



UNIVERSITY OF ICELAND

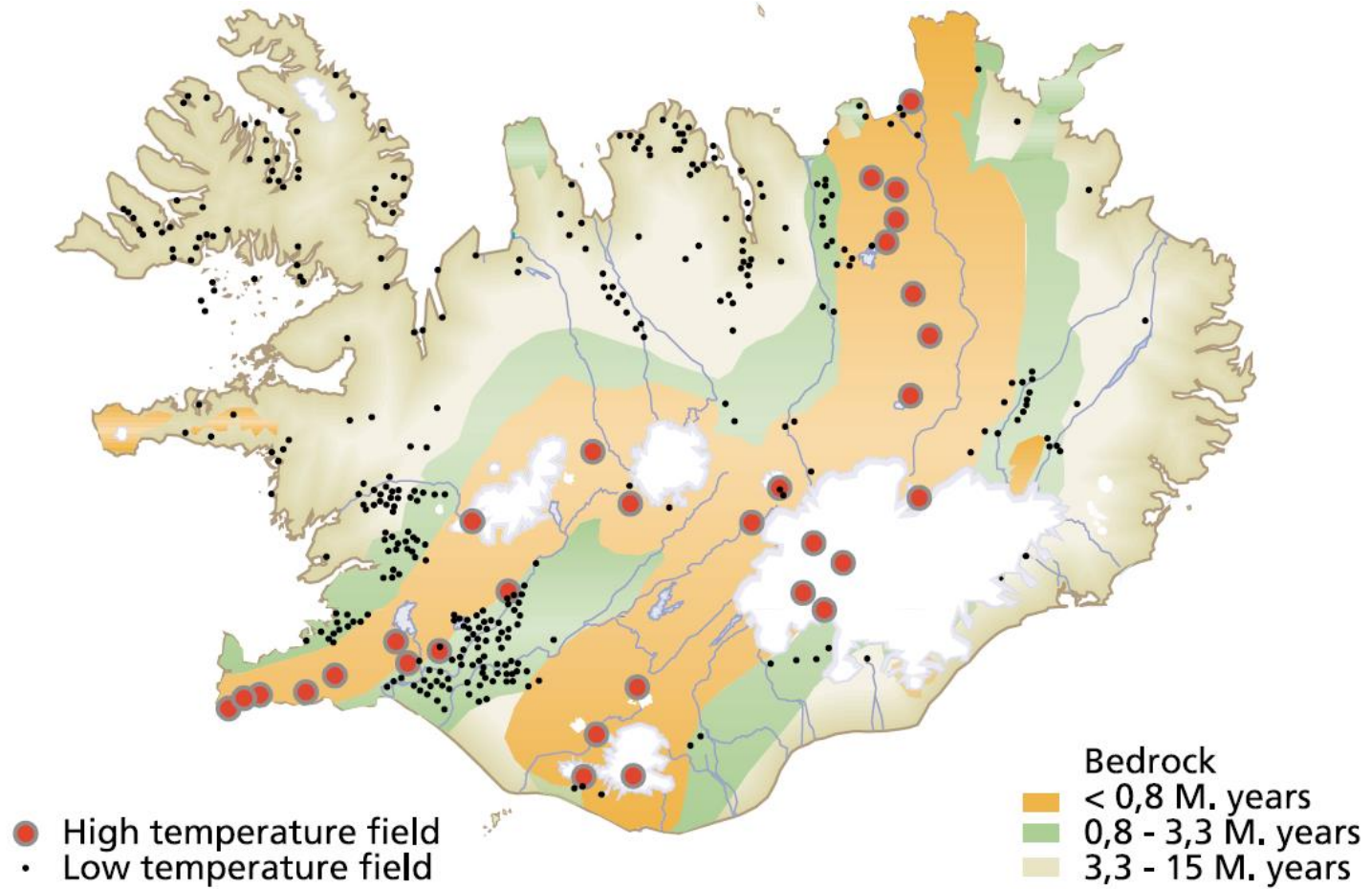
**svinna**  
VERKFRÆÐI EHF

# Aquaponics development in