



Fully Distributed Scrum

Linear Scalability of Production between
San Francisco and India

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Get the latest version of these slides at:

- <http://blog.xebia.com/>
- <http://jeffsutherland.com/scrum/>



About Xebia

- ❑ India, Holland, France
- ❑ 200 people
- ❑ 100% Agile
- ❑ Java, Flex, CMS/Portal
- ❑ What we do:
 - Agile offshoring
 - Software development
 - Agile consulting & training
 - IT Architecture



Core values:

- People first
- Customer intimacy
- Quality without compromise
- Share knowledge

“If there are n workers on a project, there are $(n^2-n)/2$ interfaces across which there may be communication, and there are potentially almost $2n$ teams within which coordination must occur.

The purpose of organization is to reduce the amount of communication and coordination necessary; hence organization is a radical attack on the communication problem.”

-- Fred Brooks



Bell Labs Pasteur Project

James Coplien

- ❑ Hundreds of case studies show that “communication saturation” is directly correlated with high productivity in software development.
- ❑ Face to face communication in cross-functional team can increase productivity 50 times over waterfall teams
- ❑ This is why first Scrum team implemented daily meetings and performance over 20 times average waterfall performance was achieved with some teams

The “radical attack” of Scrum on the communication problem works for co-located teams, but can it work for distributed teams?

Success factors in offshoring

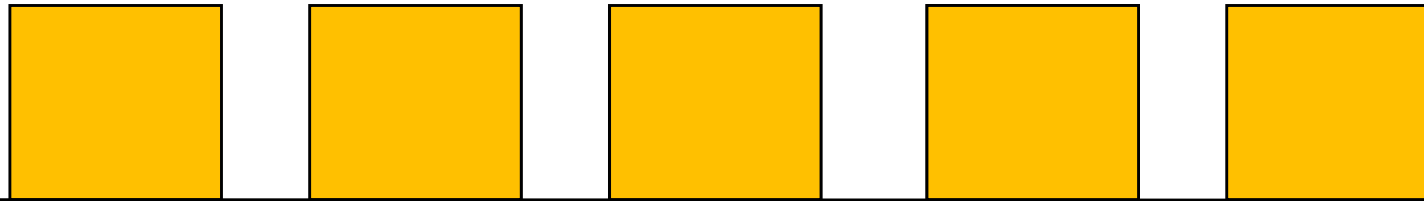
- ❑ Lower costs of labor
- ❑ Capture talent not available locally
- ❑ Increase and decrease project size without layoffs

We count this as successful only if quality and productivity match those locally

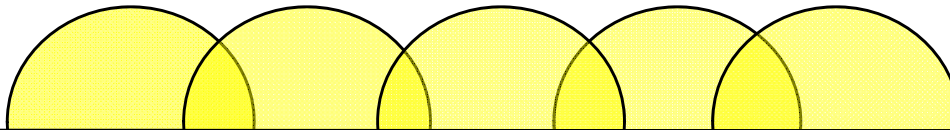
Outsourcing the traditional way

- ❑ What happens if you outsource \$2M of development?
 - Industry data show 20% cost savings on average
- ❑ Outsourcing from PatientKeeper to Indian waterfall team:
 - Two years of data showed breakeven point occurs when Indian developer costs 10% of American Scrum developer
 - Actual Indian cost is 30%
- ❑ \$2M of Scrum development at my company costs \$6M when outsourced to waterfall teams
- ❑ Never outsource to waterfall teams. Only outsource to Scrum teams.

