



A transforming european  
sugar industry:  
new and better jobs in a  
**competitive, innovative**  
and **sustainable industry**

Executive Summary



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## EXECUTIVE SUMMARY

**Beet sugar factories offer skilled, remunerative industrial employment** and are often at the heart of the rural communities in which they operate. Factories generate important economic multipliers: supporting sugar beet farmers; providing food producers with high-quality, sustainable sugar; providing co-products from sugar beet to a wide range of destinations, from electricity generation and bio-fuels production to use in the chemicals and fermentation industries; and, offering pastoral agriculture nourishing animal feed from beet pulp.

There are no simple and straightforward solutions to challenges ahead, but social partners CEFS and EFFAT are mutually committed to creating the dialogue and collaboration needed to ensure the continued competitiveness and sustainability of our industry and, through this, quality employment vital to the livelihoods of hundreds of thousands of European citizens and some of our most fragile communities.

The EU beet sugar sector has undergone successive restructurings: in 2006-2009 and, most recently, since the end of the quota period in September 2017. This has required close cooperation between workers and industry, facilitated by the sugar industry Social Dialogue on various levels.

**Sustainability is at the core of beet sugar production in both factories and field.** Sugar production in the EU constitutes a bio-based circular economy where every part of the beet is used, either as a product or as an input in the production process. The EU beet sugar industry is well on track to reduce its greenhouse gas (GHG) emissions by 55% by 2030, in line with the Green Deal objectives. And sugar

beet is well regarded as a key component of crop rotation systems and an important nitrogen-fixing plant. All those transformations need strong involvement of social partners to ensure a just transition for workers and quality job creation.

**However, the EU beet sugar sector is a vulnerable sector that needs protection.** A legal framework with incentives to support new diversification and decarbonisation strategies is key. Once shuttered, a sugar factory will almost never re-open its doors. This is because the construction of a sugar factory entails high capital costs, typically of several hundred million Euros. Its closure represents a permanent loss to the local community in the form of hundreds of direct and indirect jobs lost and hundreds of millions of Euros of economic activity. Beet sugar production and sugar beet cultivation are symbiotic: the one cannot exist without the other.



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## KEY FINDINGS

**State of employment.** The EU beet sugar sector is characterised by an **ageing workforce**, predominantly represented by male workers, and by an average higher qualification of workers vis-à-vis the EU food industry as a whole. The sector faces increasing difficulties in attracting young workers because of atypical working hours, less flexibility in work planning and more difficult work-life balance. In spite of the very good career paths actually available (high diffusion of permanent employment contracts and demand for skilled workers), there are wrong perceptions about the sector among young workers. Most EU beet sugar producers, often through social dialogue with trade unions, have been **striving to improve working conditions and job quality**, reduce risks, promote well-being and stimulate skills transfer and development.

**Best practices to boost employment and regional development.** The EU beet sugar sector **maintains industrial, highly skilled jobs in rural areas** and promotes **indirect employment in related activities**, in spite of the drastic decrease in its workforce due to industrial restructuring (plant closures) since the 2006 reform of EU sugar regime. Diversification towards other beet-derived products presents promising **opportunities** for safeguarding and boosting employment in the sector. Policies (European Green Deal, Farm to Fork and Bioeconomy strategies, etc.) can present prospects (e.g., authorisation of innovative beet-derived products for new uses) or pose **constraints** (e.g., lack of a clear policy strategy to support the production of bioplastics and biochemicals on an industrial scale). Identified **best practices** include production of ethanol directly from beets, value-adding through side processes of sugar production, and use of co-products, residues and waste to

obtain added value ingredients, fertilisers, substrates for the chemical or pharmaceutical industry. The main opportunities to boost **regional development in sugar beet growing areas** should derive from: i) innovation in sugar beet farming techniques; ii) product diversification in the processing stage (need for additional beet supply); iii) implementation of “biobased value-adding processes” to promote sustainable development (economic, social, environmental) in the farming and processing stages and in support activities; iv) EU structural and investment funds (ESIF) and funding from other support policies. Identified best practices include: i) diversification into premium products (e.g., organic beet sugar); ii) development of “biobased industrial clusters” centred on sugar beet farming and processing.