Iceland

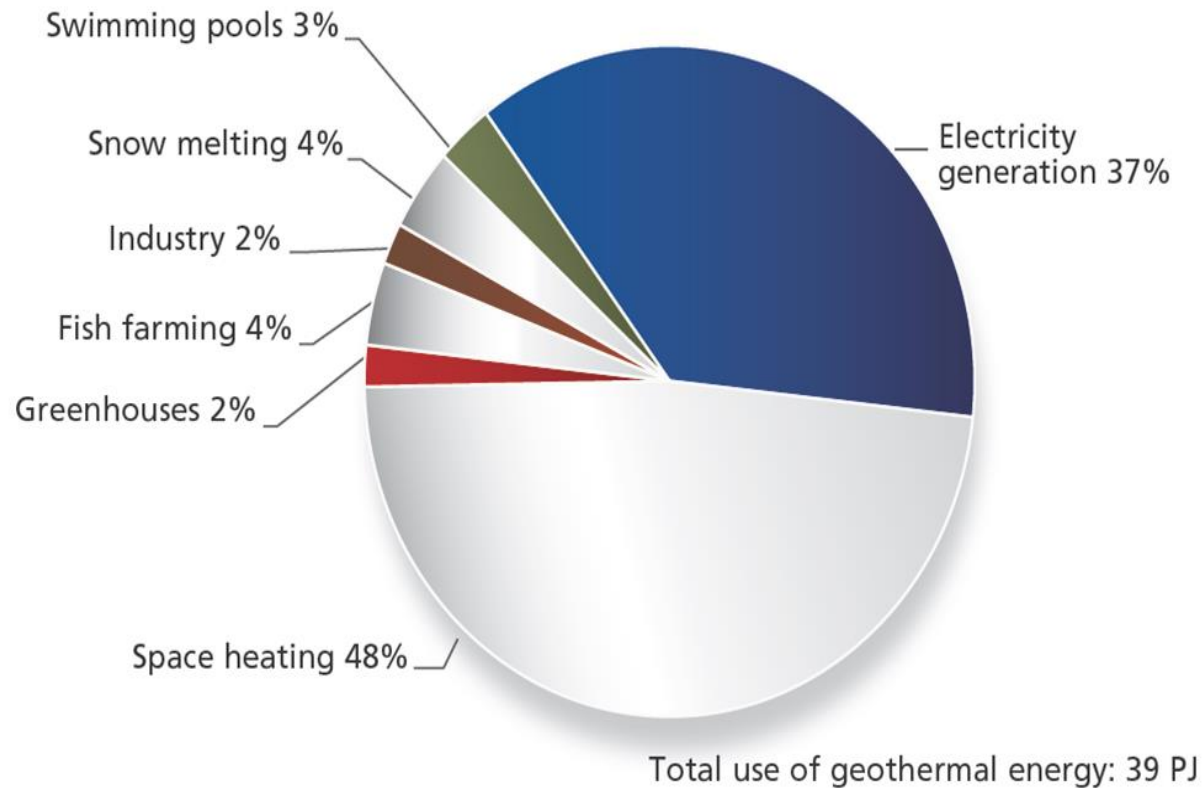
COST Action FA1305  
Aquaponics Research matters  
Ljubljana - March 22nd 2016

