

Global Software Engineering

- the good, the bad and the ugly -



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Which 'hat' today??



Professor or Consultant?



Giraffe-view: Head in the clouds,
but feet on the ground (in the dirt)

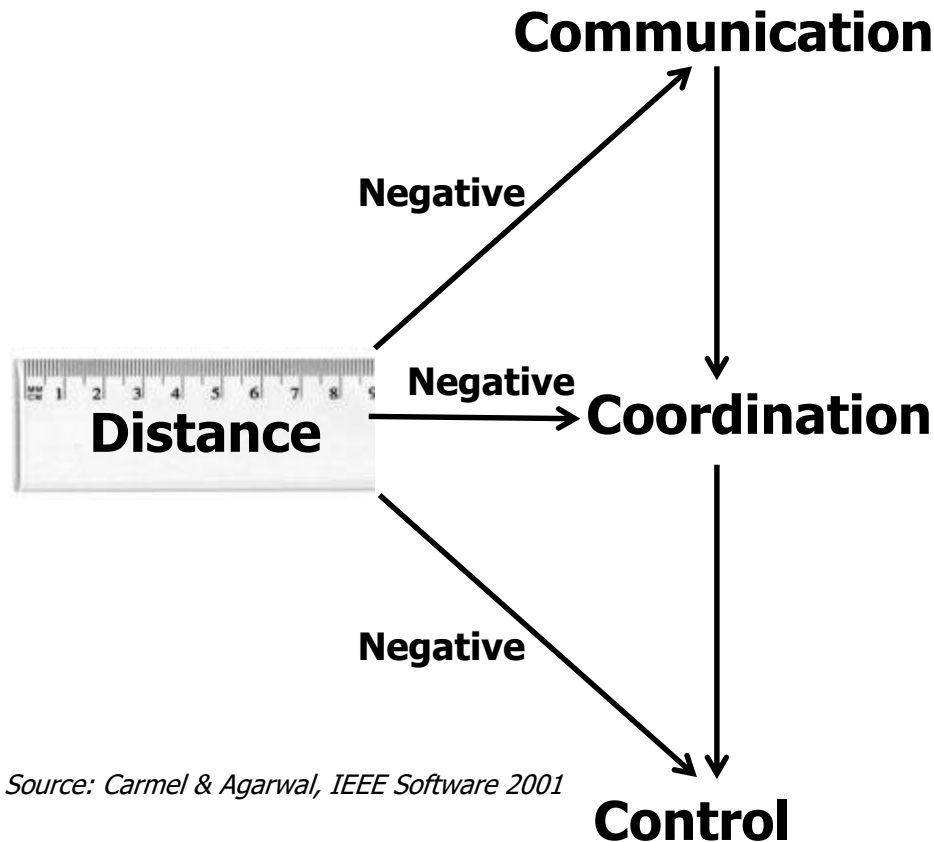
The Good



Why do GDSE?

