



proplast
PLASTICS INNOVATION POLE

PLASTIVAL

Chemie
Cluster Bayern

repic
north-east
region
plastic

poolnet
PORTUGAL TRANSITION

Plastipolis
POLE DE COMPETITIVITE
PLASTIQUE

oseo

dgcis
direction générale de la compétitivité
de l'industrie et des services

veneto
nanotech
small technology
big applications

réseuplasturgie
netzwerk
kunststofftechnologie

CLUSTERLAND
OBERÖSTERREICH GmbH

Worldwide Intercluster Initiative for New materials
and processes focused on clean **TECH**nologies

WiinTech Report on the India Mission

Date, Place: 4.-8.3.2013, Mumbai

Participants:

1. Chemie-Cluster Bayern: Dr. Jörg Klein (Mission Lead)
2. Clusterland: Jürgen Dienstl
3. NEPIC: John Brady
4. Plastipolis: Caroline Pin
5. Plastival: Cristina Monge Frontiñan
6. Proplast: Laura Fusani
7. Pool-Net: Rui Tocha
8. Veneto Nanotech: Federica Lodato

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1. Day 1: Mo, 4.3.2013, PlastIndia Foundation

1.1 Reception at PlastIndia

Bipin M. Shah, the president of the PlastIndia Foundation welcomed the WiinTech delegation and gave an overview of the history of PlastIndia and how the meeting has come about. He highlighted PlastIndia's activities in showcasing new technology and the importance of bilateral relationships. The latter shall be particularly strengthened through the WiinTech visit. Despite the strong emphasis on the market focus in WiinTech also academic collaborations are part of PlastIndia's activities and are hoped to build a well-educated work force for the future. After a networking tea break with some PlastIndia representatives the delegation travelled by bus to the Marriott Courtyard.



Figure 1: Logo at the head quarters of the PlastIndia Foundation (left), WiinTech partners in discussion with PlastIndia-President Bipin Shah (right).

1.2 B2B Convention at Marriott Courtyard



Figure 2: Introductory slide from the welcome address by Bipin Shah (President of PlastIndia Foundation, left) and group picture of the WiinTech delegation with main representatives of PlastIndia (right).

Originally, the B2B event was planned for 20 participants and was supposed to happen at the offices of PlastIndia. After an overwhelming response of over 60 company and media representatives the B2B convention was held at the larger Marriott Courtyard. Some of the Indian entrepreneurs even booked flights to attend this event and meet the WiinTech delegation. In his introduction, Bipin M. Shah welcomed all the participants and urged all the guests “not to be shy” but to join open and honest discussions with the delegation to build new link between India and Europe. In the following talk Jörg Klein (Chemie-Cluster Bayern) highlighted the

opportunity to use WiinTech as a gateway to EU-enterprise. The eight representatives are a hub to over 2000 European SMEs and over 300 R&D institutes - a hub, which Indian enterprise should make use of. After illustrating the next steps to stimulate business and inviting the audiences to the K Fair 2013 in Düsseldorf the individual clusters presented themselves. While John Brady (NEPIC) emphasised the importance of renewables, Jürgen Dienstl (Clusterland Oberösterreich) mentioned that reliability is a key requirement which Austrian companies demand of their partners. Laura Fusani presented Proplast as a very technology focussed cluster and Cristina Monge (Plastival) pointed out that activities in the water treatment and recycling sector are largely centred around Valencia. Federica Lodato showed that Veneto Nanotech offers in-house R&D laboratories for nanofabrication and therefore offers an extension to the traditional cluster model. Rui Tocha (Pool-Net) represented one example of a naturally bottom-up grown cluster that exports now 90% of its production. Caroline Pin (Plastipolis) completed the overview by bringing electronics in manufacturing on the agenda. The introduction of the WiinTech consortium as a whole and of the individual cluster representatives paved the way for intense discussions over the networking lunch and the B2B-convention afterwards. In total the WiinTech delegation received over 150 requests that will have to be validated back in Europe. The take first steps towards the continuation of a partnership with PlastIndia lettres of intent were drafted (c.f. Annex D) and signed.

