



# FULLY DISTRIBUTED SCRUM: THE SECRET SAUCE FOR HYPERPRODUCTIVE OUTSOURCED DEVELOPMENT TEAMS

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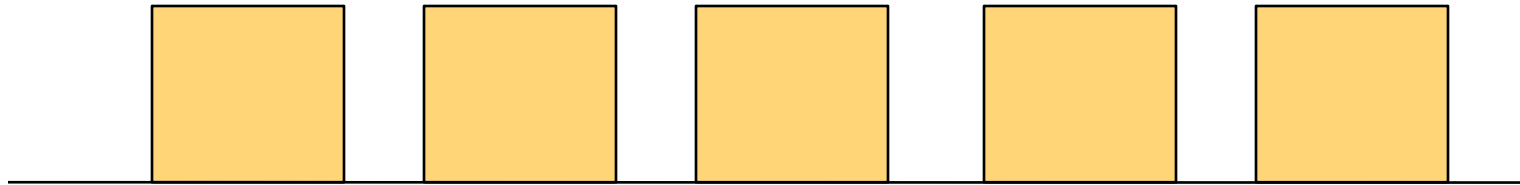
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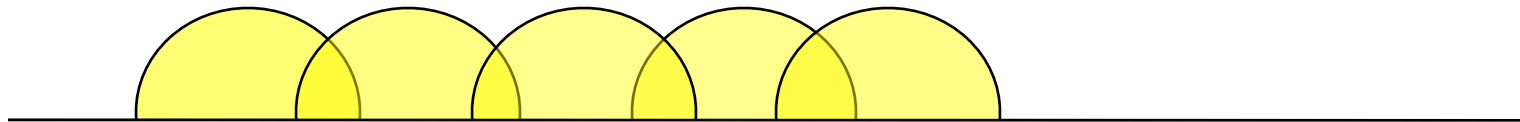
# Xebia OneTeam

- *Since 2006, Xebia (Netherlands) started localized projects with half Dutch and half Indian team members.*
- *After establishing localized hyperproductivity, they move the Indian members of the team to India and show increasing velocity with fully distributed teams.*
- *After running XP engineering practices inside many distributed Scrum projects, Xebia has systematically productized a model similar to the SirsiDynix model for high performance, distributed, offshore teams with linear scalability and outstanding quality.*

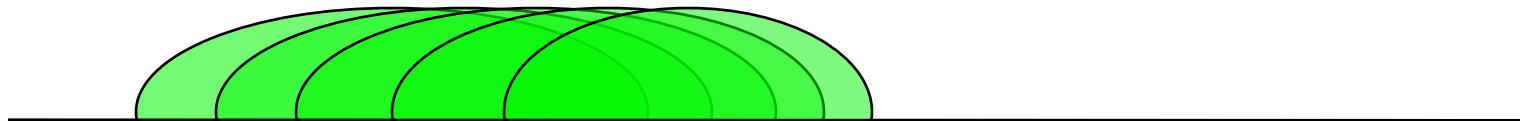
# Distributed/Outsourcing Styles



**Isolated Scrums**



**Distributed Scrum of Scrums**



**Totally Integrated Scrums**

# Velocity in Function Points/Dev month

	Scrum[1]	Waterfall[1]	SirsiDynix[2]
Person Months	54	540	827
Lines of Java	51,000	58,000	671,688
Function Points	959	900	12673
Function Points per Dev/Mon	17.8	2.0	15.3

1. M. Cohn, User Stories Applied for Agile Development. Addison-Wesley, 2004
2. J. Sutherland, A. Viktorov, J. Blount, and N. Puntikov, "Distributed Scrum: Agile Project Management with Outsourced Development Teams," in HICSS'40, Hawaii International Conference on Software Systems, Big Island, Hawaii,

# Should we look at excellent Scrum teams?

- Often extreme data points are not sustainable.
- The most productive team ever recorded at Borland produced a failed product.
- The most productive distributed team (SirsiDynix) had quality problems, management problems, and internal company conflicts that caused the product to be killed.
- The second most productive team in the world (Motorola - David Anderson data) was overwhelmed with bureaucracy, completely demotivated, their product was killed, and the team died a painful death.