**Further increasing the sector’s sustainability: diversification towards other beet-derived products.** The **key issue** is ensuring the **economic sustainability** of the sectoral core business, i.e., **processing of sugar beets into sugar**: diversification is not a “magic bullet” to ensure economic sustainability. The sector is already world-leading when it comes to environmental sustainability, but there is still significant potential for further improvement. There is a wide range of **opportunities for producing beet-derived products other than sugar**, but many of the related processes have been implemented in laboratory conditions only. Ensuring the successful transition from pilot plants to full-scale commercial production in industrial sites is critical; specialist consultancy services and/or specific policy support may be needed to promote that transition. The sector already boasts notable practical examples of full-scale commercial production of biobased pro-

ducts, together with ongoing initiatives to implement their production at least at pilot plant scale.

Increased automation and digitalisation present potential in terms of efficiency gains and cost savings. They may generate job losses, but may also improve job quality for certain job profiles. It is essential to combine improved economic with increased **social sustainability**. Social partners have to shape this transition jointly.

**The sector in transition and skills required of workers.** With the end of quotas, the sector has experienced a challenging transition from legislation-based supply management to a more market-oriented competitive environment, which resulted into new opportunities and challenges (also from external factors).

**Biorefineries** using sugar beets and the related co-products as feedstock are highly mechanised and automated plants applying advanced technologies, producing high value-added products and bio-energy. Additional employment created in those facilities contributes to improve the overall profitability and helps to safeguard more substantial employment figures in “traditional” beet sugar factories and beet ethanol distilleries. As for **skills**, in biorefineries and beet ethanol distilleries, the need for “process managers” and highly skilled specialist workers with a formal technical education tends to prevail over the need for less specialised “blue collar” workers with practical skills acquired through experience. The required skills are closer to those in the (bio)chemical industry than in the rest of the food industry. Therefore, specific training activities are often necessary. The key challenges for securing the needed skills, common to sugar production and biorefineries/distilleries, can be identified in: i) covering critical job

positions (blacksmiths, mechanics and electricians in particular) for which there is more and more limited availability of skilled workers; ii) train older but less skilled “blue collar” workers to enable them to keep working on more and more automated and digitalised processes.

**Increasing the sector’s attractiveness to young workers.** The main **issues with the image of the sector as employer among young people** were identified in: i) a limited awareness of the sector; ii) a limited knowledge about the sector as an employer; iii) the fact that knowledge about the sector is partly incorrect/outdated. European beet sugar producers seem to focus on the most appropriate typologies of **communication efforts** for reaching out to young talents. Several producers have established successful forms of **cooperation with the educational system** (technical schools; universities); most producers have implemented effective approaches (in-house training programmes, apprenticeship schemes and tutoring/mentoring by older skilled workers) to reap the concrete benefits of improved attractiveness to young workers, and increased availability of young prospects with the right skills.

**Facilitating intra-EU skills mobility.** In the sector there is **very limited mobility of workers** - in particular skilled “blue collar” specialist workers in the production departments of sugar factories - from one country to another. The main **obstacles** are language barriers and bureaucracy. Some multinational European sugar producers have (or used to have) programmes aimed at promoting and facilitating intra-group mobility of their employees from one country to another; some of them were however forced to quit those programmes, mainly due to bureaucratic complexity.

# RECOMMENDATIONS

The entities for which each recommendation is relevant are specified by a reference in (bold blue types) in the text; the reference (all) means that the recommendation is relevant for CEFS and EFFAT as organisations, for their member organisations, trade unions and for individual beet sugar producers.

