



Regional development of the bioeconomy in Poland

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SCAR National Meeting in Poland

Warsaw , 14 November 2018

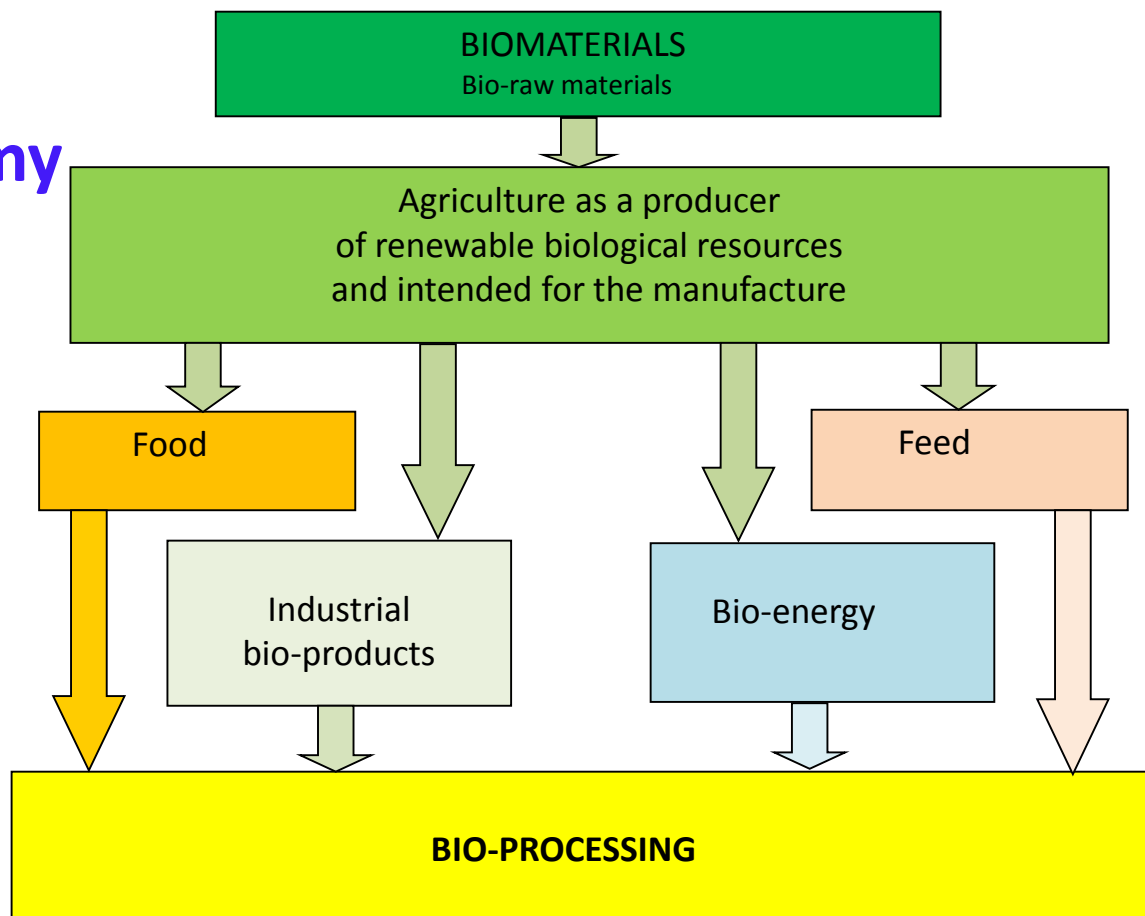