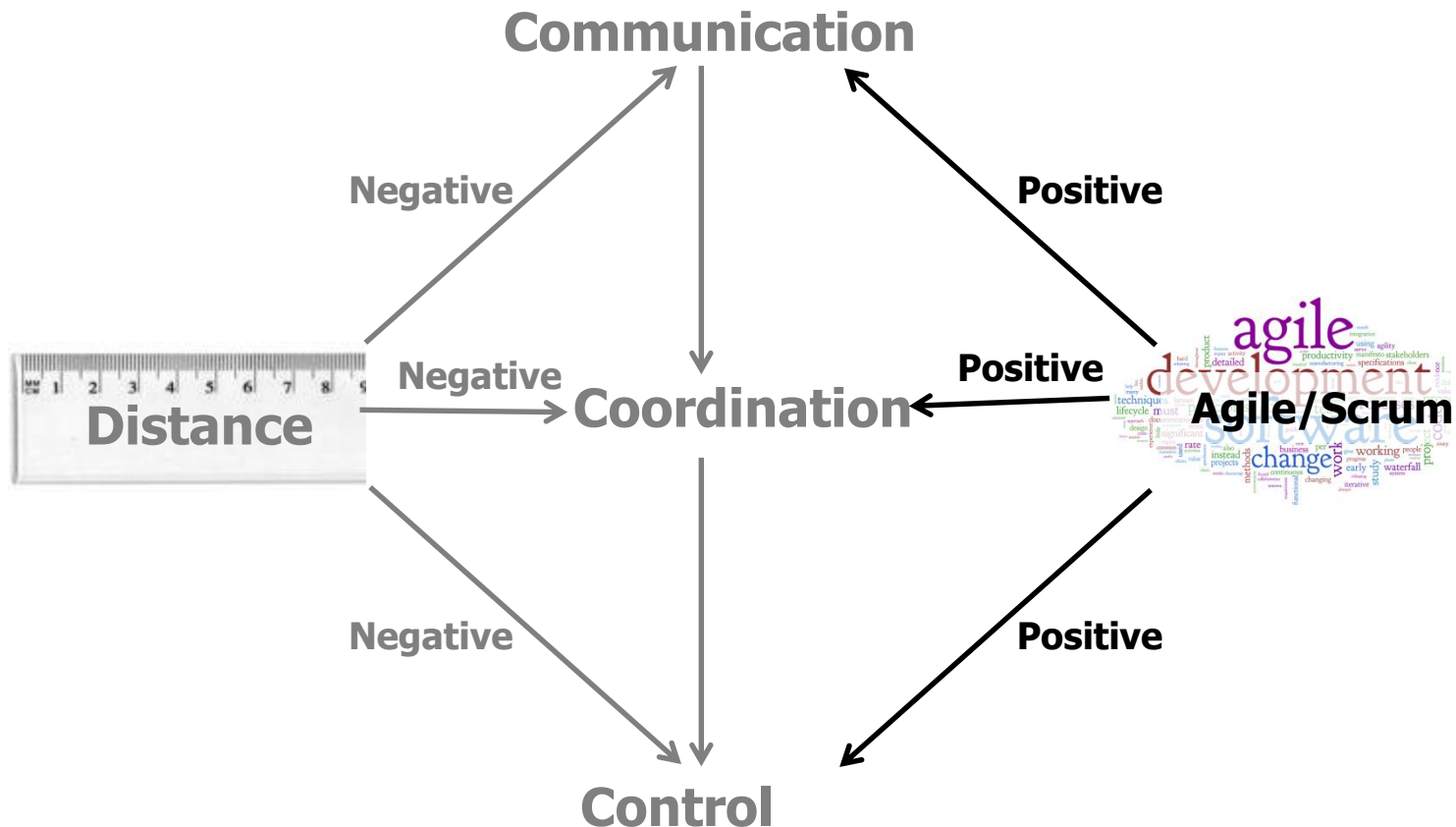
1. Access to scarce resources and expertise
2. Faster and round-the-clock development
3. Close geographical distance to customers
4. Lower development cost due to lower wages
5. History (mergers and acquisitions)

