin II	Explore the use of lignin derived from 2G ethanol production as a source of silicon and template for the synthesis of zeolitic materials (Si-Al), such as ZSM-5. Use of lignin from 2G ethanol production as a silicon source and template for Si-Al zeolite materials. This project can contribute to the recovery of sugarcane residues and provide a sustainable path for the zeolite synthesis.	SENAI CETIQT Others (?) FCCSA, ZeoFertil	RISE Others (?) PolyFuels	Vinnova EMBRAPII	Project approved for funds and ongoing



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***Planned Projects/activity***

DATE	LOCAL	EVENT	DESCRIPTION	TARGET AUDIENCE
Feb – 2026	Webconference	BSG Meeting	Alignment and planning actions	Government, Academic and Business sectors
May - 2026	Webconference	BSG and partners meeting	Beginning the interactions between partners and potential partners to elaborate joint project	Government, Academic and Business sectors
Jul – 2026	Webconference	BSG Meeting	Alignment and planning actions Beginning the interaction between funding agencies to harmonize forms and procedures Definitions about Sweden- Brazil Innovation Week	Government, Academic and Business sectors
Sept – 2026	Webinar and Matchmaking	Public Webinar	1 day Webinar and Matchmaking event on “Science and Technology for Biomaterials and Bioproducts” for both Brazilian and Swedish researchers, corporations, institutes and universities	Government, Academic and Business sectors
Oct – 2026	Webconference	BSG Meeting	Alignment and planning actions. Working in the elaboration of the joint project with selected partners  Planning BSIW actions	Government, Academic and Business sectors
Nov – 2026	Swedish Embassy in Brazil	Brazil-Sweden Innovation Week	Seminars, technical visits and other scientific dissemination activities in Brazil	Government, researchers, business, general public
Feb – 2027	Webconference	BSG Meeting	Alignment and planning actions Working on the possible joint project and harmonizing with funding agencies to operate it.	Government, Academic and Business sectors
May – 2027	Webconference	BSG Meeting and partners	Working in the joint project(s) and meetin with the funding agencies	Government, Academic and Business sectors
Jul – 2027	Webconference	BSG Meeting	Alignment and planning actions Working in the joint project(s) and meetin with the funding agencies	Government, Academic and Business sectors
Oct- 2027	Webinar and Matchmaking	Public Webinar	1 day Webinar and Matchmaking event on “Science and Technology for Biomaterials and Bioproducts” for both Brazilian and Swedish researchers, corporations, institutes and universities	Government, Academic and Business sectors
Oct - 2027	Webconference	BSG Meeting	Alignment and planning actions. Planning BSIW actions Finishing the possible Joint Call paper	Government, Academic and Business sectors
Nov - 2027	Brazilian Embassy in Sweden	Brazil-Sweden Innovation Week	Seminars, technical visits and other scientific dissemination activities in Sweden Presentation of Report of Working Plan 2026-2027 Definition of Working Plan 2028-2029	Government, researchers, business, general public



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### *Digital Health and Life Science*

PoCs	Member	Institution	E-mail
Focal Point	<b>Marie Sjölander</b>	RISE	<a href="mailto:marie.sjolinder@ri.se">marie.sjolinder@ri.se</a>
	<b>Luiz Ary Messina</b>	RNP	<a href="mailto:Luiz.messina@rnp.br">Luiz.messina@rnp.br</a>
Altern	<b>Paulo Lopes</b>	RNP	<a href="mailto:Paulo.lopes@rnp.br">Paulo.lopes@rnp.br</a>
	<b>Martin Schalling</b>	KI Karolinska Institute	<a href="mailto:martin.schalling@ki.se">martin.schalling@ki.se</a>



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***Ongoing Projects***

Year	Project	Description project	Brazilian partner	Sweden partner	Instrument(s)	State of the art October 2025
2022-2023		<i>eID enabled Standardized and HArmonized health REcords management (e-SHARE)</i>	Gisele Zuniga, Actadigitalis	Thashmee Karunaratne, Stockholm University		Support from Vinnova
2022-2023		<i>Automated decision support in health and applications of machine learning</i>	Anna Sara S Levin, Professor, MD, Head of Department of Infectious Diseases, Faculdade de Medicina, Universidade de São Paulo (USP)	Pontus Naucler, Associate Professor in Epidemiology, Karolinska Institutet (KI) and Consultant of Infectious Diseases, Karolinska University Hospital		Support from KI