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Grant Agreement n° 727486



Agriculture in the bioeconomy

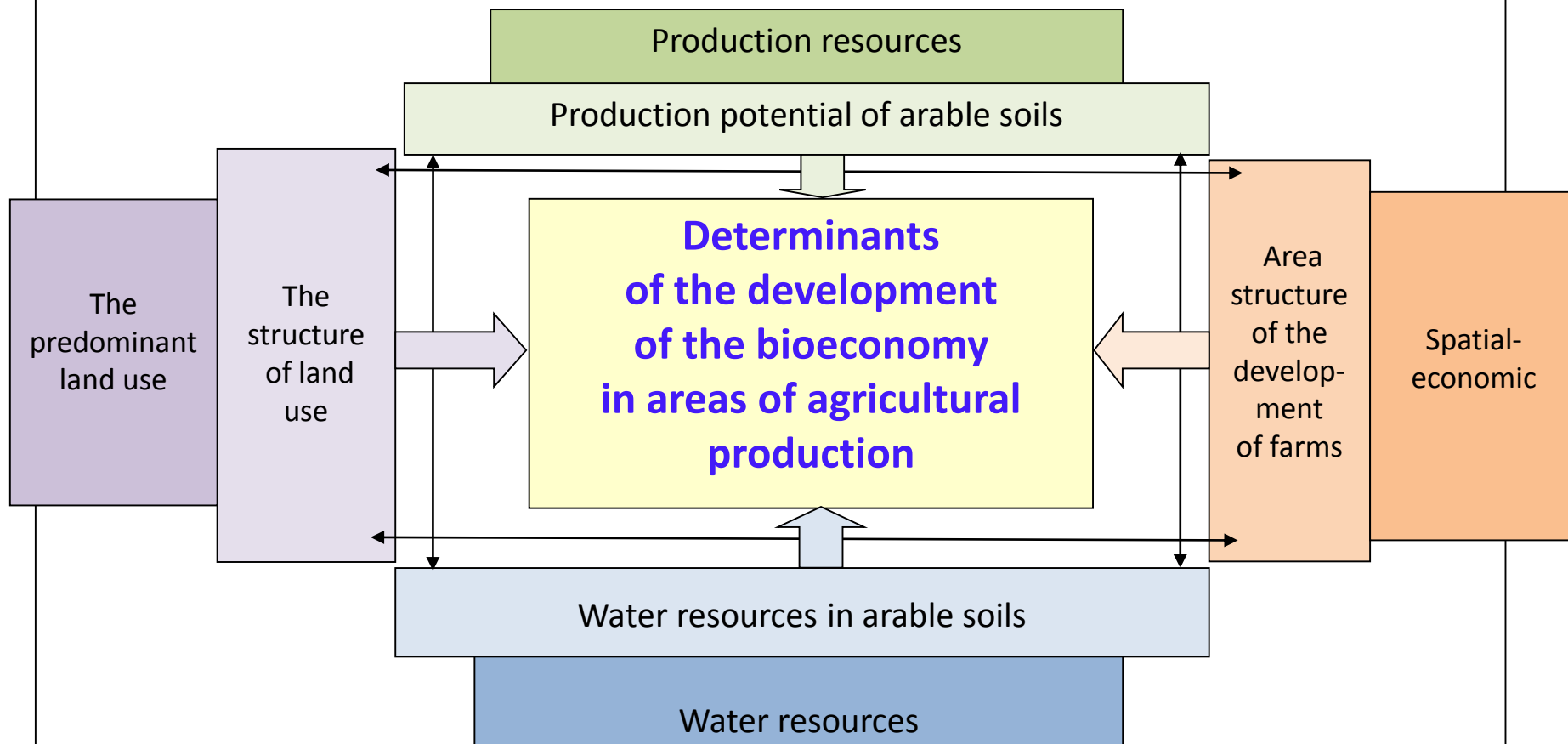


source; Chyłek E.K., Ostrowski J 2017





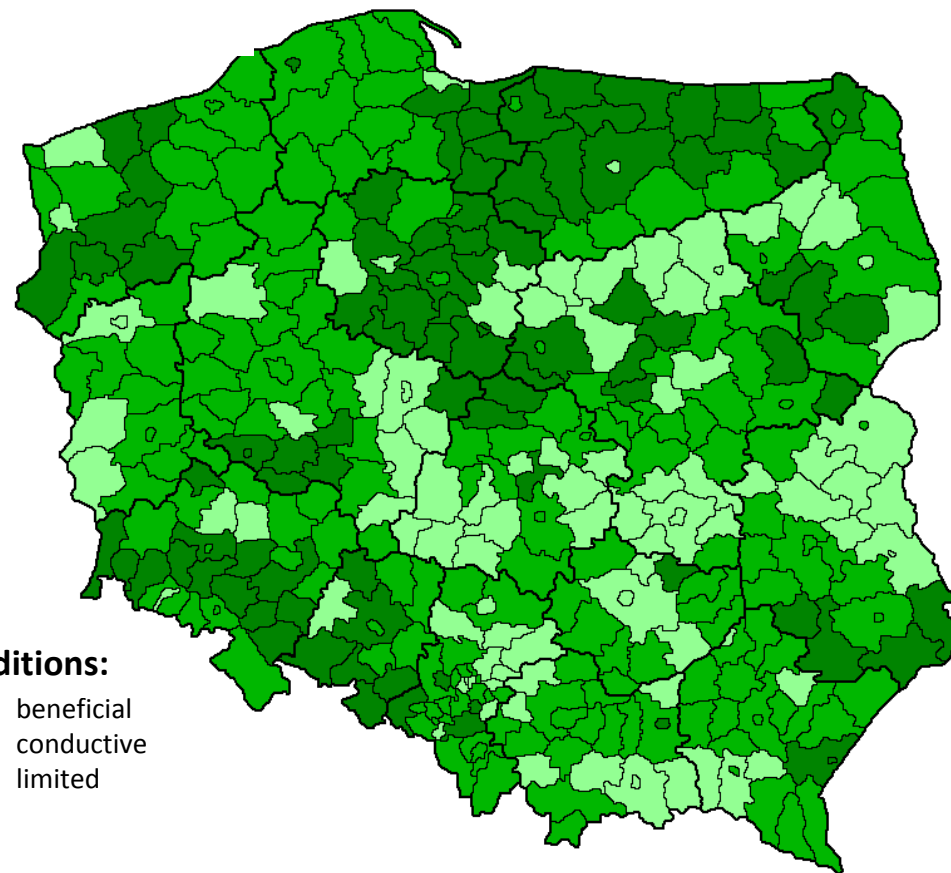
