

Draft version 21th Dec 2018, subject to change

Indian-Norwegian solutions for sustainable growth

India-Norway Business Summit 2019

7–9th January 2019, New Delhi and Chennai



Norway

Contents

Monday 7th January, The Oberoi Hotel, New Delhi

Plenary opening session	
Indian-Norwegian solutions for sustainable growth	4
Global energy markets in transition – opportunities for Indian-Norwegian cooperation	6
Green shipping and digital solutions – future perspectives of the maritime industry	8
Digital solutions for a better future	12
Indian-Norwegian partnership seminar on defence and space technology and industrial cooperation	14
Sustainable seafood production	18
Smarter grids and storage in emerging energy ecosystems	20
Norwegian experiences and competence in oil & gas	22
Renewable energy capabilities from Norway	24

Tuesday 8th January, New Delhi

B2B meetings/roundtables – TBA	
Technical tour w.r.t hydro power, grids and storage	26

Wednesday 9th January, New Delhi and Chennai

Visit to NIWE – National Institute for Wind Energy	28
--	----

Indian-Norwegian solutions for sustainable growth

Opening plenary program

Monday, 7th January 2019, New Delhi

Program

08:00–09:00

Registration

09:30–10:30

Plenary session

- › Welcome by Inger Solberg, Director of sustainability, Innovation Norway
- › Opening address by Prime Minister of the Kingdom of Norway, Ms Erna Solberg
- › Address by Indian Government Official – TBA
- › Signing ceremony – x agreements/contracts to be signed
 - › Master(s) of ceremony – TBA

Moderator: Ms Nisha Pillai

10:20–10:30

Cultural event

10:30

Closing of plenary session

10:30–16:00	Parallel sessions:
10:30–12:45	Global energy markets in transition – opportunities for Indian-Norwegian cooperation
10:45–16:00	Green shipping and digital solutions – future perspectives of the maritime industry
10:45–16:00	Digital solutions for a better future
11:00–16:00	Indian-Norwegian partnership seminar on defence and space technology, and industrial cooperation
11:00–16:00	Sustainable seafood production
13:30–17:05	Smarter grids and storage in emerging energy ecosystems
14:00–16:00	Norwegian experiences and competence in oil & gas
14:00–16:00	Renewable energy capabilities from Norway
12:30–13:30	Lunch
16:30–18:30	Opening ceremony of the Norwegian Embassy – reception
19:30–22:00	Official dinner at The Oberoi Hotel > Hosted by HE Ambassador Nils Ragnar Kamsvåg. Venue TBA.

- 11:20 **Future energy scenarios**
 > Mr Jens Økland, Executive Vice President Marketing,
 Midstream & Processing, Equinor
- 11:35 **Energy outlook – India**
 > Mr Parag Sharma, COO, ReNew
- 11:50 **Energy outlook**
 > Mr Kristian Holm, Vice President Renewables,
 Kongsberg Digital
- 12:05 **Smart grid and energy storage**
 > Mr Dieter Hirdes, Head of Research and Innovation,
 Norwegian Centres of Expertise, NCE Smart Energy
 Markets
 > Ms Hege Brende, Executive Director, HydroCen NTNU/
 Executive Manager, Norwegian Hydropower Centre, NVKS
- 12:20 **Panel discussion – Indian energy trends**
 Moderator: Mr Anish De, KPMG
 > Mr Jens Økland, EVP, Midstream & Processing, Equinor
 > Mr Jürgen Tzschope, Executive Vice President
 International Power, Statkraft
 > Mr Parag Sharma, COO, ReNew Power
 > Mr Shashi Shankar, Chairman, ONGC (TBC)
 > Dr K Balaram, Director General, National Institute of Wind
 Energy (NIWE)
- 12:45 **Closing remarks**
- 12:45 **Lunch**

Parallel session 2

Green shipping and digital solutions – future perspectives of the maritime industry

