



EU Plastic Industry visit to India (PERCY Project)



4th April through 8th April 2022

Visiting Clusters



Denmark



Germany

WIRTSCHAFTS
FÖRDERUNG
RAUM HEILBRONN



France



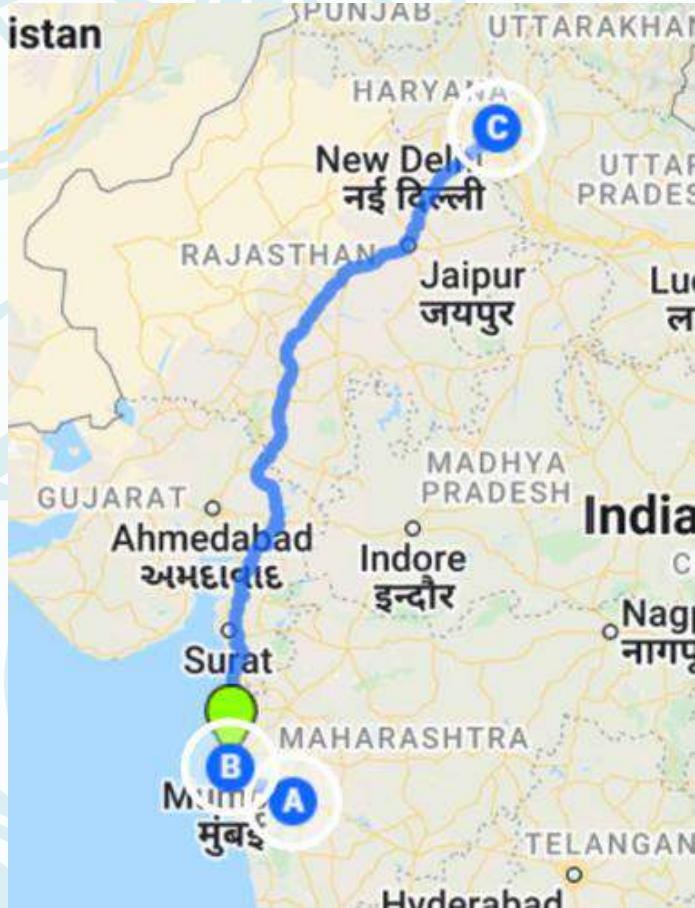
Slovakia



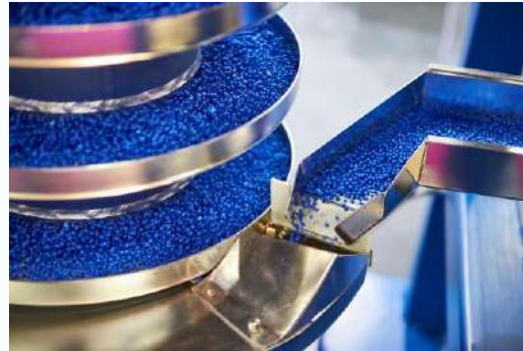
**Organized by German Federal
Association of SMEs (BVMW)**



Understanding the Ecosystem



Digitization



Plastic Industry



Associations



Cluster



Universities



Research Institutes

Topics of interest



Applications



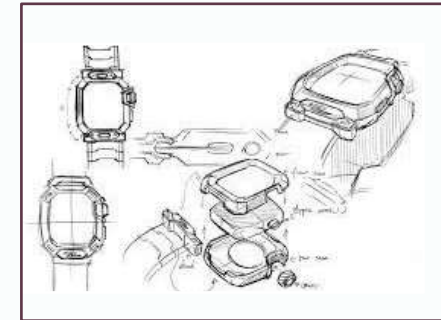
Additive



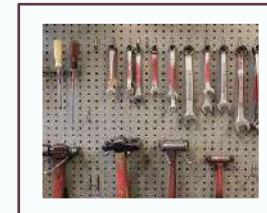
Plastic manufacturing



Recycling



Design



Tooling, Prototype

Arrival in Pune



Pune
the cultural capital of Maharashtra



Entities we planned to visit (1/2)

➤ Auto Cluster

Pune is the hub of manufacturing industry, IT and Education. The Cluster was established in 2006 and has served **more than 2000 SMEs** in and around Pune. **600 clients from automotive** industry.

