

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH**

**LOK SABHA
UNSTARRED QUESTION NO. 1126
(TO BE ANSWERED ON 07.02.2020)**

NMITLI SCHEME

**1126. DR. DNV SENTHILKUMAR S.:
SHRI SHIVAKUMAR C. UDASI:
DR. SUBHASH RAMRAO BHAMRE:
SHRI SUNIL DATTATRAY TATKARE:**

**Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान एवं प्रौद्योगिकी मंत्री
be pleased to state:**

- (a) whether the Council of Scientific & Industrial Research (CSIR) provides soft loan to companies for R&D activities under the New Millennium Indian Technology Leadership Initiative (NMITLI) scheme;**
- (b) if so, the details thereof along with the norms adopted for sanctioning loan;**
- (c) the number of companies which have been provided loan, the duration of loan and the names of the project for which it was sanctioned and the present status of recovery of loans;**
- (d) whether the Government has achieved the objective for which these loans were sanctioned, if so, the details thereof;**
- (e) whether any company became sick after providing loan, if so, the details thereof, company/project/Statewise;**
- (f) the names of such companies who have defaulted to repay the loan and the total outstanding dues from them; and**
- (g) the action taken by the Government to recover the outstanding dues and also the corrective measures initiated in this regard?**

ANSWER

**MINISTER OF HEALTH AND FAMILY WELFARE; MINISTER OF SCIENCE AND
TECHNOLOGY; AND MINISTER OF EARTH SCIENCES
(DR. HARSH VARDHAN)**

स्वास्थ्य और परिवार कल्याण मंत्री; विज्ञान एवं प्रौद्योगिकी मंत्री; तथा पृथ्वी विज्ञान मंत्री
(डॉ. हर्ष वर्धन)

- (a) Yes, Sir. Council of Scientific & Industrial Research (CSIR) provides soft loan for R&D activities to companies under the New Millennium Indian Technology Leadership Initiative (NMITLI) Scheme. The financial support to industry is in the form of soft loan with 3% interest.**
- (b) The norms adopted for granting loan is based on selection of project through CCEA approved procedure involving rigorous screening and project review. The criteria for selection of the project are based on novelty of the proposal, potential technological benefits and the ability of industry to capture those benefits.**
- (c) Name of projects, name of companies, amount of loan given, period of loan given, project deliverables and status of repayment of loan is given in Annexure-I.**
- (d) The objectives/ deliverables of most of the projects have been accomplished except a few, the details of which are provided in Annexure-I.**
- (e) As on date; only one company, M/s Clutch Auto Ltd. (listed at Sr. No. 23 in Annexure-I) reported sick after providing loan.**
- (f) The names of the companies who have defaulted to repay the loan and total outstanding dues are given in Annexure-II.**
- (g) CSIR has taken recourse of arbitration in every case of loan default. Among the corrective measures, CSIR has now initiated taking the services of Chartered Accountants to evaluate the financial health of company as an additional measure before giving loan to companies.**

Annexure-I**NMITLI: Details of Loan Repayment by Industry partners**

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	5 & 25kw decentralized power packs	Sud-Chemie India Ltd., New Delhi	A prototype of integrated 5 kW Fuel Cell was developed, installed and demonstrated. <u>The technology however could not become commercially viable.</u>	50.00	2002-03 To 2004-05	2005-2015	No	Total Loan Paid.
2	Latent M. Tuberculosis: New Targets, Drug Delivery system, bio-enhancers and therapeutics	Lupin Ltd., Pune	<ul style="list-style-type: none">• A new bioenhancer as an adjunct to chemotherapy established for latent tuberculosis infection;• 4 promising leads identified as candidates for IND	1448.45	2001-02 To 2009-10	2011-2021	No	Nine instalments paid.
3	Nano-material catalysts and associated process technology for alkylation/ acylation/nitration of well identified	Sud-Chemie India Ltd., New Delhi	<ul style="list-style-type: none">• Process for removal of sulphur from petroleum fuels demonstrated;• Catalysts developed for pre-reforming of hydrocarbons;• <u>Technology could not be developed for commercial scale</u>	95.000	2002-03 To 2003-04	2005-2015	No	Total Loan Paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	industrial chemicals, pre-reforming of hydro-carbons and sulphur removal (<50 ppm) from petroleum fuels							
4	Versatile, portable PC based software for bioinformatics; and Development of Linux cluster version of Bio-suite	Tata Consultancy Services, Hyderabad	Two bioinformatics softwares developed and marketed (i) BioSuite, both cluster version and stand alone; and (ii) Genocluster	954.000	2001-02 To 2003-04	2005-2015	No	Total Loan Paid.
		Jalaja Technology, Bangalore		24.000	2001-02 To 2003-04	2005-2015	Yes	Loan not paid. Arbitration opted. Arbitration completed. Execution of arbitration

