



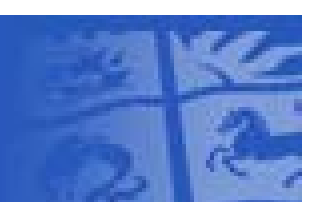
Putting Linus Pauling's dictum into practice:

“The best way to have a good idea
is to have lots of ideas.”

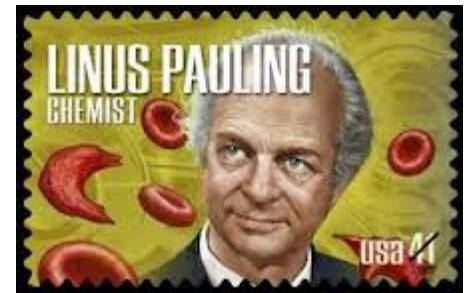
John Kirwan

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Linus Pauling (1901-1994)



- American chemist, biochemist, peace activist, author, and educator.
- One of the founders of the fields of quantum chemistry and molecular biology.
- Awarded the Nobel Prize in Chemistry in 1954 and the Nobel Peace Prize in 1962.
- Only two people have been awarded Nobel Prizes in different fields, the other being Marie Skłodowska-Curie (Physics 1903, Chemistry 1911).



Linus Pauling (1901-1994)



The Pauling Principle:

- The best way to have a good idea is to have a lot of ideas and throw away the bad ones.

This implies at least two things:

- one must be willing to generate many ideas
- one must be willing to generate bad ideas



John's ideas

- Since late 1994 I have made a separate folder in my computer storage for each idea I started on
- I found 186!



John's ideas

- I went back through every folder and discovered
 - The date of the first file entry
 - How much work I did on that idea/project
 - What came out of it



How much work?

- From the number of files stored, and from memory, I estimated this on a 1 to 10 scale
 - 1 – Just an initial proposal or email exchange, no follow up files
 - 10 – Lots and lots of files, emails, notes of meetings, records of draft grant applications, draft papers, hours of soul searching...



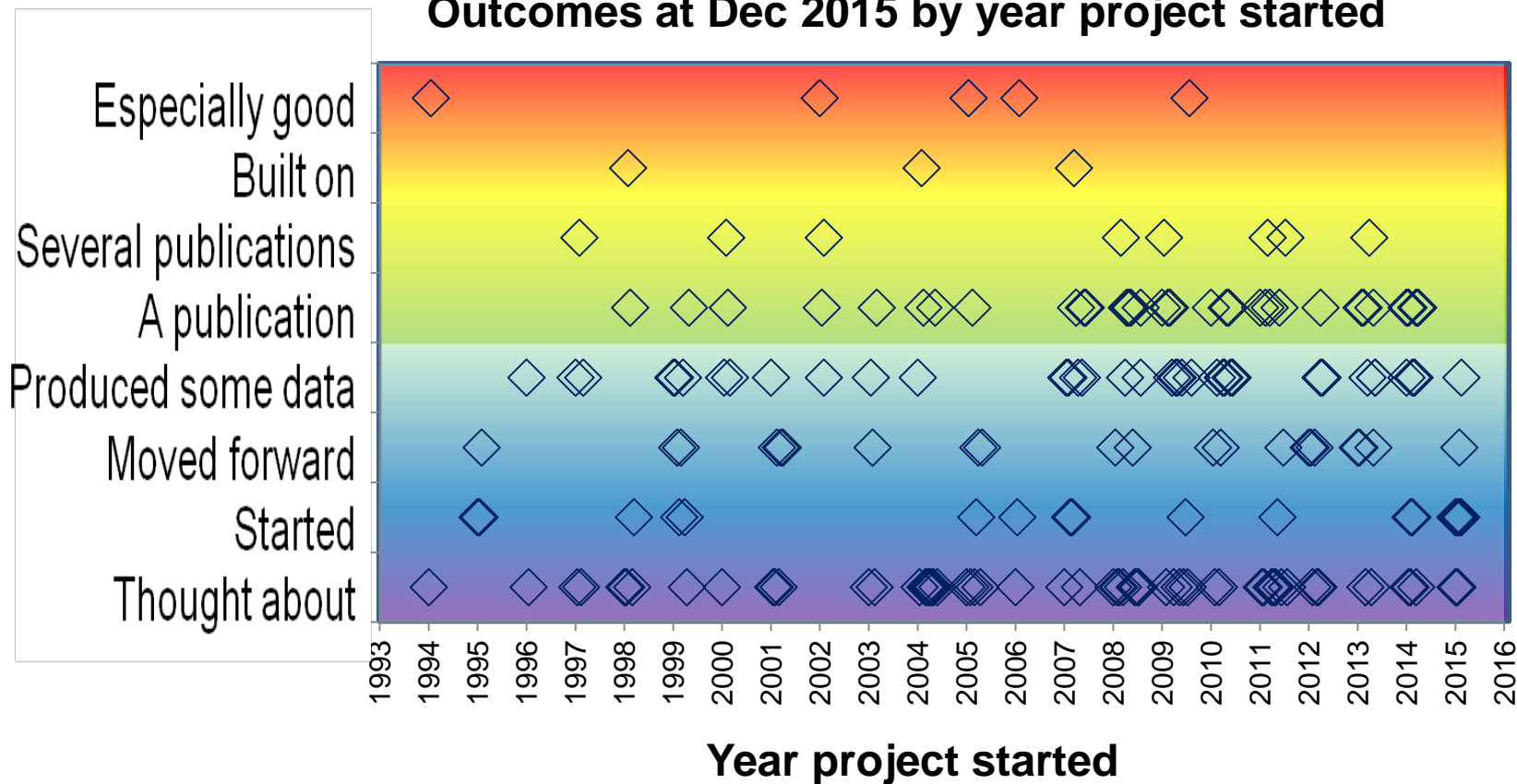
🌟 What came out of it?

