MEMORANDUM OF UNDERSTANDING
BETWEEN

THE MINISTRY OF RAILWAYS
OF THE REPUBLIC OF INDIA AND

SNCF Mobilités

ON TECHNICAL COOPERATION IN THE FIELD OF RAILWAYS

The Ministry of Railways of the Republic of India and SNCF Mobilités (hereinafter after referred to as **"the Parties"**), acknowledging the need for both Countries to promote cooperation in the railway sector and,

- Bearing in mind the excellent relationship between the Parties,
- Recognising the achievements of past and recent cooperation between the Parties,
- Recalling the declaration of intent from the Parties Respective Chairman to renew and deepen such cooperation on December 9, 2011 in Paris,
- Recognising the MoU signed between SNCF and Ministry of Railways from 14.2.2013 for a period of 5 years and its significant achievements and strategic outcomes

Have reached the following understanding:

ARTICLE I - Purpose and duration of the Memorandum

This Memorandum is intended to build upon and deepen the mutual cooperation already existing between the Parties.

More specifically this Memorandum will provide a framework of cooperation between the Parties towards the achievement of the strategic vision of Indian Railways. SNCF will work with Indian Railways in the areas where SNCF's know-how and expertise can significantly contribute towards that vision. The joint objective of the Parties is to deepen their relationship by a more focused approach in key areas of interest towards the achievement of the vision.

ARTICLE II - Content of cooperation

The Parties have agreed to focus their cooperation mainly on four priority areas:

1. High speed and semi-high speed rail;
2. Station renovation and operations;
3. Modernisation of current operations and infrastructure;
4. Suburban trains.

II.1 High-speed and semi-high speed

High Speed

Context

National High Speed Rail Corporation Limited (NHSRCL) has been set up in India. NHSRCL is implementing the project of high speed train corridor between Ahmedabad and Mumbai. The total length of proposed High Speed Railway Corridor works out to be 508km. This project's ground breaking ceremony was held on 14th September 2017, and this project estimated at 1,08,000 Crores INR is being implemented with substantial funding and Technology support by Govt of Japan.

Additionally, Indian Railways has identified six corridors where high speed railway may be taken up. These include Delhi-Mumbai, Delhi-Kolkata, Mumbai-Chennai, Kolkata-Chennai, Delhi-Chennai, Mumbai-Kolkata, Chennai-Bengaluru-Mysuru.

Past Co-operation and achievement

At IR request, SNCF carried out a Business development Project on the Mumbai- Ahmedabad High Speed Rail corridor. The Project focussed on **Business model, Financing option** and **Roadmap journey development.** The project, conducted in 3 phases, initiated on January 2013 and was completed in June 2014. The recommendations were supported by an international benchmark carried out in 8 HSR countries, France, UK, Spain, Korea Speed Rail objectives, Taiwan, Morocco, Brazil and Russia.

SNCF provided high level recommendations for a HSR strategy in India including:

- High Speed and Semi High Speed Rail Objectives
- HSR Business Model for India
- Governance, financing, Safety and HR
- The impact of HSR for the Indian rail industry

The Way Forward

The Parties have earmarked the following topics for further discussion and cooperation:

- An optimal mix of high speed and semi high speed given India's geography and requirement
- Setting standards for inter-operability among HSR corridors

Semi High Speed

Context

Additionally, Indian Railways has identified nine corridors where speed of passenger trains will be 160-200 Kmph. These include Delhi-Agra, Delhi-Chandigarh, Delhi-Kanpur, Nagpur-

Bilaspur, Mysore-Bengaluru-Chennai, Mumbai-Goa, Mumbai-Ahmedabad, Chennai-Hyderabad and Nagpur-Secundarabad.

Cooperation so Far

A Contract was signed between SNCF and IR to undertake a study on Delhi- Chandigarh Semi High speed on 8th December 2015 and the project initiated on February 2016. SNCF, following an audit, was to provide IR, assistance and methodology for carrying out the Technical and Execution Study for upgrading the Speed to passenger trains on the current rail corridor between Delhi and Chandigarh (244Km) up to 200KM.

This study has been completed and the final report was submitted on 27th November'2017. All the deliverables have been satisfactorily met.

Way Forward

Further course of action on Delhi-Chandigarh Semi High Speed feasibility report will be taken on the basis of outcome of the joint discussion to be held between officials nominated by SNCF and Indian Railways for this purpose.

Both sides agree that this study has provided a useful way forward for implementation of semi-high speed and it would be taken forward subject to sanction from Government of India.

II.2 Station renovation and operations

Context

Indian Railways plans to upgrade and re-develop major Railway Stations in the country by leveraging the commercial potential of space around and above the Railway Stations.

Cooperation so Far

A Renovation Concept study as a Demonstrator of SNCF methodology through two real case studies for Ludhiana and Ambala stations was carried out. The project commenced on 31st march 2016 and the final steering Committee was held on 8th December 2016. All the deliverables have been satisfactorily met.

