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SHORT COMMUNICATION

KOSICE SELF-GOVERNING REGION AND THEIR INTERNATIONAL COOPERATION IN THE AREAS OF THE SPACE INDUSTRY AND AVIATION

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ABSTRACT

The short communication presents the Košice self-governing region (KSK) potential and forming new international partnerships within the aviation and space sector via online meeting Slovak space tech day and Slovak aviation industry day. The main idea of the co-organize the event was to prove the position of KSK, as a space in which suitable conditions are created for development in the areas of the space industry and aviation. The basis is a long-term historical context in the form of educational and research institutions in the KSK, as well as their involvement in international cooperation projects. KSK intended to declare demand for investments and international cooperation in the areas of the space industry and aviation. The given industries have long been among the most technologically advanced (technical standards and regulations, the precision of production and production tolerances, research and development of materials, new processes, and applications in other industries).

Keywords: innovation; aviation; aerospace; technological transfer

SLOVAK SPACE TECH DAY AND SLOVAK AVIATION INDUSTRY DAY

The main idea of the event was to prove the position of the Košice Self-Governing Region (KSK), as a space in which suitable conditions are created for the development in the areas of the space industry and aviation. The basis is a long-term historical context in the form of educational and research institutions in the KSK, as well as their involvement in international cooperation projects (Slovak Academy of Science and JAXA, Faculty of Aviation, Technical University of Kosice).
KSK intended to declare demand for investments and international cooperation in the areas of the space industry and aviation. The given industries have long been among the most technologically advanced (technical standards and regulations, the precision of production and production tolerances, research and development of materials, new processes, and applications in other industries).
The advantage of both segments is their high-quality level and degree of sophistication and success in them is considered almost an automatic admission to any industry. At the same time, they represent the central government's efforts through economic policies to diversify the national economy, reduce automotive dependency, capture future trends and create high value-added jobs, as well as the usability of future investors to participate in the R & D & I ecosystem (Industry 4.0).
The original concept included a 4-day program, two focused on the conference part held in the East Slovak Museum (subsequently the venue was exchanged because of technical reasons for the East Slovak Gallery) and a weekend in which the Košice Aviation Days are traditionally held by KSK and at the same time it is one of the most visited events of the year. The premises of the *Aeroclub* in the form of a VIP lounge were to serve as a background for B2B meetings of the KSK management and conference participants - potential investors.

Due to the pandemic spread of the COVID - 19, the Aviation Days in Košice were cancelled, which halved the scope of the event. The subsequent development of the pandemic situation caused a change in the format of the event from full-time to distance one (online).
Despite the unfavorable circumstances, the event can be considered a success, as it is clearly stated in the following indicators:

- 86 registered participants
- 88 confirmed B2B negotiations
- 20 countries

The clear outputs of the event include the following facts:
- meetings with various national and international organization, for example: Japan External Trade Organization (JETRO), **Fig. 1**, Hong Kong Trade Development Council, Hong Kong Economic and Trade Office Berlin, Korea Trade-Investment Promotion Agency (KOTRA), Changzhou Productivity Promotion Center, Jiangsu Province, P R China, Embassy of Japan in the Slovak republic, British Embassy in the Slovak republic, Ministry of Economy of the Slovak Republic, Ministry of Foreign and European Affairs of the Slovak Republic, Ministry of Education, Science, Research and Sport of the Slovak Republic, Slovak Investment and Trade Development Agency (SARIO), Slovak Liaison Office for Research and Development (SLORD).
- All Nippon Airways (ANA) as a Keynote of the Slovak Aviation Industry Day [1]
- ANA entered the Slovak market for the first time in the summer of 2019, when during the visit of the director of JETRO - Japan External Trade Organization, the airline presented itself in Slovakia for the first time in the history at the reception of the chairman of KSK, *Rastislav Trnka*:
- KSK hosted negotiations taking place between representatives of Košice Airport and VP General Manager of ANA

- ANA was subsequently a participant in the Business Mission of Japan in the Slovak Republic, whose opening reception, as well as the 2-day programme, was provided by KSK, **Fig. 2**

Fig. 1 Official visit to JETRO Vienna HQ, from left: Takuro Nozawa, Juraj Seman, Róbert Bidulský, Eckhart Derschmidt

Fig. 2 Opening reception of the Business Mission of Japan in the Slovak Republic, from the left: Juraj Seman, Rastislav Trnka, Róbert Bidulský, Boris Vaitovič

- As a result of the Business Mission, ANA established a Sales Representative for Slovakia
- JETRO informed more than 275 Japanese companies operating in the EU about the involvement of ANA

Profile of the ANA:

- established in 1952 as a helicopter transport service
- 28 employees at the time of establishing
- current situation: 43 466 employees
- fleet of 264 aircraft
- 5-star rating from SKYTRAX 8 years in a row (since 2013)

Also, significant output was the participation of the Hong Kong International Airport (HKIA) in the program provided by KSK, as well as the subsequent B2B with KSK representatives. The inclusion of a Hong Kong entity fully reflects the ambitions of KSK's management to join the international transport and logistics network, also known as "Belt and Road". The conference on this project was attended in 2019 by a KSK delegation led by the chairman of KSK, *Rastislav Trnka*.

Close and systematic cooperation with Hong Kong Trade Development Council (HKTDC) was a necessary pre-requisite for the possibility of engaging the HKIA entity in terms of size and importance. An equally important role was played by the change of the technology platform. By exchanging Zoom - a platform whose use for the needs of the public administration is not recommended by the NBU - National Security Office. The recommendation not to use the given platform was issued on April 10, 2020. An alternative solution was to use the CISCO Webex platform, whose 5 valid licenses were purchased by the KSK office. Another important consequence of the change in the platform was the acceptability of mutual interaction for partners from Asia, where, especially in the case of some types of political regimes, the use of the Zoom platform is out of the question.