➤ Pimpri Chinchwad Plastics Association (PCPA)

Established in 1995 comprises mostly of MSMEs. Represented by about **500, mostly, young, dynamic entrepreneurs** with focus on modern concepts in plastic industry.

➤ MIT World Peace University / IPI (Indian Plastic Institute)

Leading private university in Pune established in 1983. **50 000 students** from various faculties. Only university in Pune with Polymer Engineering branch.

Meeting with President of IPI who happens to be the Director of R&D and Innovation at MIT-WPU. IPI was established in 1985 focused on being a world class professional organization enabling global standards of **knowledge and education in Plastics, Polymers** and related Industries to create an enduring awareness of societal benefits of plastics.

Entities we planned to visit (2/2)

- **AP Chemi: a leading company run by technocrats focused on pyrolysis**

- **AIPMA (All India Plastic Manufacturers' Association)**

Apex plastics association in India, formed in 1945, 1800 industries - direct members, 22000 affiliates, 90% SMEs, all plastic industries from 175 cities in India.

- **MRAI (Material Recycling Association of India)**

Formed in 2011 and having 1200 members engaged in recycling of all materials.

- **Royal Danish Embassy**

Trade Wing and Innovation Centre. Support to Danish companies willing to collaborate with India

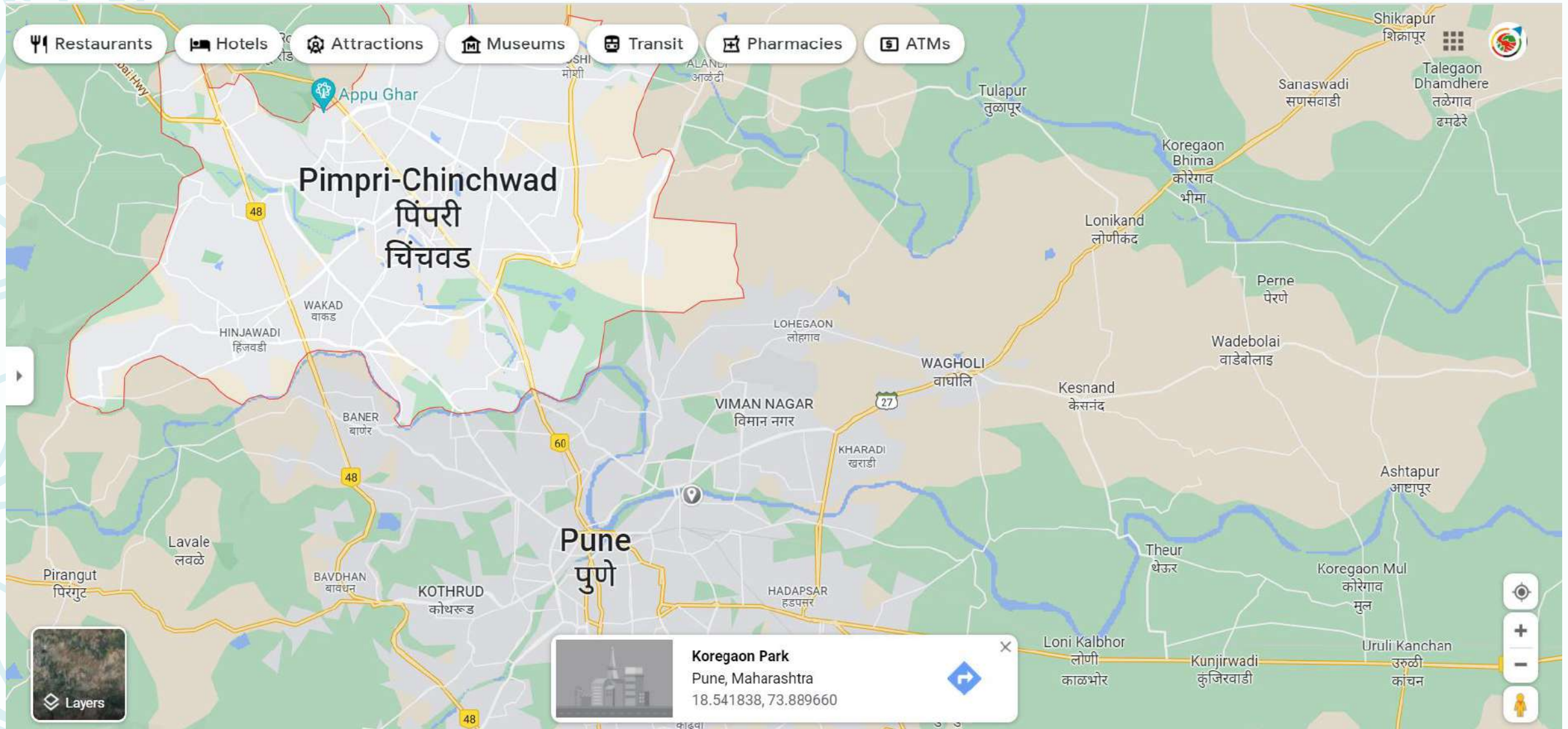
- **DRIV of Indian Institute of Technology**