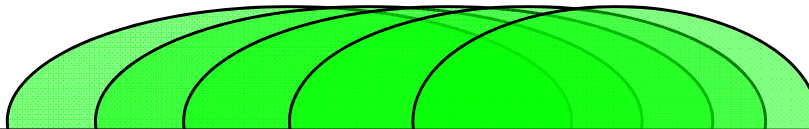
Distributed/Outsourcing Styles



Isolated Scrums



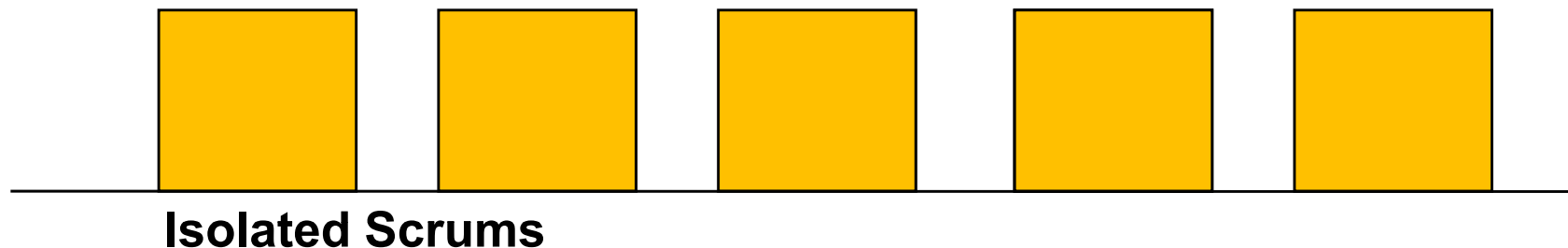
Distributed Scrum of Scrums



Fully Distributed Scrums

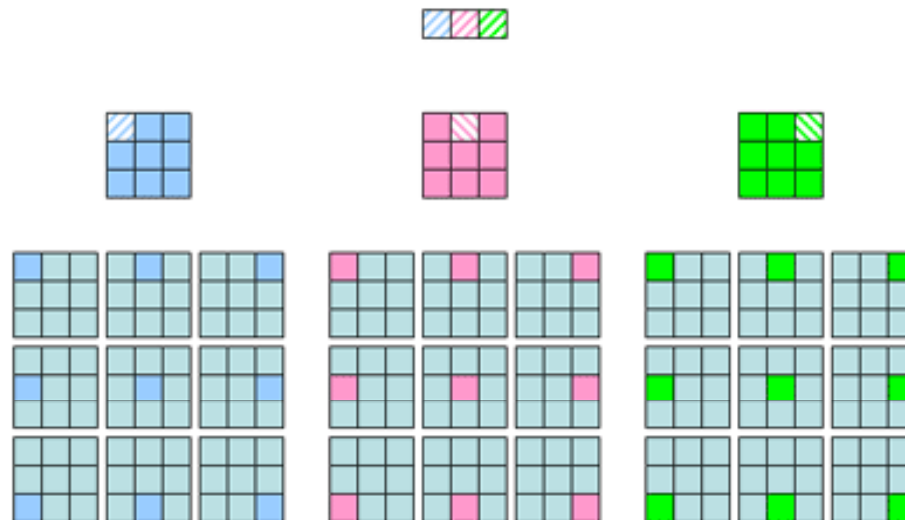
Isolated Scrums

- ❑ Works when you have local PO (=separate project)
- ❑ Otherwise you are doing waterfall with an iterative development team
- ❑ Just beats around the bush, results in classic integration problems and code ownership
- ❑ Still large degree of us / them