Adding distance to sw-engineering

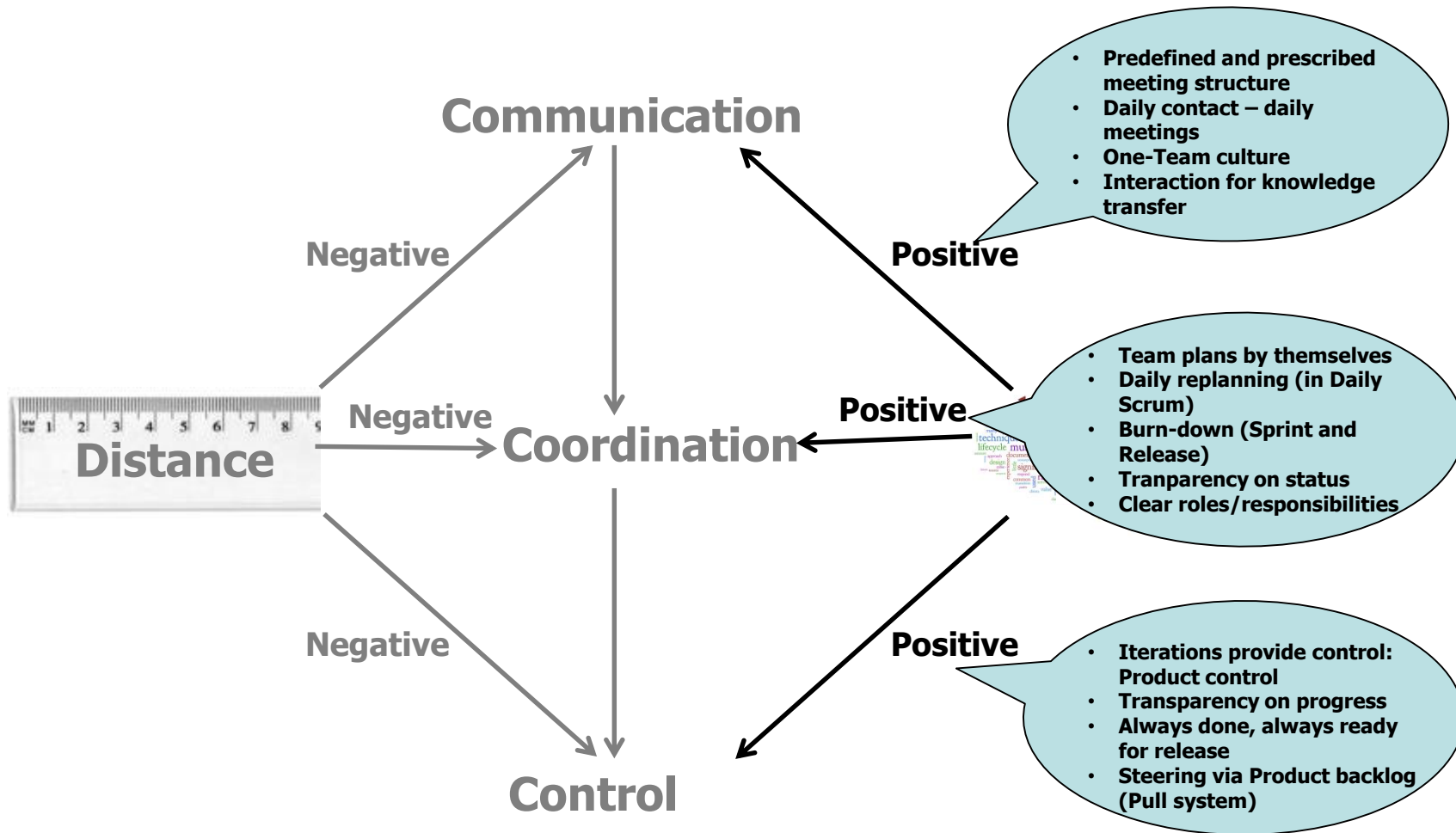


Source: Carmel & Agarwal, IEEE Software 2001

Adding Agile to distr. sw-engineering



Adding Agile to distr. sw-engineering



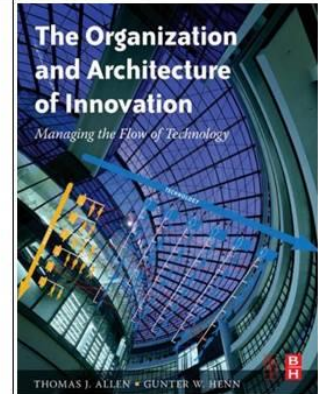
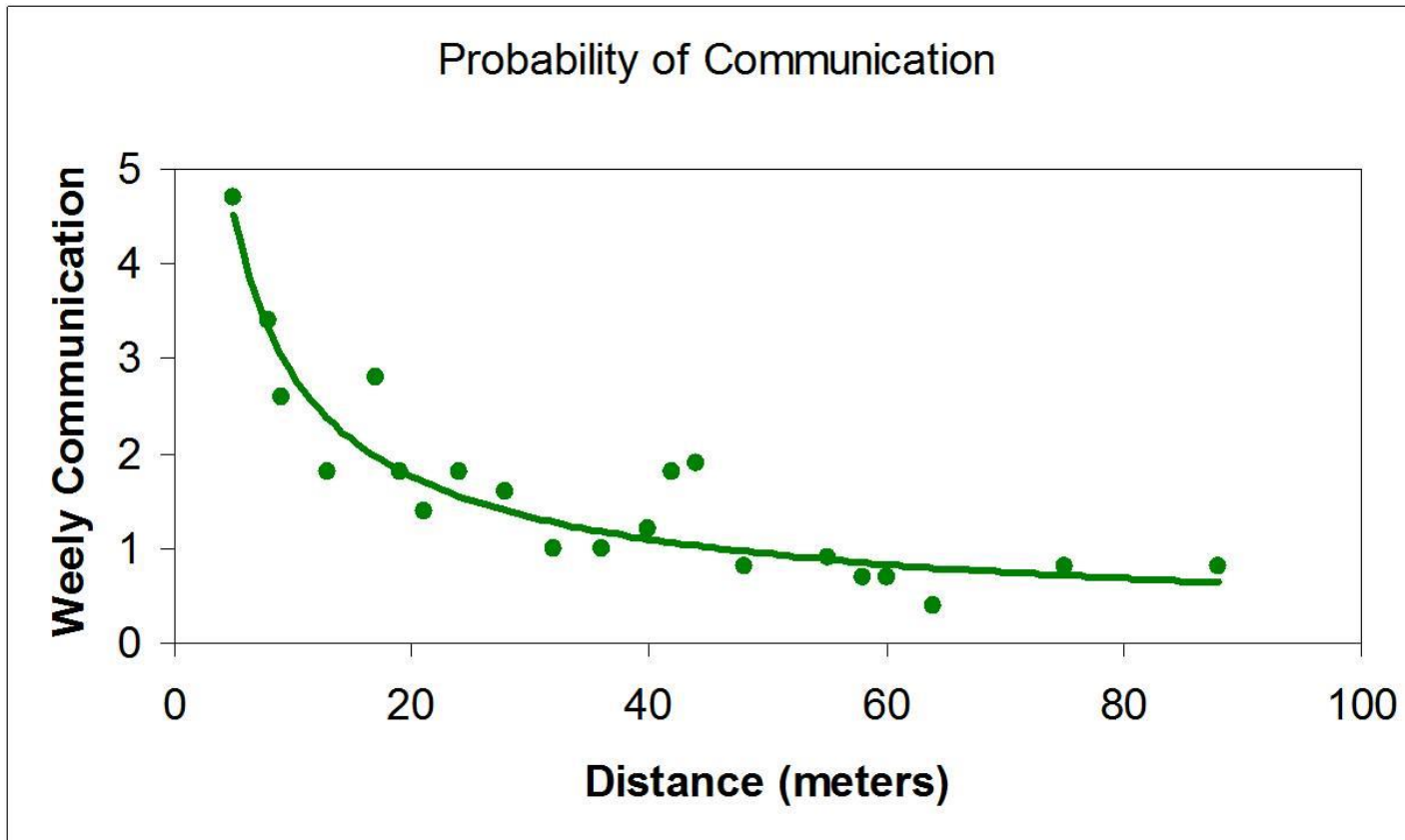
Top-7 Lessons in GDSE – the good

- 1.
2. **Don't do it for the cost**, do it for value, expertise and growth; cost focus without benefit focus is gambling
- 3.
4. If it does not work, **YOU are doing it wrong**. A huge BOK and best-practices are available; act as beekeeper, not as shepherd
- 5.
- 6.
7. If you work distributed, always work **short-cyclic** (read: start with Scrum – work Agile)

