European Alliance Against Coronavirus

Monday 20th July 2020 at 8:30

Next steps on Advanced Textiles

Working format is based on "*Gilles Rules*":

1. conceptual framework
2. needs and disruptions
3. solutions

Speakers:

- Stéphan Verin, EuraMaterials
- Robin Oddon, Techtera

Link to session´s recording

1. CONCEPTUAL FRAMEWORK

Contributions to the national recovery plans from the French materials clusters

EuraMaterials is a materials cluster born from the merge of Matikem and UP-tex. It has 260 members and 1,000 associated partners. The cluster participated in drafting a **proposal done by 7 clusters, lead by AFPC, to the French Government for the national recovery plan**. The Covid-19 crisis has highlighted the key role of the materials processing industries (examples: plastics for respirators, masks and visors) in the value chains and the absence of certain key technologies on the French territory. Their proposal is based on the concept: **"everything is material"**. Materials serve all strategic markets, but their transversal and upstream positions mean that their roles are often misunderstood or even forgotten. It is clear there can be no recovery plan without a special consideration of materials. In addition, the materials processing industries are characterized by a **driving role of manufacturing SMEs/SMIs** scattered throughout the national territory.

Stéphan Verin shared with the group the recommendations. First of all, it is necessary to **perpetuate the sovereignty of production chains in the materials processing industry** because the disappearance of links in these value chains is a critical factor with significant risks. **It is recommended that the CSFs (strategic committees for the application sectors) integrate the materials dimension in the actions**. It is also important to encourage a **mutually supportive interaction** between large industrial groups as suppliers and SMEs to develop a national commercial strategy aimed at securing the import of critical raw materials into the national territory. We must help SMEs that are in the process of launching **innovations projects** because innovation should be the key to SME recovery. Now is fundamental to facilitate the access of start-ups to innovation projects by revising the equity rules that limit their participation in collaborative projects, while in the medium/long term is necessary to rethink the industrial value chain to ensure self-sufficiency for Europe's and France's raw material production.

Next steps on Advanced Textiles

Robin Oddon from Techtera, an innovative French leader in “technical” textiles, shared observations on the reaction of the market when the Covid-19 crisis hit. Due to the slowdown on the companies’ “usual” activities, there were a switch in production by several companies. The industry was fast in providing alternative solutions. To develop an **antiviral treatment for textiles,** he underlined that it is necessary give more consideration to textile and material solutions.

The next steps for the textile industry focus on structuring and supporting **sustainable changes in business models, R&D developments, and partnership developments.** One of the most important lesson learned from Covid-19 is that collaborations are the key, as well as agility and innovation capacity.

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2. IDENTIFICATION OF DISRUPTIONS

First disruption: critical access to raw material supply chains for EU companies

Evidence: Materials are fundamental in all sectors and represent the means to realize ideas of new products. Some material value chains are at risks in terms of availability, for example rare materials such as polymers from speciality chemicals, palladium, diodes and many others. Moreover, in several supply chains, there are technical/technological issues and loss of know-how (critical stages, lack of industrial tools, risk of failures, loss of suppliers, etc). The disappearance or absence of links in these value chains is a critical factor with significant risks for the downstream.

Another important point that has been highlighted and that has been part of several previous sessions, is the dependence of EU supply chains from Asian markets. The EU does not have all the sources of raw materials in Europe, which generates significant losses of autonomy for several sectors. Many specific raw materials which prices are very volatile and/or supplier are few and outside our borders make the EU particularly vulnerable.

Geographical impact: EU

Stage of value chain: procurement

Character of the disruption: raw materials supply difficulties

Time frame: medium/long term

EU actions needed:

- **Coordination:** launching a study for a shared analysis of the risks and critical points of the complete sectors to identify solutions to improve resilience and security in the medium/long term.

Recommendation:

- The industrial material sectors have a strong impact on the consumer markets. Too often however, these markets do not take into account upstream issue due to a lack of knowledge.

Second disruption: innovation in material sectors to support SMEs recovery

Evidence: Covid-19 crisis has highlighted the key role of the material processing industries (e.g. plastics for respirators, mask and visors, textiles for masks, tubes for bed, and many others) in the value chains and the absence of certain key technologies and materials in the EU. This crisis marks a breakthrough for many companies:

- Digital transition impacts the material industries and conversely, materials are essential for the success of these transitions (e.g. robot, sensors, batteries, etc). Moreover, the digital dimension (telework in particular) has shown its effectiveness and can lead to the simplification of companies to go further towards such a transition.
- The innovative solutions are multi-material and therefore they must be thought in cycle of their use: "from cradle to cradle" (respecting Circular Economy concept, a key point of the Green Deal). Supply constraints have shown their weight and therefore the need to find alternative solutions under the Green Deal in a European approach.
- With the recovery, differentiation will become a priority again to position oneself on the market.

Geographical impact: EU

Stage of value chain: design and innovation in materials sectors

Character of the disruption: innovative trends

Time frame: mid and long term

EU actions needed:

- **Funding:** to help SMEs that are in the process of launching innovation projects, but are in financial difficulty due to Covid-19 crisis to go through with projects and not give up for lack of means

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3. IDENTIFICATION OF NEEDS

1) To invest in and support industrial start-ups (new materials, transformation, recycling, ...). This is very difficult in the world of materials, mainly because is a capital-intensive industry and the rates of return on investment are lower. There is a real need for dedicated "seed funds" in this industry.

2) Need to perpetuate the sovereignty of production chains in the materials processing industry (especially for a better coordination of procurement processes at EU level), lowering the dependence from China.

4. SOLUTIONS

1) Use clusters for financing and support innovation projects adapted to SMEs and for a better integration between companies involved. For example, encouraging a mutually supportive interaction between large industrial groups as suppliers and SMEs; initiating a strong approach promoting innovation in a Green Deal Materials recycling and bio-sourced; defining a Circular Economy vision in EU value chains and on EU strategic raw materials.
Collaboration is the key, hence the importance of clusters and network/innovation facilitators for quick and suitable solutions developments.

2) Preparing the future by promoting product innovation in SMEs with the implementation of “innovation vouchers” to enable the development of prototypes.

3) Future steps for textile sector:

- Working groups launched by clusters on maintenance and products end-of-life
- Certification and regulation of the most promising sanitary materials (e.g. masks)
- Developments on antiviral treatments for textiles and consumer solutions
- Improve efficiency of sanitary materials, as PPE (masks), finding also new materials as substitute of Melt Blown Non-Woven
- Collaboration with others textile players for textile PPEs
- Rethinking industrial value chains to ensure self-sufficiency for EU (especially in mask production, non-wovens, and raw material)