- I invented a classification scale:



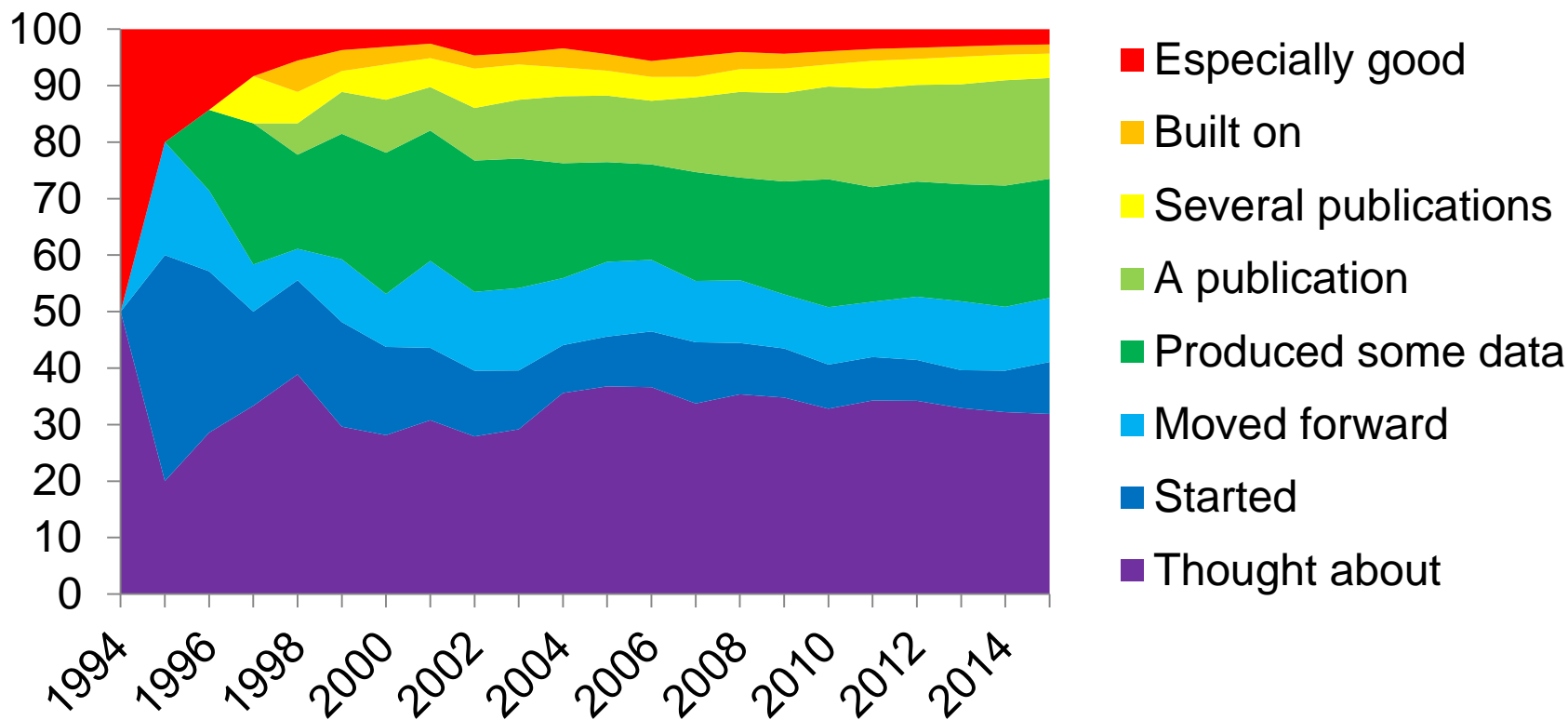
Outcomes (as at Dec 2015)

