CSIR’s Initiatives for enabling the Indian Leather Industry

CSIR has come out with a “Game changing technology” for enabling the Indian leather sector achieve the set target of USD 27 billion by 2020 by making leather processing environmentally sustainable. This “Waterless chrome tanning technology” is a first of its kind technology to reduce chromium pollution load.

The Union Minister for Science and Technology and Earth Sciences and Vice President CSIR, Dr. Harsh Vardhan, informed the Media while addressing the press in New Delhi today. The Minister highlighted the strategic role of CSIR in the exemplary growth of the Indian Leather industry.

Tracing the history of Central Leather Research Institute (CLRI) of CSIR, established in 1948, Dr. Harsh Vardhan said that this was a unique institute which from the very start had a strong academic and industrial linkage. A tripartite arrangement of industry-academy-research is a first of its kind, which is a role model for other sectors to emulate. The Institute represents the leather sector in all its planning and policy development. Over the years, the Institute is the global hub for transformation of a tradition bound industry into an innovation driven one. Technologies for bio-processing of leather, zero waste water discharge, value added materials from leather and indigenous chemicals for processing, are some of the highlighting features of this institute. CSIR-CLRI is a recognised Centre for testing of restricted substances, finished leather certification. CSIR-CLRI in association with other world bodies develops protocols for testing of restricted chemicals.

The Minister was proud to inform that CSIR Researchers today also adorn the position of Chairman of the BIS committees on leather, tanning materials etc. and footwear and also provide inputs to other committees as members. CSIR researchers are also members/chairmen for the relevant committees in International Standards Organization (ISO).
Through the Institute, Indian leather sector strives to achieve economic and environmental sustainability, leading to more than doubling of the annual turnover from the present in about 4 years. CSIR has been hand holding the industry since its establishment and has taken the export turnover of Rs.40 crores in 1960s to Rs.40,000 crores in 2015 through technological interventions, training and service. The re-enabling of the tanneries in Tamil Nadu in 1996 stands a strong testimony to the contributions of this organisation.

The Minister further elaborated that Chromium is the most sought after tanning agent with about 2.0 billion sq. ft. of leather being made in India. About 20 thousand tons of chrome tanning agent is discharged in the wastewater. CSIR’s “Waterless tanning technology” has now found PAN INDIA acceptance, with tanners in all clusters enrolling for its adoption. Significance of this technology is that a) it completely eliminates two processes before and after tanning, b) eliminates the use of water in tanning, c) reduces the total dissolved solids in wastewater from this process by 20% and also d) brings down the usage of chromium by 15-20%, resulting in material saving. Efforts are now on to translate this technology both nationally and globally. Several countries including Ethiopia, South Africa, the Netherlands, New Zealand, Vietnam and Brazil have evinced interest in this CSIR technology.

Dr. Harsh Vardhan, then highlighted that such technological interventions in the leather industry will realise the vision of Make-in-India, in terms of development of first of its kind leather chemicals, environmental friendly leather processing, global fashion forecasting for colours, designs thus leading to increased trade and exports.

Growth of any industry strongly depends on the availability of associated skill as well. CSIR has a strong mandate to develop, train and re-train the required manpower for this sector. The Minister highlighted that Prime Minister’s Skill India dream is realised through training programs of CSIR-CLRI. About 60% of the skilled manpower in leather industry is from CSIR-CLRI. Training comes at all levels, be it the technical degrees or vocational programs, the Institute has tailor made programs to suit the needs of the industry, from time to time including reaching the unreached and under-privileged sections of the society.
Dr. Harsh Vardhan informed the media that CSIR has prepared and submitted to the Government, a Technology Mission plan for Leather sector at a cost of approximately Rs.2400 crores. This initiative is an inter-ministerial project with M/o Small and Medium Enterprises, M/o Skill Development, M/o Environment and Forest, M/o Water Resources. Through this plan, it is envisioned to provide proactive measures to upgrade and expand the technologies and thus the capacity of CETPs, along with skill development required. The envisioned modules include

a. Systematic collection of raw hides/skins
b. Technologies for capacity utilization of tanneries
c. Enhanced environmental management
d. Framework for quality benchmarking and certification

Over the years, CSIR is the global hub for transformation of a tradition bound leather industry into an innovation driven one. CSIR-CLRI’s role in R&D consultancy has the paved way for other sectors like metal, food, pharma and chemicals for similar interventions and positioning themselves globally.

The mission of CSIR through CLRI is to meet the requirements of global leather sector, relevant regulatory and statutory bodies and other stakeholders with continual improvement in its services, while aligning itself to the National agenda through technology innovation led solutions for the sector.
CSIR Press Meet @ Science Centre, New Delhi on 03-11-2016