

4th German-Brazilian Innovation Forum

Executive Summary for the 44th Brazil-Germany Joint Commission on Economic Cooperation

Introduction

"Innovation" was initially discussed during the German-Brazilian Economic Meeting (EEBA) back in 2010, Munich edition. Created as a Dialogue, the first recommendations on the topic for the Brazil-Germany Joint Commission on Economic Cooperation (COMISTA) started in 2014. In 2017 the Innovation Forum reached its 4th meeting, being the second edition as an official part of EEBA's agenda. Approach is supported and approved by all institutions and industries representatives, from both countries. Main objectives:

- 1. be a discussion platform for representatives of BDI, CNI, government as well as Science, Innovation and Technology Institutions of both countries
- 2. screen and prioritize opportunities for bilateral cooperation in areas of innovation and technology
- 3. monitor development of cooperation initiatives and promote their results

It takes place on the day before the opening of the EEBA. Among its most recent results are the signature of the MoU between INPI and DPMA, and the creation of a bilateral initiative on Industry 4.0.

This year's German-Brazilian Innovation Forum reports and recommendations for the COMISTA are:

Intellectual property management

INPI presented the status of the MoU recently signed with DPMA and confirmed their intention to keep cooperating in order to assure the development of a faster and high quality patent validation processes and next steps to further strengthening the bilateral partnership.

Industry 4.0

The panel discussed and highlighted the commonalities and differences between Industry 4.0 approaches in Brazil and in Germany as an introduction on the challenges and opportunities in this area.

As a result of the Innovation Forum in 2016 and as recommended to the COMISTA in the same year, a task force involving industries and institutions from both sides was created in order to to convey to companies (above all SMEs) and policy makers the opportunities of digitalization, its potential and challenges, as well as measures required to promote the use of new technologies in order to gain competitiveness. This initiative is called "German-Brazilian Industry 4.0 Task Force".

Dr. Nils Macke (ZF), Coordinator of the Task Force for the German side, will report to the COMISTA on the Task Force results as well as on proposals on how to further develop the bilateral cooperation, as previously discussed with representatives from the public and private sectors of both countries.

In the German-Brazilian Innovation Forum meeting five main actions to be developed next year were presented:

The accomplishment of at least one pilot project for the development of strategic digitization plans.
 Therefore the already existing maturity models from the German Industry 4.0 Platform can be leveraged so that work can quickly start if funded.



- A pilot project to promote the awareness of digital technologies in SMEs and be designed as a follow-up of "Indústria+Produtiva" or "Brasil+Produtivo" projects. This would unleash the full potential of an already lean enterprise to go into the next phase Industry 4.0/digitalization.
- Development educational models within the context of industry 4.0/digitalization, with a strong practical component focusing on experimenting on the use of IoT, for all levels: from engineers to less qualified positions.
- Use of testbed structures to the identification of working profiles and specific professional training needs, as
 well as for investigating new work conditions and critical regulatory aspects. This leads to create excellence
 centers in Industry 4.0 for different domains such as Agriculture, Energy, Manufacturing and others which
 can leverage the experience of institutions as SENAI, Embrapii, Fraunhofer and others.

However all these actions will only prosper on the foundation of a central coordination roughly following the Industry 4.0 platform template from Germany. An industry 4.0 organization has to be defined which organizes all contributing parties from government, associations and industry alike, focuses on marketing and starting up projects as well as fostering private public partnerships.

As a proposal from the Task Force at least two professionals need to be funded, in order to turn that endeavor into a Industry 4.0 Hub. This funding should be collaboratively done by all involved parties and the international funding options as well. This Hub should be implemented in an already existing infrastructure and needs to coordinate all endeavors and innovation hubs with a clear mission from the Brazilian government. Public funding needs to focus on a small amount of hubs and projects rather that financing many projects with only small amounts. Marketing is key to efficiently using resources already established in the best possible manner. With this central coordination, German associations, government and even industry can efficiently support knowledge transfer and joint research in the matter of industry 4.0.

Biotechnology

The discussions focused on industrial (white) bio-technology, which was believed to strongly benefit from a potential German-Brazilian cooperation. A review on the ongoing status in both countries was presented, including a brief report about the German-Brazilian Innovation Hub for Bioeconomy, created as a result of last year's recommendations to the COMISTA. Following recommendations were made at the Innovation Forum:

- Increase efficiency and effectiveness of German Brazilian cooperation in bioeconomy through inception of the BioHub (ABBI and Clib2021 to sign LOI).
- Secure support (governmental, industrial,) to finance the initial activities (2-3 years).
- Foster stakeholder commitment (government, industry, academia) to generate the framework to enhance the development industrial biotechnology in both countries.
- Integrate with Industry 4.0 activities ("Biorefinery Pilotplant 4.0").