Applying water tools in WELLE

GROW Final Conference

Aurélie Wojciechowski
Evonik Industries AG
Sustainability
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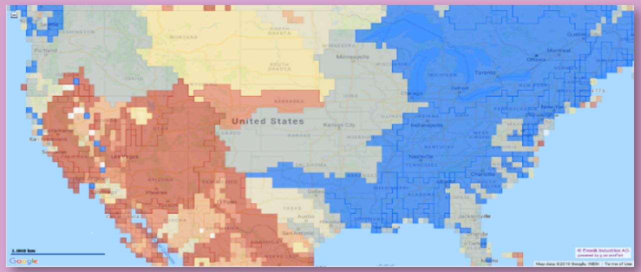
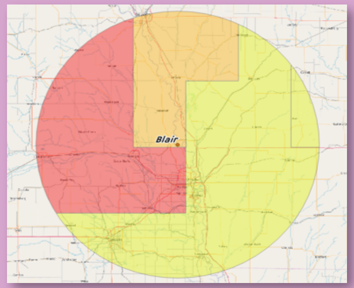
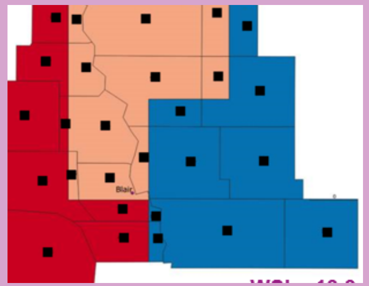
The Water Scarcity Footprint of two amino acids production lines was calculated based on the tool and method developed within the WELLE project

Amino acids production lines	Methionine	Lysine
Functional unit	1 ton amino acid	
Process	Chemical	Fermentation
Location	Antwerp (Belgium)	Blair (US)
Water stress situation	No issue	Medium to high water scarcity around the site







Source: AWARE Google Earth Layer

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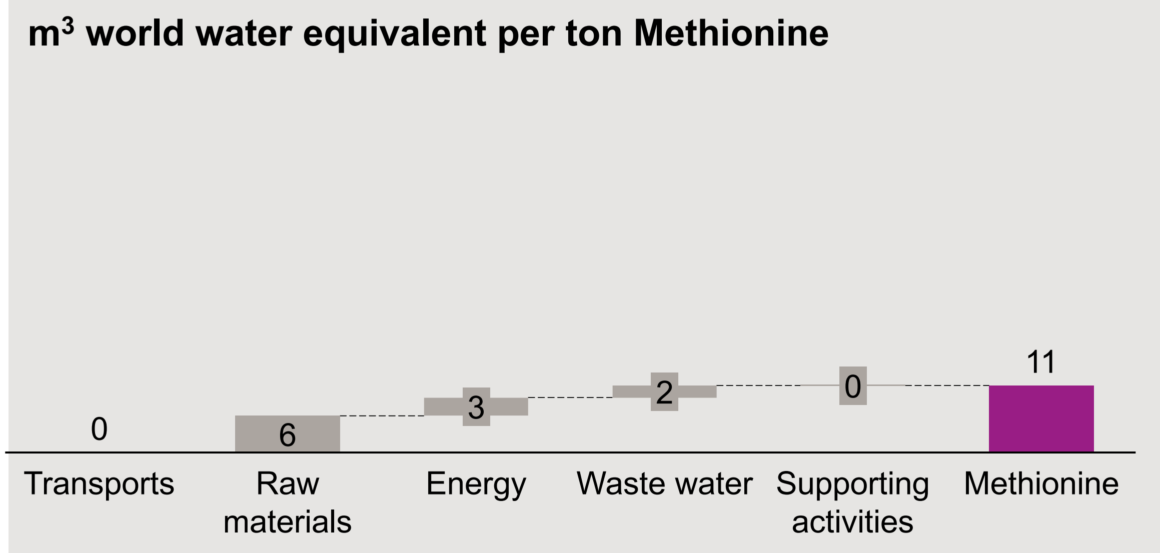
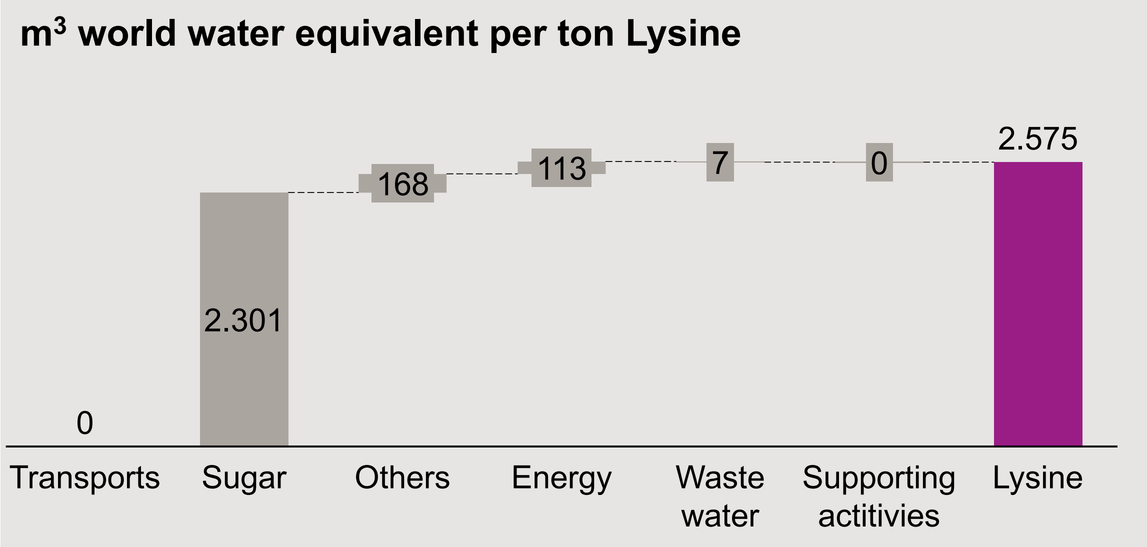
Results: Water Scarcity footprint per ton amino acid





Key learnings

- WSF of bio based amino acid is ~ 200 times higher than petrochemical process
- Lysine: strong discrepancies of the water scarcity in the different cultivation areas of the crop. Mitigation options are being discussed with suppliers
- Methionine: raw materials origin might change yearly (international trading) what could influence the WSF.
- Low contribution of supporting activities to the overall WSF (canteen having the highest share)

Water Stewardship dialogue in Blair & next steps

Data exchange with corn supplier, WRI, Nebraska State

→ **Mitigations measures**

Supplier questionnaire for our Top Suppliers initiated by the Procurement department

Evonik Water Footprint

KPI for portfolio steering

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