Outcomes at Dec 2015 by year project started

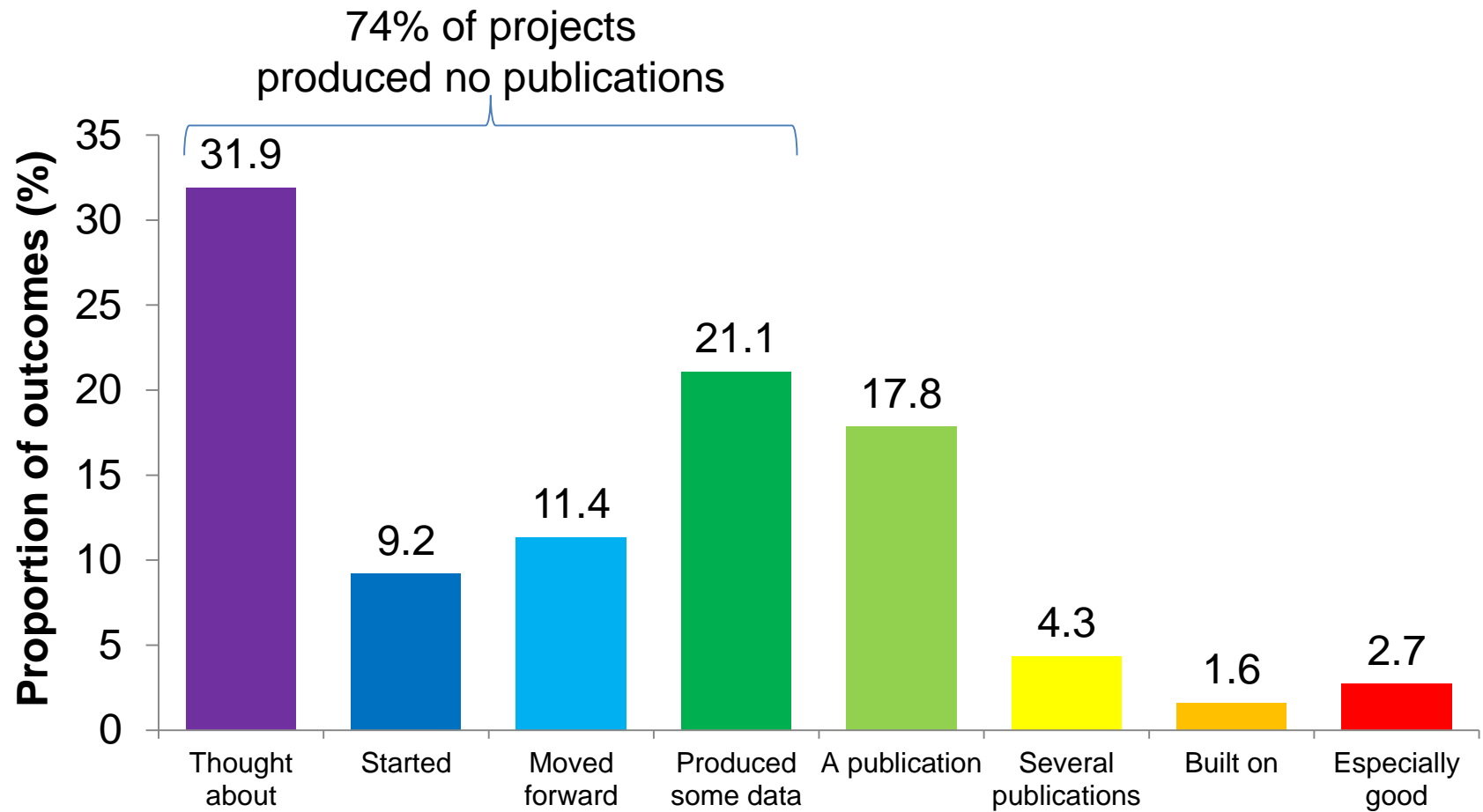


Outcomes (as at Dec 2015)

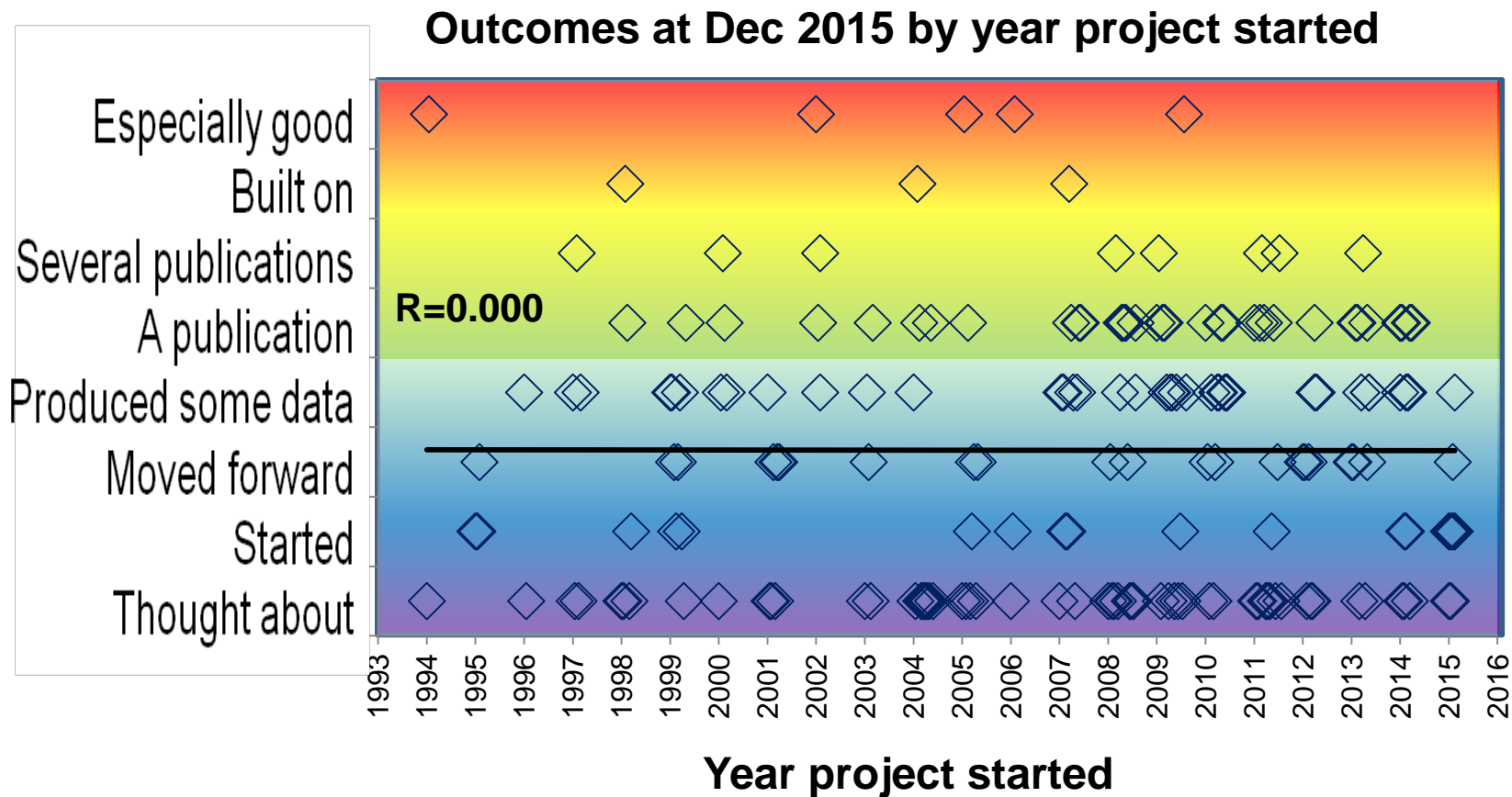
Cumulative proportion of projects (%)



