

15th China International Recycled Polyester and PET Packaging Conference & Exhibition September 18th-20th, 2019, Holiday Inn Shanghai, China

Conference Summary Ulrich Thiele, Co-Organizer, October 6th, 2019

During the conference it was very interesting to see how the Chinese recycling industry in general and the Chinese polyester recycling industry in detail is on its way to digest the drastic measures of the Chinese government to ban the import of any plastic waste from January first, 2018 onward. While Europe is struggling with individual measures such as the ban on drinking tubes, cotton swabs, balloons, plastic bags or disposable tableware, the Chinese leadership has created eight ministerial administrative units covering the entire complex of environmental protection, renewable energies, circular economy including recycling and climate protection. There is still a substantial gap to European environmental standards but Chinese velocity of progress is impressive in this field.

Figure 1: The conference audience



More than 360 delegates from China and overseas listened to the latest results in polyester recycling technology, production and market and exchanged their recent experiences (figure 1). Especially the exhibition was core of social and technical networking (figure 2).

Figure 2: A glance to the exhibition



Two contributions from governmental organizations and three from industry associations are underlining the high administrative attention of the recycling issue and loop economy in general.

Zhang Deyuan, Dept. Director General of Institute of Economic System and Management NDRC outlined basics regarding “China’s Policies for Recycling Economy during the 13th Five-Year Plan --Recycled Plastics”. The high pressure behind the environmental and recycling complex are China’s substantial fears that there is only a short time left to develop and introduce loop technology and economy. This new perspective is reflected in the establishment of eight different state councils, which cover the entire complex of environmental and recycling management. Most important among them are the NDRC, MIIT, Ministry of Environmental Protection, MOST and MOHURD (details see original paper).

Li Deli, Secretary General of China Chemical Fibers Association Recycled Fiber Commission talked about “Green Fiber Certificate and Fiber Recycling”. The approved products and companies are of high product quality and production standards. Target is to substantially increase the number of approved companies to increase the acceptance of recycled products at the market.

Wang Huansong, Senior Engineer Environmental Protection Research Institute of Light Industry explained the “Reformation of China’s Emission Permit System” which is now finally similar to European “Industrial Emissions Directive” or the BimSchG regulation in Germany. This new regulation has especially the target to reduce the ubiquitous air pollution in China's major cities.

Zhang Zhongjuan, Person in Charge of Energy Saving and Green Standard of Industry Dept., China National Textile and Apparel Council discussed “Green Factory Criteria for Textile Industry”. This initiative introduced and pushed by MIIT is targeted to assess step by step the whole Chinese Industry to improve all environmental issues, reduce CO2 footprint and harmful emissions and reduce substantially raw material consumption. Till today more than 600 companies of the textile industry are approved.

Zhang Feipeng, President Fujian Baichuan Resources Recycling Science & Technology Co., Ltd. introduced the audience in “Customization and Green Development of Recycled Colored Yarn”. To reduce the high water consumption during wet dyeing of polyester yarn and fiber the application of color masterbatch and spin-dyeing is the method of choice. Spin-dyeing of recycled fiber material is compared to virgin polyester more complicated because of the fluctuating discoloration of r-PET. The way out is the increase of color lots by customer bundling and the availability of a large number of reproducible colors and color shade recipes stored and organized by a data base.

Wolfgang Hermann, Business Development Manager Fibers & Textiles EREMA Group GmbH was talking about “Future requirements of Circular Economy and EREMA’s smart and flexible solutions” and underlined EREMA’s contribution to the improvements of the loop economy. EREMA recognized the raw material producers as drivers of the plastic/polyester recycling and optimized its product portfolio accordingly. In this respect EREMA is about to improve especially the uninterrupted running time of their recycling units from 12 to 24 months which is decisive for the plant economy.

Lin Jun, analyst of CHTC Landview Network (former CCFEI): The title of her contribution “Researches of R-PET Industry Development in Current Macro-cycle” X-rayed in detail the economic development of PET recycling industry during the past ten years.

Wang Zhijun, General Manager of Hebei Jinyi Polyester Fiber Co., Ltd. summarized with his contribution “Status quo and perspective of recycling industry” the really tough situation of the Chinese PET recycling industry in all correlations like plant relocation to Far East, low utilization rates 50 -60%, US trade war and price erosion. Ways out are increase of plant capacity and productivity as well as cooperation with important brand owners.

David Hehenberger, Manager of Market and Business Development Department NGR Plastic Recycling Technologies updated the audience by talking about “Liquid State Polycondensation- Effectivity and Application Opportunities”. NGRs LSP-unit to increase molecular weight of PET by melt phase polycondensation is meanwhile arrived in the recycling market with 16 units in film and fiber applications. Welcome side effect of the process is the decontamination during vacuum processing.

Masanobu Ishikawa, PhD, Professor Emeritus Kobe University Councilor of The Japan Containers and Packaging Recycling Association: His contribution “PET bottle recycling in Japan: looking back the history from the view point of structural change to get future prospects” is dealing with the scientific and social

background of the consumption and recycling of plastic in Japan and worldwide. He explained in his paper the change from linear to circular economy and the driving forces behind. Very important for the change from linear to circular economy are after Prof. Ishikawa policy and government as the leading forces of this process.

Aldo Previero, General Manager of SOREMA div. Of PREVIERO SRL presented the paper titled “The State of the Art SOREMA PET Washing Lines in China”. By producing PET flakes of superior quality using SOREMA technology A. Previero advertised to establish such pure R-PET as unique and own product and not offering PET-flakes as a replacement of virgin PET.

Sun Yajun, General Manager Zhongxing Environmental Protection Technology Co., Ltd was speaking about “Flake Recycling Leading Green Fashion” as introduction and advertisement for his company.

Zhang Lei, General Manager, Jiangyin Desel Environmental Protection Equipment Co., Ltd. His contribution was called “Cold Thinking on the Transfer and Development of R-PET Industry” and dealt with the general development of the PET recycling industry of China in comparison with other regions of the world, especially with problems of production relocation to Africa and Far East.

Qiu Binhong, Manager of Green Environment Department of Intertec Green Initiatives; the paper “GRS V4 Certificate — New Opportunities for Recycling Enterprises” advertised the application of the GRS V4 certificate as important tool to improve product quality of textiles based on R-PET.

Stewart Hardy, Global Manager — Petrochemical Market Dynamics of Nexant Inc. analyzed the R-PET products and R-PET raw material markets by its contribution “From Discount-to-Premium: R-PET Fiber in the Era of Sustainable Fashion”. Highly interesting is his prediction that the demand for recycled products will increase drastically in the near future. He analyzed which market participants will grow and which will suffer during the area of conversion. The entrance of a substantial number of large brand owners and discounters in the recycling market will trigger massive increase of R-PET based products. The till now negative price gap between virgin and R-PET will turn to positive in the near future.

Ji Hui, Analyst CHTC Landview Network (CCFEI) closed the conference with her summary about “SWOT Analysis of R-PET Industry against the Backdrop of Policy Change”. The analysis contains compressed data of the Chinese R-PET market and price development from 2017 till today and is providing a data based few about the drastic impact of the plastic waste import ban since 12/18.

The conference book which contains most of the presentations is within the next time online available under www.polyester-technology.com or at www.ccfeci.net.