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
								order is in process.
		Frontier Information Technologies Ltd., Secunderabad		40.000	2001-02 To 2003-04	2005-2015	Yes	Loan not paid. Arbitration opted. Appeal in High court challenging the arbitration order pending.
5	Development of an oral herbal formulation for treatment of psoriasis	Lupin Ltd., Pune	<ul style="list-style-type: none"> Formulation developed for amelioration of Psoriasis; <u>However, it failed to show efficacy in Phase III clinical trial in comparison to standard drug, methotrexate.</u> 	1644.58	2002-03 To 2009-10	2011-2021	No	Nine instalments paid.
6	Development of novel biotech therapeutic	Bharat Biotech International Limited,	<ul style="list-style-type: none"> Developed lysostaphin gel formulation for Staphylococcus aureus infection; 	713.991	2002-03 To 2013-14	2013-2023	No	Six instalments paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	molecule – Lysostaphin	Hyderabad	<ul style="list-style-type: none"> Developed novel downstream process for large scale production of >99% pure protein; <u>However Phase III clinical trial couldnot show improved efficacy as compared to standard treatment available.</u> 					
	Development of novel biotech therapeutic molecule – Lysostaphin Phase II/III Clinical Studies	Bharat Biotech International Limited, Hyderabad		167.230	2016-17 To 2017-18	2019-2029	No	One instalment paid.
7	Microbiological conversion of Erythromycin to Clarithromycin and other novel biologically active molecules	Alembic Ltd., Vadodara	<u>Project attempted to isolate microorganism that can convert biological active molecules to antimicrobials but failed in its attempt.</u>	28.500	2002-03 To 2003-04	2004-2014	No	Total Loan Paid.
8	Novel molecular diagnostics for	Lensel Optics Pvt. Ltd., Pune	<ul style="list-style-type: none"> Three low vision enhancement devices developed viz. a) The 	14.750	2003-04 To 2004-05	2007-2017	No	Total Loan Paid.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	eye diseases and low vision enhancement devices	Xcyton Diagnostics Limited, Bangalore	Illumination Table with Variable Spectral Distribution and Intensity b) Night Vision Pocketscope and c) Spectacle mounted prismatic stereovision lenses of plastic with anti-scratch coating. • Diagnostic system for detection of eye infection commercialized.	69.560		2007-2017	No	Nine instalments paid.
9	Value added polymeric materials from renewable resources: Lactic acid and lactic acid based polymers	Godavari Sugar Mills, Mumbai	• Process for production of lactic acid (3000 litre capacity) from fermented sugarcane juice by lactobacillus and its separation as calcium lactide was demonstrated at industry site, M/s Godavari sugar mills Ltd; • <u>Technology however could not be made commercially viable due to market conditions.</u>	485.000	2006-07 To 2007-08	2012-2022	Yes	Loan not paid. Arbitration opted. Arbitration process is on.
10	Recombinant approach to produce a-linolenic acid and docosahexanoic	Avesthgen Pvt. Ltd., Bangalore	▪ A technology for the production of DHA from fermentation of thraustochytrids species SC-1 has been developed and transferred to industry partner for	303.500	2003-04 To 2006-07	2008-2018	Yes	Loan not paid. Arbitration opted. Arbitrator