Diagnostic criteria and assessment indicators



Source: Chylek E.K., Ostrowski J. 2017



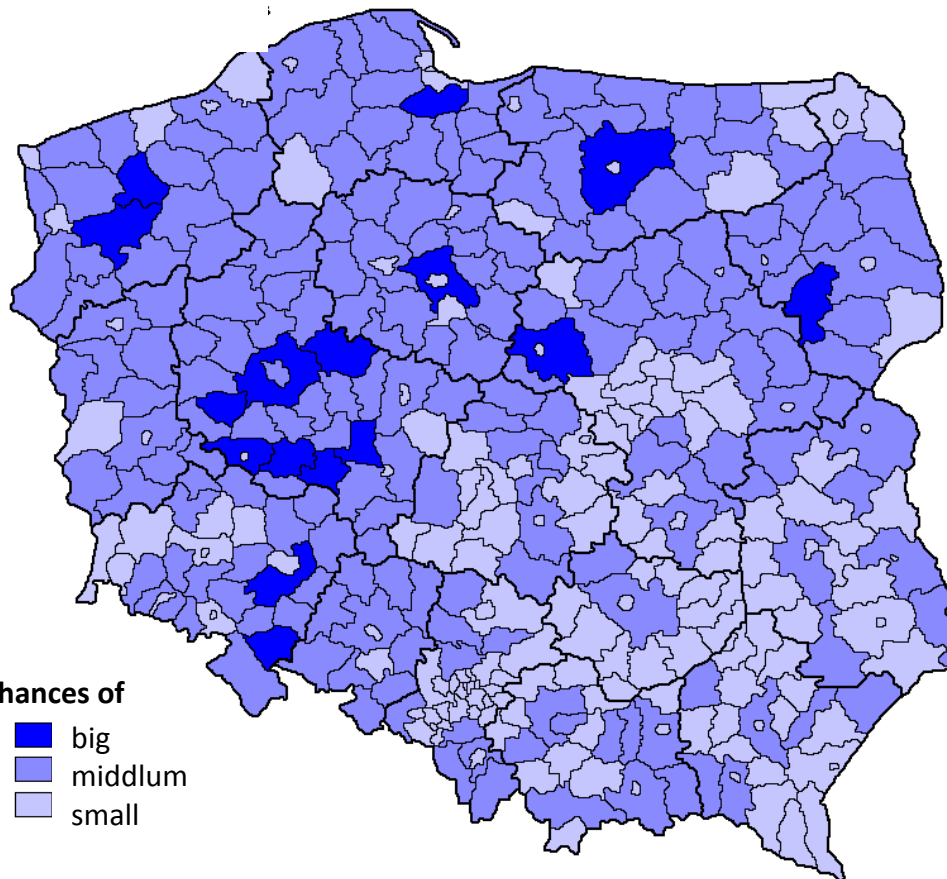
Kartogram evaluation of regional conditions the development of the bioeconomy in production areas of agriculture