The Bad

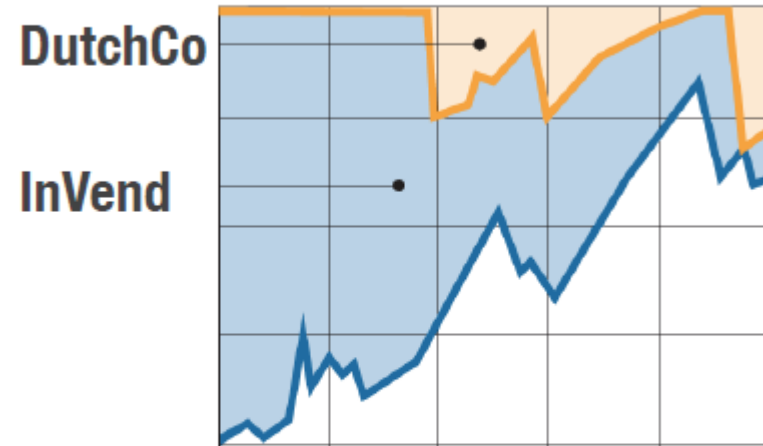
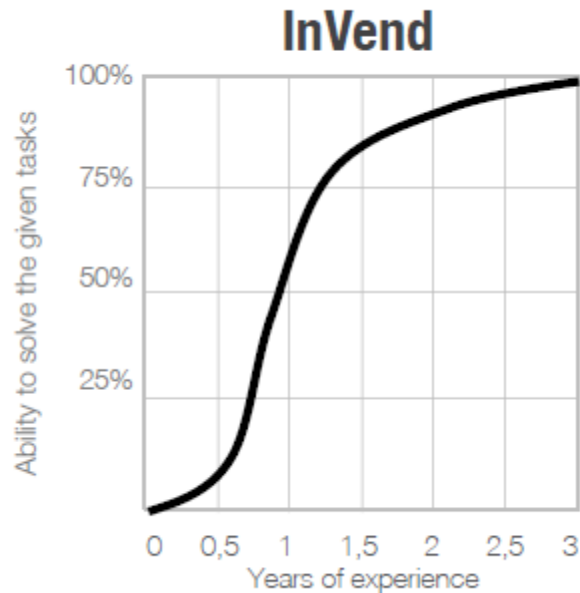