Distributed Scrum of Scrums

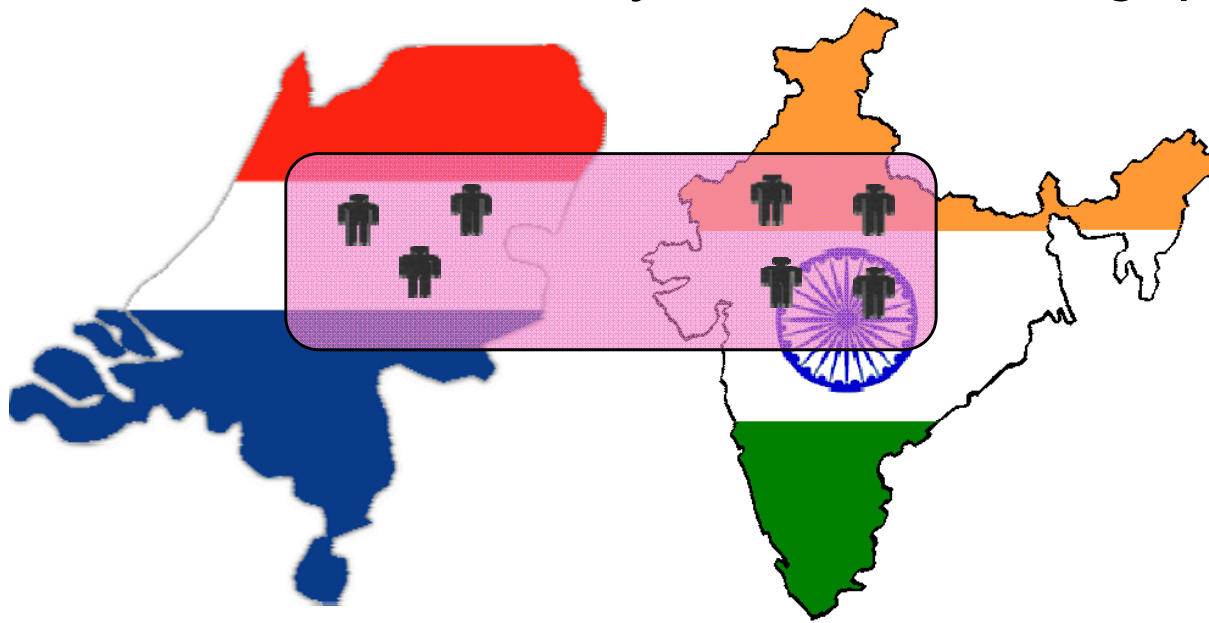
- ❑ Recommended by Scrum Alliance
- ❑ Recognizes that there is a link
- ❑ Does not give us rich communication to close the gap
- ❑ Still accepts the problem of distance as a given!



