Summary: DSCI's Inputs on the National Strategy for Robotics

India stands at the cusp of a robotics revolution, with immense potential to become a global leader in the development and deployment of advanced robotic technologies. Recognizing this, the Ministry of Electronics and Information Technology (MeitY) released the **Draft National Strategy on Robotics (NSR)** to create a comprehensive roadmap for the sector. In response to the consultation, the **Data Security Council of India (DSCI)** submitted its inputs to help shape a forward-looking, secure, and innovation-driven robotics ecosystem in India.

1. A Strategic Vision for India in Robotics

DSCI emphasized the need for the strategy to clearly articulate India's global vision for robotics—positioning the country as a hub for manufacturing, R&D, and commercial deployment of robotics across priority sectors such as healthcare, agriculture, logistics, manufacturing, and defense. The strategy may not only foster domestic innovation but also project India as a trusted and competitive global partner in emerging technologies.

2. Creating an Enabling Policy and Regulatory Landscape

To truly catalyze innovation, the robotics policy may promote ease of doing business, minimize compliance burdens, and encourage responsible self-regulation. DSCI recommended that the government adopt a regulatory sandbox approach, allowing for the testing of robotic applications in real-world environments, particularly in critical sectors like defense and healthcare. DSCI also emphasized the importance of international harmonization of policies and standards to support interoperability and global market access.

3. Embedding Cybersecurity, Privacy, and Ethics by Design

Given the interconnected nature of modern robotics, DSCI highlighted that cybersecurity and data protection may be regarded be foundational principles in robotics design and deployment. The Council recommended integrating security and privacy "by design," ensuring that robotics systems comply with existing and emerging legal frameworks such as the Digital Personal Data Protection Act and relevant cybersecurity norms.

Ethical considerations—particularly related to autonomous decision-making and AI integration—may be addressed upfront. DSCI called for the development of national guidelines rooted in trust, transparency, and accountability.

4. Accelerating R&D, Commercialization, and IP Creation

To build a robust innovation pipeline, DSCI proposed strengthening public-private collaboration, setting up Robotics Centres of Excellence, and creating shared testbeds and sandboxes for prototyping and experimentation. Additionally, IP frameworks may be streamlined to support the protection and transfer of indigenous innovations.

DSCI also suggested establishing strategic missions and incentive programs to support startups and MSMEs innovating in the robotics space.

5. **Skilling, Workforce Transition, and Inclusion**

DSCI underscored the need to align India's talent ecosystem with the demands of the robotics sector. It advocated for embedding robotics education in STEM curricula, building vocational training programs, and forging industry-academia partnerships.

With the rise of automation, DSCI urged that workforce reskilling and transition plans be integrated into the national strategy, especially to support workers in traditional sectors. Furthermore, the development of assistive robotic technologies must be guided by principles of accessibility and inclusivity.

6. **Driving Global Collaboration and Geopolitical Relevance**

In a rapidly evolving technological landscape, India's robotics strategy may also reflect its geopolitical aspirations. DSCI encouraged the government to actively participate in international standard-setting bodies, forge bilateral technology partnerships, and use robotics innovation as a means to enhance India's digital diplomacy and global influence.

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