Source: Chyłek E.K., Ostrowski J. 2017



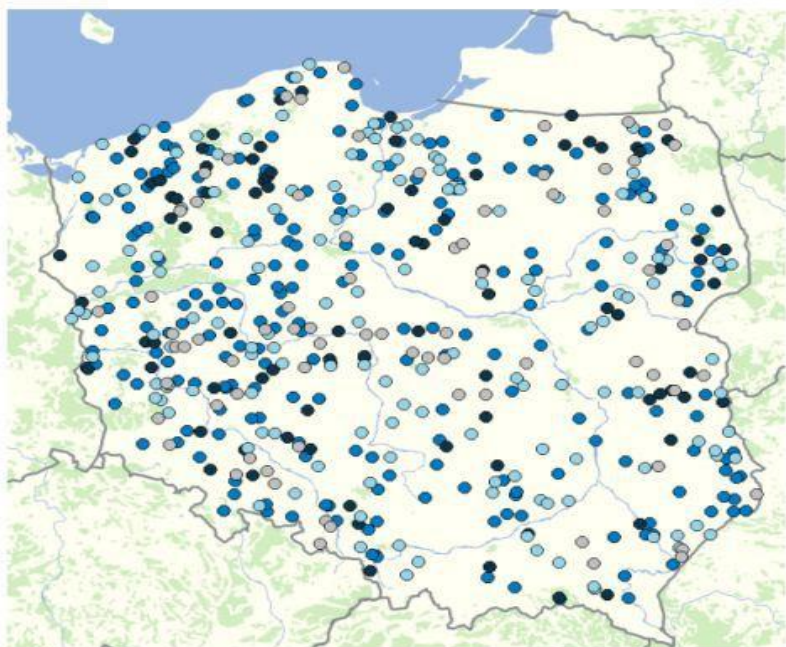
Kartogram evaluation of regional development opportunities in the bioeconomy in production areas of agriculture



Source: Chyłek E.K., Ostrowski J. 2017



Small agri biogas plants



Source; own elaboration.

SCAR
Standing Committee
on Agricultural Research



Poland today: 95 biogas units, 103 MWe
2020 goal: 2-3 thousands MWe
in small biogas units (0,7 do 3,0 MW)



Substrats:

- Energy plants, corn, beetroot, Polish potential = 2,1 mln ha)
- Manure, agrifood wastes



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Circular production systems in bioeconomy

Biological systems:
-animal production
-plant production
-aquaculture
-micro-organisms



The application of

Health

Biotechnological production of medicines, new active elements from biological sources