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	acid (DHA) in sunflower and yeast		commercial exploitation.					has given its award in favour of CSIR.
11	A cost effective Simple Office Computing (Sofcomp) platform to replace PC (Phase I & II)	Encore Software Ltd., Bangalore	<ul style="list-style-type: none"> Three variants of SofComp devices developed. 	320.000	2003-04 To 2004-05	2005-2015	Yes	Loan not paid. Arbitration opted. Arbitration completed. Execution of arbitration order is in process.
12	A PC based high-end 3D visualization platform for computational biology – 'Darshee'	Strand Life Sciences Pvt. Ltd., Bangalore	<ul style="list-style-type: none"> A low cost visualization platform for bioinformatics with features of portability, scalability and upgradability developed. Product marketed as part of Industry's Avadis platform; The technology was further integrated into Array Assist of 	186.400	2003-04 To 2004-05	2004-2014	No	Total Loan Paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Stratagene, USA.					
13	Improved Genome Annotation Through a Combination of Machine Learning and Experimental Methods: <i>Plasmodium falciparum</i> As a Case Study	Tata Consultancy Services, Hyderabad	<ul style="list-style-type: none"> Algorithms and softwares developed for predicting, identification and annotation of genes in prokaryotes using <i>P. falciparum</i> as case study; The genes predicted using the softwares developed have been experimentally verified using gene expression studies 	291.000	2004-05 To 2007-08	2008-2018	No	Total Loan Paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14	Development of Novel Fungicides	Rallis Research Centre, Bangalore	<ul style="list-style-type: none"> Novel fungicides synthesized which have strobilurin and 1,2,4 triazoles unit in them showed activity against pathogenic fungi at 25 ppm.; Suitable formulations developed and they were subjected to field trial by industry; Targets for few compounds were identified for their mechanism of action; Antifungal compounds were isolated from microbes (<i>Psuedomonas sp</i>) growing in extremophilic and mesophilic environment; Industry partner deployed these fungicides in their field as a part of trial. 	188.290	2004-05 To 2006-07	2008-2018	No	Total Loan Paid.
15	Novel Expression System	Biocon, Bangalore	<ul style="list-style-type: none"> Five novel promoters were developed that drive the 	33.125	2005-06 To 2007-08	2009-2019	No	Total Loan paid

