# Major Achievements of Council of Scientific & Industrial Research (CSIR) during 2016

Council of Scientific & Industrial Research (CSIR) is an autonomous body under the Ministry of Science and Technology and the largest research and development (R&D) organization in India.

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## CSIR Achievements

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- CSIR's Global positioning – CSIR has been ranked 12$^{th}$ in the world amongst the government institutions in the world, according to 2016 report of the Scimago Institutions Rankings.
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## Inventions in Strategic Sector

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- Drishti transmissometer – A visibility measuring system provides information to pilots on visibility for soft landing and take-off operation.
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- Head-Up-Display (HUD) – It is developed for Indian Light Combat Aircraft, Tejas to aid the pilot in flying the aircraft and critical maneuvers include weapon training.
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- Indigenous Gyrotron – Design and Development of Gyrotron for nuclear fusion reactor.
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## Energy and Environment sector

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- Solar tree – designed to occupy minimum space to produce clean power.
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- Lithium Ion Battery – India’s first lithium ion battery fabrication facility based on indigenous novel materials has been established.
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## Value added Agriculture

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- Samba Mahsuri Rice Variety – In collaboration with ICAR, an improved bacterial blight resistant Samba Mahsuri variety has been developed.
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- Rice Cultivar (Muktashree) – A rice variety which restricts assimilation of Arsenic.
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- White-fly resistant Cotton Variety – Development of transgenic cotton line which is resistant to whiteflies.
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## Healthcare

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- JD Vaccine for Farm Animals – Vaccine developed for Johne’s disease affecting sheep, goat, cow and buffalo so as to immunize them and increase milk and meat production.
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- Plasma Gelsolin Diagnostic kit to diagnose pre-mature birth and sepsis related deaths.
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- GOMED – Genomics and other omics technologies for Enabling Medical Decision has been developed which provides a platform of disease genomics to solve clinical problems.
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## Food & Nutrition

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- Ksheer-Scanner – A new technical invention to detect the level of milk adulteration and adulterants.
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- Anti-obesity DAG oil – oil enriched with Diacylglycerol (DAG) instead of conventional triacylglycerol (TAG).
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## Waste to Wealth

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- Non-toxic radiation shielding materials utilizing industrial waste like red mud (from aluminium industries) and fly ash (Thermal power plants) for application in diagnostic X-Ray rooms.
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**Source: PIB**

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