Industry

Organic chemistry based on natural bio components, enzymes, cosmetics,

Agri-food

Fertilizers, pesticides, nutrient/feeders

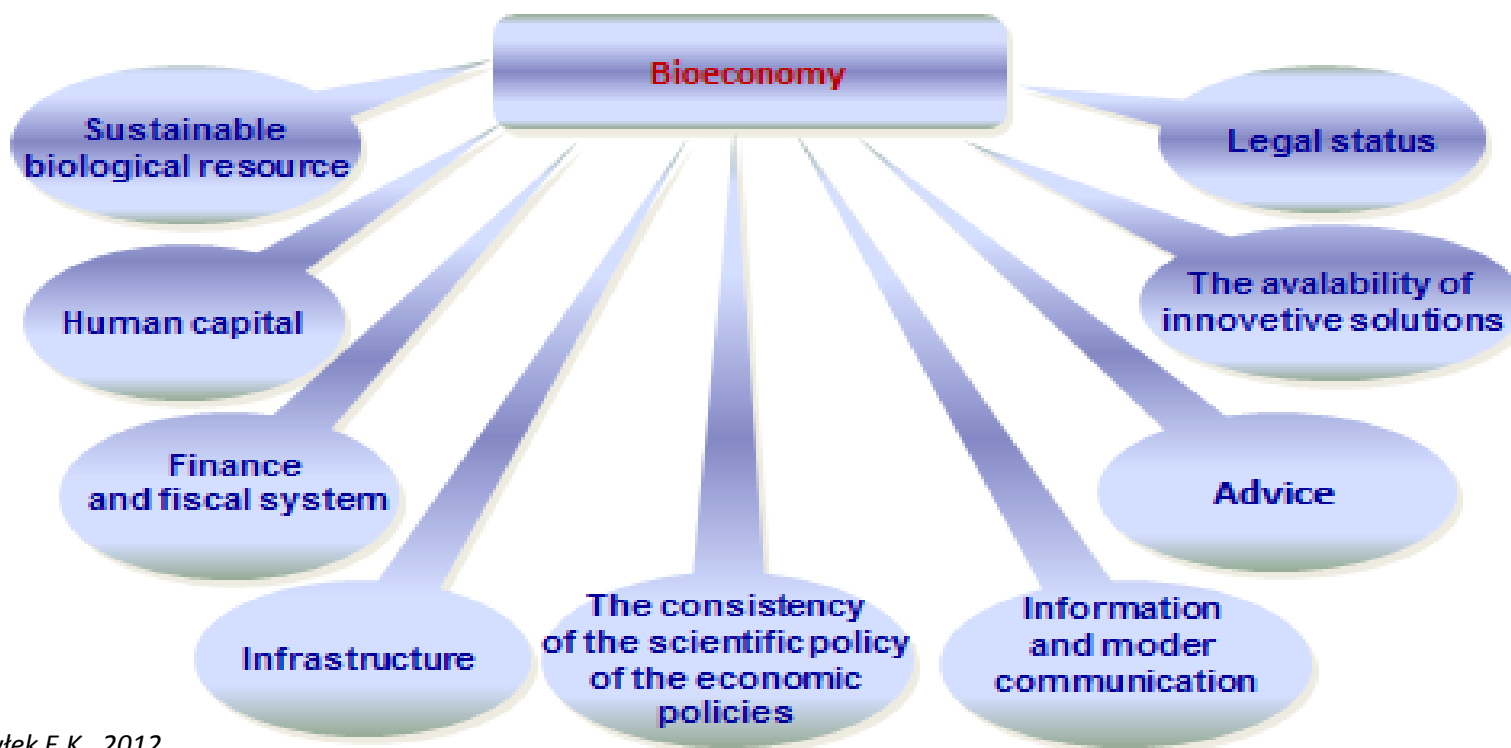
Environment