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Shantha Biotechnics, Hyderabad	production of some industrially important enzymes; • Five novel yeast species were identified from varied sources; • Alcohol oxidase promoter were developed from novel alcohol oxidase genes cloned from a yeast strain.	56.070			No	Total Loan paid
16	Development of Globally competitive 'Triple-Play' Broadband Technology	Divinet, Pune	The triple play technology has been successfully developed and tested using the BSNL broadband infrastructure to provide end-to-end solution for triple play services. BSNL was fully satisfied with the technology and adopted it for commercialization.	938.750	2004-05 To 2007-08	2008-2018	Yes	Defaulter. Execution petition is under process.
17	Market seeding of SofComp and Mobilis to develop wide-ranging applications as well as increase	Encore Software Ltd., Bangalore	• 2000 units were produced for deployment at customer end for evaluation • Exclusive license for manufacturing and marketing given to an industry, DSK-	537.000	2005-06 To 2006-07	2008-2018	Yes	Loan not paid. Arbitration opted. Arbitration completed.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	awareness		Worldman Computers Pvt Ltd, Pune.					Execution of arbitration order is in process.
18	Development of an integrated micro PCR system with In-situ Identification	Bigtech Pvt. Ltd., Bangalore	Technology developed for <ul style="list-style-type: none"> • Micro PCR Device • Sample Preparation Device • Microchips for detection of Tuberculosis, Malaria, Dengue, Chikungunya, Hepatitis B and H1N1 Commercialized by M/s Bigtech Pvt Ltd	925.100	2005-06 To 2011-12	2012-2022	No	Six instalments received.
19	Development of high throughput marker assisted selection systems for improvement of drought tolerance and fibre quality related	JK Agri-Genetics Ltd., Hyderabad	<ul style="list-style-type: none"> • More than 2000 SSR markers were identified in cotton which were developed in <i>Gossypium hirsutum</i> genotype for future R&D in improving cotton varieties; submitted in cotton marker database; • Recombinant inbred lines of one 	736.790	2006-07 To 2010-11	2012-2022	No	Seven instalments paid.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	traits in Cotton		variety developed that showed best performance for yield and quality parameters. The line was included in multilocal trial program of TNAU, Coimbatore.					
20	Novel method for development of B-type Natriuretic peptide (BNP) for diagnosis and treatment of congestive heart failure	Virchow Biotech Pvt. Ltd., Hyderabad	A prototype diagnostic device for detection of Congestive Heart Failure was successfully developed	414.700	2006-07 To 2008-09	2010-2020	No	Total Loan Paid.
21	Development of Next Generation Plasma Display Technology a 50" High Definition (HD) TV Prototype	Samtel Color, Ghaziabad	A prototype of 50" HD PDP with existing materials / processes including its electronics was designed, developed and demonstrated.	2063.000	2006-07 To 2009-10	2010-2020	Yes	Loan not paid. Arbitration opted. Arbitrator has given its award in favour of CSIR.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22	Development of sensor networks chipset based on ultra-wide band technology	Virtual wire tech, New Delhi	<ul style="list-style-type: none"> • Prototype (4x4 MIMO UWB) developed • Working prototype for transferring data at the rate of 1 Gbps wireless link using a non-standard protocol (3 GHz band) demonstrated 	422.000	2006-07 To 2009-10	2010-2020	Yes	Loan not paid. Arbitration opted. Petition in High Court for appointment of Sole Arbitrator.
23	Design and development of cushion bonded/rigid bonded organic, cerametallic cookie & single/fuel sintered buttons (copper/iron based), ceramic cookies and annular ring clutch	Clutch Auto Ltd., Faridabad	Cushion Bonded/ Rigid Bonded Organic, Cerametallic Cookie & Single/Dual Sintered Buttons (Copper / Iron Based), Ceramic Cookie & Annular Ring Clutch Discs and Matching Cover Assemblies' have been developed	1493.350	2007-08 To 2010-11	2012-2022	Yes	Loan not paid. Arbitration opted. Company under NCLT.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	discs and matching cover assemblies							
24	Intelligent Video Surveillance System	Mind Tree Ltd., Bangalore	Intelligent video surveillance solutions comprising of flexible and reliable Digital Video Recorder (DVR), video decoder and the open network video interface forum (ONVIF) stack developed and commercialized.	458.090	2008-09 To 2010-11	2011-2021	No	Nine instalments paid.
25	Novel therapy for management of sepsis	Cadila Pharma Ltd., Ahmedabad	<ul style="list-style-type: none"> Phase IIa clinical trial for safety dose showed faster clinical, functional and microbiological recovery when combined with standard therapy; Phase IIb/Phase III multicentre clinical trial completed and there was 10.89% absolute reduction and 55.56% relative reduction in mortality in Treatment Group 	2084.96	2007-08 To 2017-18	2019-2029	No	First Instalment paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			<p>compared to Control Group which is clinically relevant and statistically significant ($p = 0.0229$).</p> <ul style="list-style-type: none"> The product has obtained market authorization for management of gram negative sepsis indication. 					
26	Development of DNA Macro-Chips for simultaneous detection of pathogens causing acute encephalitic syndrome (AES) Septicaemia and antibiotic resistance	Xcyton Diagnostics Limited, Bangalore	The project was successful, culminating with the development of three diagnostic kits – two for simultaneous identification of all pathogens causing Acute Encephalitic Syndrome and septicaemia and the third one for identification of the antibiotic sensitivity of the bacteria causing septicaemia.	506.398	2007-08 To 2012-13	2013-2023	Yes	Loan not paid. Arbitration opted. Arbitration process is on.
27	Development of Characterization of an indigenous vaccine for Johne's disease	Biovet, Bangalore	Two formulations of vaccine i.e. JD Oil and JD Gel and companion diagnostic for JD developed.	429.010	2008-09 To 2014-15	2015-2025	No	Five instalments paid.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
28	Evaluation of RNAi-based constructs for conferring resistance on transgenic rice against the blast fungus <i>Magnaporthe grisea</i>	Metahelix Life Sciences Ltd., Bangalore	<ul style="list-style-type: none"> Transgenic rice plants of T5 generation were developed that showed good level of resistance against blast fungus; Technology platform for developing transgenic rice plants ready with gene overexpression and gene silencing targets for blast fungus in place. 	83.270	2008-09 To 2010-11	2019-2026	No	Nine instalments paid.
29	Development of caerulomycins as novel immunosuppressive agents to prevent organ rejection after transplantation and to address various autoimmune and allergic disorders	EnEm Nostrum Remedies Pvt. Ltd., Mumbai	<ul style="list-style-type: none"> Analogues of original molecule, Caerulomycin, an immunosuppressive agent for organ rejection, were developed and tried for activity and IND studies; <p><u>However the selected analogues did not show the activity of immunosuppression and the project was closed.</u></p>	800.000	2009-10 To 2014-15	2014-2024	No	Five instalments paid.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
30	Novel DPP IV Inhibitors for the treatment of Diabetes	Cadila Pharma Ltd., Ahmedabad	<ul style="list-style-type: none"> • One novel DPP IV inhibitor identified from among synthesized molecules; • Novel process developed for synthesis of the molecule; and • Drug development related pre-clinical studies on the selected molecule for IND completed. • In Phase-I study, the drug was found to be safe and well tolerated at all dose levels, without any major safety concerns in healthy volunteers. • Phase-II prospective, randomized, double blinded, parallel group, multicentric, comparative clinical study indicated efficacy of the compound. No deaths, other SAEs or other significant AEs were observed in any of the patients during the entire study • Approval for Phase IIB/Phase III 	769.500	2009-10 To 2013-14	2014-2024	No	Six instalments paid.