Research on Solid Waste Management. C2C cooperation

- **MSMECCII** Chamber focused on Plastics, Packaging , Recycling, waste management, EPR (Extended Producer Responsibility).

- **Uflex : India's largest company engaged in flexible packaging**

Pune and Pimpri-Chinchwad (PCMC)





Visit to Auto Cluster, Pune



Objective:

- ☐ Visit to the Facility with special focus on Polymer Testing Lab, Prototype Production facility, Skill Development Centre, Incubation Centre
- ☐ Meetings with the promoters of the Cluster – Local Chamber, Local Government
- ☐ Discussion about Cluster-to-Cluster Cooperation
- ☐ Signing of MOU for exploring future cooperation possibilities



<https://autoclusterpune.org/>



Monday, April 4, 2022

Day 1: Autocluster



Major points from the MOU with Auto Cluster

PERCY:



- ✓ Enable engagements with **the European automotive industry** for various joint initiatives in the field of polymers supporting the interests of both parties
- ✓ Display innovative European technologies and initiatives within the field of **polymers** targeted the **European automotive industry**
- ✓ Participate in cooperation initiatives in the field of polymers including recycling
- ✓ Willing to participate in **the arrangement of Indian delegation from ACDRI visiting one or more of the four European clusters**
- ✓ Willing to participate in the arrangement of fact-finding missions between Indian and European MSME's
- ✓ Will strive for continued involvement with ACDRI whenever relevant

Auto Cluster:



- ✓ Display innovative technologies for **operational environment testing**
- ✓ **Offer infrastructure at Auto Cluster** Development and Research Institute for execution of the Projects as per the requirement of MSME's
- ✓ Offer know-how for the planning and execution of the identified **joint skill development** and awareness program for MSME's
- ✓ Contribute to the competency development of team for the identified joint program
- ✓ Enable engagements with the industry for various joint initiatives which supports MSME's requirements

Meetings with Pimpri-Chinchwad Plastic Association, Pune



Objectives:

- ☐ Meetings with about 25 members from the Association
- ☐ Presentations regarding recycling activities and facilities
- ☐ Signing of MOU for exploring future cooperation possibilities
- ☐ Visit to 1-2 progressive SMEs – manufacturers and recyclers

<http://mypcpa.in/>



Monday, April 4, 2022

Day 1: Industry visits with PCPA



Major points from the MOU with PCPA (plastic association)

PERCY:



- ✓ **Sharing data with PCPA** on PERCY cluster members
- ✓ Helping PCPA members by providing information related to **setting up business in Europe**
- ✓ Enable engagements with the European polymer industry for various joint initiatives supporting the interests of both parties
- ✓ Display **innovative European technologies** and initiatives within the field of polymers targeted various Indian industries
- ✓ Participate in cooperation initiatives in the field of polymers including recycling
- ✓ Willing to participate in **the arrangement of Indian delegation from PCPA visiting one or more of the four European clusters**
- ✓ Willing to participate in the arrangement of fact-finding missions between Indian and European MSME's
- ✓ Will strive for continued involvement with PCPA whenever relevant

PCPA:



- ✓ **Sharing data** with PERCY on local members
- ✓ Helping PERCY members by providing **information related to setting up business in India**
- ✓ Helping with communication between own members and members of PERCY clusters, including identifying **potential business partners for joint ventures, technological transfer, dealerships** etc.
- ✓ Helping to **organize company visits for PERCY or their cluster members**
- ✓ Helping organize business meetings between members of PCPA and PERCY members during visit to **K'2022 in Dusseldorf**, Germany
- ✓ Helping organize plant visits to small and medium size **injection moulding factories & recycling plants** for PERCY members to study **work culture differences** between businesses in EU and India during and after K'2022 Dusseldorf



Visit to MIT-World Peace University, Pune



Objectives:

- ☐ Visit to the Campus
- ☐ Interaction with the faculty and students of Polymer Engineering Division
- ☐ Discussions with the President of Indian Plastics Institute
- ☐ Signing of MOU for exploring future cooperation possibilities



Indian Plastics Institute

<https://mitwpu.edu.in/>

Tuesday, April 5, 2022

Day 2: University



Major points from the MOU with IPI (Indian Plastic Institute)

PERCY:



- ✓ **Sharing data with IPI** on PERCY cluster members
- ✓ Enable engagements with the European polymer industry for various joint initiatives supporting the interests of both parties
- ✓ Display **innovative European technologies** and initiatives within the field of polymers targeted various Indian industries
- ✓ Participate in cooperation initiatives in the field of polymers including recycling
- ✓ Willing to participate in the arrangement of Indian delegation from IPI visiting one or more of the four European clusters
- ✓ Willing to participate in the education and training activities between Indian and European MSME's pertaining to polymer engineering
- ✓ Will strive for continued involvement with IPI whenever relevant

IPI:



- ✓ **Sharing data with PERCY** on local members
- ✓ Helping with communication between own members and members of PERCY clusters, including identifying potential business partners for joint ventures, technological transfer, dealerships etc.
- ✓ Helping in **onboarding MIT-World Peace University and IPI MIT students chapter** for work in knowledge sharing and plastic waste management
- ✓ Helping organize plant visits to small and medium size injection moulding factories & recycling plants for PERCY members to study work culture differences between businesses in EU and India during and after **K'2022 Dusseldorf**