Fully Distributed Scrum

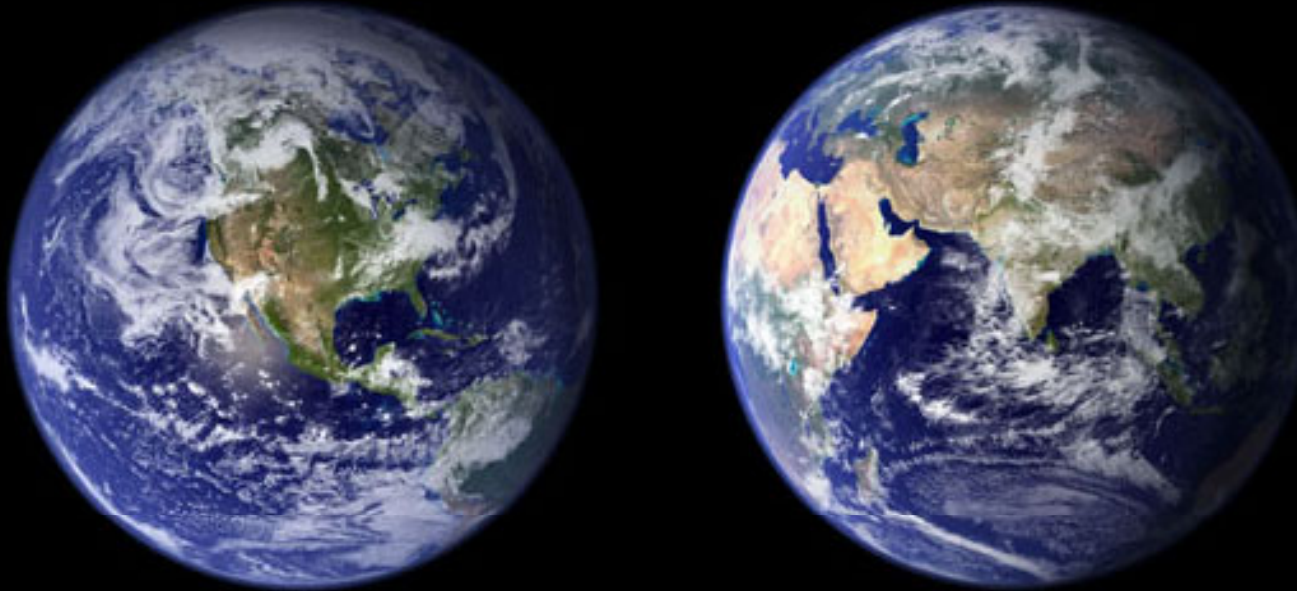
Xebia OneTeam model

- ❑ *Xebia (Netherlands) projects start localized 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.*
- ❑ *Running many distributed Scrum projects since 2006, Xebia has systematically productized a model, similar to SirsiDynix for high performance, distributed, offshore teams with linear scalability and outstanding quality.*



Aren't Agile and Offshoring like oil and water?

Good hyperproductive Agile teams are
colocated with shared ownership, shared
responsibility, high interaction



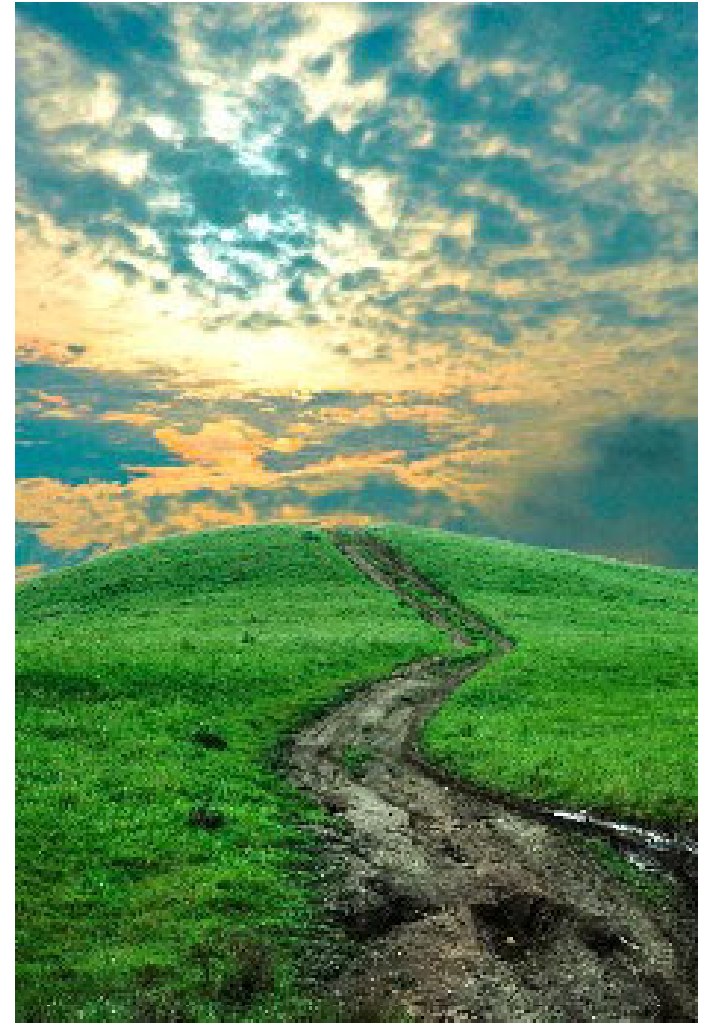
And then you want to distribute them
halfway around the planet? Are you crazy?

