



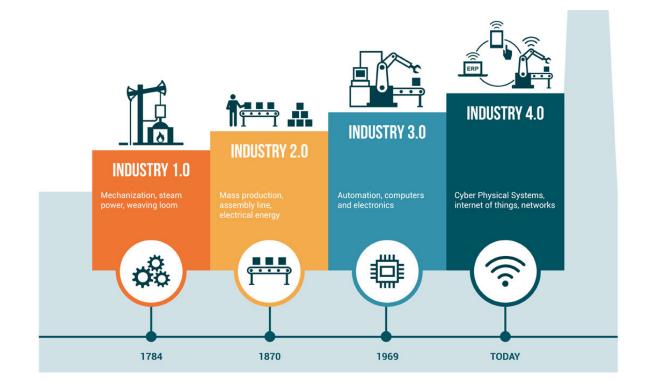


# The economic weight of the projectification -The Projectification Consensus Model (PCM)

Thordur Vikingur Fridgeirsson and Helgi Thor Ingason

### What is projectification?

 Projectification is the amalgam of "project" and "organizational transformation"







#### Andreas Wald – Gross Value Added

- A arranged a method to measure how much projects weight in the economy aka projectification
- Based on the share of project work as part of total work within industrial sectors
- Survey company
  - Initial contact with company
  - Company provided with info
  - Contact with company to retrieve data
  - Data procurement



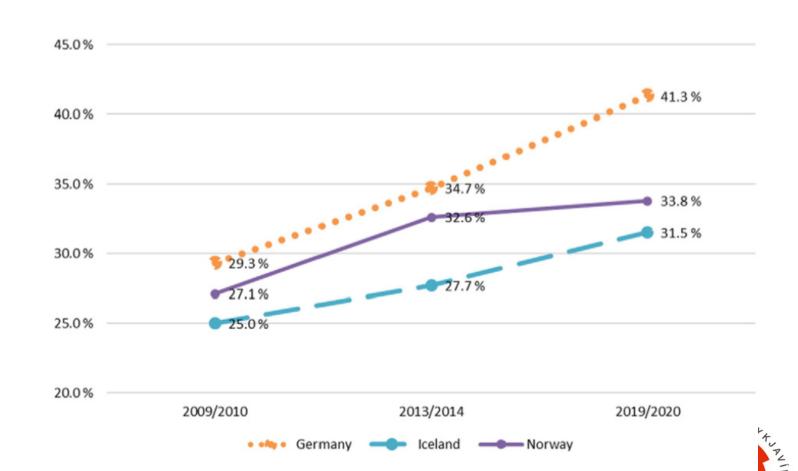


Organization	Sector	Economy				
		NACE	Sector	Share on GVA		
		A	Agriculture, forestry and fishing	0.9 %		
		B-E	Manufacturing industry	26.1 %		
		F	Construction	4.6 %		
		G-I	Retail / transport / hospitality / tourism	15.6 %		
		J	Information and communication	4.7 %		
		K	Financial services & insurance	4.1 %		
		L	Real estate	11.1 %		
		M-N	Corporate service providers	10.7 %		
		0-Q	Public sector, education, health	18.1 %		
		S	Other service providers	4.1 %		
			Total	100.00 %		

NACE CODES	Description
А	Agriculture, Forestry and Fishing
B , C, D, E	Manufacturing, Electricity, Gas, Steam, Water Supply; Sewerage, Waste
F	Construction
G, H, I	Retail, Transportation, Storage, Accommodation and Food Service
J	Information and Communication
K	Financial and Insurance/
L, M, N	Real Estate Activities, Professional, Scientific and Technical Activities
O, P, Q	Public Administration, Human Health and Social Work Activities
R, S, T, U	Other service providers

#### Projectification in three developed countries

- Projectification can be considered as an important economic metric contributing to various managerial fields
  - Schoper, Y. G., Wald, A., Ingason, H. T., & Fridgeirsson, T. V. (2018). Projectification in Western economies: A comparative study of Germany, Norway and Iceland. International Journal of Project Management, 36(1), 71-82.