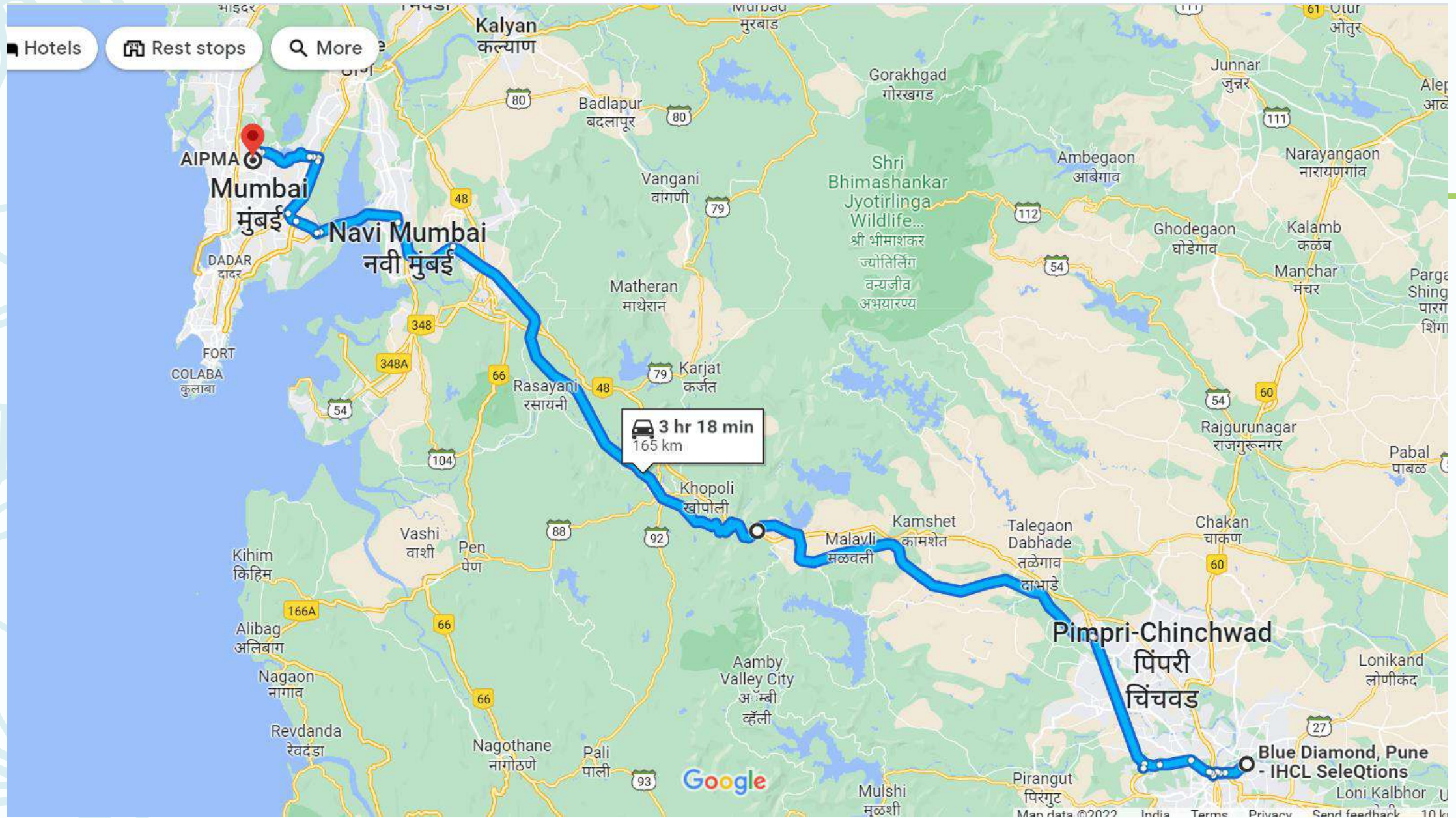
Day 2: Interaction with Start-ups from circularity



Social Lab



Pune-Mumbai via AP Chemi



Day 3: Meeting with the CEO of AP Chemi



Supported
by:



Shell
E⁴

PLUGANDPLAY



ALLIANCE TO
END PLASTIC WASTE

Pyrolysis Technology

Further discussions will be conducted soon





Meeting with AIPMA, Mumbai

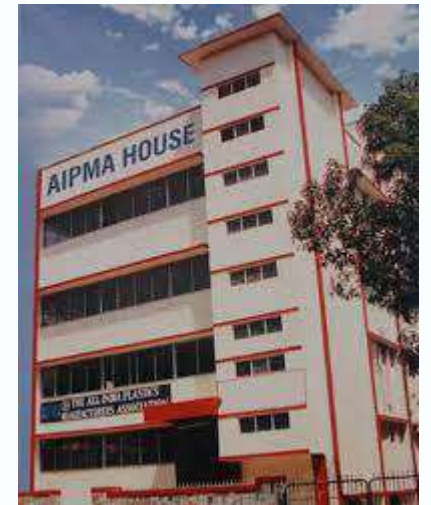


Objectives:

- ☐ Meetings with the officials of All India Plastics Manufacturers Association
- ☐ Visiting AMTEC (Training, Skill Development, Design)
- ☐ Signing of MOU for exploring future cooperation possibilities
- ☐ Meetings with and presentations from AIPMA Recycling members

<https://www.aipma.net/>

Wednesday, April 6, 2022



Day 3: Visit to AIPMA and AMTEC



Major points from the MOU with AIPMA

PERCY:



- ✓ **Sharing data with AIPMA** on PERCY cluster members to establish B2B contacts and network activities
- ✓ Enable engagements with the European polymer industry for various joint initiatives supporting the interests of both parties
- ✓ Display **innovative European technologies** and initiatives within the field of polymers targeted various Indian industries
- ✓ Participate in **cooperation initiatives in the field of polymers including recycling** practices, recycling technologies and biodegradable polymers
- ✓ Participate in cooperation initiatives regarding **Extended Producer Responsibility**
- ✓ Willing to participate in the arrangement of **Indian delegation from AIPMA visiting one or more of the four European clusters**
- ✓ Willing to participate in the arrangement of fact-finding missions between Indian and European MSME's
- ✓ Will strive for continued involvement with AIPMA whenever relevant

