



## **Women in the Icelandic Energy Sector**

GUÐRÚN SÆVARSDÓTTIR

Dean, School of Science and Engineering, Reykjavik University

# Five steps of economic development

1 - Farming

2 – Resource economy

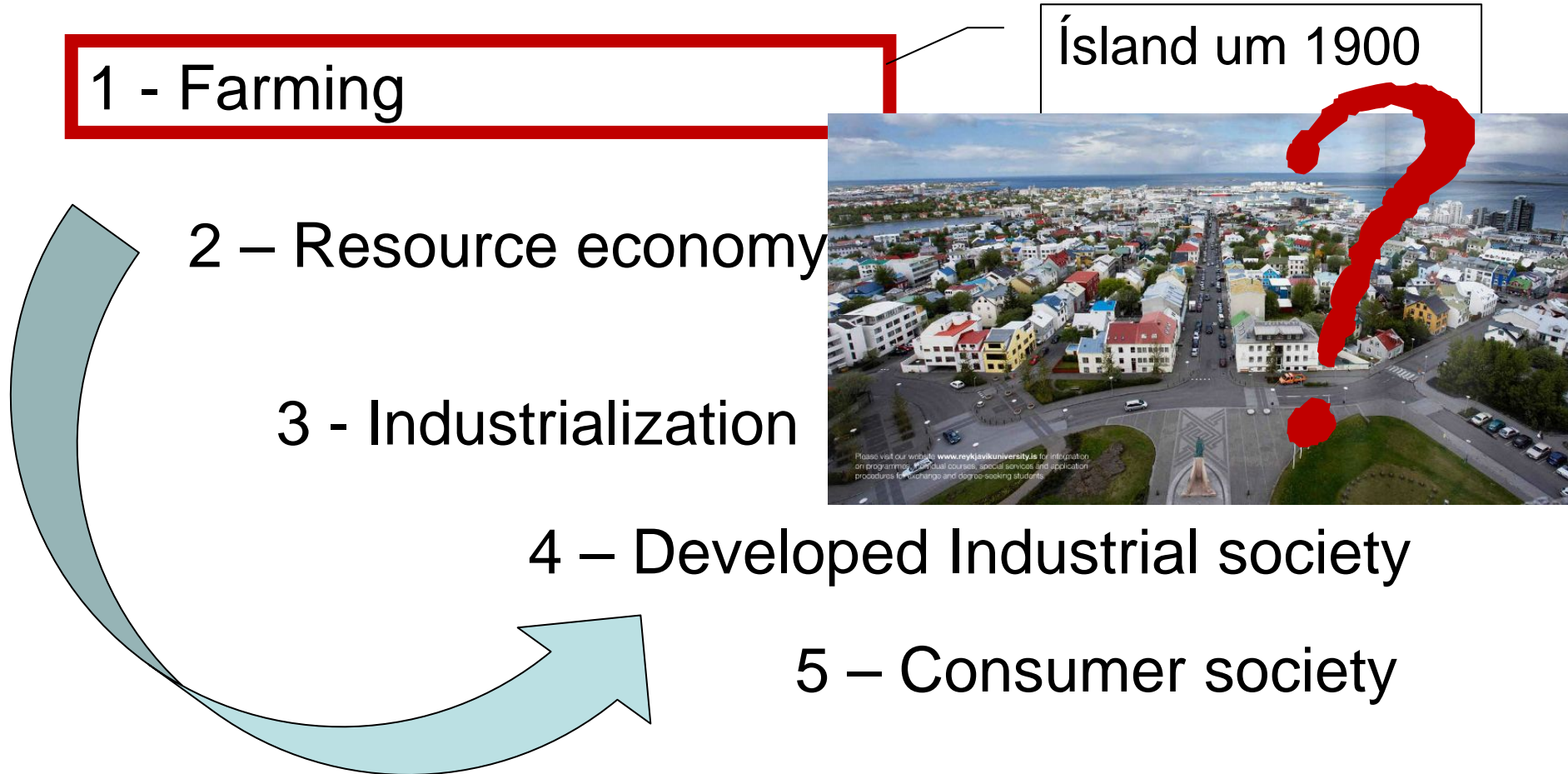
3 - Industrialization

4 – Developed Industrial society

5 – Consumer society

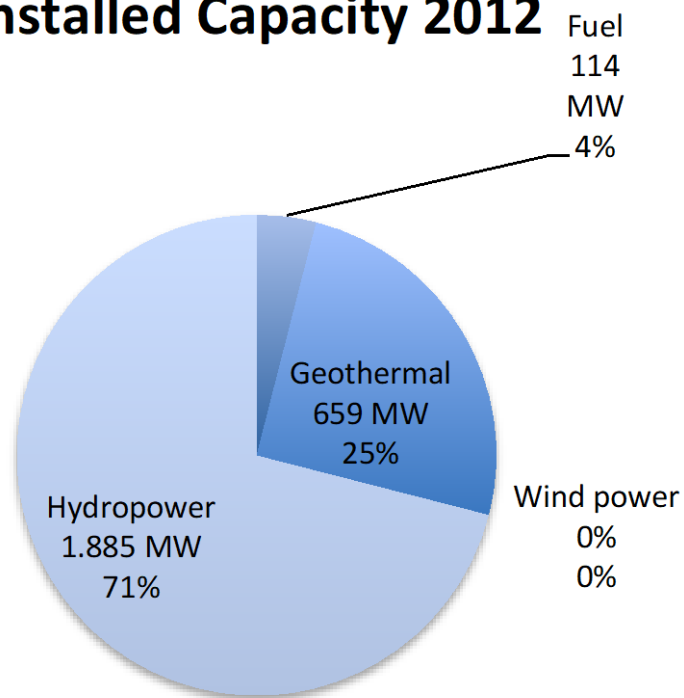