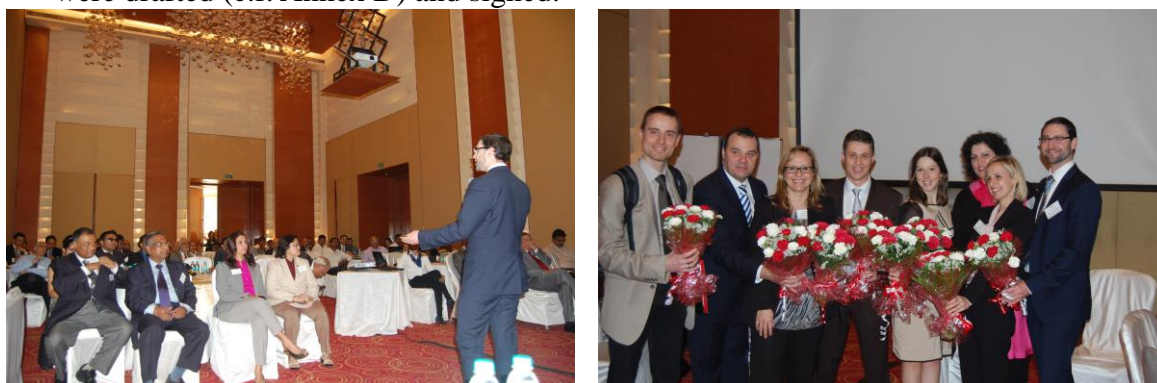


Figure 3: Presentation of the WiinTech project by Jörg Klein (left), group picture of WiinTech delegation (right).

2. Day 2: Tue, 5.3.13, Hanjer Bio-Tech, Networking dinner

2.1 Hanjer Bio-Tech



Figure 4: WiinTech delegation (left) and CEO Dr. Nadeem Furniturewala (right) at the corporate head office of Hanjer Bio-Tech.

The WiinTech delegation was welcomed at the corporate offices of Hanjer by Ms Shabana Shaikh (Manager Corporate Communications). The overview of the company by Dr. Nadeem Furniturewala (Director) was followed by a Q&A session in which the business model of waste management in the form of a PPP (public-private-partnership) was explained further. Further discussions made clear that the recycled products (composted soil, methane, furnace oil, plastic ingots) at the end of the process are at the heart of the business model. However, the segregation of the mixed waste represents the key problem and Hanjer's technological advantage over the competition. In summary, the set of challenges in Indian waste management is fundamentally different from our situation in Europe. In particular, the nitrogen content (5%) in the fertiliser obtained from municipal waste is too low for the European market. The plastic ingots contain too many different compounds to be competitive with European technology. Market entry of Hanjer into Europe is therefore considered only for few, selected technologies. Notably, the depolymerisation technology (plastic to light diesel) was interesting for NEPIC.



Figure 5: Representatives of Hanjer Bio-Tech together with WiinTech delegation in the office at the Vasai-plant (left) and on the plant tour (right).

2.2 Networking Dinner at the Novotel

The networking dinner did what it says on the tin. A selection of 20 guests engaged in discussions with the WiinTech members and brought important insights into the entrepreneurial structures in India. In particular, the conversations with Shrikar Dole (European Business and Technology Centre Mumbai) were very interesting and showed examples for Indian-European technology transfer. For all participants the dinner was an ideal opportunity to strengthen professional relationships and exchange information on Indian and European economies.



Figure 6: Announcement of the WiinTech/Ubi France Networking dinner (left) and the WiinTech delegation.

3. Day 3: We, 6.3.13, Shakti Plastics, French Embassy

3.1 Shakti Plastics



Figure 7: A very warm welcome to the WiinTech delegation at the recycling site (left) and the offices (right).

A bit outside Mumbai (2h drive) the WiinTech delegation was guest at a very impressive family business for plastics recycling. Since its foundation in 1970, Shakti Plastics has been recycling plastic waste and processed to pellets. The family-owned and family-led business is highly integrated into the local community and is a best-practice for a sustainable and socially responsible enterprise. Shakti Plastics employs 200 people. From the local community they buy their post-consumer raw materials (i.e. plastic bags). The water wells that they drilled for their production now provide drinking water to the community. Food is also grown locally and the local school has been built by the family. Future expansion of the business could include technology for turning plastics into light diesel or the recycling of municipal solid waste. The versatility of the business provided some very promising starting points for WiinTech to stimulate business, which were further suggested in the project presentation.