Monday, 7th January 2019, New Delhi

Organiser: Innovation Norway

Moderator: Ms Nisha Pillai, Public Speaker and former BBC World News anchor – TBC

Program

- | | |
|-------------|--|
| 10:45–10:55 | Introduction by moderator
> Ms Nisha Pillai, Public Speaker and former BBC World News anchor |
| 10:55–11:05 | Keynote:
> Mr Daniel Bjarmann-Simonsen, State Secretary, Royal Norwegian Ministry of Trade, Industry and Fisheries |
| 11:05–11:15 | Keynote: Project SAGARMALA
> India's Ministry of Shipping (TBC) |

- 11:15–11:30 **Green innovation within maritime transport – leading the transformation**
› Mr Ingvald Loyning, CEO, Norled
- 11:30–11:45 **Development of Inland Waterways in India**
› Mr Pravir Pandey, VC, Inland Waterways Authority of India
- 11:45–12:00 **Presentation (title TBC)**
› Mr Harald Solberg, CEO, Norwegian Shipowners' Association (TBC)
- 12:00–12:15 **Presentation (title TBC)**
› Mr Madhu S. Nair, CMD, Cochin Shipyard Ltd.
- 12:15–12:30 **Integrated solutions for research vessels by using autonomous technology including AUV's and USV's**
› Mr Roar Marthiniussen, Director Sales - Underwater Mapping, Kongsberg Maritime
- 12:30–13:30 **Lunch**
- 13:30–13:45 **Digitalization – future of shipping**
› Ms Cristina Saenz de Santa Maria, Regional Manager South East Asia, Pacific & India, DNV GL Maritime
- 13:45–14:00 **Presentation (title TBC)**
› Capt. Khatri: Nautical Advisor, Maharashtra Maritime Board

- 14:00–14:15 **Costal Surveillance and monitoring**
› Mr Reidar Olsen, Kongsberg Norcontrol
- 14:15–14:30 **Maritime hydrogen technology solutions (TBC)**
› Mr Trond Stromgren, Senior Advisor Renewable Energy and Hydrogen Value Chain, Ocean Hyway Cluster (TBC)
- 14:30–14:45 **Coffee break**
- 14:45–15:00 **Overview of LNG sector developments in India**
› Mr Taneja, Energy Expert from ruling BJP (TBC)
- 15:00–15:15 **Network LNG Norway, Experience and Innovative solutions in the Small-Scale LNG Value Chain**
› Mr Egil Rensvik, Project Manager, Network LNG Norway
- 15:15–15:30 **New, Safe and Cost-effective Mooring- and Gas transfer system for shallow water FSRU and FLNG units**
› Mr Haavard Hjellseth, Global Vice President Business Development, NOV Completion & Production Solutions/APL
- 15:30–15:45 **LNG Fuel solution for Ships – Preparing for the future**
› Mr Sreeraman Girish, Area Manager India, Sri Lanka and Bangladesh, DNV GL Maritime
- 15:45–16:00 **Closing remarks**

Parallel session 3

Digital solutions for a better future

Monday, 7th January 2019, New Delhi

Organisers: Innovation Norway in cooperation with ICT-Norway

Moderator(s): TBA

- 10:45 **Opening words**
 > Indian IT-Minister, TBA
- 11:00 **Presentation of the Indian IT market**
 > by Shivendra Singh, Vice President-Global Trade
 Development, NASSCOM – TBA
- 11:15 **Presentation of the Norwegian IT market**
 > by Roger Schjerva, Chief Economist, IKT-Norge
- 11:30 **How Indian competence like Tata (TCS), can be important
for Norway when embarking on its digital transformation
journey**
 > by Göran Karlsson, Executive Partner, TCS Norway &
 Europe
- 11:45 **Digital transformation and risk management**
 > by Jens Alexander Aarvik, Regional Manager, DNV GL
 – Digital Solutions