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2022-2023		<i>Internet based Cognitive Behavioral Therapy for Obsessive Compulsive Disorder</i>	Roseli G. Shavitt, University of São Paulo, Department of Psychiatry	Christian Rück, Department of Clinical Neuroscience, Karolinska Institutet	Support from KI
2023 Nov 6-7	Workshop on Facilitate AI and ML collaborations in Health	November (6-7) : Organized by The Swedish Consulate SP; Dan Henningson and Martin Schalling; <a href="https://ki.se/en/collaboration/brazilian-swedish-workshop-on-aiml-in-life-science-and-engineering">https://ki.se/en/collaboration/brazilian-swedish-workshop-on-aiml-in-life-science-and-engineering</a>  Brazilian-Swedish Collaborative workshop on AI in Life Science and Engineering	Workshop at USP, SP	Swedish Consulate SP, Dan Henning  KI, Martin Schalling;	



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*Planned Projects/activity*

Year	Project/Activity	Description project/activity	Brazilian partner	Sweden partner	Instrument(s)	State of the art October 2025
2023		<i>Artificial Intelligence for Personalized E-healthcare in an Omnichannel Platform Enhancer (AI4PEOPLE)</i>	Luciana Pereira, Federal University of ABC – UFABC  Renato Nabuco, MZLAB	Petter Krus, Linköping University Thomas Davidsson, Hallandia V AB		<b>FAPESP/EUREKA to be decided in 2023</b>
2023		<i>Ending Child Obesity with Artificial Intelligence (ECHO AI)</i>	Erico Vasconcelos, UNIVERSAÚDE FORMANDO PESSOAS NO SETOR SAÚDE LTDA.  Maria Rita Oliveira, UNESP	Peter Bergsten, Uppsala University		<b>FAPESP/EUREKA to be decided in 2023</b>  Partner from Germany, Andreas Keck, Syte Capital GmbH



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*ANNEX II*

*Other Bilateral Projects not handled within this group*

*(but relevant for the Swedish -Brazilian collaboration)*

*Health*



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Year	Project name	Description of project	Brazilian partner	Sweden partner	Instrument (s)
2006-2023	RUTE	Brazilian Telemedicine University Network RUTE – a health collaborative network with 2 to 3 scientific virtual sessions everyday in 45 health specialties, composed together of 140 university and teaching hospitals <a href="http://www.rute.rnp.br">www.rute.rnp.br</a>	140 University and Teaching Hospitals		RNP/MCTI
2023	Digital Health in the SW-BR Ministries of Health	Ministries from both countries discuss Digital Health, focusing in this first meeting on Oct 10 <sup>th</sup> on collaborative themes, which include digital services for citizens, structuring a national digital infrastructure, interoperability solutions for National Quality Records, among others	Brazilian Ministry of Health, RNP	Swedish Ministry of Health, RISE, Karolinska Institute and the Swedish eHealth Agency	
2025	June 18th, Brasília, Sweden-Brazil Cooperation on AI, ML and Digital Health	Debate on areas for partnerships Brazil and Sweden: " Accessible Neurological Care: The Role of Consumer Electronics and IAoT" Richardson Leão, neurodynamics lab, brain institute, ufrn, natal/brazil "Digital Health Strategies for Expanding Access to Oral Care in Brazil's Public Health System", Deise Garrido, on behalf of NuTeS FOU SP-SAITTE, University of São Paulo – BrazilRNP But also a Start-Up: "AI, Serious Games, and Remote Monitoring: A Scalable Model for Neurorehabilitation", Isabela Marques, CEO   Reabnet Tecnologia	RNP, UFRN, USP, Reabnet Tecnologia	Karolinska, RISE	
2025	July 31st	Workshop "Saúde Digital Health: Connecting Innovation Brazil-Sweden" Auditorium – MCTI Brasília	MCTI, Ministry of Health, RNP, ICTs, Instituto Eldorado, Instituto Hardware Br, Núcleo de Tecnologias Estratégicas em Saúde- NUTES/UFPB, EMBRAPPII, FINEP	Sweden Embassy	
2025	Monthly meetings	On Digital Health and AI	RNP	Karolinska, RISE	
2026	Cross Challenge	Digital Health and AI Challenges from the Health Ministries to start-ups and the academy, one countries demand to the other	RNP, Secretary of Information and Digital Health from the Ministry of Health	Karolinska, RISE, Swedish Ministry of Health, RISE, Karolinska Institute and the	