Nothing beats single roof



Source: TJ Allen, *The Organization and Architecture of Innovation*, 2007

Learning curves AND attrition

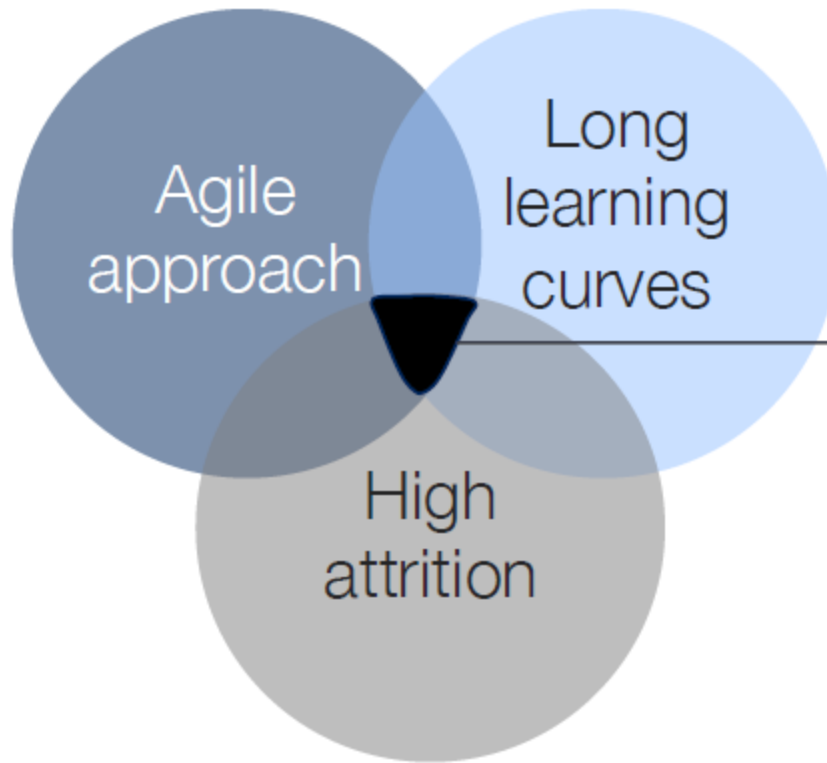


Learning curves

Associated efficiency

Source: Smite, Darja; Van Solingen, Rini. What's the True Hourly Cost of Offshoring?
IEEE Software, 2016, 33.5: 60-70.

Agile with attrition is risky



Deadly combination

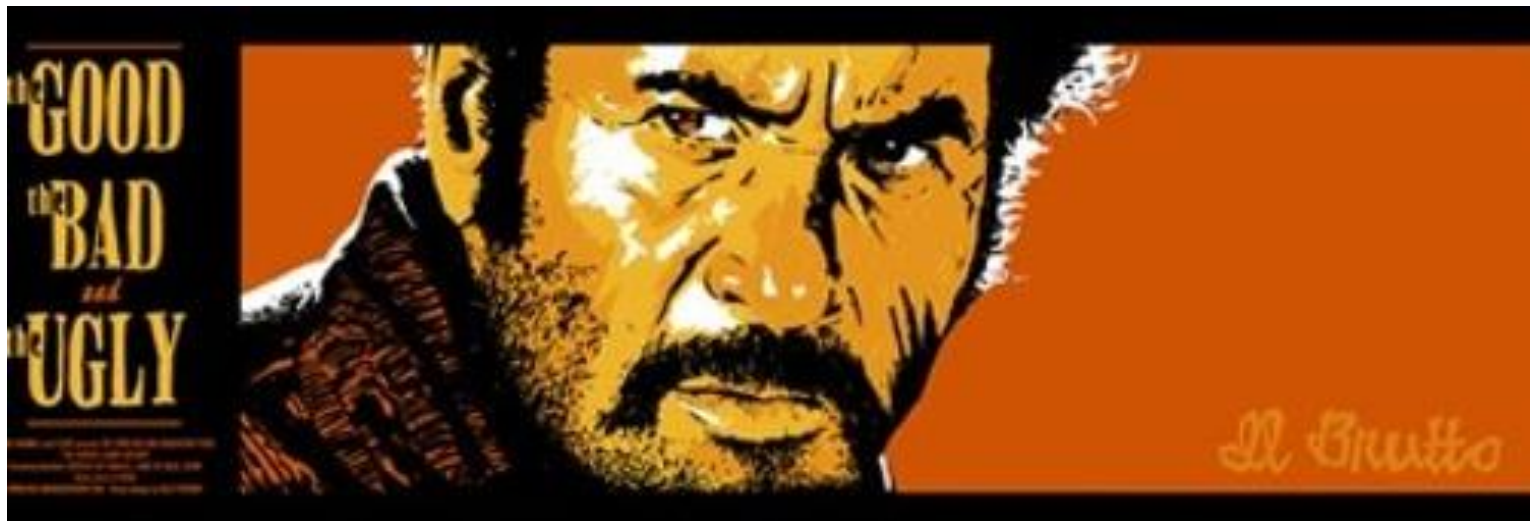


Source: Smite, Darja; Van Solingen, Rini. What's the True Hourly Cost of Offshoring? IEEE Software, 2016, 33.5: 60-70.