- 12:00 **What makes India an attractive investment opportunity for foreign companies?**
› Presentation by Invest India – TBA
- 12:15 **Q & A**
- 12:30 **Lunch**
- 13:30 **How we safeguard security and safety when Indian and Norwegian competence works together to deliver digital solutions**
› by Jens Middborg og Pankar Welankiwar,
Delivery Executive from Capgemini
- 14:00 **'Make in India' – winning the volume game in energy infrastructure with Norwegian technology**
› by Rina Sunder, Author and board member and Thorstein Tønnesson, CEO TinyMesh
- 14:15 **IoT in energy space**
› by Grete Coldevin, Chairman Smart grid area, Trondheim (TBC)
- 14:30 **Panel discussion: How IoT technologies like artificial intelligence, block chain and M2M learning change the way energy systems operate globally**
Participants
› Dieter Hirdes, Head of Research & Innovation,
Smart Innovation Norway
› Grete Coldevin,
Chairman Smart grid area, Trondheim (TBC)
› Vishal Kapoor, Director Smart grid, Ministry of Power (TBC)
› Mr Jitendra Nalwaya, AVP, BSES Yamuna Power Limited
(DSO of New Delhi)
Moderated by: PwC (TBC)

- 15:00 **Everybody talks about innovation. This is how you do it!**
 > by Jørn Haukøy, CEO Code 11
- 15:15 **How digitalization can leverage the UN Sustainable
Development Goals**
 > by Dr Joy Deshmukh-Ranadive, Global Head Corporate
 Social Responsibility, Tata Consultancy Service
- 15:30 **What have we learned today? The base for digital
business between India and Norway**
 > Panel discussion with the speakers from the session
 Lead by Invest India and ICT-Norway
- 16:00 **Closing remarks**

Parallel session 4

Indian-Norwegian partnership seminar on defence and space technology and industrial cooperation

Monday, 7th January 2019, New Delhi – TBA

Organisers: Innovation Norway, The Norwegian Defence and Security Industries Association (FSi), Norwegian Industrial Forum for Space Activities (NIFRO), The Royal Norwegian Embassy and The Royal Norwegian Ministry of Defence

Moderator(s): TBA

Program

- | | |
|-------|--|
| 11:00 | Opening remarks/introduction
> Moderators |
| | <u>Key note speakers</u> |
| 11:10 | > Ms Tone Skogen, State Secretary, Ministry of Defence, Norway |
| 11:25 | > Senior Representative of the Indian Ministry of Defence |

Defence and space industrial cooperation

- 11:40 **Defence acquisitions facilitating implementation of the National defence industrial strategy**
› Deputy Director General Roar Smedsrød, Norwegian Ministry of Defence
- 12:00 **Make in India – objectives, procedures and lessons learned**
› Indian Government representative
- 12:20 **The Norwegian defence industry – structure, technologies and capabilities**
› Mr Torbjørn Svensgård, President & CEO, Norwegian Defence and Security Industries Association
- 12:40 **TBA**
› Senior Indian Industry Representative
- 13:00 **Lunch**
- Surveillance, reconnaissance and situational awareness – the Norwegian value proposition**
- 14:00 **Joint operations in the littoral zone – advanced technology, an enabler and force multiplier for JSIR and operations**
› Rear Admiral Sverre Nordahl Engeness, DCOS Operations, Norwegian Joint Headquarters
- 14:20 **Norway in space – sustainable and efficient Space Based Surveillance**
› Mr Christian Hauglie-Hanssen, Director General Norwegian Space Centre
- 14:40 **From the Arctic to Antarctica – Norway’s unique offering for efficient utilisation of space based sensors**
› Mr Arnulf Kjeldsen, KSAT – Kongsberg Satellite Services