Dr. Ragnheidur I. Thorarinsdottir

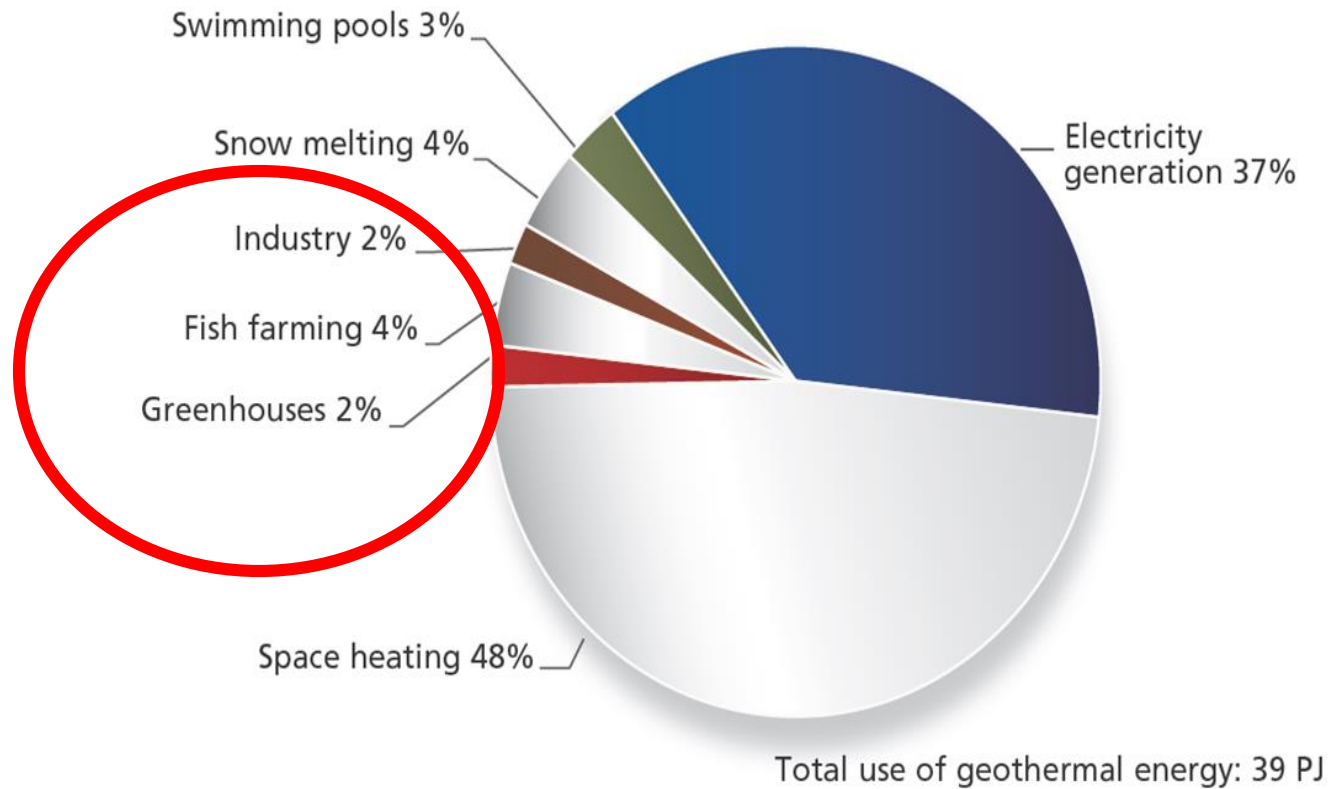
# Geothermal resources



# Direct utilization of geothermal



# Direct utilization of geothermal



# EASME funded project EcoPonics

- Breen in Spain
  - Institute of Global Food and Farming in Denmark
  - Svinna-verkfraedi Ltd
  - University of Iceland
- 
- Develop commercial aquaponics