AIPMA:



- ✓ **Networking and business opportunities** in plastic processing & recycling industry
- ✓ **Business opportunities in recycling industry & circular economy**
- ✓ **Business opportunities for industries currently engaged in manufacturing of SUP (Diversification)**
 - ✓ **Understanding biodegradable plastics and its feasibility**
 - ✓ Technology used for the production of **biodegradable plastics**
 - ✓ Know about EPR & **EPR Compliance for MSMEs**
- ✓ To understand the **new EPR framework**
 - ✓ To understand **Plastic Waste Management Rules, 2021**
 - ✓ To know the **best EPR mechanism & International best practices** for MSMEs
 - ✓ To understand the **challenges and solutions for MSME's** with perspective of **EPR and Recycling**

Thursday, April 7, 2022

Visit to Material Recycling Association of India, Mumbai



Objectives:

- ☐ Visit to UNDP recycling facility
- ☐ Meetings with officials of the association
- ☐ Discussions with MRAI officials about the plastic recycling ecosystem in India – Multilayered plastics, energy recovery, collection, traders and other stakeholders
- ☐ Signing of MOU for exploring future cooperation possibilities

<https://www.mrai.org.in/theindustry/plastic.html>



MATERIAL RECYCLING ASSOCIATION OF INDIA
Voice of the Indian Recycling Industry

Day 4: Visit to MRAI and UNDP Waste Collection facility



Major points from the MOU with MRAI (material recycling association)

PERCY:



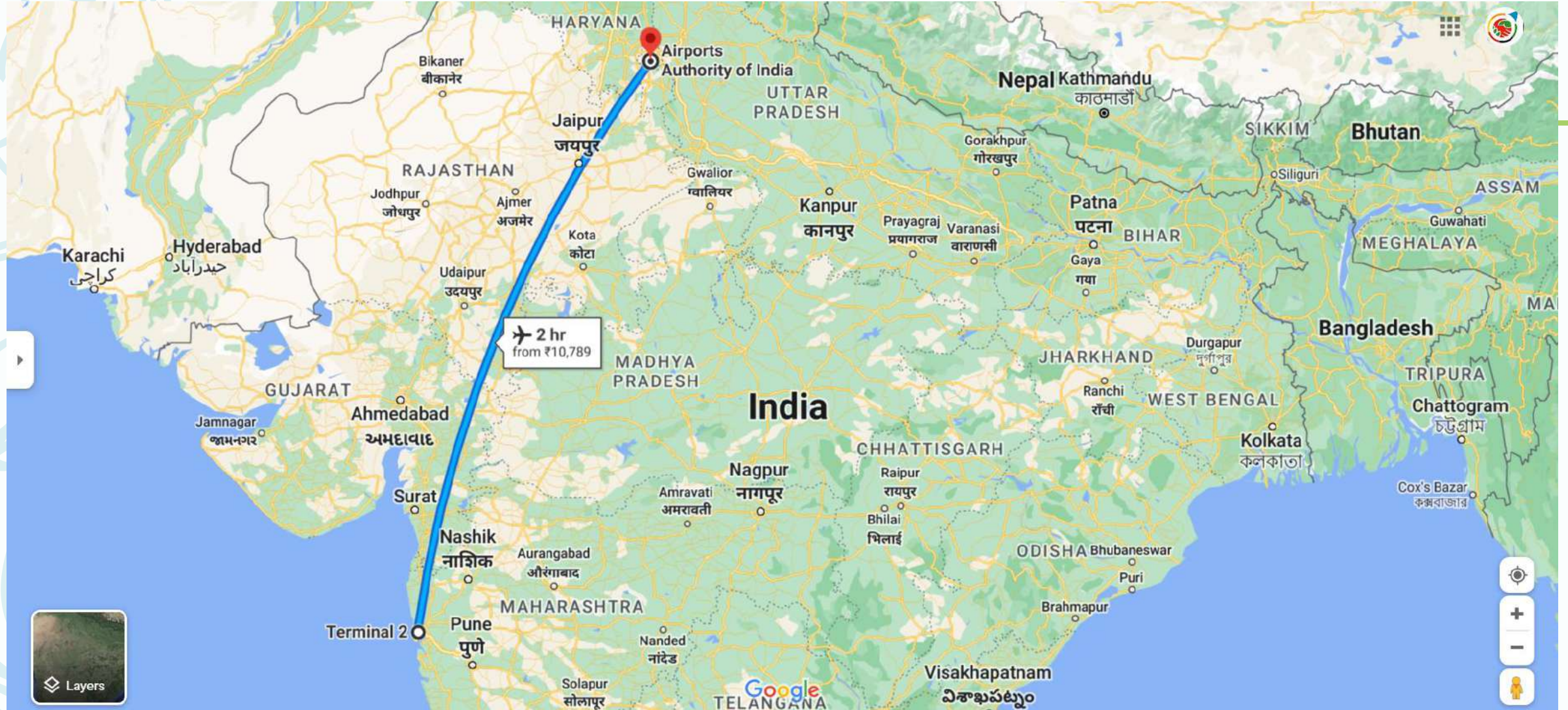
- ✓ **Sharing data with MRAI** on PERCY cluster members
- ✓ Enable **engagements with the European polymer industry** for various joint initiatives supporting the interests of both parties
- ✓ Display innovative European technologies and initiatives within the field of polymers targeted various Indian industries
- ✓ Participate in **cooperation initiatives in the field of polymers including recycling**
- ✓ Willing to participate in the **arrangement of Indian delegation from MRAI visiting one or more of the four European clusters**
- ✓ Willing to participate in the arrangement of fact-finding missions between Indian and European MSME's
- ✓ Will strive for continued involvement with MRAI whenever relevant

