

Towards hybrid plant-based foods from Swedish Green-Blue side streams

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Objectives

- ✓ Valorizing Swedish Green & Blue side streams to protein ingredients.
- ✓ Creating novel protein mixtures for food formulation.
- ✓ Using protein-rich functional fractions (PRFF) mixtures for food formulations via high-moisture extrusion technology.
- ✓ Using PRFF mixtures instead of purified ingredients for creating food products via 3D food printing.

Problems to tackle

1. Low efficiency in Green-Blue food production.
2. Energy intensive strategies and purified ingredients.
3. Unfavorable nutritional- and sensorial attributes of plant proteins.
4. Overpressure on aquatic food resources.
5. Low-availability of diverse plant-based alternatives.
6. Hesitation of consumers in shifting towards alternative diets.

Innovative solutions

- ✓ Turning side streams into local food sources.
- ✓ Functional fractions instead of refined ingredients.
- ✓ Tying Green-Blue resources for nutrient and flavor enrichment.
- ✓ Creating diverse, convenient, and personalized products via 3D food printing and extrusion.

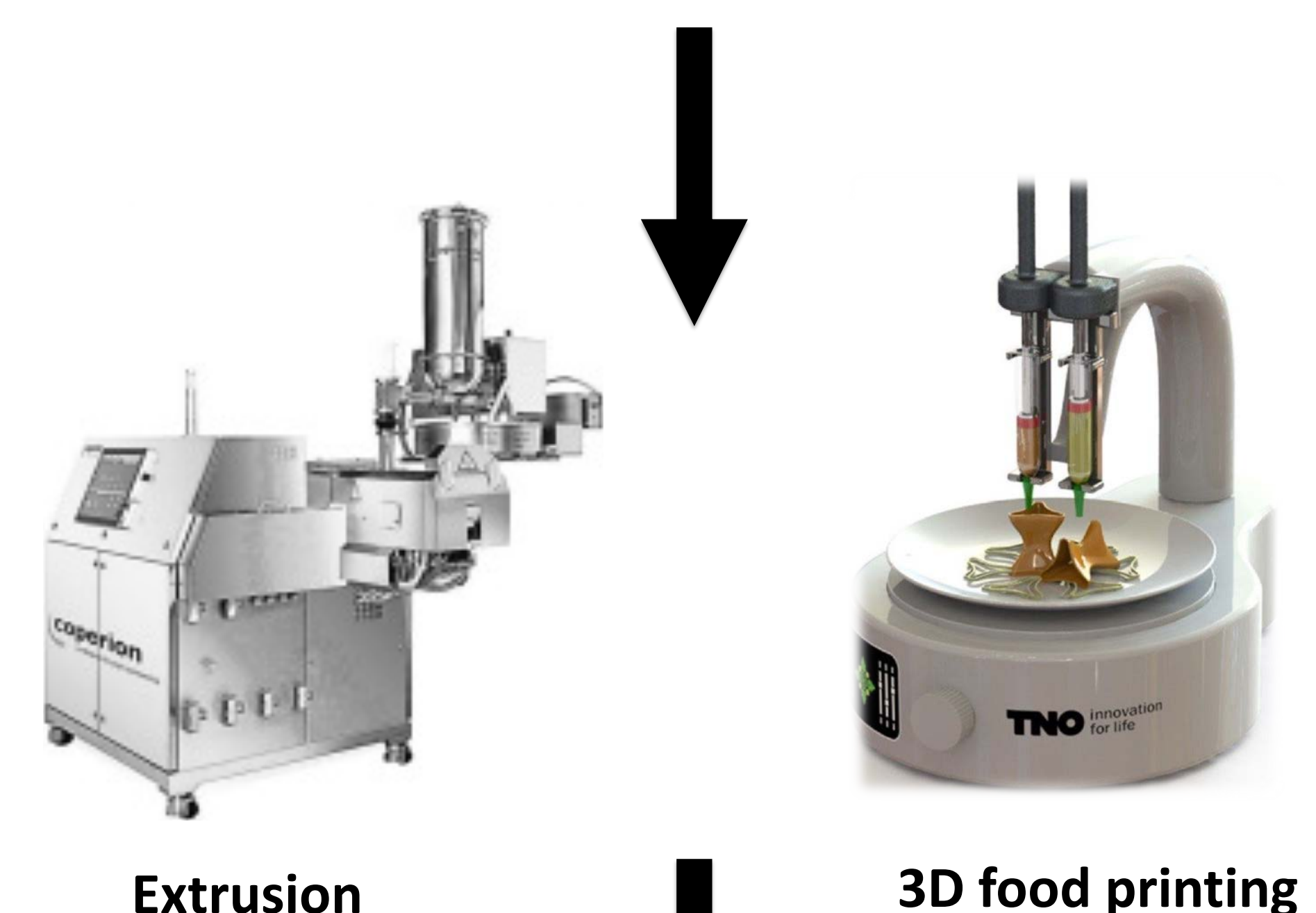


Wheat bran Oat fibers



Wet Fractionation

Ultrasound Enzymes
High-shear homogenizer



Extrusion

3D food printing



Diverse and sustainable hybrid future foods

Partners