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			trial obtained.					
31	Development and production of a therapeutic monoclonal antibody against eNAMPT, a novel inflammatory target	Gennova Biopharmaceuticals Ltd., Pune	<ul style="list-style-type: none"> • Ultra-large naïve human phage display libraries (2.79 x 10¹¹ cfu total); compare with Xoma's (2.5 x 10¹¹ cfu total); • Fast ultra-large library making abilities – 30-45 days from start to sequence characterization; • Proof-of-concept of practical applicability of antigen-antibody equilibrium and kinetic principles for phage panning and isolating high affinity phage pools; • Fast panning – 21-30 days for 4 rounds of solution panning to monoclonal isolation; • Emphasis on studying monoclonals as Fab proteins in solution (not fusion with phages) and novel solutions for phenotyping to isolate "genotype 	1841.40	2010-11 To 2016-17	2017-2027	No	Three instalments paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			<p>true" hits; and</p> <ul style="list-style-type: none"> Establishment of novel solutions for kinetic ranking 					
32	Design, Development and demonstration of high performance parabolic trough based 300 kW Solar Thermal Power Plant	Milman Thin Film Systems Pvt. Ltd., Pune	<ul style="list-style-type: none"> A new Magnetron Sputtering Pilot Plant System which is capable of co-deposition and as well sequential deposition of six different types of coatings to address the need for various functionality of (a) IR reflection, (b) Diffusion barrier, (c) Multilayer cermets, (d) Multilayer antireflection coating etc.; Tracking System with features: (i) Hydraulic System coupled with Advance Controller (ii) Inclinator for absolute measurement of position (iii) Drives 6 modules of three Troughs on each side (iv) Accuracy 1.7 mrad (v) Validation at DLR, Germany is underway; 	1103.25	2010-11 To 2015-16	2016-2026	Yes	Loan not paid. Arbitration opted. Arbitration process is on.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			<ul style="list-style-type: none"> • Photo-receiver Tube (Heat Collection Element) for 4 m size with measurement of: (i) Thermal loss (ii) Assess performance in outfield natural Solar Radiation (iii) Vacuum leak test (iv) Vacuum integrity with time and (v) Optical efficiency test on trough; validation to be done at DLR, Germany; • Highly engineered Concentrating Parabolic Trough Collector assembly with unique features was designed, developed and demonstrated; and • A high precision Glass to Metal Seal with High Temperature stability for Heat Collection Element developed and integrated into the HCE as per the satisfaction of industry. 					