# SirsiDynix Challenges

- ScrumButt
- Builds were stable only at Sprint boundaries
- ScrumMasters, Product Owners, and Architects only in U.S.
- No XP in U.S, only in Russia
- No face to face meetings
- Low test coverage
- Poor refactoring practice
- Did not have equal talent across teams
- Company merger created competitive products
- Sirsi now owned Dynix and killed Dynix product

# Research Issue

- SirsiDynix was a retrospective study of a single data point
- Even if quality was perfect, it does not prove anyone else can do it.
- Even worse, if you observe a finding after the fact, you cannot infer causality
- Is SirsiDynix a lucky accident? Or maybe an unlucky accident?

# **We needed a prospective study**

- Define the distributed team model before projects start
- Assure consistent talent, tools, process, and organization across geographies
- Establish high quality data gathering techniques on velocity, quality, cost and environmental factors.
- Run a consistent team model on a series of projects and look for comparable results
- Demonstrate that local velocity = distributed velocity
- Demonstrate that local quality = distributed quality
- Demonstrate linear scaling at constant velocity per developer

# Case study: Building a new railway information system

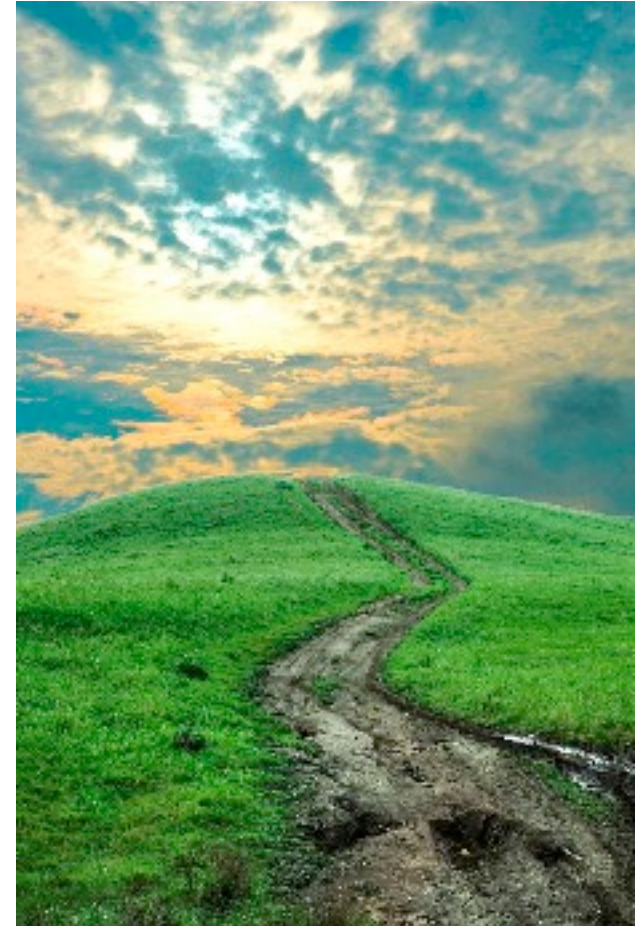


# **Aren't Agile and Offshoring like oil and water?**

- Scrum Hyperproductive teams are colocated with shared ownership, shared responsibility, high interaction
- And then you want to distribute them halfway around the planet? Are you crazy?

# Mixing both worlds makes a killer combination

- Agile hyperproductivity and quality combined with offshoring benefits:
  - Cost reduction
  - Availability of talent
  - Scaling up/down with knowledge retention and without local layoffs
- Solution: Fully Distributed Scrum