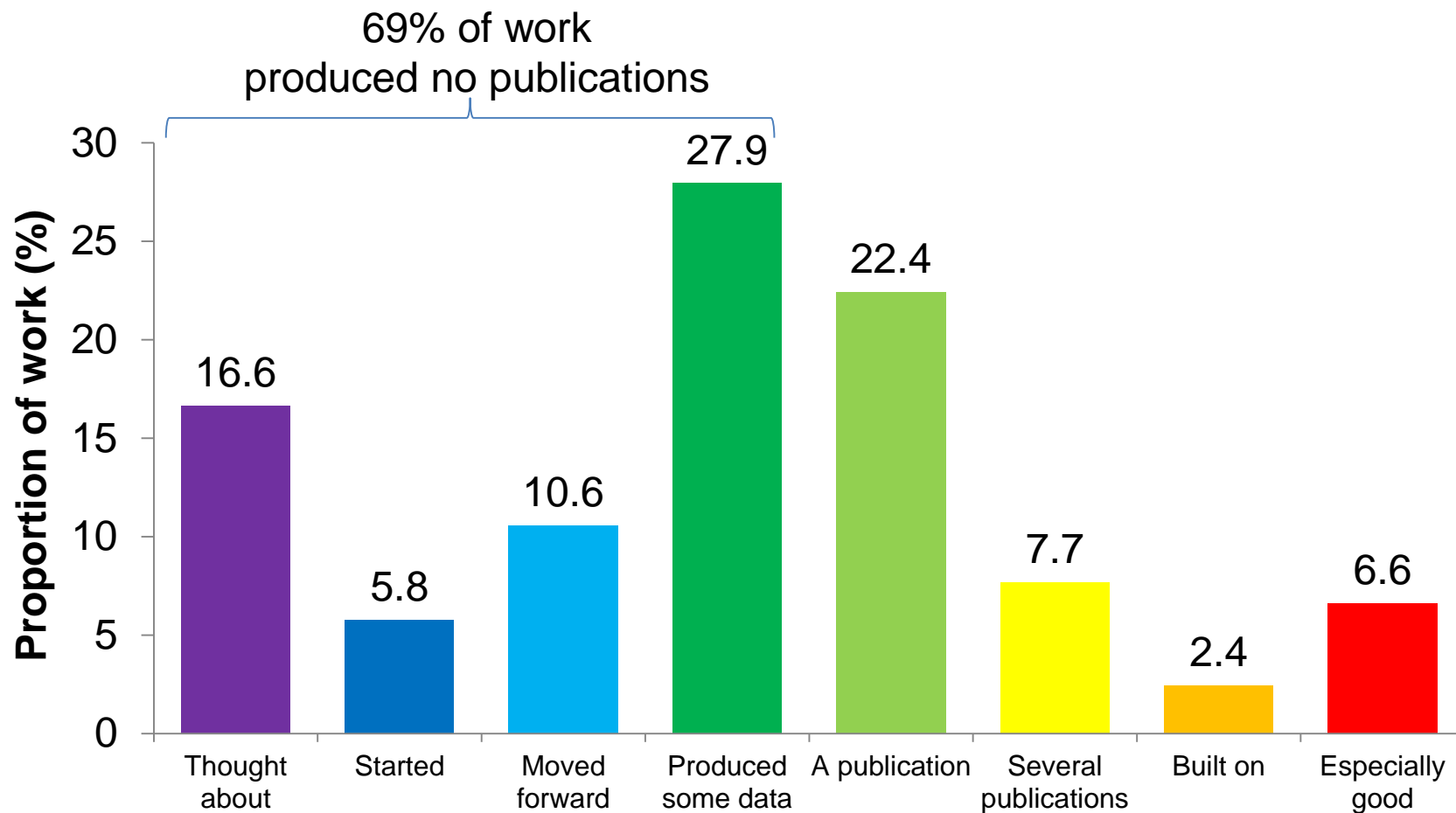
Outcomes (as at Dec 2015)



