

How Finland responds to the Bioeconomy challenges

As the European country historically most dependent on its forests for wealth creation, Finland's approach to the bioeconomy is a matter of great national importance. The government has set ambitious targets, and devotes significant resources to promoting new breakthroughs. As a way of introducing the Finnish way to our readers, we talked with one of the key people charged with advancing the bioeconomy agenda, **Jussi Manninen, Program Director, Ministry of Employment and the Economy.**

1. Finland is held by many observers to be a frontrunner in the European Bioeconomy. Is that based on fact or perception?

That is a fact. The bioeconomy is a significant part of our economy, especially forest-based bioeconomy, which is natural when looking at our natural resources. This traditional sector has undergone rapid changes in the last ten years to move from the traditional forest industries into an industry that produces biomaterials, biofuels and bioenergy in ever increasing share.

We also have progressive policies to drive innovation and deployment of bioeconomy solutions into the industries and the society. Our national bioeconomy strategy and the current government's action plan have set ambitious targets for increase of output and employment in the bioeconomy.

2. In EU's quest for a successful Bioeconomy programme, can the northern nations with large forest reserves (such as Finland) benefit from EU policy, or will they effectively be held back because of the need to have pan-European policies in place?

There is no single answer to this question. We have been able to benefit from the innovation policy instruments, like the Bio-Based Industries Initiative, for example. 2020 targets and the renewable energy directive have been beneficial for development and deployment of advanced biofuels. Biomass sustainability criteria discussion is somewhat confusing for us, not because of the need but



because of the proposed means. We, and the other forested countries of Europe rely on our forestry management practices to ensure sustainability, and the proposals for product dependent sustainability criteria seem unnecessary since different parts of a tree are used for a multitude of products ranging from chemicals to lumber, from pulp to fuels and energy. Policies are an important driver of the bioeconomy and uncertainties in the policy direction holds back investments.

3. Are there unique attractions in Finland that boost investment in the Bioindustries? There seems to be an unprecedented number of major projects either announced or under consideration.

The forest resources are of course there, and there is still room for growth for utilising them. Due to our history with forest industries, we have effective harvesting and logistics to deliver the wood to the mill gate. The aforementioned public policies combined with financing and other instruments play a crucial role, too. We have a well-educated workforce and strong R&D in this sector. We are very pleased to see such a number on initiatives and hope that many of them will be realized.

4. The Finnish Government's Bioeconomy vision calls for ambitious growth of the sector. In which product segments do you see the most promising potential?

In the near future we are likely to see biggest increases in production of cellulose fibers due to growing world markets in packaging and hygiene products, for instance. Advanced biofuels is another sector that is bound to increase, as it is a very practical way to de-carbonise the traffic. We expect to see cellulose fibers more and more in bio-based composites, and in textiles to replace cotton. The side-products from production of cellulose, like lignin will in the future be raw materials for biochemicals.

In mechanical wood products, wooden construction and interior materials have a large potential to provide a healthy and ecological choice.

By the way: In the June Newsletter we shall expand a great deal on the theme of construction based on wood. This is an area NC Partnering is currently promoting in several EU countries.

Associated partner introduction – Senior advisor Bruno Lepitre

As we told earlier we are on the way to further enhancing of our cluster network. This time it's our great pleasure to introduce Mr. Bruno Lepire.



A French native, **Bruno Lepitre** has acquired the characteristics of an accomplished leader during 28 years of corporate career with US companies, W.R. GRACE, the specialty chemicals conglomerate, then SEALED AIR, the food hygiene and packaging specialist.

A graduate from HEC Paris business school and specialized in corporate finance, he has developed a passion for industry at large and polymer chemistry in particular whilst broadening its functional expertise to business development, B to B industrial marketing and sales, industrial site management and General Management in EMEA during more than 12 years. As Vice President Global Products. He was ultimately in charge of sponsoring the R&D programs and deploying the product and system portfolio of Sealed Air Food Care worldwide.

Bruno has spent 12 years as expat in Switzerland, Spain and Italy and speaks 5 languages (fluent in French, English

and Spanish, conversant in Italian and German). He has expertise in starting businesses from scratch in regions like Russia, South Africa and Latin America.

More recently, Bruno founded his own consulting company, SUSTINEO 2D, focusing on plant based chemistry, bioplastics and the circular economy at large, advising his customers on public and private funding of industrial projects and structuring collaborative partnerships around "organosolv" bio-refineries, bio-polymer demo plants or plastic recycling value-adding projects.

Bruno is an expert of the French Public Investment Bank (BPI) for the review of Innovation projects in the plant based chemistry sector and the Secretary General of Innocherche, a French association of executives dedicated to understanding of the impact of the rapid change of usages onto business models and corporate organizations. He is the Editor of www.bioplasticsnews.com.

Bruno's network of contacts in the public and private sectors and his understanding of languages and cultures will help NC partnering develop its footprint and business in Southern Europe and the Mediterranean countries

Latest news

As the newsletter's main story is dedicated to Finland we made recently several appearances domestically. It was pleasure to meet you up in

- **Bio-Future Forum in Kajaani** in the end of April, where Jukka Kantola and Prof Olli Dahl made speeches. Jukka focused on his speech on KaiCell Fibers case and Olli for novel bioapplications. KaiCell Fibers were also presented by Hannu Heikkinen in the Kuusamo bio-event on May 12th.
- Antti Kivimaa was participating to **Bioenergy day in Helsinki**, where latest developments were presented.
- **Oulu Northern Industry even**. KaiCell Fibers Venture was introduced by Tuomo and Antti.

Not only Finland we were also on the way like in Stockholm for International Wood Biorefining Week and in Amsterdam for Bio-Based Chemicals World & Products World 2016.

"Innovation distinguishes between a leader and a follower."
Steve Jobs



Tuomo Niemi and Antti Kivimaa at Northern Industry event.

NC Partnering Newsletter reaches out almost 2000 stakeholders on Bioeconomy. Any interest to share your articles, insights on Bioeconomy - pls. be free to send your proposal on info@ncpartnering.com.