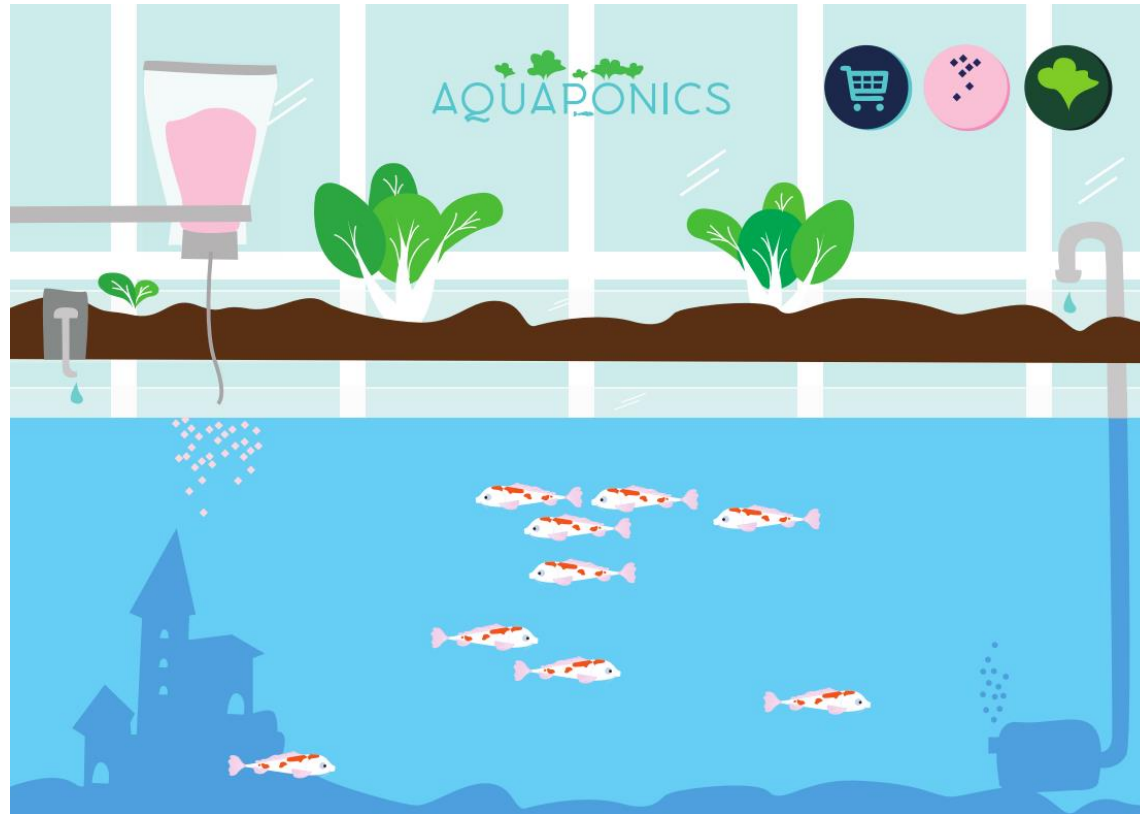


Use of geothermal energy combining greenhouse production, fish farming – and linking additional by-products and services