Outcomes (as at Dec 2015)

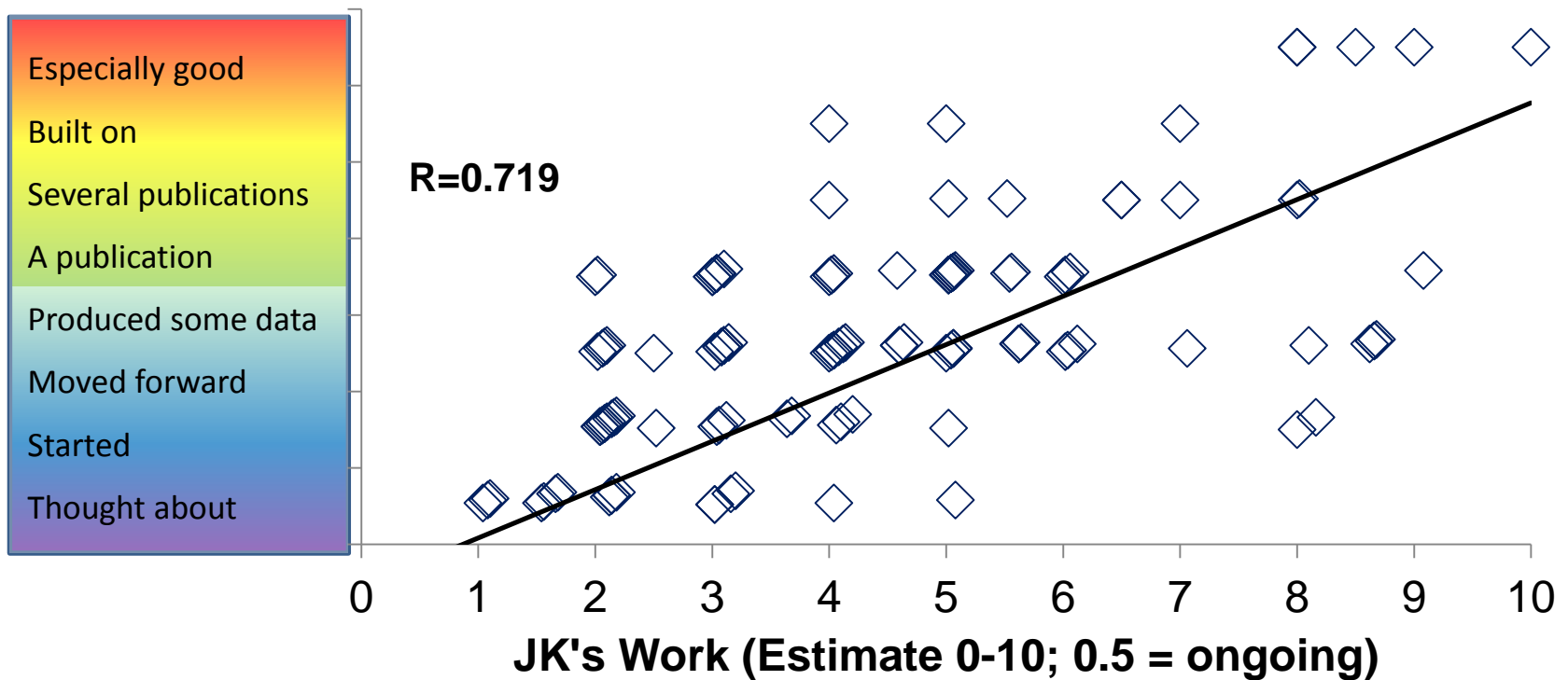


Work done (as at Dec 2015)