To reuse the water a filtration system would be needed. Advanced technology from some cluster members might be a good answer to this request. The properties of chairs made from recycled plastics has to improved; a development which has been done among cluster members. Drying technology for washed/shredded plastic foils was also high on Shakti Plastics agenda. The list is by no means complete and will hopefully turn into export of European technology/machinery. Next steps are that Shakti Plastic will phrase their current technological needs with precise specifications and the WiinTech consortium will check for the best business partners in Europe. After suitable business partners have been identified refinement of the European-Indian partnerships shall take place at the K Fair 2013 in Düsseldorf.



Figure 8: Tour through the recycling facilities lead by director Rahul Podar (left) and subsequent corporate presentation (right).

3.2 French Embassy

The video conference at the French Embassy with Ubi France in New Delhi was attended by various expert of the Indian clean tech sector (four companies, three governmental bodies):

From Mumbai:

EBTC: Mr. Shrikar Dole, Regional Manager

Ernst & Young: Mr. Sanjay Chakrabarti, Partner and Cleantech Sector Leader
Ms. Nutan Zarapkar, Associate Director, Climate Change & Sustainability Services

UBIFRANCE: Ms. Banani Ghosh, Trade Officer, Infrastructure Transport Industry Department in India
Mr. Fayssal Majid, Trade Officer, same dept

From Delhi:

Regional Economic Department for India and South Asia – French Embassy:

Ms. Flore Lafaye De Micheaux, Counsellor for Sustainable Development, Head of division for Sustainable Development, Infrastructures and Industries

ADVIT Foundation: Ms. Charu Jain, Director

PLUS Polymers & Trustee: Mr. Samit Jain, Director

The Green Mantra: Mrs. Feli Visco, Director Business Development

EBTC: Mr. Poul V. Jensen, Managing Director
Mr. Monish Verma, Environment Specialist

UBIFRANCE Delhi:

Sophie Clavelier, Head of Infrastructure Transport Industry Department in India
Paul Cagnon, Trade Officer – same department
Anuj Sahay, Trade Officer - same department

Sophie Clavelier (Ubi France) welcomed all participants and opened the session. After the participants in New Delhi had introduced themselves, Jörg Klein gave an overview of the WiinTech project. Each individual Cluster introduced them. The first presentation was given by Sanjay Chakrabarti and covered the renewable energies sector in India including an overview of the potentials of wind, solar, biomass and hydro power. In the second presentation by Nutan Zarapkar the current situation in the energy efficiency, water treatment and waste treatment was given.

The following discussion focussed on whether centralised or decentralised concepts for power generation are favoured. Feli Visco explained that finding a suitable model for financing the investments into decentralised solar power represented a major barrier. Although the world bank is currently developing financing models for this purpose most investors are more interested in the large centralised projects. What is needed here are new, creative business models.

A very important point was made by Poul Jensen. European entrepreneurs who want to become active in the Indian market need to spend more time with understanding the Indian needs and building closer relationships. Personal presence and patience are key requirements for success. Samit Jain mentioned the opportunities behind systems for energy storage in India. Mr. Monish added that also energy efficient buildings offer good opportunities for business.

4. Day 4: Thu, 7.3.13, ICC conference: 6th Annual India Chemical Industry Outlook Conference (Taj Mahal Palace Mumbai, 7.-8.3.2013)



Figure 9: Conference hall of the 6th annual ICC-conference (left) and speakers panel featuring John Brady (NEPIC, right).

Already in his welcome address, Dr. Stan Higgins (CEO of NEPIC¹) encouraged the audience to speak to the European cluster representatives of the WiinTech consortium. In many informative talks by high-level speakers key information on the development of chemical industry in India and elsewhere in the world were presented and provided the bases for discussions. A European perspective was given in the talks of Dr. Stan Higgins (CEO of NEPIC¹, on behalf of CEFIC²) and John Brady (Senior Project Manager at NEPIC¹). The example of the regional innovation strategy at NEPIC was particularly suited for the Indian audience because it showed how to establish a coherent strategy from a scattered industry.

During the entire event the clusters of the WiinTech consortium were exhibiting PR materials about their organisations and engaging in discussions with local stakeholders. Potential partners for joint business with Europe were identified and will have to be validated in the next weeks.