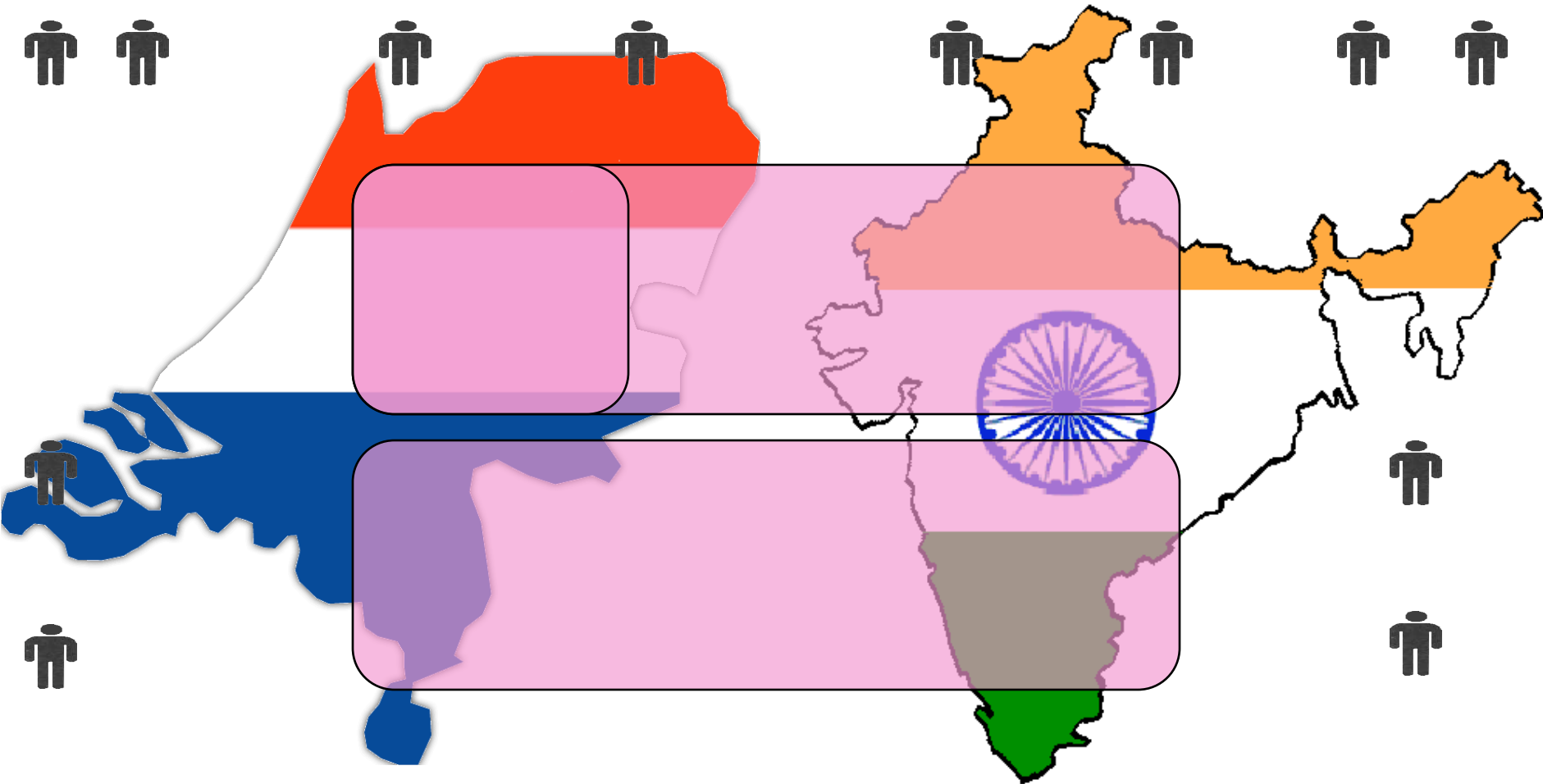
# Getting in the same mindspace

We are looking for:

- Shared ownership
- Shared context
- Personal relationships
- Team culture and standards
- Shared Agile value system

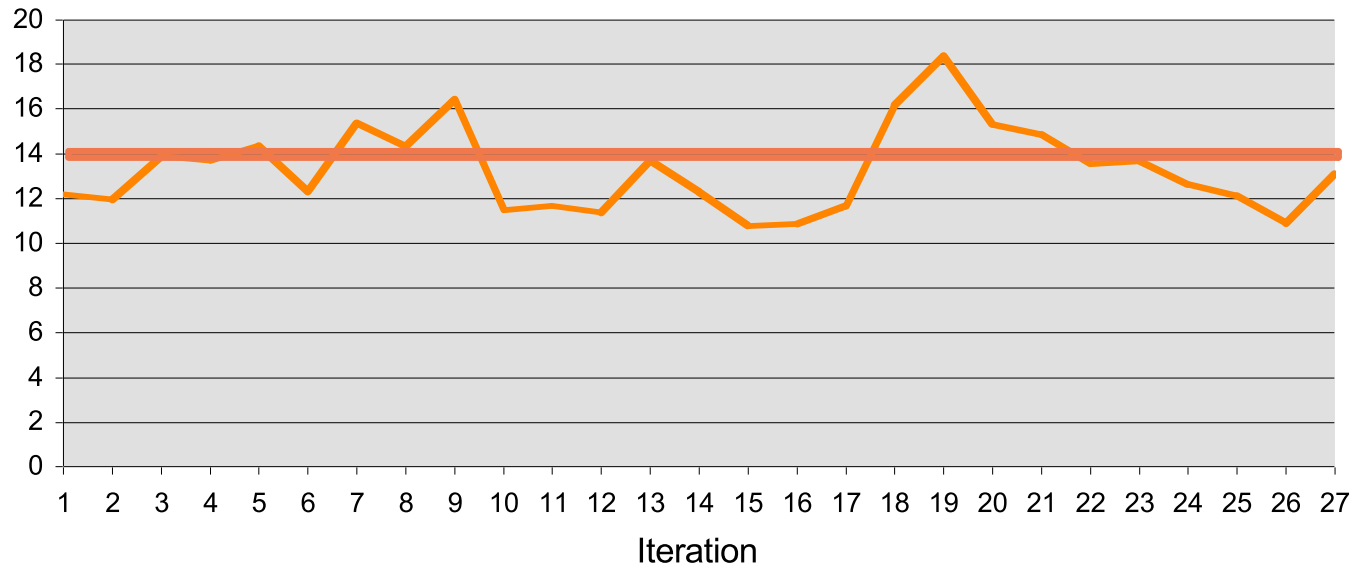
We need to tie people closely together with shared goals:  
**SCRUM!**