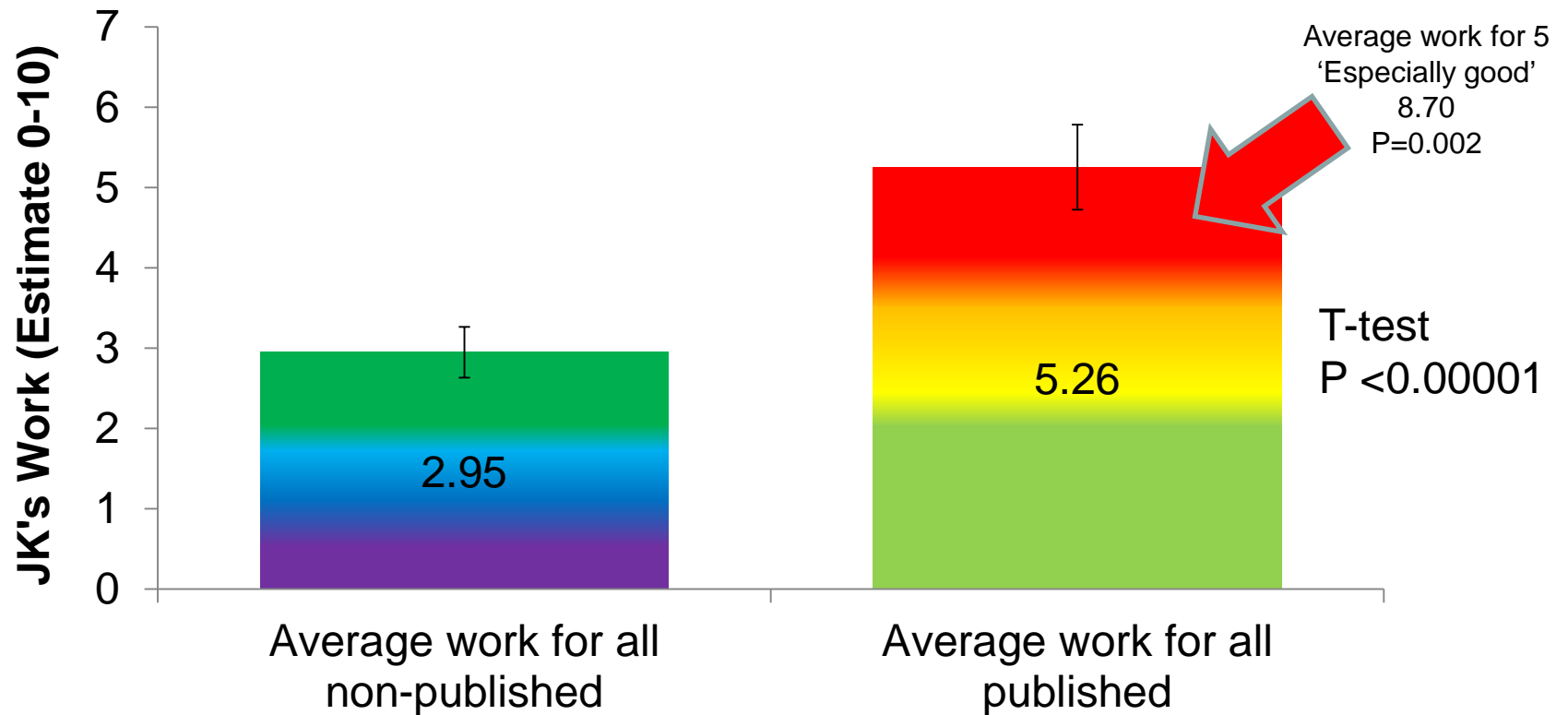
Work and outcome (as at Dec 2015)