Profile of the HKIA:

- 78,000 employees
- 100 airlines
- No.1 Cargo Airport of the World (continuously since 2010)
- 3rd busiest airport in the world in passenger international transport
- 71.5 mil. of transported passengers (2019)

Previous ongoing negotiations and working trips to Italy in the field of Innovation, Research and Technology Transfer for companies in the Piedmont region showed the success of presentations of the intention to establish the "*Košice Regional Institute of Innovation and Technology*" for additive production and innovation technology potential of the Košice region. The 15 innovative companies, representatives of educational institutions and universities, as well as national institutions responsible for R & D & I in the field of aerospace.

Juraj Seman, President's Executive Advisor for Foreign Affairs & Protocol at Košice Self - Governing Region opens expert panels mainly dedicated to the Asian Innovation in Aviation. Long-term negotiations with foreign representatives of the regions, or representatives of university clusters and consortia in Asia and Europe led to the successful presentation of several important representatives of the space industry, *Le Xuan Huy*, Deputy Director of the Vietnam National Satellite Center presented Vietnamese industrial applications, satellite researches and the development of the space technology institute in Vietnam and the first Vietnamese satellite "PicoDragon" [2, 3]. *Dang Quoc Khan*, Hanoi Science and Technology University, Vietnam, presented works at the School of Materials Science and Engineering, Hanoi University of Science and Technology, mainly research in Materials Engineering. The interesting research fields are iron and steel alloys, especially abrasion and corrosion resistance alloys for mining and chemical industrial applications such as High Manganese Steel, High Chromium Cast Iron (White Cast Iron) [4]. Chinese professors, *Wei Wei*, executive director of the Sino-Russian Joint Laboratory for Functional Nanostructured Metals, and *Jing Hu*; Vice-Dean of the School of Materials Science and Engineering, Changzhou, University presented the possibilities of cooperation with KSK for advanced materials [5, 6]. *Róbert Bidulský*, authorized representative for innovation and technological transfer at Košice Self - Governing Region opens the last session related to the European Innovation in Space & Aviation. *Bruno Vicenzi*, Technical Director of EPMA, presented the reasons why, in terms of the entry of Slovak companies, universities, scientific clusters, it is necessary to have a European leader in the field of powder metallurgy as a partner [7]. *Marco Actis Grande* presented a world-class extra for additive technologies and possibilities of use in the aerospace industry, and also showed the possibilities of cooperation with KSK [8, 9]. *Ľudmila Kučerová* shows recent development of high strength or even ultra-high strength steels as a mainly driven factor for the aviation industry which strives to reduce the weight of individual parts, fuel consumption, and CO_2 emissions [10].

The undoubted outcome of the conference is 4 memorandums of cooperation:

- Changzhou Science and Technology Bureau, Jiangsu Provincia,
- European Powder Metallurgy Association,
- Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali, consortium of

Italian national universities in the R & D & I field of materials,
- Toyama prefecture.

CONCLUSION

Slovak space tech day and Slovak aviation industry days were mainly devoted to current trends in the space industry, as well as the application of a wide range of technologies, such as information and telecommunication technologies, production of innovative materials and many others. Slovak Aviation Industry Day, which was held for the first time, focused mainly on such areas as the production of aircraft and components, software solutions and innovations in air transport. The programme also includes expert panels organised by Košice Self-governing region and online B2B matchmaking with Slovak companies and institutions.

REFERENCES

1. H. Kondo, M. Hegedus: Acta Metall. Slovaca, 26(4), 2020, 141-143. https://doi.org/10.36547/ams.26.4.763.
2. P.A. Tuan, L.X. Huy, N.T. Thanh: Proceedings of the International Astronautical Congress, IAC 13, 2015, 10182-10186.
3. P.A. Tuan, L.X. Huy: Human resource programs for space technology and application in Vietnam. In.: *60th International Astronautical Congress 2009*, IAC 2009, Daejeon; South Korea, Volume 5, 2009, p. 3486-3491, Code 80592.
4. H. T. H. Dang, P. T. Thuy, D. M. Ngung, P. Quang, V. Y. Shchukin: Acta Metall. Slovaca, 24(1), 2018, 43-51. https://doi.org/10.12776/ams.v25i1.1218.
5. K.X. Wei, L. Niu, W. Wei, Q.B. Du, Q.B. I.V. Alexandrov, J. Hu: Acta Metall. Slovaca, 24(1), 2018, 43-51. http://dx.doi.org/10.12776/ams.v24i1.1021.
6. W. Mei, J. Wu, M. Dai, K. Wei, J. Hu: Acta Metall. Slovaca, 25(2), 2019, 130-135. https://doi.org/10.12776/ams.v25i2.1271.
7. B. Vicenzi, K. Boz, L. Aboussouan: Acta Metall. Slovaca, 26(4), 2020, 144-160. https://doi.org/10.36547/ams.26.4.656.
8. D. Manfredi, R. Bidulsky: Acta Metall. Slovaca, 23(3), 2017, 276-282. https://doi.org/10.12776/ams.v23i3.988.
9. E. Pošković, F. Franchini, M. Actis Grande, L. Ferraris, R. Bidulský: Acta Metall. Slovaca, 23(3), 2017, 276-282. https://doi.org/10.12776/ams.v23i4.1032.
10. H. Jirková, K. Opatová, Š. Jeníček, J. Vrtáček, L. Kučerová, P. Kurka: Acta Metall. Slovaca, 25(2), 2019, 101-106. https://doi.org/10.12776/ams.v25i2.1267.