MRAI:



- ✓ **Sharing data with PERCY** on local members
- ✓ Helping with **communication between own members and members of PERCY clusters**, including identifying potential business partners for joint ventures, technological transfer, dealerships etc.
- ✓ Helping to **organize company visits for PERCY** or their cluster members
- ✓ **Informing PERCY members about the plastic recycling ecosystem in India**, the stakeholders, decision-makers etc.

Mumbai to New Delhi (NCR = National Capital Region)



Visit to Royal Danish Embassy, New Delhi and Innovation cluster IIT-Delhi (DRIIV)



PERCY
Recycling of Polymers



**MINISTRY OF FOREIGN AFFAIRS
OF DENMARK**
Denmark in India

Objectives:

- ☐ Meetings with the Trade Council – discussions about **investments from Danish companies** in India and vice versa, Collaborations for business developments, Joint Ventures, Technology Transfer etc.
- ☐ Role of the Embassy in **supporting business activities** of Danish members of DMN
- ☐ Understanding about the activities of the **Innovation Centre**
- ☐ Embassy to organize a visit to **DRIIV innovation cluster at IIT-New Delhi**

<https://indien.um.dk/en>

<https://www.driiv.co.in/>

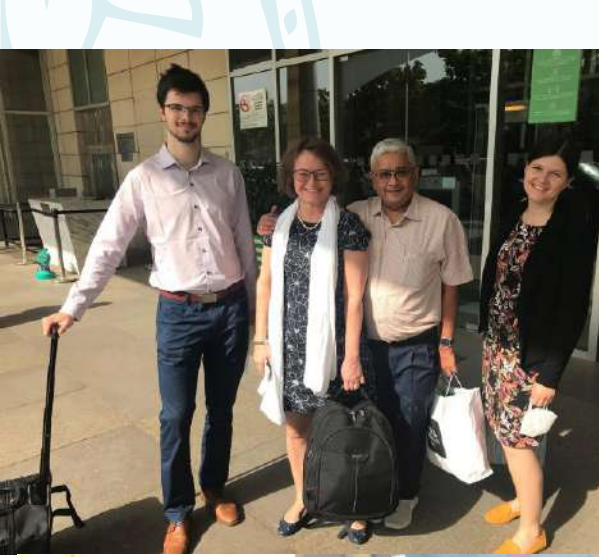


**Office of the Principal Scientific Adviser
to the Government of India**

Science & Technology Cluster

Friday, April 8, 2022

Day 5: Visit to Embassy of Denmark and IIT-Delhi (DRIIV)