Way forward

Based on above studies Ministry of Railways has decided to take up re-development of Ludhiana Station through Indian Railway Station Development Corporation.

II.3 Modernisation of IR current operations and infrastructure

Context

One of the first priorities of Indian Railways is the modernisation of its vast infrastructure network and related operations; improving safety, upgrading bridges and tracks, achieving the

electrification of 6500 km of new tracks over 5 years, upgrading signalling and telecommunication and renewing rolling stock. The challenge of infrastructure renovation is combined with an operations challenge, as the core routes of the network (A & B category) are severely congested.

Cooperation so far

In the course of implementation of previous MoUs, Indian Railways has sought technical information and know how on the practices being followed by SNCF which SNCF has tried to facilitate to the extent possible.

Way Forward

The Steering committee shall select areas of action and the mechanism for cooperation in respect thereof based on clearly defined objectives to be taken up under the MoU. A list of illustrative areas of action is placed at Appendix-III.

II.4 Suburban trains

Context

India Railways is operating some of the busiest suburban rail services in the world.
In addition to the management of heavily congested networks in major cities (Mumbai, Kolkata, Chennai), Indian Railways are facing the growing transportation needs of new urban corridors, which are developing at a very high pace across India.
Modernising existing networks, developing new Rapid Rail Transit Systems or RRTS with local States and Municipalities is going to be more and more important.
NCRTC has approached SNCF for technical cooperation under MoU after due consultation with MoR and MoUHA.

Way forward

The Steering committee shall select areas of action to be taken up under the MoU. A list of illustrative areas of action is placed at Appendix-III (A).

II.5 Other topics

- Such other subject matters connected with the areas mentioned above may be included within the scope of this Memorandum, with the written consent of both the Parties.

ARTICLE III- Working Approach

A two member from each side, would be the focal and point of contact, and would constitute the steering Committee.

The working Group would be set up by mutual consultation by the steering Committee as per the need and the task.

ARTICLE IV– Cooperation Projects

IV.1 The cooperation projects shall comprise the development of rail related projects in which both Parties may have a mutual interest and/or the performance of consultation, technical assistance and advisory services requested by a Party to the other, including training services and visits of a Party's installations or equipment, within the scope and priorities set out in this Memorandum.

IV.2 Implementing arrangements, setting forth the conditions, details and procedures of the cooperation projects will be further defined in separate contracts to be agreed and signed by both Parties. Each Party may assign the performance of a contract to an entity or subsidiary within its Group.

IV.3 The definition and performance of a cooperation project shall be proposed by a Working Group and recommended by the Steering Committee. Procurement and financial commitments would be made in compliance with the existing procurement rules and instructions and applicable laws and regulations.

IV.4 In case of consultation, technical assistance or advisory services requested by a Party and agreed by the other Party, the requesting Party shall bear all costs related to such services, including labour costs, general and administrative overhead (including insurance), reimbursable expenses, local allowance, domestic and international transport costs, logistics and other local costs, fees (based on labour costs and overhead). Applicable taxes, if any, shall be borne by the requesting Party.

IV.5 In case of training services performed in the providing Party's premises and visit of a Party's installation or equipment (subject to prior approval of the providing Party), the requesting Party shall bear the costs related to such services which shall include including labour costs, general and administrative overhead, domestic transport and profit (based on labour cost and overhead). The requesting Party shall arrange, with the providing Party's assistance, and pay for international transport, meal and accommodation expenses incurred for the performance of such services.

IV.6 Labour costs, overhead, international transport costs and profit shall be compensated in the currency of the country of the providing Party. Other costs shall be compensated in the currency as defined between the Parties in the corresponding contract.

V- Intellectual Property rights

V.1. All documents, which might be disclosed by a Party to the other Party, shall remain the intellectual property of the providing Party. The conditions of such provision of documents shall be agreed on commercial conditions on a case-by-case basis under separate agreement, comprising the provision of confidentiality and proprietary information.

V.2 If a Party is interested in the other Party's software or application program, the Parties may on a case-by-case basis enter in into a non-exclusive, non-transferable user's license, under market conditions and under a separate agreement.

ARTICLE VI – Confidentiality

Each party shall treat and shall ensure that its employees and agents treat as strictly confidential all information and documents relating and communicated under this Memorandum, and the services required herein, of which they become aware as a result of this Memorandum or performing the services. Each Party shall ensure that its employees do not disclose any such information and documents to third parties at any time except with the prior written approval of the other Party. This obligation shall be maintained for a period of three (3) years after the expiration or termination of this Memorandum.

ARTICLE VII – Language

The language used for the implementation of this Memorandum shall be the English Language. Passing on relevant documents from SNCF's side would be in English if the initiative is from SNCF side and may be in the French language in case the initiative is from Indian side.

