

Agile Research and Development

J. Farkas¹

¹ *Halkeon Development, Hofackerstr. 16, CH-8953 Dietikon, Switzerland*

If you have ever felt that

- research projects are always late and out-of-budget,
- you are constrained to a narrow field of study,
- you are surrounded by lazy colleagues/employees/students,
- your boss doesn't care about what you are doing let alone understanding it,
- you are not anymore motivated to go to work,
- it's hard to recruit talented people,
- the new generation is not interested in science and technology,

then this presentation is for you. The way the world works is broken [1]. This is especially true when we consider research and development, where employees are highly educated knowledge workers. Putting such people into hierarchical organizations, managing them with command and control or letting them work secluded raise several problems and reduces our society's ability to innovate.

As the significance of science and technology has reached unprecedented heights, the survival of companies and government institutes depend on how fast and cost-effective can they churn out new technologies, research results, products and upgrades. This made modern R&D management a hot topic recently [2]. The solutions are well known since long [3], but due to their counter-intuitive nature, organizations struggle implementing them.

In this talk I summarize the major problems with working in fundamental research and in industrial R&D, and give a short introduction to how agile organizations handle these problems.

[1] J. Sutherland, *Scrum: The Art of Doing Twice the Work in Half the Time*, Random House Business Books, 2015

[2] D. K. Rigby et al., *Agile at Scale*, Harvard Business Review 96/3 (2018) 88

[3] T. DeMarco, T. Lister, *Peopleware*, Addison-Wesley, 1987, 2013