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				Swedish eHealth Agency	
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**ANNEX III**

Events concerning SGIs 2026-2027

<b>Date</b>	<b>Event</b>	<b>Venue</b>	<b>BR partner</b>	<b>SE partner</b>
May 2026	ECI-meeting	Web conference	MCTI	MCE
October 2026	ECI-meeting	Web conference	MCTI	MCE
November 2026	SGI-meeting	Brazil, Brasília	MCTI	MCE
November 2026	Innovation week in Brazil	Brazil	MCTI	MCE/Embassy
May 2026 (TBD)	Matchmaking Bilateral call	Web conference	Enrich	RISE
November 2026 (TBD)	Matchmaking Bilateral call	Brazil+Web	Enrich	RISE
November 2026 (TBD)	Delegation visits from Sweden	Brazil	MCTI	MCE/Embassy
November 2026 (TBD)	Startup matchmaking	Brazil	CISB	SISP/Ignite
May 2027	ECI-meeting	Web conference		
October 2027	ECI-meeting	Web conference		
November 2027	SGI-meeting	Sweden, tbd		
November 2027	The V Brazil-Sweden Innovation Week	Sweden, Stockholm		

## *ANNEX IV*

### *Sustainable Mining*

Brazil and Sweden are both strong mining nations with several ongoing successful collaborations in sustainable mining. Both are stimulated by public funding and through direct cooperation funded by the collaborating companies. This creates a solid foundation to build the intensified collaboration on. The cooperation between the different actors in the mining area have been difficult to start due to several reasons, i.e. difficulties with common financing schemes, Covid-19 pandemic, reorganization within industrial actors due to change in strategic focus. A renewed strategic work in 2022 between Sweden and Brazil POCs in 2022 renewed the areas interest and organizing research areas of interest for future cooperation.

These areas include:       Eco-efficient comminution;

- More efficient material handling processes/methods;
- Recycling;
- More efficient water management;
- Digitalization, automation, and machine learning for more efficient processes.
- Fossil-free mining.

Additionally, the themes the digital mine, sustainable water management, and rock mechanics and seismicity have also been identified and relevant for the collaboration. This list is remains dynamic and may be updated as the collaboration evolves. In 2025, the bilateral cooperation jointly decided to include green metallurgy in the 2026-2027 work plan. For the short-term goals, the initiatives are planned to stimulate joint applications of projects for the VINNOVA-EMBRAPII call for collaboration on innovative projects between Sweden and Brazil based on the call 2023. Research ideas have created which are being discussed with the potential partners from both countries.

In the long-term, the theme-oriented workshops, technical visits, and the extended invitation to planned national events aim to stimulate a growing understanding of competences and need as well as knowledge about instruments and thereby contribute to the generation of a robust project portfolio within the identified themes. Direct collaboration between partners



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as well as joint Brazilian-EU calls are relevant instruments in addition to direct collaboration instruments for long-term partnerships.

### *Sustainable Cities*

Sustainability is becoming increasingly crucial for the Sweden-Brazil Innovation Initiative as a whole, as manifested by the participation of the Brazilian Ministry of Environment and Climate Change and the Swedish Environmental Protection Agency. Both Brazil and Sweden strive for a mission-oriented development of our societies. For the collaboration in the Sustainable and Smart Cities frame, the United Nations (UN) Sustainable Development Goal (SDG) 11, UN-SDG-11, serves as the overall mission: to make cities and human settlements inclusive, safe, resilient, and sustainable. The world's population is constantly increasing. To accommodate everyone, we need to build modern, sustainable cities. To survive and prosper, we need new intelligent urban planning that creates safe, affordable, inclusive, and resilient cities with green and culturally inspiring living conditions.