#### Lessons learned

- Few drawbacks of using survey company's
  - Expensive
  - Third party
  - Increasingly difficult to make contact (let alone three times)
  - Difficult for scaling (e.g. including other economies)
  - Etc.
- Projectification Consensus Model (PCM)
  - The estimates based on expert panel
  - The method vested in the domain of decison analysis
    - Consensus methods





## PCM assumptions, criteria's and objectives

- Allows cross industrial group of experts to develop and suggest estimates based on a specific framework
- Andreas Wald original method but questions simplified
- Self rating of knowledge and normalized weighted averages
- To be cost effective, easy to replicate and easy to gain statistics





#### The PCM procedure

- 1. Kick off (online) conference
- 2. Analysis documents delivered to the panel
  - via e-mail
- 3. Individual assessment on the share of project work
  - Analysis documents delivered to the researchers
- 4. Estimates from the experts stored in a database
  - Primary results
- 5. Consensus conference to discuss the primary results
  - Workshop
- 6. Consensus on projectification documented





#### **ASSESSMENT**





#### The PCM spreadsheet (partly) and info

Agriculture, Forestry and Fishing							
Expert	John						
Industry knowledge self rating	Moderate						
Weight		0,20					
Relative weight		0,33					
The share of project work (in %) in the entire industry sector	30%	35%					
The share of project work (in %) in companies 10-69 employees:	2021	2024					
Internal: Organizational and Human Resourses (%)	10%	11%					
Internal: Information technology (%)	6%	7%					
Internal: Research & Development (%)	40%	45%					
Internal: Marketing and sales (%)	22%	19%					
Internal: Infrastructure (%)	7%	5%					
External: Work for paying customers (%)	15%	13%					
This should add up to 100%	100%	100%					
The ratio of above projects that uses Agile/Scrum methods (%)	20%	25%					
The share of project work (in %) in companies > 69 employees:	2021	2024					
Internal: Organizational and Human Resourses (%)	0%	2%					
Internal: Information technology (%)	15%	15%					
Internal: Research & Development (%)	65%	63%					
Internal: Marketing and sales (%)	5%	5%					
Internal: Infrastructure (%)	10%	11%					
External: Work for paying customers (%)	5%	4%					
This should add up to 100%	100%	100%					
The ratio of above projects that uses Agile/Scrum methods (%)	15%	18%					

- The projectification for the individual NACE sectors
- The projectification of for small and medium size companies compared to large companies
- The share of Agile projects
- The knowledge gap on projectification from industry to industry
- The deviation and consistency between experts
- An estimate on the monetary value incurred



#### Pilot-testing the PCM – lessons learned

Three experts tested the PCM and the guidelines

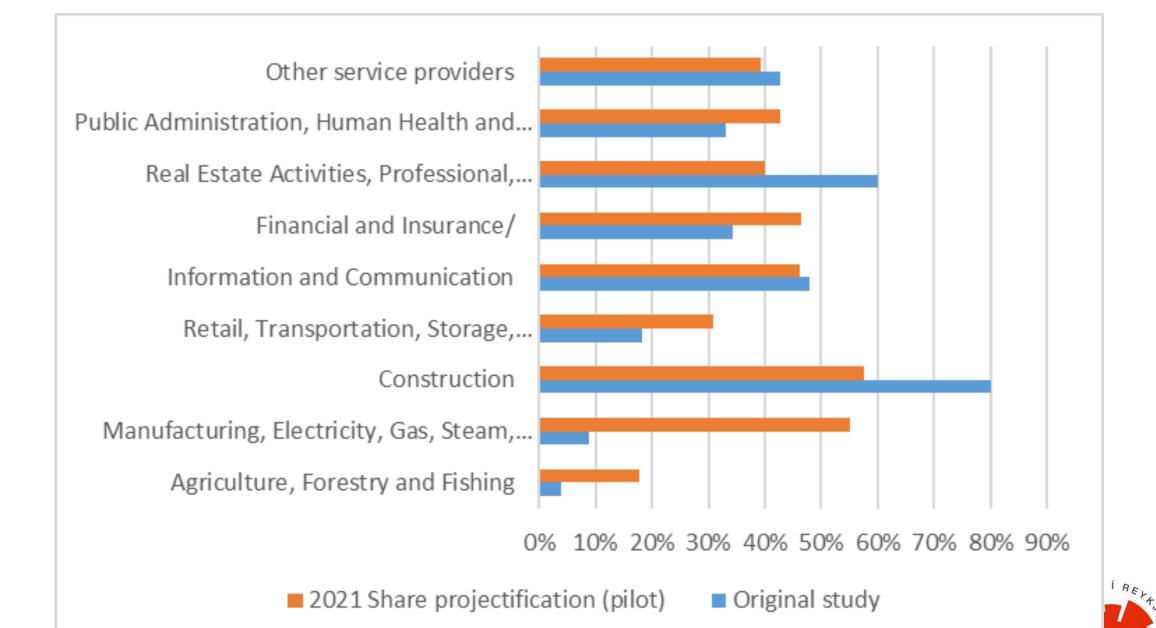
				Internal			External			
NACE CODES	GVA/sector (m ISK)	2021 Share projectifica tion (pilot)	nrojectifica	Organi-	ΙΤ	R&D/Devel opement	Marketing/ Sales	Infra- structure	Billable	Judgment Variation (SD)
Α	147.023	20%	24%	5%	11%	53%	14%	9%	10%	20%
B , C, D, E	1.164.765	55%	59%	4%	13%	53%	12%	13%	7%	9%
F	228.454	58%	60%	5%	12%	13%	21%	20%	30%	25%
G, H, I	1.290.704	31%	51%	8%	23%	5%	28%	23%	15%	18%
J	303.266	46%	52%	14%	21%	15%	19%	19%	13%	36%
K	367.171	46%	45%	23%	13%	15%	15%	18%	18%	28%
L, M, N	963.371	40%	44%	9%	15%	38%	10%	17%	10%	13%
O, P, Q	1.307.133	43%	44%	38%	20%	15%	5%	10%	13%	37%
R, S, T, U	319.478	39%	46%	10%	15%	15%	40%	5%	15%	23%