# Five steps of economic development

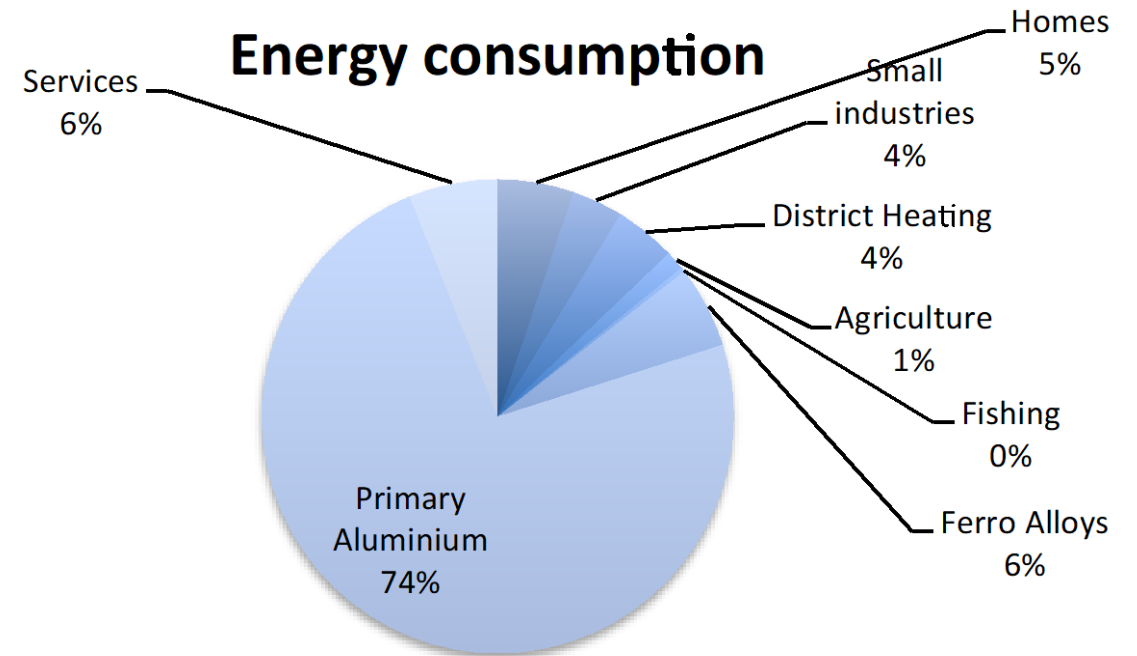


# The Icelandic electric energy mix

## Installed Capacity 2012



## Energy consumption



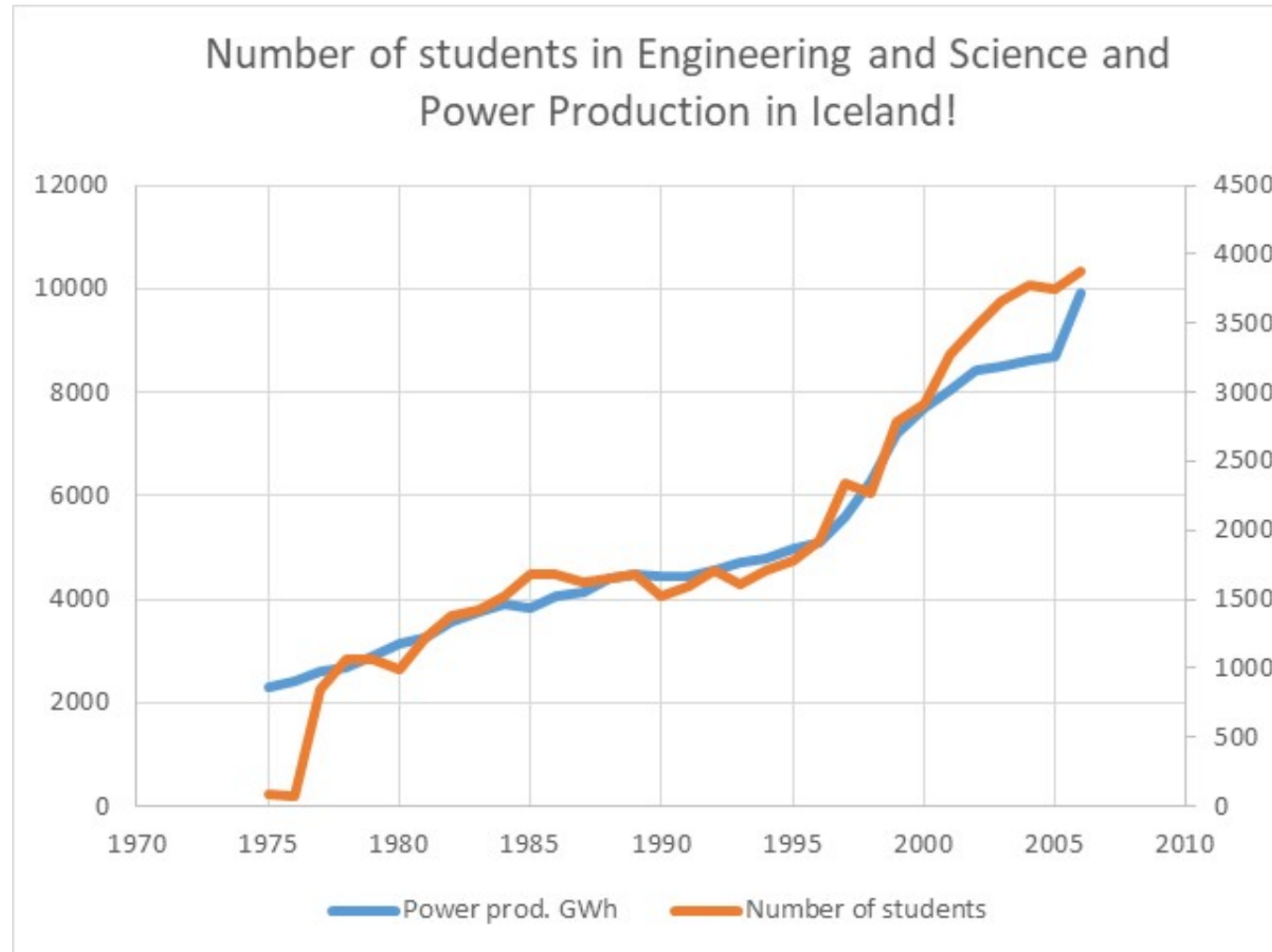
Source: Orkutölur OS

- Distribution and transport utilities
  - District heating
  - Water util.
  - Electric power
  - Wastewater
- Power production
  - Hydro
  - Geothermal