Mixing both worlds makes a killer combination

Agile hyperproductivity and quality combined with offshoring benefits:

- Availability of talent
- Scaling up/down with knowledge retention and without local layoffs
- Cost reduction

Solution: Fully Distributed Scrum



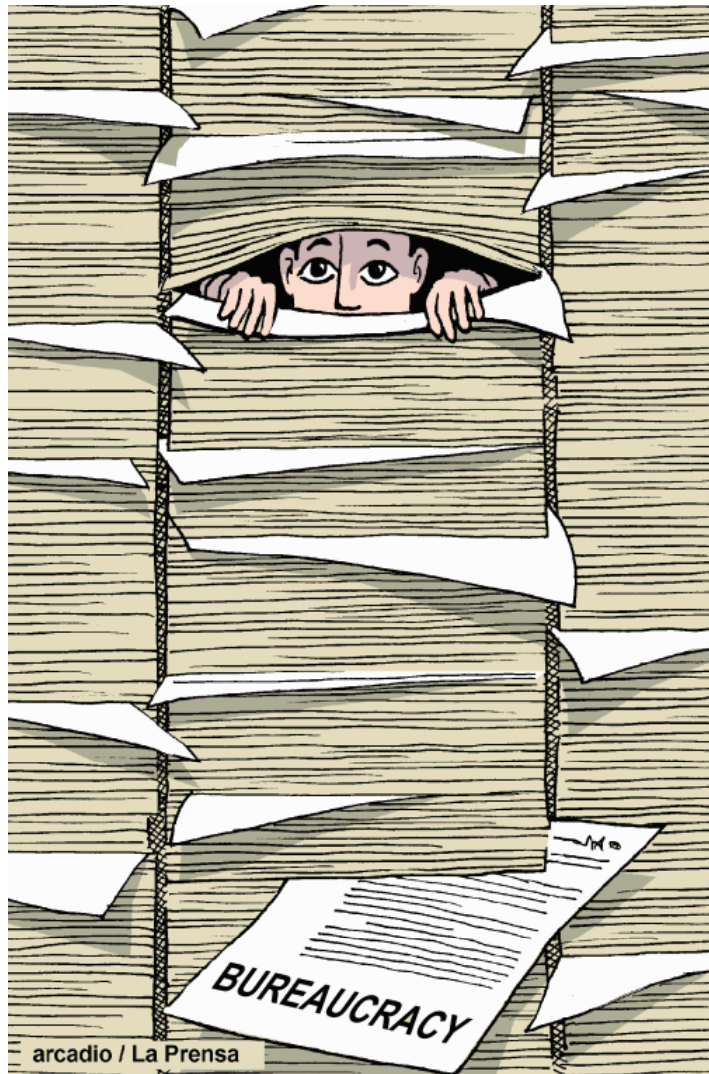
The real problem with distribution is indeed distance

- ❑ Geography
- ❑ Time zones
- ❑ Culture
- ❑ Language
- ❑ Different standards
- ❑ No shared ownership
- ❑ Us – Them



*It's all a form of distance **between people**
increasing the cost of communication*

How do we bridge that gap?



=



Or... we can look at the people



Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it.
Through this work we have come to value:

Through this work we have come to value:

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Getting into 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!

A day in the life...



What do you do if you have no time overlap at all?



Case study: TBD.com



Engagement profile

- ❑ Goal is to create a cross company, cross culture, cross timezone team
- ❑ Mixed TBD people and Xebia people
- ❑ 6 week pilot followed by 8 month project
- ❑ Quick co-located setup in India
- ❑ Total team of 7 people

TBD.com as a modern Java project



YUI

Spring Web MVC

JSP 2.0



Initial setup

- ❑ Product Owner and tech lead to India
- ❑ Knowledge transfer & technical setup
- ❑ Norming session & evaluation model
- ❑ After one week of setup first sprint is kicked off
- ❑ After one week of co-located development TBD staff travels back