Work and outcome

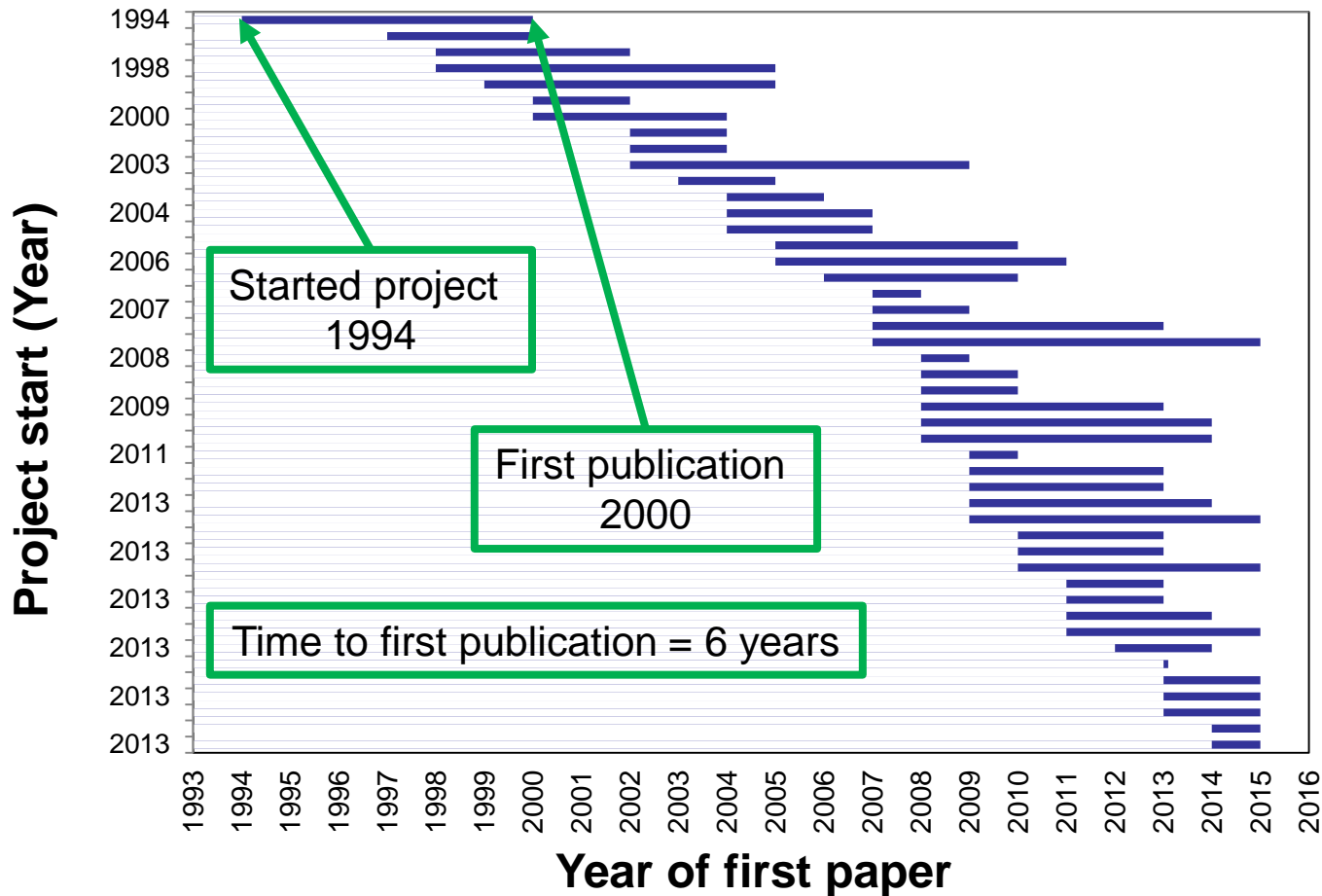


Work and outcome (as at Dec 2015)

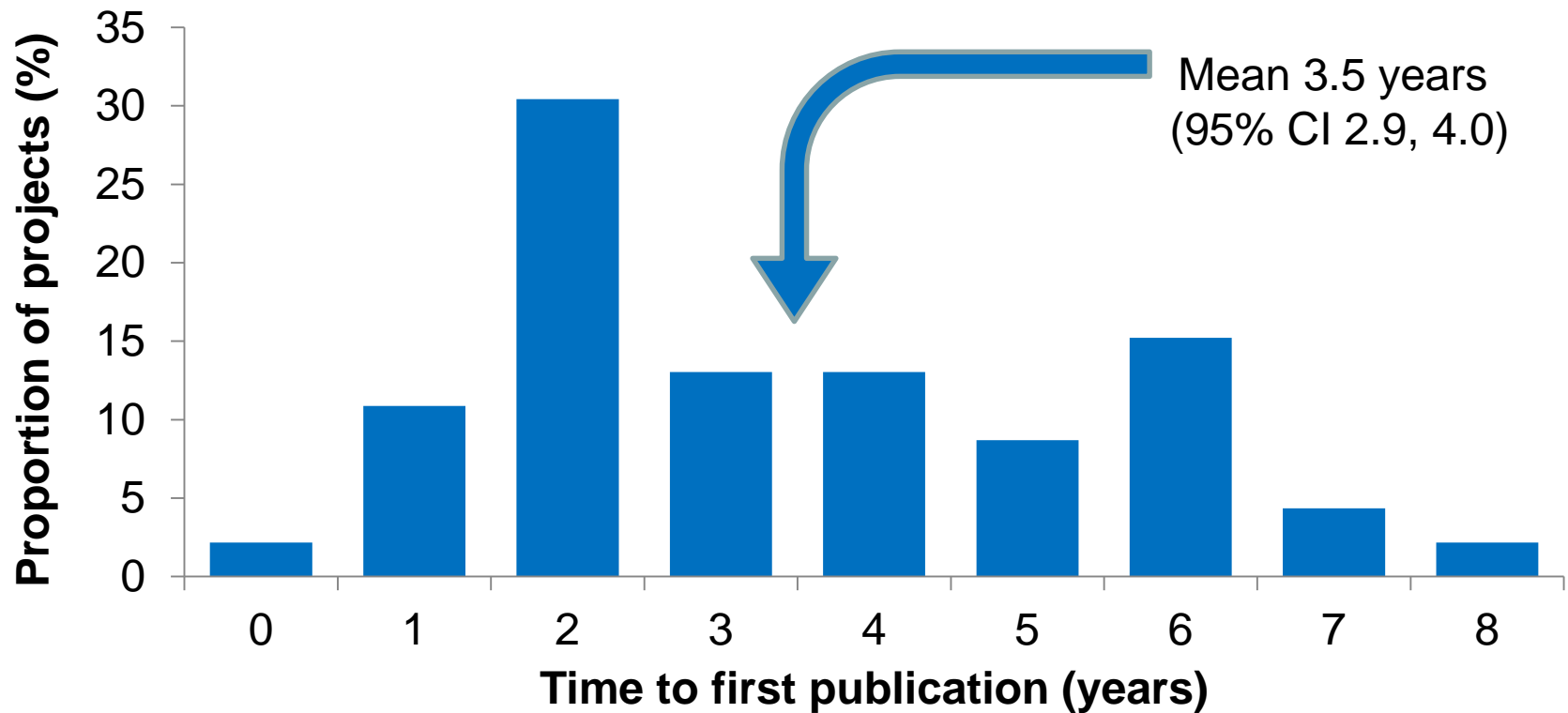
Mean (95% CI) work and publication status



🔥 Time first to publication



🌟 Time first to publication



Philip Hench (1896 – 1965)