In the evening the WiinTech consortium was also represented at the CEO-roundtable (chaired by Dr. Stan Higgins, NEPIC and Yogesh M Kothari, President ICC³) and the networking dinner. The discussions at the CEO roundtable covered the challenges in India to incorporate the government in an efficient, industry-friendly way and to coordinate the many associations. The point was raised that in Europe many associations work together to maximise the impact of their work. Subsequently, a presentation on mergers and acquisition (Peter Hall, Partner at Valence Group) showed that India is not very active in the field of mergers and acquisitions and argued that it should be. The discussion turned to IP-protection in Europe, China and India. Dr. Jonathan Atkinson (Partner, HGF) argued that if India intends to sell to Europe, it has to obey carefully IP-regulations which was opposed by only one Indian delegate.



Figure 10: John Brady (NEPIC, left) and Jürgen Dienstl (Clusterland), Jörg Klein (Chemie-Cluster Bayern, right)

1 NEPIC = North East of England Process Industry Cluster

2 CEFIC = Conseil Européen de l'Industrie Chimique = European Chemical Industry Council

3 ICC = Indian Chemical Council

5. Day 5: Fr, 8.3.13, ICC Conference

Before the start of the actual conference the WiinTech delegation participated in a 1h meeting with representatives from the region of Karnataka:

Rajiv Banga (Managing Director & CEO of Mangalore SEZ Ltd.)

M. Maheshwar Rao (Commissioner for Industrial Development & Director of Industries and Commerce at the Government of Karnataka)

Notably, Karnataka has recently signed an agreement with Martin Zeil (Minister of Economic Affairs in Bavaria, Germany), which was featured in the PR-video of the state. After discussions what the European delegation could offer and receive through collaboration further steps were discussed. Possible further steps include a memorandum of understanding or joint R&D projects between Karnataka and WiinTech members.

The morning of the conference featured talks on IP-protection and mergers and acquisitions (Session: Growth Enablers). The following session was more sector specific showing challenges and opportunities in the fields of polymers, plastics, speciality chemicals and pharmaceuticals. In afternoon was around collaborative opportunities. Dr. Jörg Klein (Chemie-Cluster Bayern) presented the WiinTech consortium while highlighting the role of WiinTech as a gateway to EU-enterprise. The concept of clusters and sophistication of different European models were further illustrated in a panel discussion featuring all WiinTech delegates on stage.



Figure 11: Jörg Klein presenting the WiinTech project at the ICC-Conference.



Figure 12: WiinTech delegates presenting their clusters. From left to right: Federica Lodato (Veneto Nanotech), Rui Tocha (Poolnet-Info Tooling), Caroline Pin (Plastipolis), Cristina Monge (Plastival), Laura Fusani (Proplast).

6. Summary and Key Output

The India mission was very successful in many respects. The many opportunities to present and market the WiinTech projects were taken and sparked big interest in all listeners. With the help of very powerful local stakeholder like PlastIndia (represented by their president) WiinTech could make contact with high-level decision makers (typically CEOs or MDs). We believe that the delegation gave an excellent impression of the powerful structures in Europe that coordinate and harness diversity. This has been expressed in various statements of admiration from Indians. As a result of exploitation of this potential the consortium could generate >200 requests for partnership between Europe and India.

Probably the most important achievement was the contact to PlastIndia. PlastIndia is a very large and powerful Indian stakeholder, that will help pushing forward the requests. To emphasise the long-term interest in this relationship an MoU shall be signed in the near future. The site visits provided important insight into successful Indian business models. They illustrated some of the particularities that have to be respected if European companies want to work with Indians. The video conference, networking events and conferences deepened not only our understanding of Indian business but also provided further contacts to pursue opportunities.

7. Outlook

To further build on the encouraging start the requests for partnership will be validated over the next months. After identification of suitable partners the business-to-business meetings at the K Fair 2013 shall serve to introduce the European companies to their Indian partners and specify project details. First actions are estimated to start in 2014.

Annex A: Protocol of the Meeting at the French Embassy (c.f. 3.2)

Protocol_French
Embassy

Annex B: WiinTech Presentation.

WiinTech-Presentation
in India

Annex C: List of partnering requests generated by face-to-face interaction

Annex C - Requests

***Annex D: Letters of Intent between PlastIndia and the WiinTech partners
(only one example attached).***

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