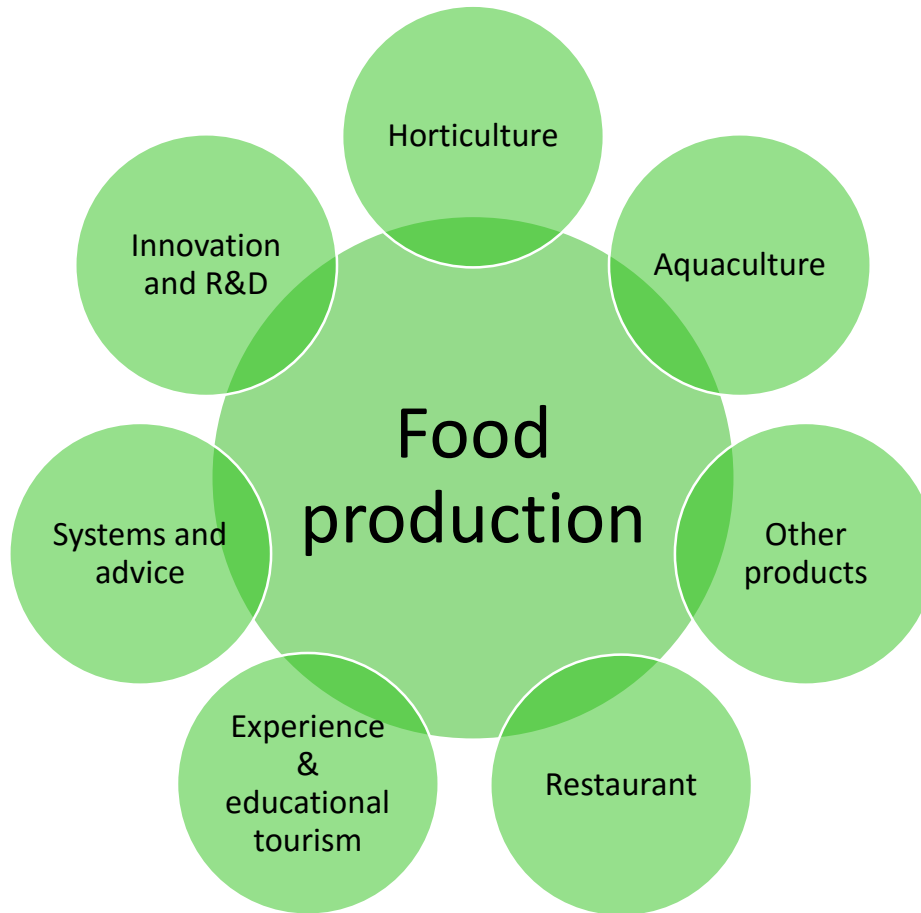
# Production

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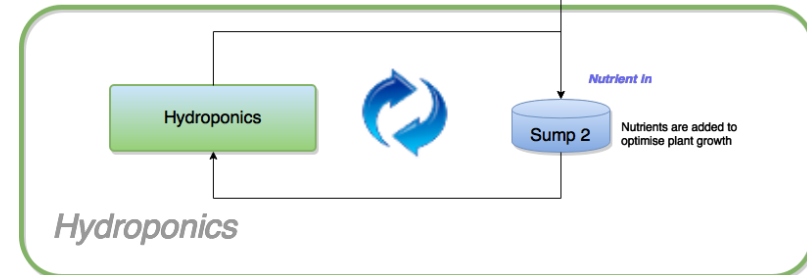
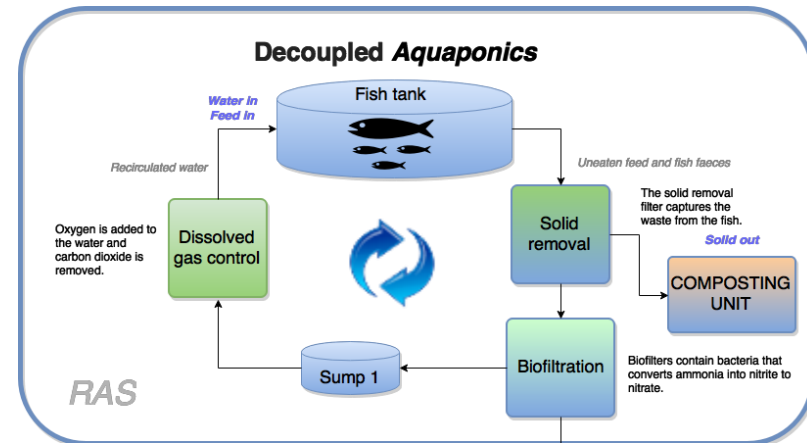
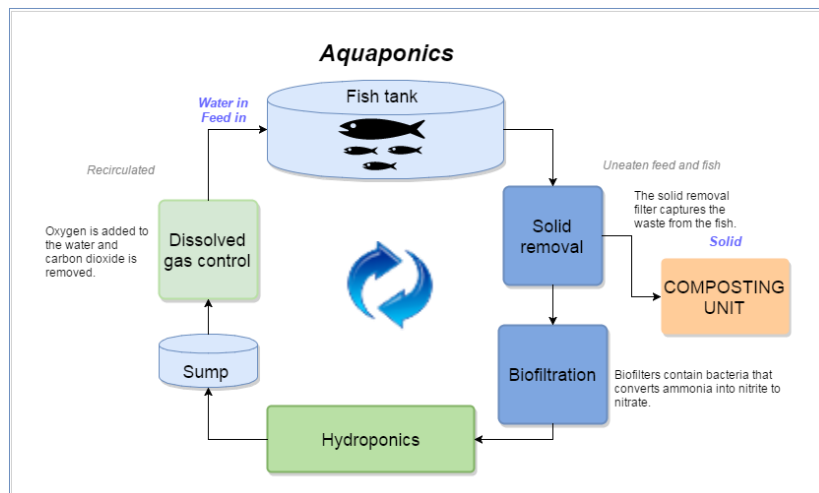
# Aquaponics.is

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# Production moving towards decoupled systems



# Aquaponics.is

- Transforms renewable natural resources into healthy food products
- Turns waste into useful products
- Secures “ZERO WASTE”
- Educates people about circular economy and cradle-to-cradle
- Gives a special experience and taste of nature

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# Story so far

- Pilot farm in Akur South Iceland 2015
- Show case in Iceland Ocean Cluster from 2013
- R&D and tests since 2013
- Market analysis and introduction of novel products
- Team building joining different industries and researchers
- Strong international collaboration EcoPonics, EuroPonics, COST Aquaponics Hub
- Publications receiving global interest
- Seminars and training schools

# Market need

1.3 million tourists in 2015

1.8 million tourists estimated in 2016

Aquaponics.is offers:

- Nature – Sustainable energy - Geothermal
- High quality local food
- Experience and Education