With the challenge of digital inclusion of their population, Brazil and Sweden have both developed expertise in sustainable and smart cities, and work to collaborate, bringing together governments' initiatives, businesses, research institutes, and universities from both countries. This collaboration is based on short-term and mid-term actions. It includes organizations with a focus on Sustainable and Smart Cities, where one fundamental factor are the use of digitalization and the development of digital platforms that allow the assessment of living conditions and also enable the use of Artificial Intelligence (AI) and other enabling technologies for their improvement. These are essential tools for implementing the solutions that make cities sustainable and smarter .

One area where we see good conditions, from previous year in the collaboration, for exchange of experience and collaboration is in sustainable water management with the support of digitalization and AI. One considerable advantage of applying AI in water management (drinking water supply, maintenance of water pipe networks, wastewater treatment, resource recovery from sewage, etc.) is access to large amounts of data. This large amount of data, often delivered in real-time, serves as an excellent platform for assessment of the current



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situation and building-up of competence within the development of applied AI tools for predictive maintenance of city sewage water networks and that also could be transferred to other sectors, such as environment, mobility, energy, etc. In addition to the build-up of knowledge within AI, the need to develop water management technologies could bring today's wastewater treatment plants into production facilities for fossil-free energy, fossil-free nutrients, and fresh water. AI applied to water management will develop Brazilian and Swedish cities to become more climate resistant and healthier and have the potential to reduce greenhouse gas emissions by producing fossil-free energy.

The motivation for continuing the collaboration between Brazil and Sweden in Sustainable Cities is anchored in our shared commitment to sustainable and smart development, utilizing science, technology, and innovation to enhance the livability of our cities and metropolitan regions

In addition to AI within water management, the following areas for collaboration could also strengthen both our countries to leverage science, technology, and innovation for sustainable urban development in Brazilian and Swedish cities and metropolitan regions:

- Low-carbon transport solutions: The partners intend to develop innovative, sustainable and smart solutions to promote low-carbon transport pathways for citizens and goods, contributing to reducing greenhouse gas emissions.
- The collaboration emphasize discussions and workshops for controlled data sharing as a basis for further development.
- Both countries work "mission oriented" in those areas that are pointed out above in which we propose a developed cooperation.
- Both countries have already developed good expertise in those fields and therefore brings knowledge from each side that will be further strengthened by the collaboration.
- Both countries are working with data platforms to be explored with AI, and the connection to EU initiatives is important for the possibility of scaling up and for the continuity of the collaboration (one example is the Eureka Global Stars application for the joint development of AI-tools and robust, on-line sensors for water management



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in the sustainable cities). This means that we do not have to start from scratch with finding synergies and partners. Instead, we could directly deepen the collaboration.

- There are interested actors from both countries, including the industry that wants to be involved in developing AI as a tool, e.g., in the field of water management and other smart city applications with the aim of resulting in sustainable solutions.
- In both Sweden and Brazil, the opportunity to use Public Sector Networks and Programs, such as Smart City Transformation Lab (implementation of IoT) and Viable Cities (Climate Neutral Cities), to strengthen the field is understood to be a good area in which water companies in both countries have shown interest in using AI and also linked to the development of smart, robust sensors.
- There is a clear win-win situation where both countries have complementary competencies, access to data, etc., provides valuable development in the Sustainable Cities area, which can be further developed in both countries.

Further collaboration within the area och Sustainable Cities will be planned and build on the the 2025 work plan that outlines a collaborative effort focused on urban innovation between Sweden and Brazil. The core objective is to address complex challenges within cities through innovation. This initiative builds on existing interest and engagement with Brazilian cities and the MCTI/Citinova project as well as Swedish interests. The bilateral cooperation is in 2025 concentrated on four primary areas identified in partnership with Brazilian stakeholders:

- **Low-Carbon Transport and Mobility:** Solutions aimed at reducing carbon emissions from urban transport.
- **Intelligent Water Management:** Implementing smart solutions for water resource management.
- **Sustainable and Inclusive Urban Planning:** Focused on urban design that is both environmentally sound and socially equitable.
- **Sustainable Energy Solutions:** Developing and integrating energy solutions for urban environments.