# Scaling the project



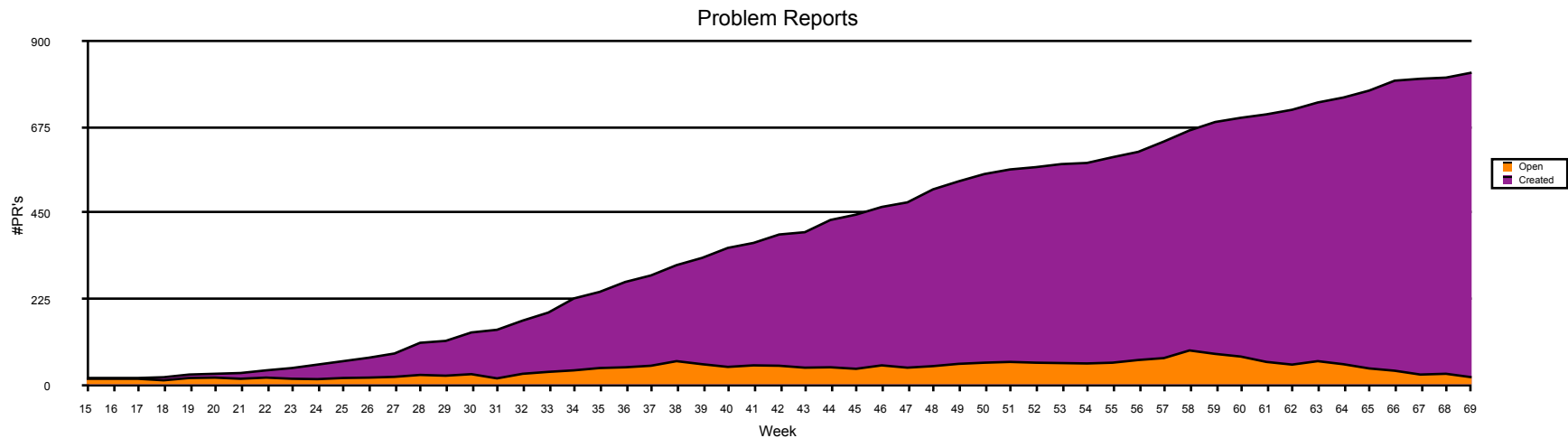
# Linear productivity increase

Hours/Storypoint



# Quality by Definition of Done & XP

- Facts:
  - 95 % found in iteration
  - 50 in acceptance
  - 0.5 – 1.0 per kLOC



# Dutch Velocity vs. Russian Velocity

	SirsiDynix[2]	Xebia[3]
Person Months	827	125
Lines of Java	671,688	<b>100,000</b>
Function Points	12673	<b>1887</b>
Function Points per Dev/Month	15.3	<b>15.1</b>

1. M. Cohn, User Stories Applied for Agile Development. Addison-Wesley, 2004
2. J. Sutherland, A. Viktorov, J. Blount, and N. Puntikov, "Distributed Scrum: Agile Project Management with Outsourced Development Teams," in HICSS'40, Hawaii International Conference on Software Systems, Big Island, Hawaii,
3. J. Sutherland, G. Schoonheim, E. Rustenburg, M. Rijk. Fully Distributed Scrum: The Secret Sauce for Hyperproductive Outsourced Development Teams. Agile 2008, Toronto, Aug 4-8 (submission, preliminary data)

# Conclusion

- Fully Distributed Scrum has the full benefits of both local hyperproductive teams and offshoring

Fully Distributed Scrum has more value than localized Scrum