Bacteria break down petroleum products, clean air, waste water treatment plants

Source; Chyłek E.K. 2017



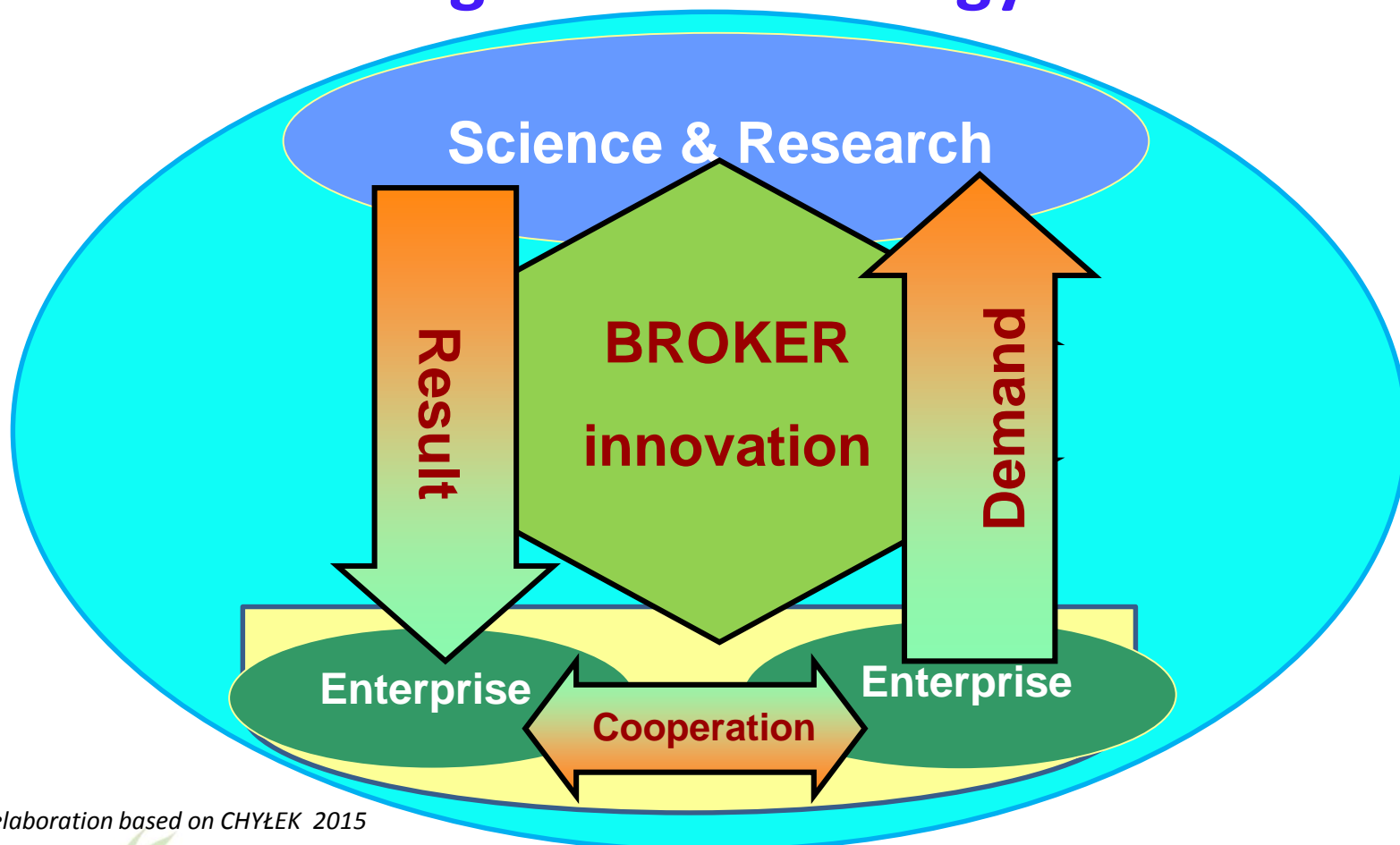
Factors determining the bioeconomy in action.