## Safeguarding/boosting employment in the EU beet sugar sector; promoting regional development in sugar beet growing areas

1. **Keep on monitoring the evolution of the relevant EU policies (CEFS & EFFAT)** and of the related national policies (member organisations; individual producers), with particular attention to the (funding/enabling) opportunities that they can offer to the beet sugar sector; **keep on safeguarding the interests of the sector and of its workers** in the framework of the related stakeholder consultation activities.
2. **Participate proactively in the relevant good practice exchange platforms** set at EU (CEFS & EFFAT) and national level (member organisations; individual producers), to further improve sectoral know-how and to highlight the main sectoral needs.
3. **Highlight to the relevant stakeholders** (EU institutions → (CEFS & EFFAT); national and regional/local institutions + local communities of the areas where sugar beet farming and processing are carried out → (member organisations; individual producers); the wider public → (all) the important contribution of sugar beet farming and processing activities to the economic, social and environmental sustainability of rural areas and small/mid-sized urban centres in the sugar producing Member States.
4. Insist on asking the relevant EU (CEFS & EFFAT), national and regional/local institutions (member organisations; individual producers) to take action to maintain the key conditions that ensure the economic viability of sugar beet farming and processing in the EU: protection of the EU sugar market from price volatility and from unfair competition by non-EU producers; availability of affordable energy sources; provision of income support to beet growers.
5. Encourage the relevant EU (CEFS & EFFAT), national and regional/local institutions (member organisations; individual producers) to:
  - a. **remove the regulatory constraints** to, as well as to **actively promote** through general and sector-specific legislation and financial support, the **development of innovative value-adding processes** using sugar beet, sugar and the related co-products as feedstock;
  - b. take action to **maintain/upgrade the infrastructure** needed to keep sugar beet farming and processing (into sugar and into products other than sugar) in rural areas, in particular by **establishing/enhancing the needed financial and material enabling conditions**.

## Further increasing the EU beet sugar sector's sustainability and promoting diversification into other beet-derived products

1. Ensure that **European sugar beet processing plants maintain the possibility to valorise all products arising from the sugar manufacturing process**, thereby continuing to minimise waste and delivering on environmental sustainability objectives. To this end, **CEFS, its member organisations and individual producers** should: i) take action to remove regulatory constraints; and, ii) **contribute proactively to the identification of research streams of interest to the sector**.
2. **Monitor the progress of scientific and applied research in the field of bioeconomy (CEFS member organisations and individual producers)**, with a view to identifying and assessing the results that offer the most promising opportunities in terms of development on a commercial scale.
3. **Get engaged in the research and development activities** funded at EU and national level (**CEFS member organisations and individual producers**) to promote the development of **innovative value-adding processes** using sugar beet, sugar and the related co-products as feedstock.
4. Prompt the relevant EU (**CEFS**), national and regional/local institutions (**CEFS member organisations, individual producers**) to **remove the regulatory constraints** (e.g., legislation currently not allowing certain

specific uses in the food/feed industry) **to full-scale commercial production and marketing of innovative bio-based products** using sugar beet, sugar and the related co-products as raw materials, since this would further improve the sector's resilience and sustainability.

## Securing the skills required of the workers in a sector in transition

1. **Monitor the prospective overall trends in the demand of general and specific skills most in need in the sector (all)**, since those trends will influence the future availability of those skills. The already limited availability of specific skills/job profiles of critical importance in sugar beet processing (e.g., blacksmiths, mechanics, electricians, etc.) may shrink further if the overall demand for those skills will decline.
2. **Identify in advance prospective skills and training needs for the sector<sup>1</sup> (CEFS; CEFS member organisations; individual producers)**, in order to **plan a response strategy**, also relying on the available EU-level instruments to support the "just transition" towards a more environmentally sustainable production and consumption system, also mitigating the potentially negative social side effects.
3. **Monitor the offer of specialist technical education of interest to the sector**, also with a view to **establishing forms of cooperation with the concerned institutions** (technical

<sup>1</sup>Skills that are likely to be in higher demand in the sector include: i) capacity to work on highly automated and digitalised processes and equipment; ii) capacity to work on biobased processes.