## Icelandic Energy sector?

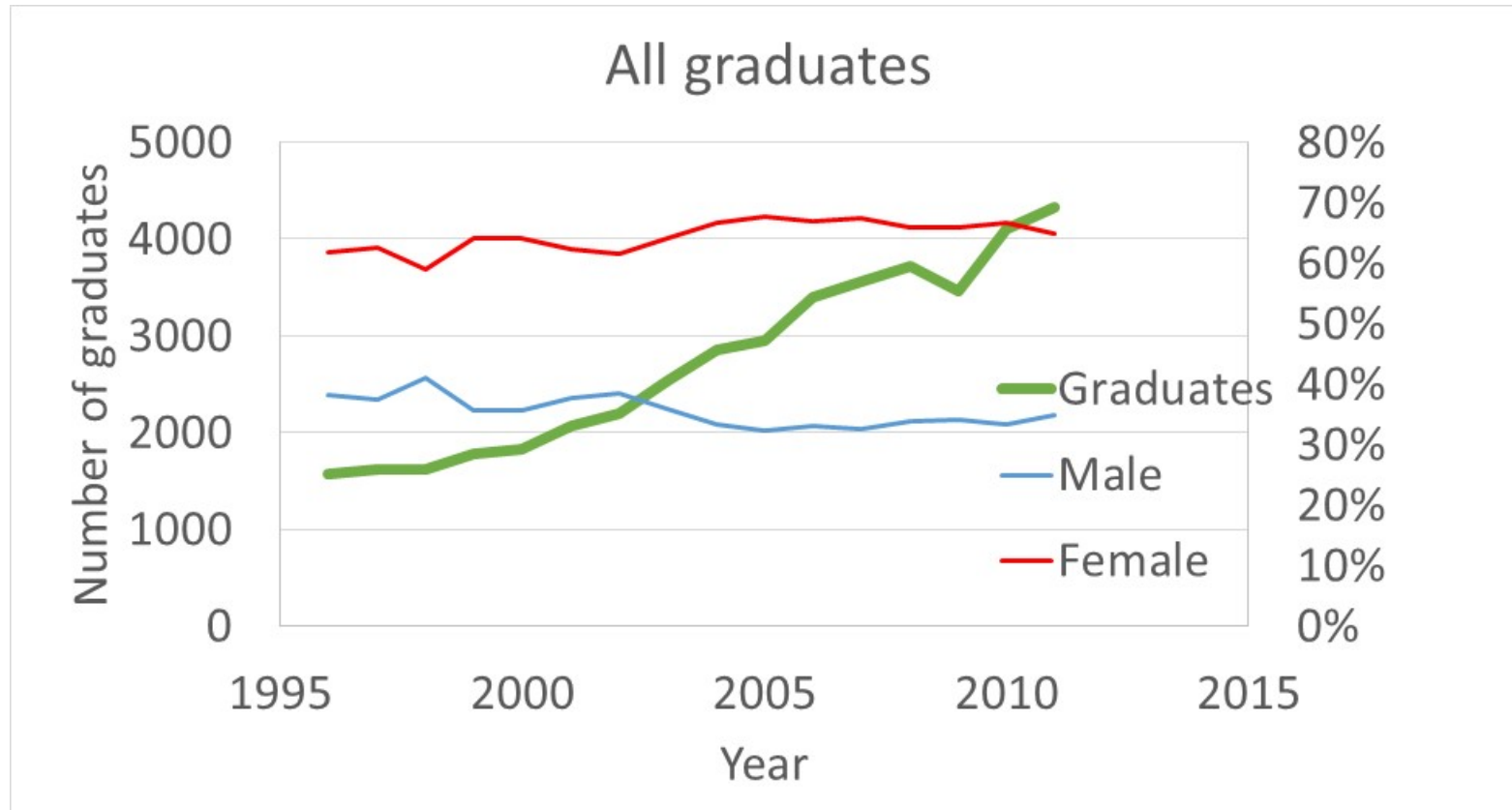
- Utilization
  - Metallurgical
  - Electrochemical
  - Synthetic fuel
  - Greenhouses
  - .....
- Support functions
  - Consultants
  - Research institutes
  - Education

# Power production and education



Women in the nordic energy sector, Stockholm, November 2017  
Heimild: Hagstofan.  
Uppfærð mynd frá Ágústi Valfells 2006

## Graduates pr. Year over time

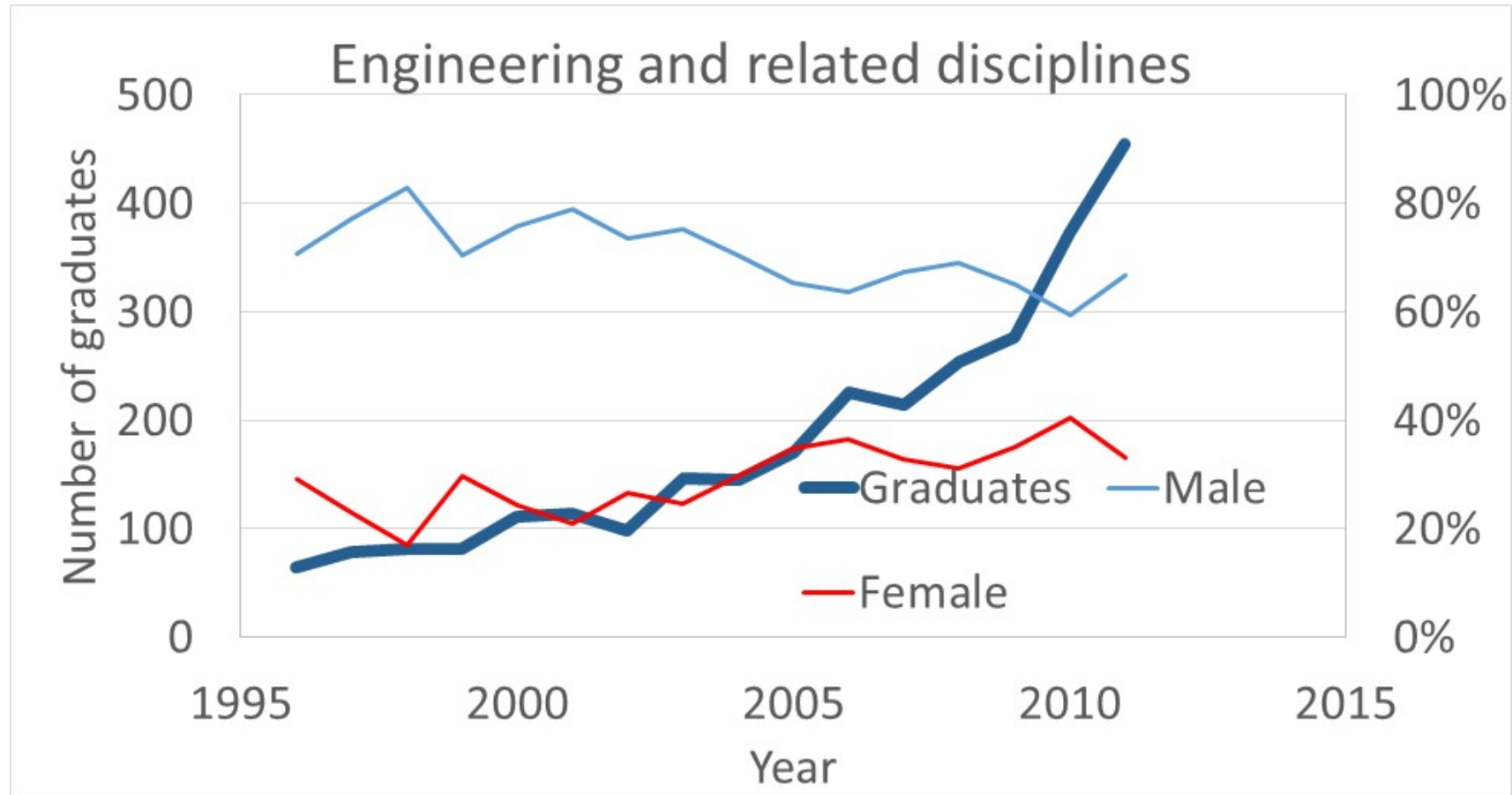


Heimild: Hagstofan.