- The share of total work that can be trailed to projects in 2021 is 42%.
  - The share of work that can be trailed to projects in 2024 will be 47%.
- The monetary value of project work 2021 is 260 billion ISK.
- The knowledge gaps (judgment variations measured in standard deviations), indicating further exploration, are the industry sectors including IT and Manufacturing.
- R&D is the most projectified internal function.
- HR is the least projectified internal function.
- IT projects are the most capital intensive.
- Marketing and sales project are the least capital intensive.
- Agile/Scrum techniques are approx. 20% of the projects.
  - Disclaimer: The estimates are experimental data









#### Next steps

- A full expert panel to measure the Icelandic projectification
- Replicating the study in Italy
- Publishing the method and making it accessible





# Thank you@

DeGroot, M. H. (1974). Reaching a consensus. Journal of the American Statistical association, 69(345), 118-121.

Ferrell, W. R. (1985). Combining individual judgments. In Behavioural decision making (111-145). Springer, Boston, MA.

Goodwin, P., & Wright, G. (2014). Decision analysis for management judgment. John Wiley & Sons.

Hagstofan (2022).

https://www.hagstofa.is/talnaefni/efnahagur/thjodhagsreikningar/framleidsluuppgjor/. Retrieved 06.10.22.

Henning, C. H., & Wald, A. (2019). Toward a wiser projectification: Macroeconomic effects of firm-level project work. International Journal of Project Management, 37(6), 807-819.

Ingason, H. T., Fridgeirsson, T. V., & Jonasson, H. I. (2019). Projectification in Iceland measured—a comparison of two methods. International Journal of Managing Projects in Business.

Marnewick, C., & Bekker, G. (2022). Projectification within a developing country: The case of South Africa. Journal of Contemporary Management, 19(1), 362-380.

McKenna H.P. (1994) The Delphi technique: a worthwhile approach for nursing? Journal of Advanced Nursing 19, p. 1221-1225.

Midler, C. (2019). Projectification: the forgotten variable in the internationalization of firms' innovation processes?. International Journal of Managing Projects in Business.

Phillips, L. D. (1984). A theory of requisite decision models. Acta psychologica, 56(1-3), 29-48.

Phillips, L. D. (1989) Decision Analysis in the 1990's, in A. Shahini and R. Stainton (eds) Tutorial Papers in Operational Research (1989), Operational Research Society, Birmingham.

Polit D.F. & Hungler B.P. (1997) Essentials of Nursing Research: Methods, Appraisal and Utilisation. Lippincott, New York.

Schoper, Y. G., Wald, A., Ingason, H. T., & Fridgeirsson, T. V. (2018). Projectification in Western economies: A comparative study of Germany, Norway and Iceland. International Journal of Project Management, 36(1), 71-82.

Waggoner, J., Carline, J. D., & Durning, S. J. (2016). Is there a consensus on consensus methodology? Descriptions and recommendations for future consensus research. Academic Medicine, 91(5), 663-668.

Wald, A., Schneider, C., Spanuth, T., & Schoper, Y. (2015). Towards a measurement of "projectification": A study on the share of project-work in the German economy. Advanced project management: Flexibility and innovative capacity, 4, 18-36.