Source; Chytek E.K. 2012



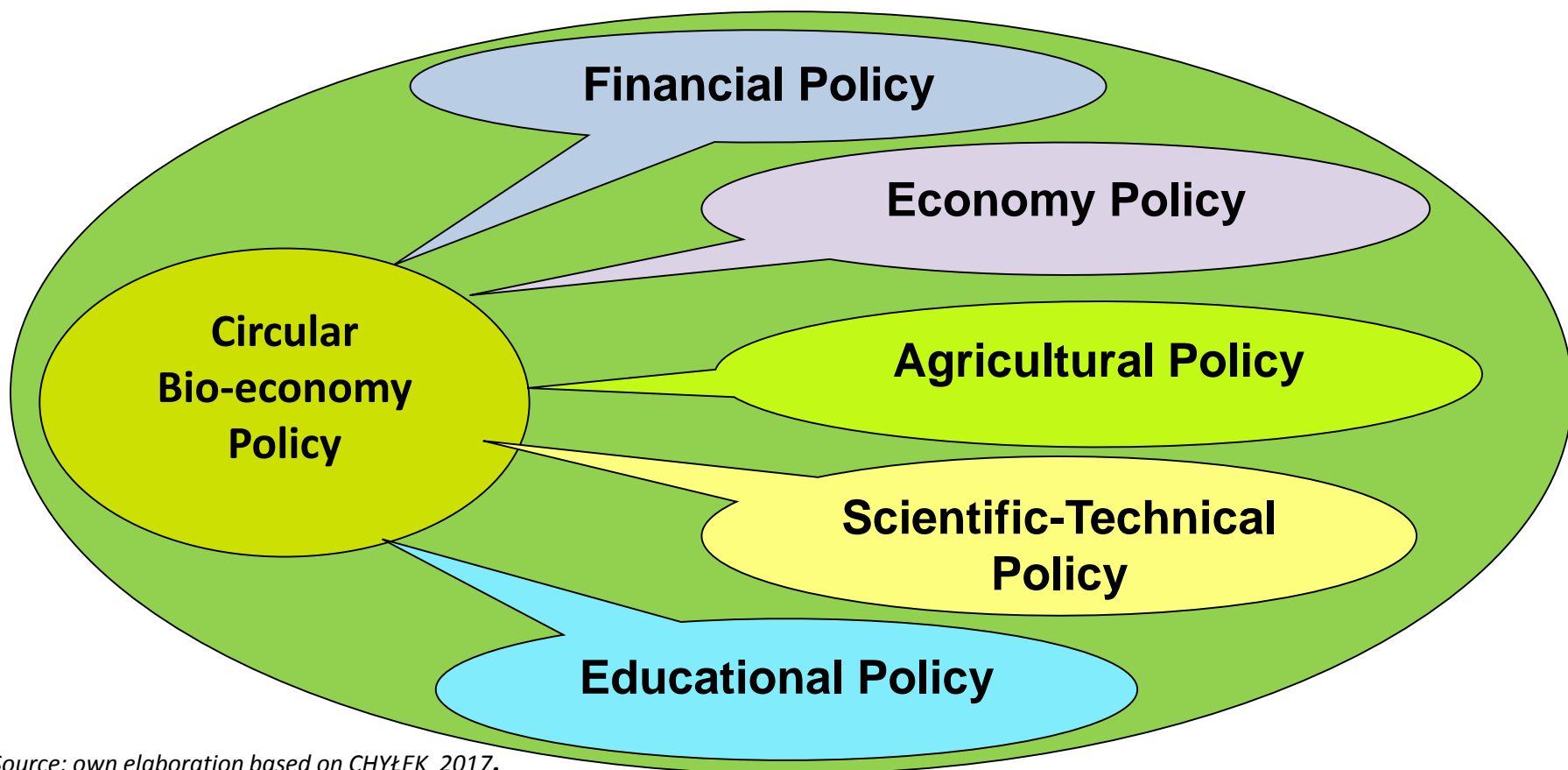
Knowledge and technology transfer



Source; own elaboration based on CHYŁEK 2015



Conditioning of activity of circular bio-economy innovation



Source; own elaboration based on CHYŁEK 2017.



Thank you for your attention

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