Day 5: Meeting with MSMECCII President



Major points from the MOU with MSMECCII, Delhi

PERCY:



- ✓ Sharing data with MSMECCII on PERCY cluster members
- ✓ Helping MSMECCII members by providing information related to setting up business in Europe
- ✓ Enable engagements with the European polymer industry for various joint initiatives supporting the interests of both parties
- ✓ Display innovative European technologies and initiatives within the field of polymers targeted various Indian industries
- ✓ Participate in cooperation initiatives in the field of polymers including recycling
- ✓ Willing to participate in the arrangement of fact-finding missions between Indian and European MSME's
- ✓ Will strive for continued involvement with MSMECCII whenever relevant

MSMECCII:



- ✓ Sharing data with PERCY on local members
- ✓ Helping with communication between own members and members of PERCY clusters, including identifying potential business partners for joint ventures, technological transfer, dealerships etc.
- ✓ Keeping PERCY and cluster members informed about international conferences, exhibitions on Plastics, Packaging, Recycling taking place in India
- ✓ Involving PERCY members in online webinars on related topics

Day 5: Visit to recycling facility of Uflex



Media Coverage



-
- Coverage at Auto Cluster and PCPA with professional agencies (Local newspaper)
 - Manoj Barve to cover the visit extensively via LinkedIn (Done!)
 - Media coverage by AIPMA (still to find!)
 - TV interview from MSMECCII (still to find!)
 - Shipra Misra the CEO of IIT-Delhi (DRIIV) posted on LinkedIn

Other activities

On 2/3rd April upon PERCY Delegation's arrival in Pune:

- Briefing
- Intercultural Training (Do's and Dont's)
- Setting of expectations

On/after 8th April, after conclusion of official visit

- Debriefing: List of contacts, Presentations, Pictures
- Planning future actions:
 - Follow-up on **MOUs**
 - **Webinars** on topics of interest between EU Cluster members and Indian Association members
 - Collection of **information on Indian companies interested in collaborating** with their European counterparts
 - Networking/B2B meetings with Indian business community at **K-Show** in Duesseldorf in **October 2022** (more than 300 AIPMA members expected to visit + a number of PCPA members)
 - **IGCS** (Indo-German Centre for Sustainability) wants to cooperate (<https://www.igcs-chennai.org/>)

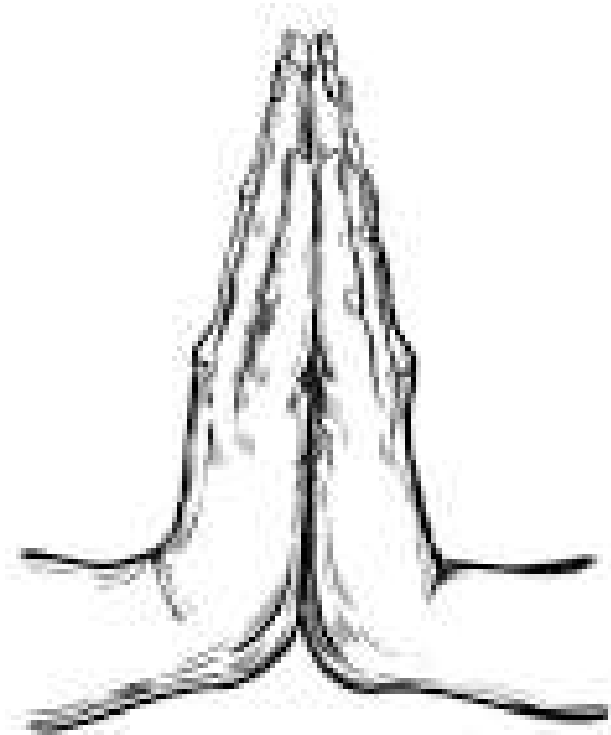


Inputs from the delegates

Sent questionnaire for future improvements in organization of delegate visits

- Feedback for improvement in organization of industry delegation
- Feedback for Indian industry





Namaste