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The plan is designed to be flexible, allowing for the addition of new thematic areas over time as well as inclusion of perspectives in the change theory model such as governance, social sustainability, and policy. All new topics to be added should be aligned with previous suggestions mentioned in this appendix as well as anchored with needs and demands from Swedish and Brazilian cities and other relevant stakeholders. The project will be guided by the "Quadruple Helix Model," which encourages innovation at a systems level by involving academia, industry, government, and civil society. This approach emphasizes the need for transition model with a holistic perspective that includes:

- **Technology & Digitalization:** As example utilizing innovative digital transformation solutions like AI, augmented/virtual reality (AR/VR), and the Internet of Things (IoT).
- **Implementation:** Sharing experience and focusing on business models, investments, and procurement to bring projects to life.
- **Policy & Regulations:** Integrating human-centered design into public policies.
- **Social Sustainability:** include best practices in fostering community collaboration, lifelong learning, and creativity.

Small and medium-sized enterprises (SMEs) will be included in concrete actions, such as matchmaking events, to promote their involvement. This will be made both via the IAS initiative as well as other activities.

### *Bioeconomy*

Brazil and Sweden consider the development of the bioeconomy as part of their strategies for sustainable development. Both countries make efforts to develop a sustainable and circular bioeconomy, taking advantage of the natural opportunities offered, such as forest resources and biodiversity, and making use of the capacities in research and development, such as bioindustries. For this reason, the Bioeconomy Sub-Group singled out two themes for the bilateral cooperation: sustainable forest management and technologies for biorefineries.

We identified cooperative projects developed between Brazilian and Swedish companies and science and technology institutes. It is expected that the activities proposed in this work plan will help to deepen these relationships and create new synergies by involving new actors in the debate.



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It is likely that at the end of this first cycle, new projects may emerge.

As instruments of this first cycle of activities, we propose to hold face-to-face and virtual meetings for debate between government, academic, and business sectors. Also, it is expected to hold face-to-face seminars and technical visits to cooperative projects that already exist, as well as to companies and research and development institutions interested in integrating this cooperation. No joint activities have been planned to involve the use of financial resources.

For the Brazilian side, the Ministry of Science, Technology and Innovation (MCTI) and the Ministry of Agriculture, Livestock, and Food Supply (MAPA) lead the cooperation with the support of Finep and Embrapii, both linked to MCTI. For the Swedish side, the strategic innovation partnership programme BioInnovation and Research Institutes of Sweden (RISE) lead the cooperation with support from Vinnova, the Swedish innovation agency.

### *Digital Health*

Supporting collaboration on Lifelong Health regarding engaging patients and health professionals through interoperable, collaborative platforms and validated solutions searching for scientific evidence.

Development of new solutions and platforms that support the individual and the health systems flow in gaining control over his/her own health during the entire life span, in following a patients journey. This topic covers solutions and platforms ranging from applications addressing end-customers in providing support in moving towards a healthier lifestyle to technology that increases the patients control over his/her own health in terms of equipment and sensors that allow both the patient and the health care to monitor and/or follow important physical parameters.

Digital solutions and structuring platforms for prevention of lifestyle related diseases: Lifestyle related diseases entails huge costs for society and health care. There exist many solutions that target end-customers but there is also a need for expanding technology solutions and interoperable platforms into a more systemic approach addressing large challenges regarding public health.



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Digital solutions, collaborative and interoperable platforms aiming at postponing dependency and need for care: When an older adult has started to become dependent the decline and the need for care and support increases fast. Therefore, solutions that contributes to postpone this point in time will both lower costs for society and increase quality of life for the individuals.

Digital solutions, collaborative and interoperable platforms for monitoring and home care: Hospital admissions can be brought forward, and chronic diseases can be monitored in a continuous way when moving hospital care to the home. Monitoring equipment can be tailored to each individual and to his/her diagnose or context. This kind of technology will provide a cost-efficient patient centered care in a way where the individual will gain control and perceive flexibility in terms of having the opportunity to remain in the home environment.



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**ANNEX V**

***Contact information for Funding Agencies***

<b>Agency</b>	<b>Contact Person</b>	<b>Email</b>
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To meet at regular intervals to explore funding opportunities in the respective countries, and when possible initiate various activities, e.g. calls, in support