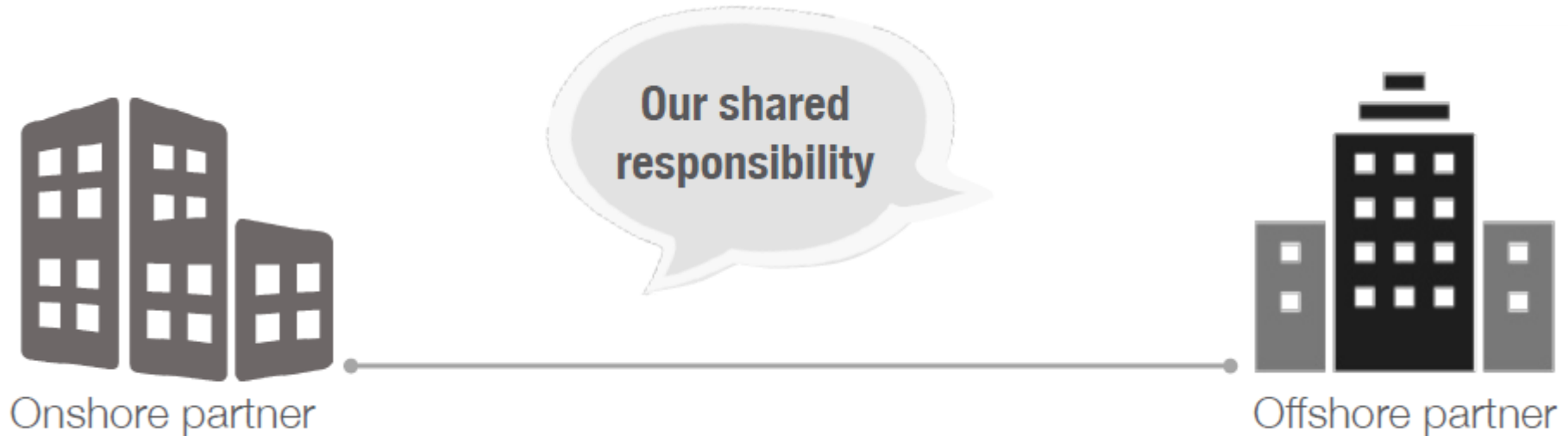
Top-7 Lessons in GDSE – the Bad

1. There is more distributed sw-engineering than you may think; it already starts with **50 meters** walking distance
- 2.
3. Onboarding takes much time, at least just as much as with own/onshore employees; **learning curves** deserve attention (attrition adds risks)
- 4.
- 5.
- 6.
- 7.