Women in the nordic energy sector, Stockholm,  
November 2017

## Engineering and technology



Heimild: Hagstofan.

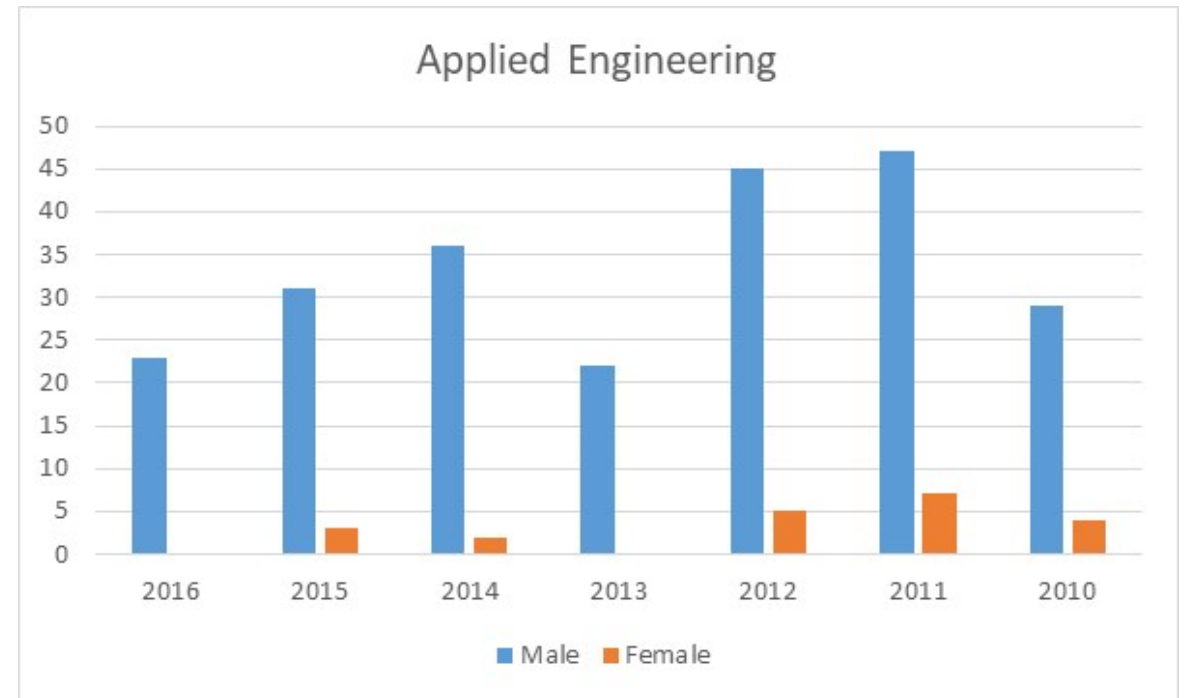


Women in the nordic energy sector, Stockholm,  
November 2017



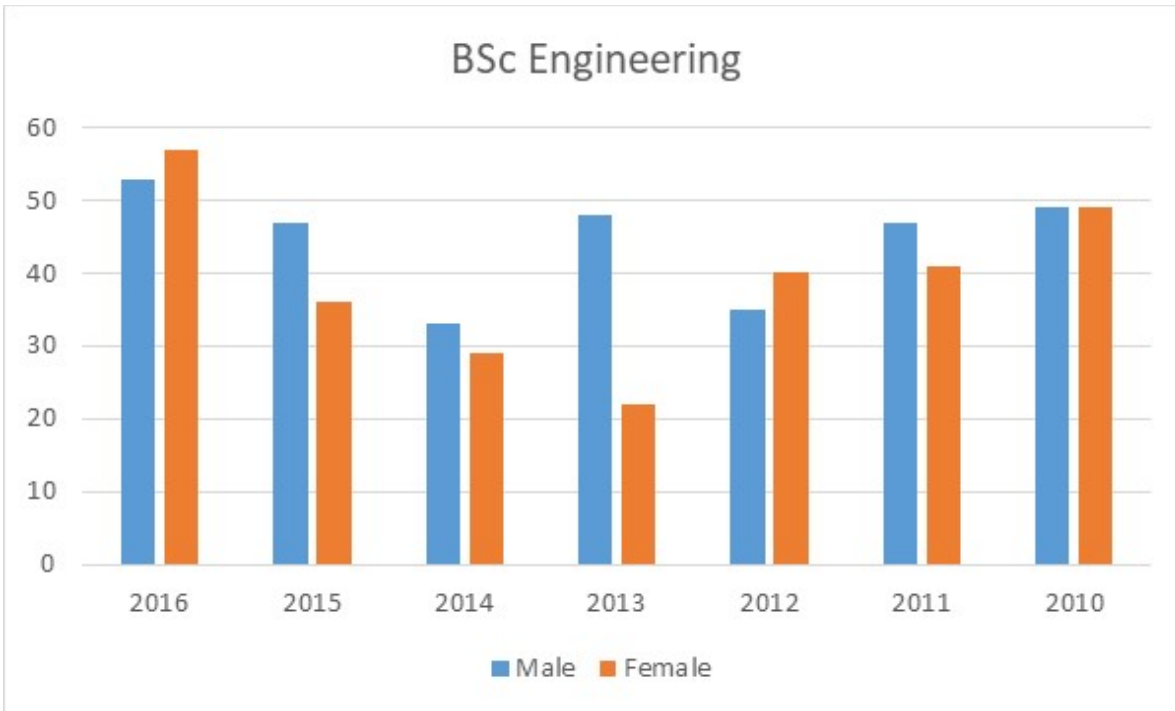
## RU Engineering students

- Large difference btw. Programs.
- Applied engineering attracts very few girls ← few girls in crafts

