About a year ago the European Commission published a map on Europe about the status of member states with respect to Bioeconomy. Those states or regions, offering a dedicated national or regional Bioeconomy strategy, were marked in dark green, those, where such activities were underway, light green, the rest in white or blank. The regions from the Eastern Baltic down to the Black Sea were brilliantly white, whereas the North of Europe, the Center and the major part of the Mediterranean (except Malta, Cyprus and Portugal) were dark or light green. This is changing now: Latvia as the first Baltic region will offer its own national strategy. Not only this element of first of its kind: It is a strategy offering quite a few novelties in comparison with other proposals: Strong emphasis on attractivity for an environment for entrepreneurship within the Bioeconomy, with clear incentives practiced in public procurement, introduction of Bioeconomy impact assessments for all future policy documents, a very interesting institutional development, the establishment of a European Center for excellence in Bioeconomy research, fostering knowledge and innovation in this area and last but not least stressing the outstanding position and relevance of the Bioeconomy as a new Latvian brand of its own.

Interestingly enough, not only rural areas, but also cities and urban ambience are supposed to be of relevance for Bioeconomy activities.

Thus all in all a very modern and interesting additional stone in the large mosaic of different Bioeconomies in Europe. Good luck and bonne continuation!

Dr. Christian Patermann
Former Director EU Commission and Advisor to the German Government for Bioeconomy
1. **Strategic Goal For the Bioeconomy Development**
Latvia’s **vision for the bioeconomy strategy** – the bioeconomy sectors of Latvia are innovation leaders in the Baltic States in preserving natural capital, increasing its value and in efficiently and sustainably exploiting it.

In Latvia, innovative approaches for the efficient and sustainable exploitation of natural resources are developed and introduced in the bioeconomy industries in order to provide growth of the national economy providing higher value-added, promoting exports and employment. This shall be achieved while simultaneously balancing economic interests with ensuring environmental quality and preserving and enhancing biodiversity.
THE STRATEGIC GOALS FOR THE BIOECONOMY DEVELOPMENT ARE DIVIDED INTO THREE MAIN GROUPS:

- advancement and retention of employment in the bioeconomy sectors to at least 128 thou persons;
- increasing the value added of bioeconomy products to at least EUR 3,8 billion in 2030;
- increasing the value of bioeconomy production exports to at least EUR 9 billion in 2030.
The long-term employment trend in the bioeconomy sector is downward sloping. This, to a great extent, is associated with structural changes in the agricultural sector, in which small farms quit the market. However, at the same time, increase of production efficiency processes take place fast in all bioeconomy industries, and conventional agricultural production requires fewer employees year by year. The goal of this strategy is to ensure that by 2030 the traditional bioeconomy industries retain the number of their employees at the level of 2014, i.e. 128 thousand individuals.

Employment in Latvia in 2000–2014, forecast of the trend (orange line) and employment target (green line) in the traditional bioeconomy sectors until 2030.
To retain such a number of employed individuals in the bioeconomy by 2030, given the production efficiency increase process, it is necessary to considerably increase the value added created in the bioeconomy sector. The value added target for the traditional bioeconomy sectors would be an increase from the current EUR 1,92 billion to EUR 3,5 billion.

Value added created in the traditional bioeconomy sectors in Latvia in 2000–2014, forecast of the trend (orange line) and value added target (green line) for 2030, million EUR
Increasing the value added is impossible without increasing exports. The export value target of the Bioeconomy Strategy of Latvia is to reach EUR 9 billion by 2030. Increasing the export value to such a level would considerably improve the national trade balance, which would boost secondary positive effects in the form of job creation and output increase, also in the domestic market-oriented service sectors.

Exports of the traditional bioeconomy sectors in Latvia in 2000–2014, forecast of the trend (orange line) and export target (green line) for 2030, million EUR
2. Measures
Regardless of all the preconditions for the development of the bioeconomy in Latvia, the current trend indicates stagnation. A set of measures is necessary for the development of the bioeconomy in Latvia, which would allow using the potential of Latvia.

It is urgent for the traditional bioeconomy industries, which already currently represent a pillar of the national economy and have large potential for growth. It is even more urgent for “new” bioeconomy industries, as the replacement of fossil resources with bio-based resources could not be achieved by means of simple replacement of raw materials – it requires cardinal changes in the production chain and processes, considerable investment and innovation in both the development of new products, the modernisation of production and the ability to enter the world’s production chains. It has to be taken into consideration that it requires a lot of investment in both technological resources and human resources.

Besides, it is critically important to change the consumption pattern of society from fossil resource-based goods and materials to bio-based ones.
Achieving the goals of the Bioeconomy Strategy involves five key integrated and complementary groups of measures:

1. Attractive business environment for the entrepreneurship in bioeconomy:
   - Predictable and stable tax policy for the bioeconomy sector
   - Formation of favourable investment environment
   - Reduction of administratively regulated prices
   - Greater sales opportunities for small producers in the agro-food sector
   - Tackling unfair competition in bioeconomy
   - Replacement of non-renewable resources with bio-resources in public procurement

2. Result-oriented, efficient and sustainable resource management

3. Knowledge and innovation development in bioeconomy

4. Promotion of production in bioeconomy

5. Socially responsible and sustainable development
Result-oriented, efficient and sustainable resource management

- Focus on higher value-added and employment per ha in respect to financial support for agriculture and rural development
- Forestry
- Development-oriented motivation system in municipalities
- Territory development planning, that ensures economically viable use of natural resources and values
- Bioeconomy impact assessment for all strategic policy documents
Knowledge and innovation development in bioeconomy

- Promote research excellence in traditional bioeconomy sectors and efficient transfer of knowledge
- Provision of excellent education services for the needs of bioeconomy industries
- Use of new research opportunities to solve social, environmental and economic challenges
Promotion of production in bioeconomy

- Promotion and attraction of investments
- Increasing efficiency and labour productivity in all sectors of the bioeconomy
- Developing the long-term land use policy
- Inclusion of bioeconomy in the Latvian brand
- Export promotion measures
- Development of a risk management system
- Promotion of cooperation among small producers
- Use of biomass for energy production, based on the cascading principle
- Promotion of the use of bioresources in the construction and other industries
- Promotion of forest owners’ certification
Socially responsible and sustainable development

- Reduction of GHG emissions in bioeconomy sectors
- Enhancement of ecosystem cultural or intangible services as the development of public goods
- Promotion of bioeconomy and public involvement
- Introduction of the principles of rational use of bioresources in population habits

Short version of Latvian Bioeconomy Strategy 2030 is made by Latvia University of Life Sciences and Technologies.

Full version of strategy: Informatīvais ziņojums Latvijas Bioekonomikas stratēģija 2030 available at: http://ejuz.lv/jah