- 14:55 **A Norwegian approach to airborne surveillance and reconnaissance – supporting sustainability, asserting sovereignty and contributing to situational awareness for civil and military users**
 > CEO Dag Langerud, Norwegian Special Mission AS
- 15:10 **Superior efficiency in dismounted naval operations utilizing advanced state of the communication technology**
 > Norwegian Industry Representative – TBA
- 15:25 **Providing real-time local situational awareness, target acquisition and damage assessment to the tactical commander on the ground**
 > Mr Ketil Vanebo, FLIR UAS Norway
- 15:40 **Increased operational effectiveness utilizing advanced autonomous underwater vehicles**
 > Mr Roar Marthiniussen,
 Director Sales Subsea, Kongsberg Maritime
- 15:55 **Closing remarks**
- 16:00 **End of seminar**

Parallel session 5

Sustainable seafood production

Monday, 7th January 2019, New Delhi

Organisers: Innovation Norway in cooperation with Norwegian Seafood Council

Moderator(s): Ms Sigridur Thormodsdottir, Innovation Norway, NN India

Program

- 11:00 **Opening parallel session sustainable seafood production**
 > Welcome by Innovation Norway, Ms Inger Solberg,
 Director Innovation Norway
- 11:10–11:30 **Sustainable seafood production – Norwegian research
policy perspective**
 > Mr Fridtjof Unander, Executive director,
 Research Council of Norway
- 11:30–11:50 **National strategy for seafood production in India – status
and further plans**
 > NN India, (TBA)
- 11:50–12:15 **Seafood from Norway**
 > Ms Ingelill Jakobsen, Manager Emerging Markets,
 Norwegian Seafood Council

- 12:15–12:30 **Brief presentation of the Norwegian companies by the moderator**
- 12:30–13:30 **Lunch**
- 13:30–13:45 **Presentation of the successful Indo-Norwegian cooperation in the aquaculture sector in India**
› Mr Rahul Kulkarni, Director, Westcoast Group
- 13:45–14:00 **Presentation of the latest update on working RAS in an expanding grow-up production trend**
› Mr Kim David Lid, EVP Sales & Marketing and COO Projects, Sterner AS
- 14:00–14:20 **Coffee break**
- 14:20–14:35 **Modernization of fishing ports in India (TBA)**
› Speaker – TBA
- 14:35–14:50 **Fishery technology and fish handling system**
› Mr Jan Petter Urke, Vice President Business Development R&D, MMC First Process AS
- 14:50–15:05 **ReFood and ReValue – two Indo-Norwegian research projects**
› Mr Souvik Bhattacharyya, BITS Pilani
- 15:05–15:10 **Closing remarks**
- 15:10–16:00 **B2B meetings**

Parallel session 6

Smarter grids and storage in emerging energy ecosystems

Monday, 7th January 2019, New Delhi

Organiser: Innovation Norway in cooperation with SIN and NTNU

Moderator(s): TBA

Program

- 13:00–13:05 **Welcome speech**
› by Mr Ole Henæs, Regional Director Asia,
Innovation Norway
- 13:05–13:20 **India – on road to smarter grid**
› by Mr A.K. Verma, Joint Secretary, Ministry of Power
- 13:20–13:35 **Enabling green energy transition – energizing India**
› Statkraft
- 13:35–13:50 **Hydropower as a flexible provider of storage and balancing capabilities**
› by Ms Hege Brende, Executive Director, HydroCen
- 13:50–14:05 **Smart grid, storage and el-hub in Norway**
› Statnett

- 14:05–14:20 **E-land and INVADE project – invitation to collaborate**
› Smart Innovation Norway
- 14:20–14:35 **Production planning optimisation for hydro projects (case presentation)**
› Kongsberg Digital and Power Trading corporation – India
- 14:35–14:50 **Coffee break**
- 14:50–15:05 **SINTEF Energy (brief on projects with India)**
- 15:05–15:20 **DNV-GL**
- 15:20–15:35 **Smarter transmission**
› by Heimdall Power (case presentation by Tata Steel, India and Heimdall Power AS)
- 15:35–15:50 **A standardized scalable energy storage system for a smarter and greener grid**
› by PIXII (Case presentation by Tata Power DDL, India and PIXII)
- 15:50–16:05 **Connecting for smarter metering solutions – the journey so far**
› Tiny mesh
- 16:05–16:20 **Closing remarks**
› by India energy storage alliance