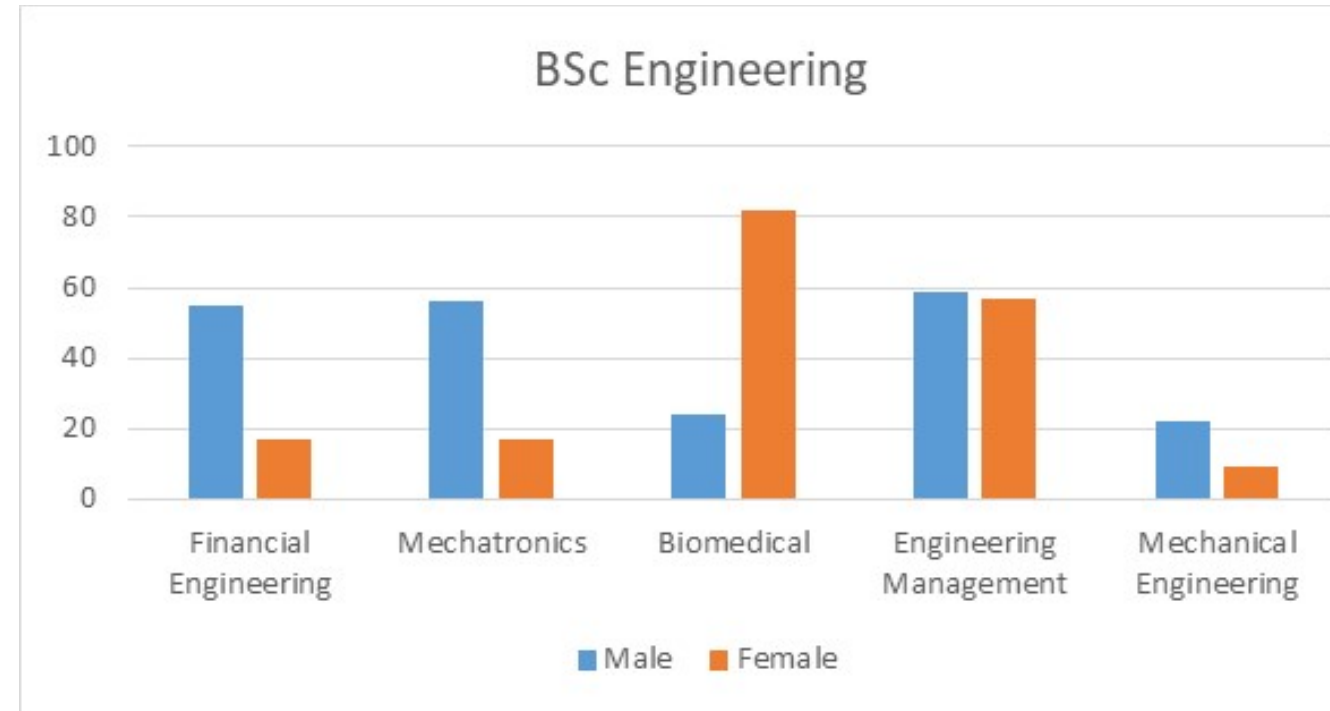


# RU Engineering students – undergraduate

- Graduated students



- Current students

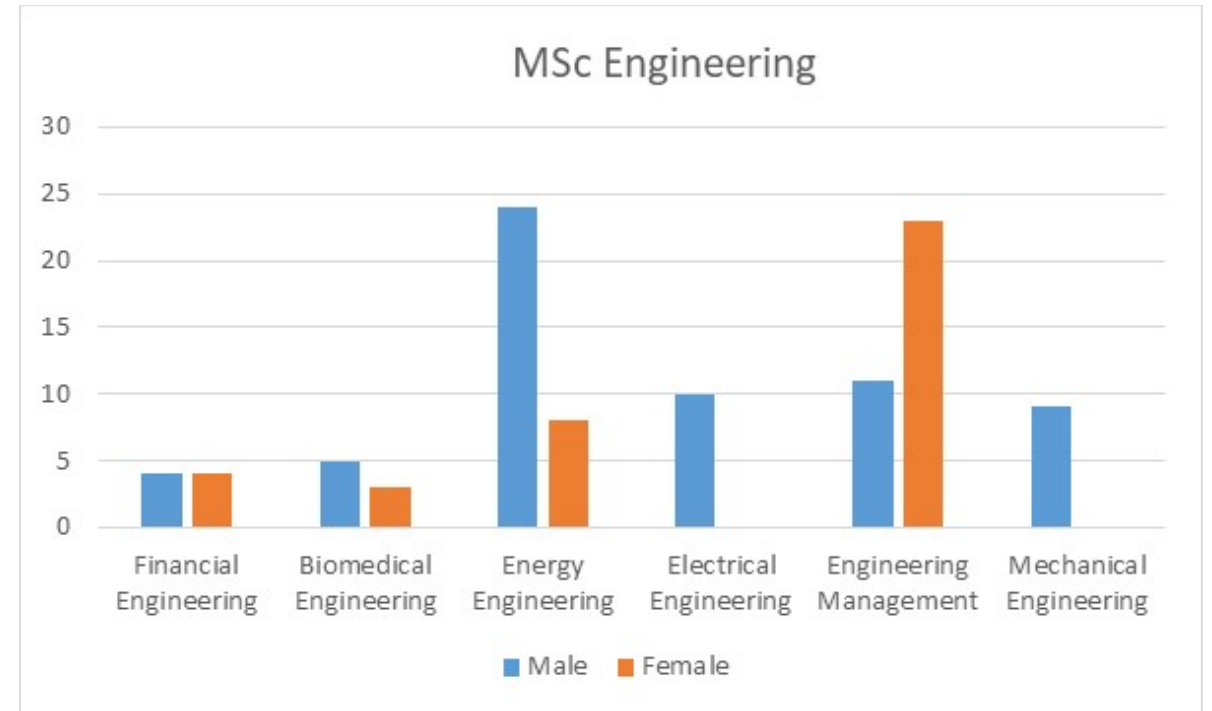


# RU Engineering students – graduate programs

- Graduated students

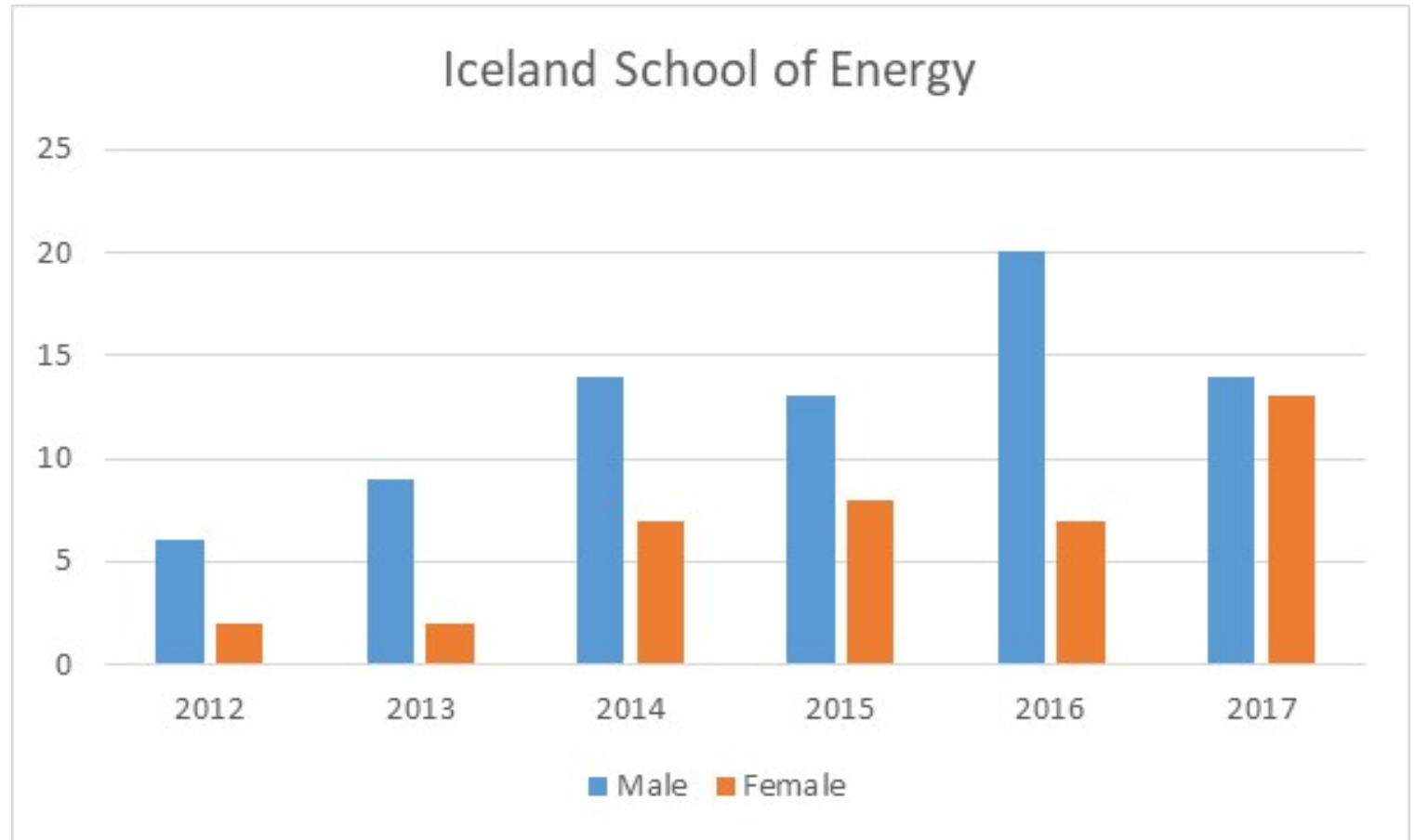


- Current students



## Iceland School of Energy - Reykjavik University

- MSc program in sustainable energy engineering
- Emphasizes the interdisciplinary nature of energy utilization
- Number of graduates by gender

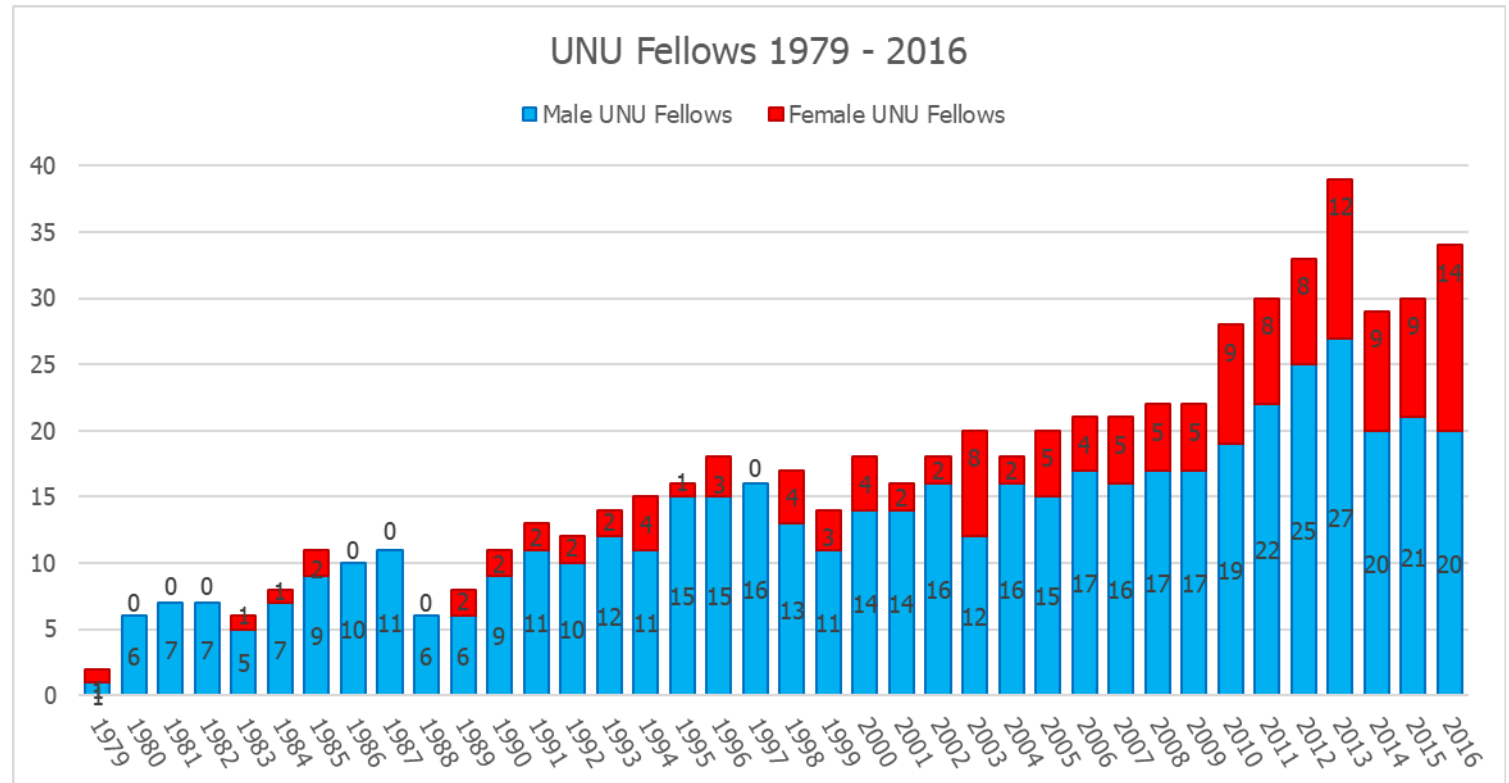


# UNU-geothermal training program

In addition, 56 MSc graduates:

- 8 Female
- 48 Male

2 Phd students,  
both female





# How many?

## - Informal survey 2013

Total in Production,  
transport, distribution,  
consulting and utilization,  
the target companies:

More than 1000, mostly  
Engineering and Applied Eng.  
~3000 Engineers og ~1500 Appl.  
Eng in the workforce [Source VFÍ-  
the engineering association]

Around 25% of engineering  
Professionals work in connection to  
the energy industry