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
33	Development and commercialisation of "Vennfer" – unique H.264 high definition software based multiparty, multipoint video conferencing solution on multipoint network transmission protocol	Intellisys Technologies & Reseach Ltd., Kolkata	High definition software based video conferencing solution – 'Vennfer HD' using H.264 video codec multiparty, multipoint video conferencing applications on multicast network transmission protocol has been developed.	296.000	2010-11 To 2013-14	2014-2024	Yes	Loan not paid. Arbitration opted. Arbitration completed. Execution of arbitration order is in process.
34	Development and commercialisation of NXR-4D: A lithium-Ion battery powered 4-door next generation electric car (4-seater capacity)	Mahindra Reva Electric Vehicles Pvt. Ltd., Bangaluru	First four-door electric vehicle to be entirely indigenously designed, developed and commercially produced in India and meeting global automotive quality standards	1751.80	2011-12 To 2015-16	2015-2025	No	Four instalments paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
35	Design and fabrication of All-fibre supercontinuum light source with application demonstration to detect fake pills	Vinivish Technologies Pvt. Ltd., Thiruvananthapuram	Developed and Demonstrated two products viz.: (i) Supercontinuum Light Generation Source; and (ii) Broadband Confocal Microscope. The developed PCF technology had been transferred to the industrial partner by CSIR-CGCRI through a Technology Transfer Agreement.	225.250	2011-12 To 2013-14	2014-2024	No	Five instalments paid.
36	Development and commercialization of Soleckshaw Lite - An innovative electrical Green transport platform	Kinetic Engg. Ltd., Pune	<ul style="list-style-type: none"> • Technology for Indigenous Electrical three wheeler developed. • Central Motor Vehicle Rules (CMVR) certification for the same has been obtained 	1317.17	2012-13 To 2014-15	2015-2025	No	Five instalments paid.
37	Customized adaptation of non Clonable ID technology to establish authenticity of medical products	Bilcare Ltd., Pune	The nonClonableID technology was demonstrated for its utility in: (i) establishing the product accountability in the area of medical products; (ii) secured traceability from the point of origin to the point of	893.460	2011-12 To 2013-14	2014-2024	Yes	Loan not paid. Arbitration opted. Arbitration is under process.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			dispensation, authenticity check and establishing e-pedigree; and (iii) improving medication compliance by patients					
38	Development of a diagnostic system for affordable, point of need testing to manage HIV and TB	ReaMetrix India Pvt. Ltd., Bengaluru	<ul style="list-style-type: none"> ReaSLR CSM Kit Ver 1.0 (ReaFilter based filtration and Concentration of cells by centrifugation) - is available for evaluation and sale; 	816.800	2011-12 To 2013-14	2015-2025	Yes	Loan not paid. Arbitration opted. Arbitration is under process.
39	System based computational model of skin (SCoMOS)	Persistent Sys. Ltd., Pune	<ul style="list-style-type: none"> Computational software named "eskin" encompassing varied features as mentioned in next column launched by industry for services. 	184.485	2011-12 To 2015-16	2015-2025	No	Four instalments paid.
40	Development of integrated technological solutions for security and	Aron Universal Ltd., Bengaluru	<ul style="list-style-type: none"> Developed Invisible UV sensitive inks fluorescing in blue color as per the industry standards; and Six different Pi-MAD (Programmable Invisible Marker 	43.100	2013-14 To 2015-16	2016-2026	No	Three instalments paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	operations based on UV sensor technologies		<p>Authentication device) prototypes with varying functionality have been developed leveraging open source Arduino platform which can clearly distinguish various fluorescent colors.</p> <ul style="list-style-type: none"> Few developed material products have been commercialized by M/s Security Printing and Minting Corporation of India Limited (Wholly owned by Govt. of India). 					
41	Design and development of photonic crystal cladded and double called Er and Er/Yb fibers, and application demonstration of high-power optical amplifier	Vinvish Technologies Ltd., Thiruvananthapuram	A prototype of high power amplifier (EDFA) was designed, developed and demonstrated	133.000	2014-15 To 2016-17	2017-2027	No	Two instalments paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
42	Demonstration and Validation of a LT-PEMFC system for automotive application	KPIT, Pune	A 30-Cells stack has been built using the MEA that were created by hot pressing the electrodes fabricated.	187.550	2015-16 To 2019-20	2021-2030	No	Ongoing project. No instalment due as on date.
43	Development of an antidiabetic agent based on the phytopharmaceutical drug guidelines from <i>Enicostemma littorale blume</i>	Viridis Biopharma, Mumbai	Four markers have been identified for development of phytopharmaceutical formulation.	62.520	2015-16 To 2017-18	2019-2029	No	Total Loan Paid.
44	<i>Kappaphycus alvarezii</i> and red seaweed based formulations for improving productivity and health of dairy and poultry animals	Aqua agri Processing, ND	<ul style="list-style-type: none"> • Two formulations developed and validated ✓ One formulation for improving health including immunity enhancement and productivity of broiler chicken ✓ Another formulation for improving health and immunity 	75.000	2015-16 To 2018-19	2020-2030	No	One instalment paid.

