

Innovative Plant Protein Ingredients

Jürgen Bez, Fraunhofer IVV

PROTEIN
2FOOD

PIONEERING
CROPS
FOR FUTURE
GENERATIONS



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 635727.

New materials

High protein **content**

Lupin



Lentil



Faba bean



High protein **quality**

Quinoa



Buckwheat



Amaranth



Process
development



High-protein ingredients



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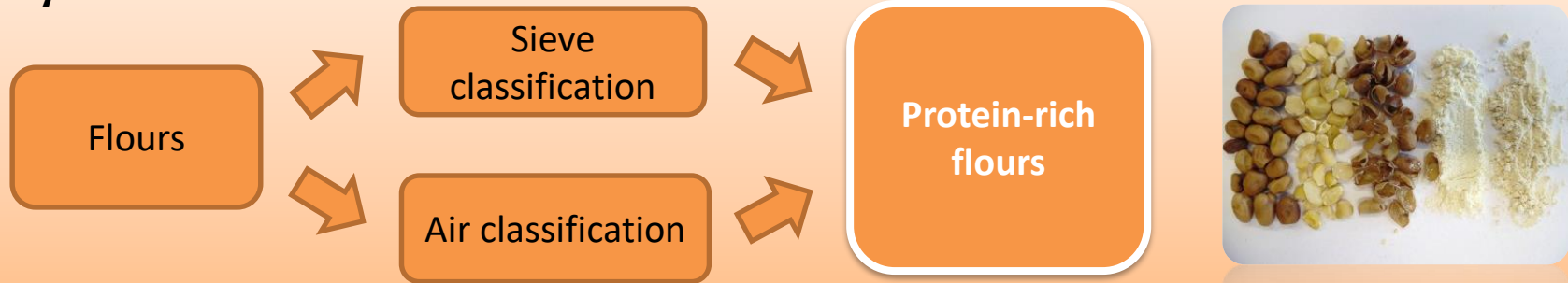
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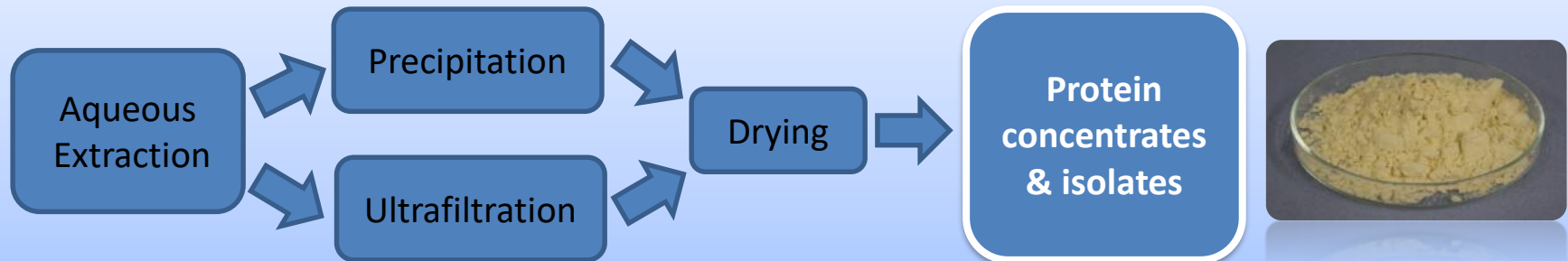
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Processes for high-protein ingredients

Dry fractionation



Wet fractionation



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Performance of new protein ingredients

	Protein content	Functional properties	Sensory properties	Anti-nutrients	<i>In vitro</i> protein digestibility
Flours (all)	15 – 37%	+	+	High	+ / ++
Protein-rich flours (quinoa, amaranth, buckwheat, faba bean)	24 – 67%	+ / ++	+	High	+ / ++
Protein isolates (lentil, white lupin, faba bean)	> 85%	++ / +++	++	Low	++ / +++
Commercial isolate (pea)	85 – 88%	++	++	Low	++

+: moderate performance

++: good performance

+++: very good performance



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From seed to market

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Aqueous processing methods approved in pilot scale

INDUSTRY

Processes and resulting protein ingredients can be commercialized

SOCIETY

New market opportunities for ingredient and food producers



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Thanks!

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