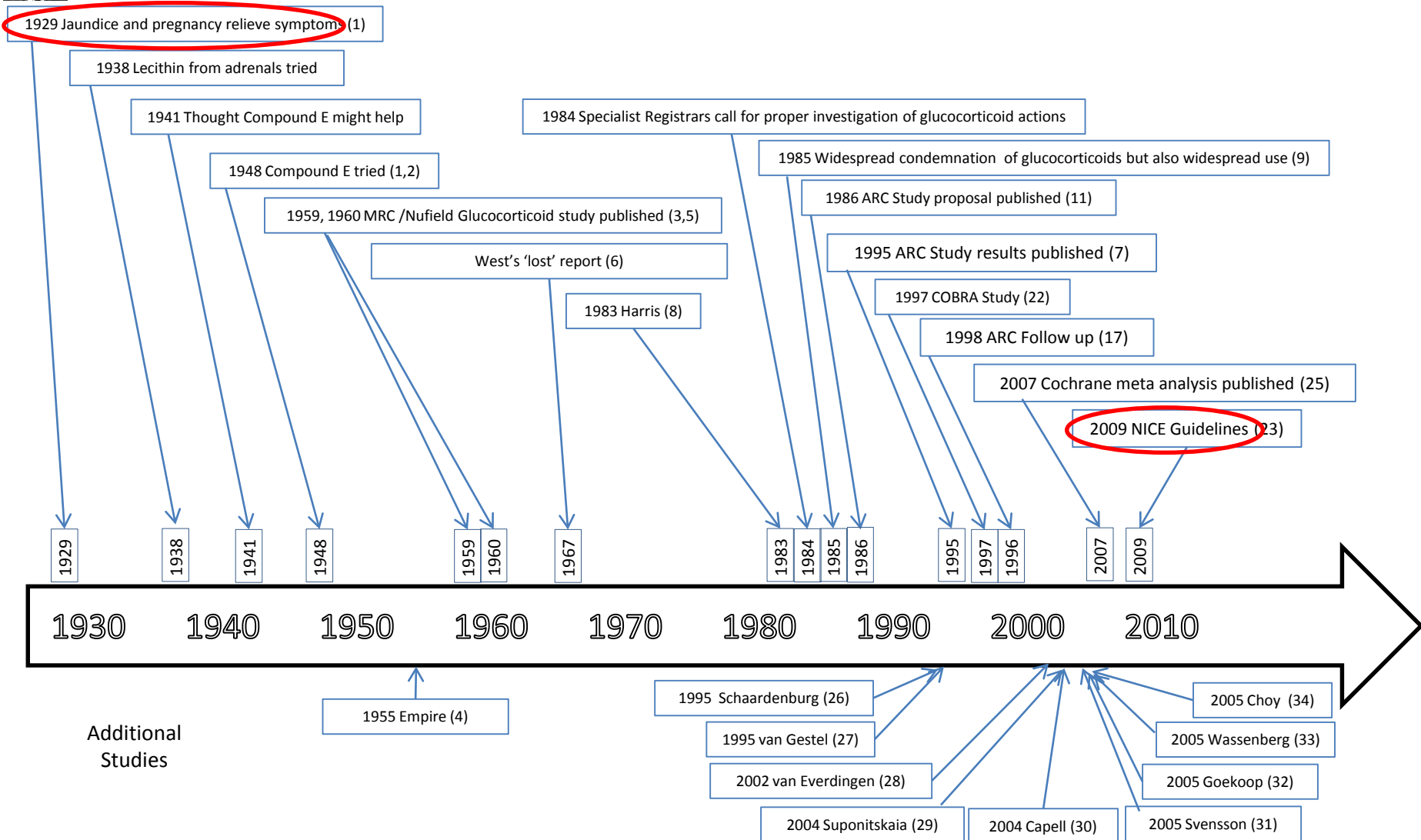
- American physician awarded the Nobel Prize for Physiology or Medicine in 1950
- Discovery of cortisone and its application for the treatment of rheumatoid arthritis



🔥 Glucocorticoid timeline - 1929 to 2009

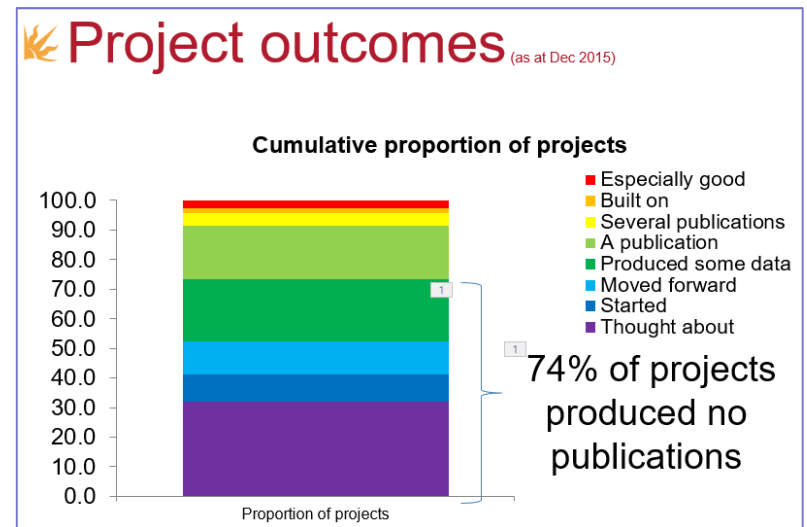


From Philip Hench's idea to a treatment recommendation by NHS in 80 years



🌟 The key message...

- Pauling was right!
- Thinking of and testing ideas that do not work out is an integral part of successful academic activity.
- These are not failures – they are part of the process!





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