ARTICLE VIII – Settlement of disputes

Any dispute arising between the Parties on the interpretation and application of the present Memorandum shall be settled in good faith by the Steering Committee. Any contract signed between the Parties and/or other entities and subsidiaries as referred to in Article IV shall however set out a specific dispute resolution clause.

ARTICLE IX –Status of this MoU

The tasks described under this Memorandum shall be implemented under subsequent agreements or orders.

Nothing in this Memorandum and no action taken by the Parties under this MoU will constitute a partnership, joint venture or agency relationship among the Parties.

ARTICLE X - Term

X.1 This Memorandum shall be valid for a period of five (5) years from the date of its signature. It may be renewed for a period of one (1) year by mutual written agreement.

X.2 This Memorandum may be amended by mutual written agreement.

IN WITNESS WHEREOF, the undersigned, duly authorised thereto by their respective Parties, have signed the Memorandum.

Done in two originals in New Delhi on 10th March 2018 in the English, French and Hindi Languages. In case of divergence in interpretation, the English text shall prevail.

(Ashwani Lohani)
Chairman Railway Board
Ministry of Railways
Government of India

(Guillaume Pepy)
Chairman of SNCF Executive Board
CEO of SNCF Mobilités

Appendix I Organisation and appointments

Organisation

Steering Committee

It is intended that:

- Steering committee will meet at least twice a year.
- The working groups will be formed as per requirement.

Such meetings will take place alternatively in India and France.

Appointments

Steering Committee		
	Indian Railways	**SNCF**
Co-Head	S.K. Mishra, Principal Executive Director/Infrastructure, Rly Bd	Diego Diaz,Director International, SNCF Mobilités
Member	R.K. Singh, Executive Director/Infra (System), Rly Bd	Philippe Lorand, Director Asia, SNCF Mobilités, International
Working Groups shall be appointed for each task under the cooperation areas as and when required.		

Appendix II Review of past cooperation

History

- On January 30, 2004, a first MOU was signed between the MOR and SNCF, which was renewed on March 21, 2007.
- On May 14, 2008, a second MOU was signed between SNCF International (a wholly owned subsidiary of SNCF) & Indian Railways – byMr J.P. Loubinoux, CEO SNCF International and Mr R.K. Goyal, Additional Member, Planning.
- On May 2, 2011, a one-year extension was agreed by mail exchange between Mr H. le Caignec and MR. N.K. Shukla, executive Director Perspective Planning.
- On February 14, 2013, a third MOU was signed between the MOR and SNCF, which was signed by Mr. Guillaume Pepy (Chairman and CEO, SNCF) and Mr. Vinay Mittal, Chairman, Railway Board.
- On April 10, 2015, Protocol for cooperation in 'Semi-High Speed Rail and Station Renovation' was signed between the MOR and SNCF, which was signed by Mr. Guillaume Pepy (President, SNCF) and Mr. Arun Kumar Singh, Ambassador of India to France.

Recent activities and projects

- Three projects have been carried out between 2006 and 2009:

- 2006: advisory services for improving Indian Railways accounting system.
- 2007: prospective study on High Speed corridors in India.
- 2008-09: anti-fire software with RDSO.

- Business development project for High Speed in Mumbai-Ahmedabad section between 2013 to 2014.
- Semi High Speed study of Delhi-Chandigarh section between 2015 to 2017
- Station redevelopment study of Ambala and Ludhiana Station between 2015 to 2016.

Appendix-IIIIllustrative areas of cooperation for Modernisation of IR current operations and infrastructure

1. Cooperation in the area of Modern Control and Command Signalling & Telecommunication system for High Speed and Semi High Speed train transportation.
2. Cooperation in the area of 4G/5G technology being considered / under development on French National Railway Corporation for providing communication backbone to ERTMS Level-II as well as Wi-Fi communication to passengers in the train.

3. ***Interaction between SNCF and RDSO with reference to research application development and investigations/simulations of train control systems.***
4. ***Exchange program for training in the field of advance signal and telecom systems without which effective and efficient train control is not practically feasible specially with increasing train density, higher speed and shorter headways.***
5. ***Reviewed the design of OHE and power supply for least cost ;***
6. ***160/200 kmph operation – modifying existing OHE, review of the design of cantilever and insulator, power supply requirement.***
7. ***Low traffic density routes – spacing of traction sub-stations, lighter OHE arrangement, span length etc.***

Appendix-III (A) Illustrative areas of cooperation in Suburban trains

(a) Strategy for modernization and sustainable expansion of sub-urban rail system in India – business model including governance, financing and HR (Mumbai, Kolkata, Chennai, Bangalore, Delhi and Hyderabad)
(b) Institutional arrangement for sub-urban rail services (Mumbai and Bangalore).
(c) Business model for development of Rapid Rail Transit System (RRTS) connecting major cities with satellite towns (Mumbai, Kolkata, Chennai, Bangalore, Delhi and Hyderabad).

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