- schools, universities) (**CEFS; CEFS member organisations; individual producers**), including through: i) cooperation with local educational institutions to better tailor their educational offer to the needs of the local plant(s); ii) cooperation with educational institutions with the “right” offer, but located far from the plant(s), to devise solutions aimed at allowing prospects from the area surrounding the plant(s) to attend courses there (e.g., by offering them accommodation and/or grants).
4. Discuss possible approaches to **further improve awareness among workers** about the critical **importance of constantly updating and improving their skills** (**CEFS member organisations; trade unions; individual producers**). A robust social dimension will be needed to manage the transition of the sector, putting the future of jobs and the sustainability of the sector at its centre. In particular, social partners will need to **anticipate change jointly through collective bargaining**.
  5. **Offer training programs** that can address **heterogeneous levels of endowment with the “basic skills of the future”**, in particular those related to **digitalisation and automation of production and handling processes** (**individual producers**).
  6. **Ensure satisfactory job conditions that can motivate workers to support recruiting activities** (**individual producers**): a satisfied worker who talks positively about the sector as an employer already provides a significant help in that regard. ***This is also relevant for increasing the sector’s attractiveness to young workers.***
  7. Prompt the relevant EU (**CEFS & EFFAT**), national and regional/local institutions (**member organisations; individual producers**) to **secure adequate funding for maintaining and developing an adequate educational offer also for specialist skills/job profiles** whose overall demand is limited/will be decreasing, but that are of critical importance for the viability of specific sectors. ***This is also relevant for increasing the sector’s attractiveness to young workers.***
  8. **Encourage educational institutions** in the areas where beet sugar factories are located, as well as in the nearby areas, to **offer courses that are (better) tailored to the needs of the sugar sector**, including through forms of cooperation with sugar producers (**CEFS and EFFAT member organisations; individual producers**). ***This is also relevant for increasing the sector’s attractiveness to young workers.***

### Increasing the sector’s attractiveness to young workers

1. **Implement/enhance opportune communication strategies and practices** aimed at conveying to young people a **correct and up-to-date image of the sector** (**CEFS; its member organisations; individual producers**). Besides establishing strong linkages with the educational system (see recommendation 3 below), and communication on social media, participation of sugar producers to events targeted at young job-seekers (“job fairs”) emerged as a particularly effective practice for the purpose.



2. **Encourage educational institutions** to convey a **correct and updated image of the sector as an employer** to their students (**CEFS member organisations; individual producers**).
3. **Establish fruitful linkages with the educational system, or further strengthen the existing links**, starting from primary schools (to improve the awareness about the sector and to convey a positive image of the same) up to technical schools and universities (to attract young talents) (**CEFS member organisations; individual producers**).
4. **Develop effective in-house training programmes, apprenticeship and tutoring/mentoring by older skilled workers**, taking inspiration from the available good practices in the sector (**EFFAT member organisations; individual producers**). Cooperation between sugar producers and trade unions is critical to ensure the effectiveness of these initiatives.

**exchange of good practices implemented in the sector** in terms of **programmes aimed at promoting and facilitating intra-group mobility within multinational groups**, including the understanding of the reasons that forced some of those groups to quit those programmes.

3. Encourage the relevant EU (**CEFS & EFFAT**), national and regional/local institutions (**member organisations; individual producers**) to **address the main barriers to intra-EU skills mobility**, i.e., language and bureaucracy, through **support to education and training of foreign workers** and through **regulatory simplification**.

## Facilitating intra-EU skills mobility

1. **CEFS and EFFAT, their member organisations, and individual producers** should **monitor the evolution of intra-EU skills mobility** and of the **existing barriers to it** (language; bureaucracy), with particular regard to the additional challenges posed by the Covid-19 pandemics and the related response measures.
2. **CEFS and EFFAT, their member organisations, and individual producers** should **promote/facilitate the**



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