The Ugly



People development neglect

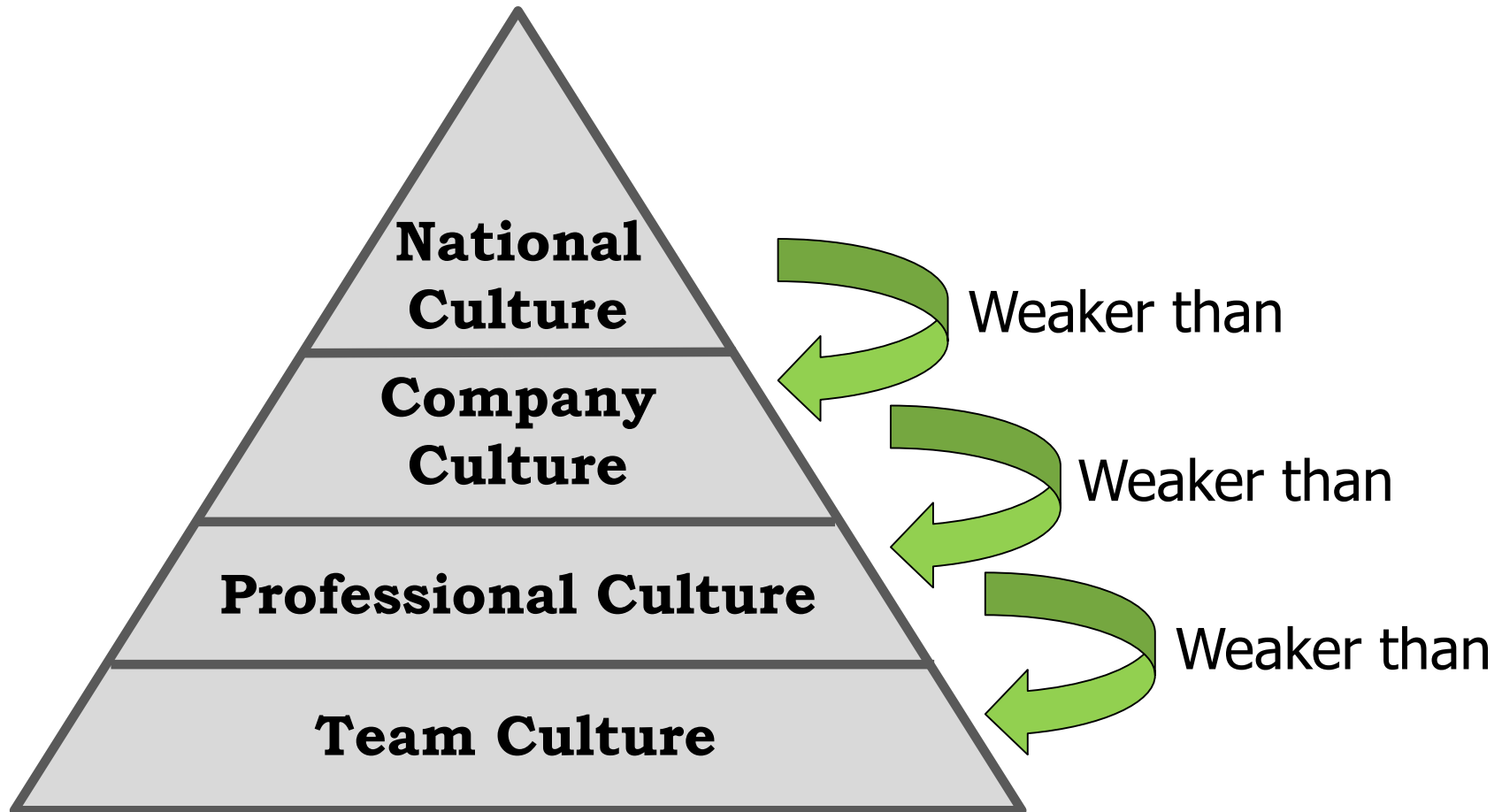


- People development and education is a joint function
- Strong influence on retention (and thus attrition)
- Direct benefit for customer, so not only for supplier



Source: Smite, Darja; Van Solingen, Rini. What's the True Hourly Cost of Offshoring? IEEE Software, 2016, 33.5: 60-70.

A hierarchy of culture types



Top-7 Lessons in GDSE – The Ugly

- 1.
- 2.
- 3.
- 4.
5. **People development** needs to be included in the collaboration
6. **Culture** is the ideal scapegoat (but the person using it did not do his job)
- 7.

Top-7 Lessons in GDSE

1. There is more distributed sw-engineering than you may think; it already starts with **50 meters** walking distance
2. **Don't do it for the cost**, do it for value, expertise and growth; cost focus without benefit focus is gambling
3. Onboarding takes much time, at least just as much as with own/onshore employees; **learning curves** deserve attention (attrition adds risks)
4. If it does not work, **YOU are doing it wrong**. A huge BOK and best-practices are available; act as beekeeper, not as shepherd
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Interesting future: learn and experiment



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Rini van Solingen is consultant and coach in Agility and Enterprise Responsiveness - Speed. He helps customers to get software engineering under control and rigorously increase their return-on-investment and productivity.

Rini is also a professor in Globally Distributed Software Engineering at the Delft University of Technology. He investigates how to make global teams hyper-productive and how to decrease the impact of distance

Thank you very much!