15:15 **Digital opportunities in Oil & Gas upstream and midstream value chain**

› Mr Kaare Lunde, Vice President Oil & Gas, Tieto

15:30 **Opportunities and challenges in India for Norwegian technologies**

Panel discussion

› Mr Tor Martin Anfinnsen, Equinor,

› Mr Kaare Lunde, Tieto

› Mr Geir Owe Egge, InterWell (TBC)

› Mr Sanjay Joshi, Aker Solutions (TBC)

› ONGC (TBC)

› Carin India (TBC)

› Reliance (TBC)

16:00 **Closing remarks**

Parallel session 8

Renewable energy capabilities from Norway

Monday, 7th January 2019, New Delhi

Organisers: Norwegian Energy Partners (NORWEP)

Moderator: Jon Dugstad, Director, NORWEP

Program

- 14:00 **Opening and welcome**
-
- 14:10 **Renewable energy competence from Norway
– deployed in India**
- › **Indian renewable energy developer – TBA**
- Panel discussion**
- › Ms Tima Utne, Senior Vice President International Hydropower, Statkraft (TBC)
 - › Mr Peter Brun, Global Offshore Wind Segment Leader, DNV GL
 - › Mr Knut Aanstad, VP Offshore Wind Business Development, Equinor

14:30 **Break**

15:00 **Development of an offshore wind supply chain for India**

› Speech by NIWE – TBA

15:20 **Introduction to Norwegian competence in offshore wind**

› Mr Jon Dugstad, Director Wind & Solar,
Norwegian Energy Partners

› Mr Kristian Holm, Vice President Renewables,
Kongsberg Digital

› Mr Andreas Brekke, CEO, Miros (TBC)

› Presentation by TBA

16:00 **Closing remarks**

Optional activities

Tuesday 8th January 2019, New Delhi

Organisers: Innovation Norway and NORWEP

Program

13:00–14:30 **B2B meetings/roundtables with ONGC management – organized by NORWEP**

Technical tour w.r.t hydro power, grids and storage

09:00–12:00 **Visit Battery testing, hydrogen production – storage – dispense facility fuel cell lab at National institute of solar energy (nise) – (co-organised with India energy storage alliance)**
<https://nise.res.in/>

14:00–21:00

Visit to leading Indian DSO – BSES Yamuna Power Limited

<https://www.bsedelhi.com/web/bypl/home>

- a) Initially a general presentation of BSES activities, operations etc including critical challenges which this DSO faces (45 min)
- b) Roundtable and discussion on their challenges and issues – how Norway can help solve these challenges (45 minutes)
- c) Visit to their scada room and electric charging facility (30 min)
- d) Visit to Akshardham Temple where BSES has installed 1 MW rooftop (rooftop showcasing and is one of best and largest temples of India) – 2 hours
- e) Dinner with BSES team along with other DSO, system operator, Load dispatch center, regulator of Delhi

Tuesday 8th January 2019, Mumbai

Organisers: Innovation Norway in cooperation with Tata

Program

All day

Visit to Tata Consultancy Services (TCS)

Optional activities

Wednesday 9th January 2019, New Delhi

Organiser: Innovation Norway

TBA **Smart grid: Roundtable workshop on upcoming EU
– India smart grid call 2019 – to be held under India
storage alliance pre event**

Wednesday 9th January 2019, Chennai

Organiser: NORWEP

All day **Offshore Wind Programme: Visit to NIWE – National
Institute for Wind Energy – meetings with various
offshore wind responsables – TBA**

Draft version 21th Dec 2018, subject to change

Norway