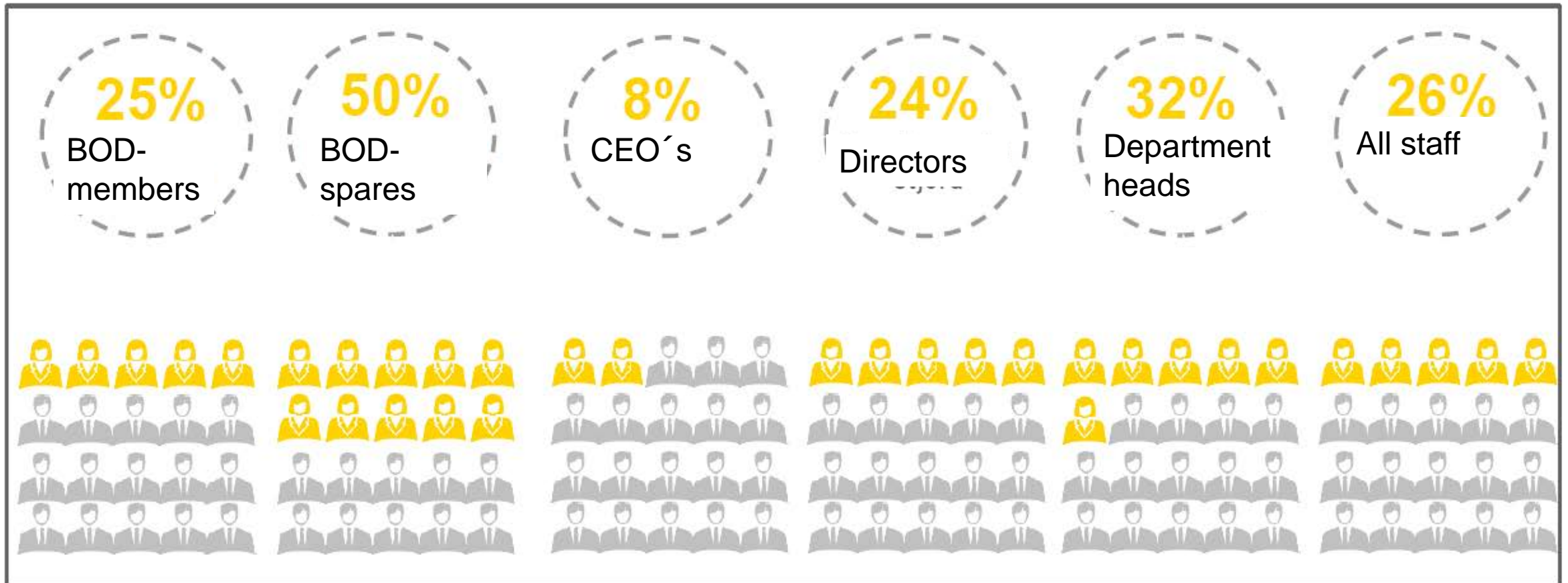
# Power production and transport

## Source:

Konur í orkumálum

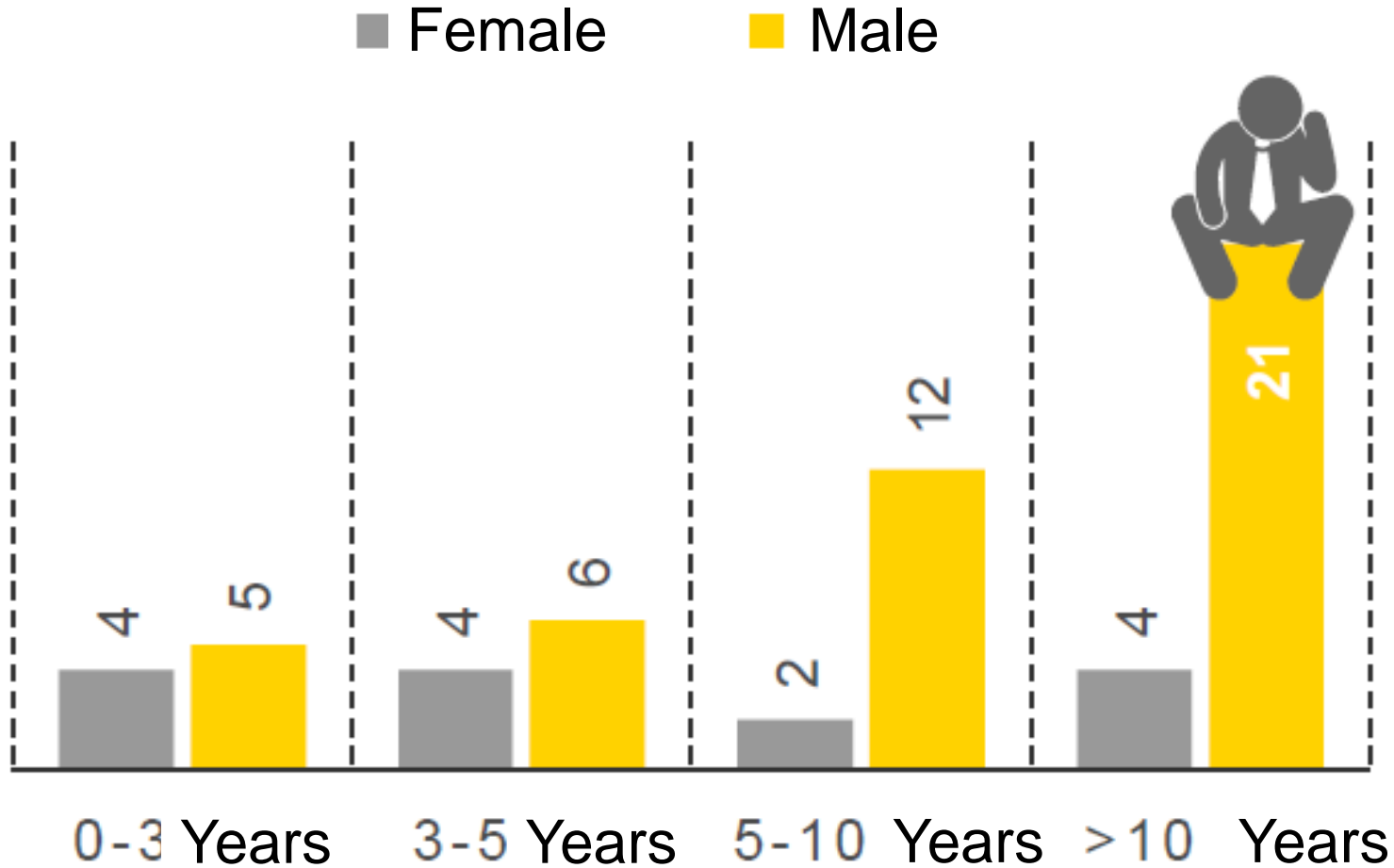
Úttekt á stöðu kvenna í íslenska orkugeiranum

Maí 2017, © 2017 Ernst & Young ehf.