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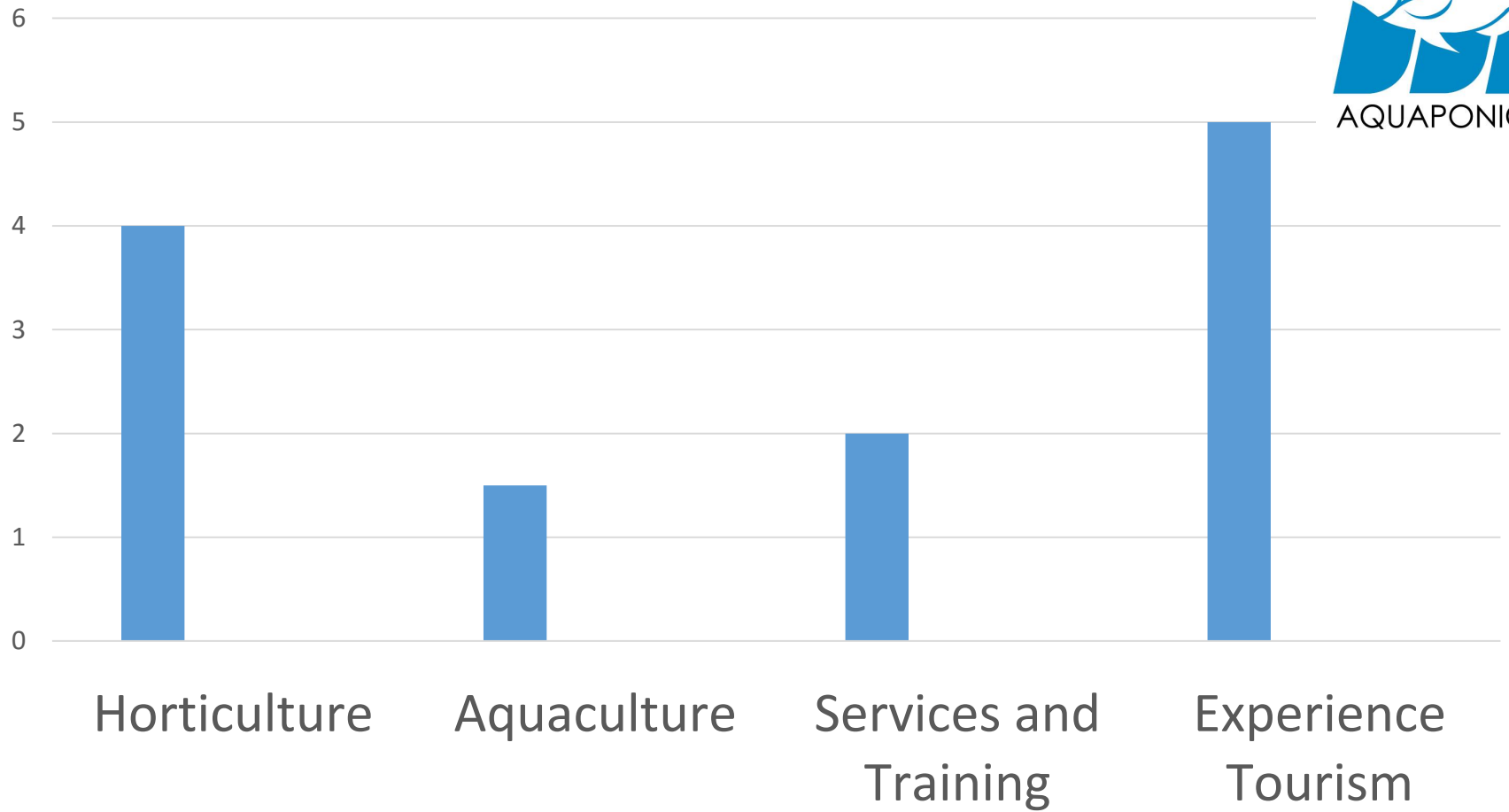
# Next steps

- Start-up company for commercial production
- Multi-disciplinary group including engineers, biologists, horticulturists, environmentalists, designers and business people
- Innovation and Replication
- Collaboration network of aquaponics companies
- Further development of production methods
- Experience tourism
- Education and training

*Ideology based on Circular Economy*



# Income pillars



# Time plan

Establish production / visiting center 2016-2017

Market through tourism channels

- Geothermal
- High quality food
- Experience
- Education

Further innovation towards aquaculture and horticulture

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# Conclusion

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Exciting company joining stakeholders from aquaculture, horticulture, marketing and tourism, design and architecture, innovation and education making use of natural resources in Iceland for novel products and sustainable production methods marketed towards the expanding tourism industry





Co-funded by the Eco-innovation  
Initiative of the European Union