S.No.	Name of Project	Company Name	Project Deliverables	Loan Disbursed (Rs in lakh)	Period of Loan Disbursement	Loan repayment duration	Whether Company has been declared Defaulter ?	Status of Loan/ Recovery
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			of crossbred calves and dairy cattle as also having anti-methanogenic property.					
45	Automation of Ghani operation through vacuum conveying system	Fare Labs, Gurgaon	<ul style="list-style-type: none"> Fully automatic Ghani plant has been designed, fabricated, installed and commissioned at M/s Khandelia Oil Mills, Alwar. Complete package for conversion/retrofitting of traditional ghani plant into fully automatic ghani plant. 	481.670	2015-16 To 2017-18	2018-2028	No	Two instalments paid.

Annexure-II**(Rs. in Lakh)**

S.No.	Name of Project	Company name	Total outstanding dues
1	Versatile, portable PC based software for bioinformatics; and Development of Linux cluster version of Bio-suite	Jalaja Technology, Bangalore	13.71
		Frontier Information Technologies Ltd., Secunderabad	10.69
2	Value added polymeric materials from renewable resources: Lactic acid and lactic acid based polymers	Godavari Sugar Mills, Mumbai	485.00
3	Recombinant approach to produce a-linolenic acid and Docosahexanoic acid (DHA) in sunflower and yeast	Avesthgen Pvt. Ltd., Bangalore	273.15
4	A cost effective Simple Office Computing (Sofcomp) platform to replace PC (Phase I & II)	Encore Software Ltd., Bangalore	796.03
5	Development of Globally competitive 'Triple-Play' Broadband Technology	Divinet, Pune	938.75
6	Development of Next Generation Plasma Display Technology a 50" High Definition (HD) TV Prototype	Samtel Color, Ghaziabad	2038.00
7	Development of sensor networks chipset based on ultra-wide band technology	Virtual wire tech, New Delhi	422.00
8	Design and development of cushion bonded/rigid bonded organic, cerametallic cookie & single/fuel sintered buttons (copper/Iron based), ceramic cookies and annular ring clutch discs and matching cover assemblies	Clutch Auto Ltd., Faridabad	1483.50
Total outstanding dues on Page1:			6460.83

9	Development of DNA Macro-Chips for simultaneous detection of pathogens causing acute encephalitic syndrome (AES) Septicaemia and antibiotic resistance	Xcyton Diagnostics Limited, Bangalore	506.398
10	Design, Development and demonstration of high performance parabolic trough based 300 kW Solar Thermal Power Plant	Milman Thin Film Systems Pvt. Ltd., Pune	1103.250
11	Development and commercialisation of "Vennfer" – unique H.264 high definition software based multiparty, multipoint video conferencing solution on multipoint network transmission protocol	Intellisys Technologies & Research Ltd., Kolkata	257.270
12	Customized adaptation of non-Clonable ID technology to establish authenticity of medical products	Bilcare Ltd., Pune	893.460
13	Development of a diagnostic system for affordable, point of need testing to manage HIV and TB	ReaMetrix India Pvt. Ltd., Bengaluru	816.079
Total outstanding dues on Page 2:			3576.457
Total outstanding dues on (Page1 + Page 2) :			10037.29