# Directors – years in position...

Source:  
Konur í orkumálum  
Úttekt á stöðu kvenna í íslenska orkugeiran  
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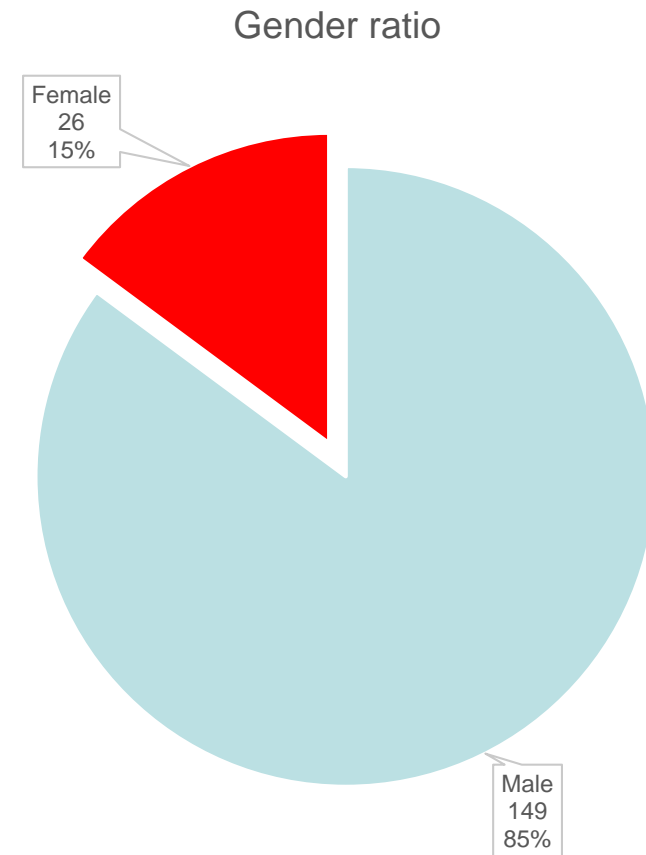




Source:  
Veitur 2017.

## Example: Reykjavik Distribution Utility

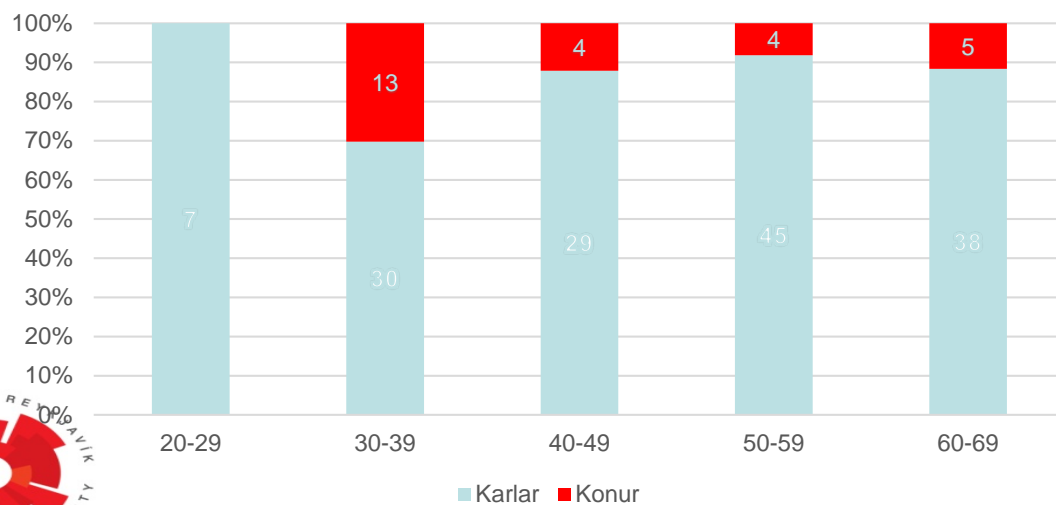
Number of staff	175
Maintenance	100
Operations	23
Technical development	34
Monitoring	16
Support	2



Source:  
Veitur, 2017

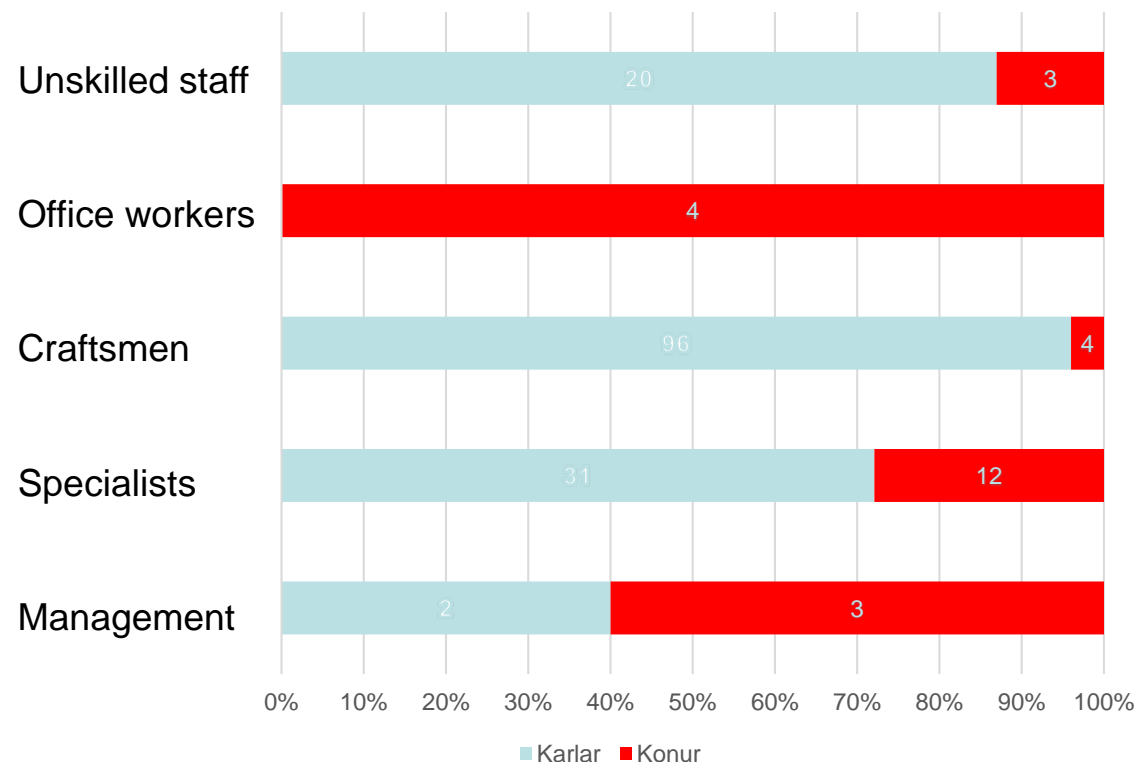
- Gender distribution very different btw. Roles in company
- Craftsmen almost exclusively male
- Men around 70% of specialists
- Office workers exclusively female
- 60% of management female

Age and genders...



## Roles – Reykjavik Distribution Utility

Genders and roles



## To conclude

- Icelandic energy industry an important sector, proportionally larger than in most places
- Around  $\frac{1}{4}$  of all engineering related jobs in Iceland!
- Female portion is growing in management and specialist roles
- Predominantly males in the jobs that require a background in crafts
- Many companies work towards more equal representation
- Legislation helps with BOD ratios







**Thank you for the attention!**

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November 2017