Modifying the Scrum cycle

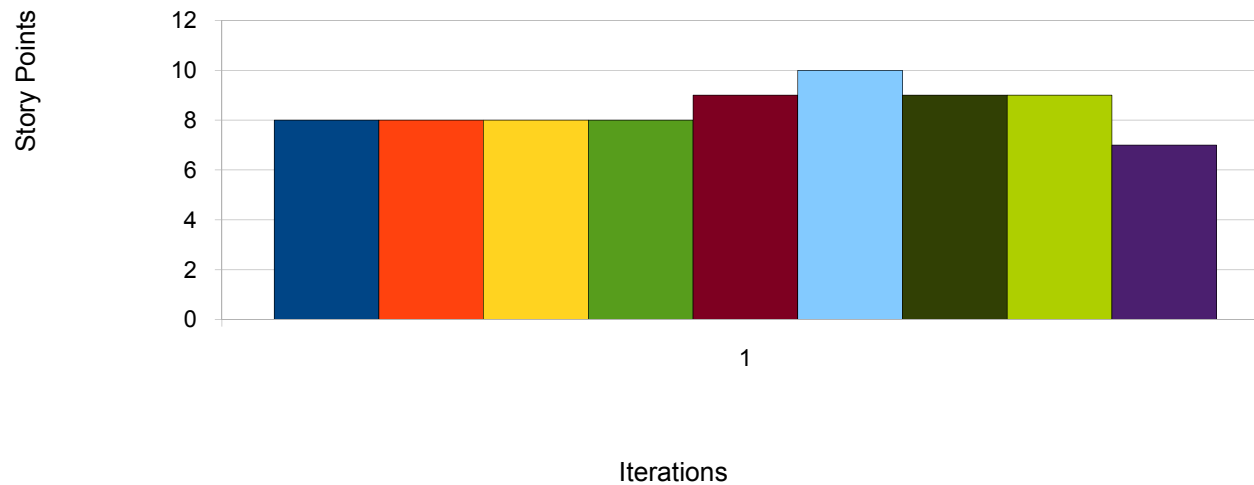
- ❑ All large Scrum meetings are shared with video conferencing
- ❑ Daily standup for Indian team members with US Proxy, rotating role
- ❑ Daily wiki & Scrum board updates
- ❑ Weekly standup meeting with entire team
- ❑ Shifting work hours is limited to avoid fatigue

Agile practices

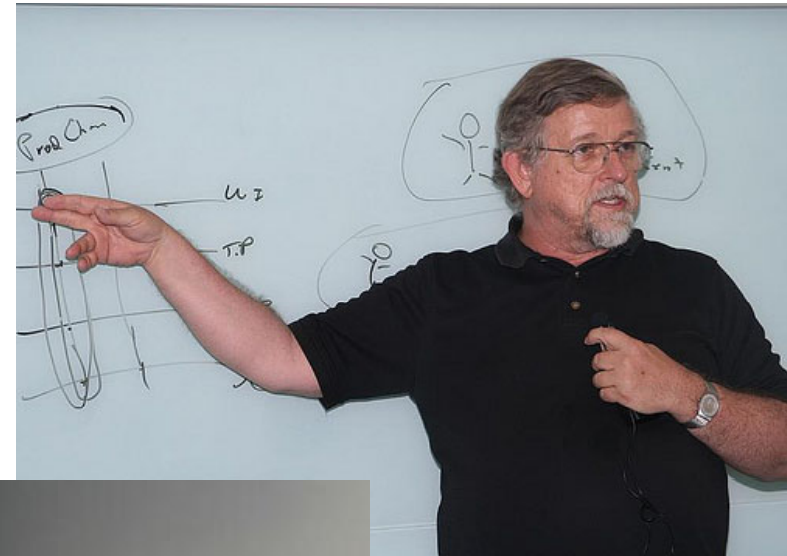
- ❑ Once code base
- ❑ Shared definition of done
- ❑ Everyone is equal
- ❑ Everyone pulls from same sprint backlog
- ❑ Full set of XP practices implemented
- ❑ Distributed design
- ❑ Digital Scrum tooling (Pivotal tracker, JIRA, Confluence)

TBD.com productivity

Average Per Person Velocity

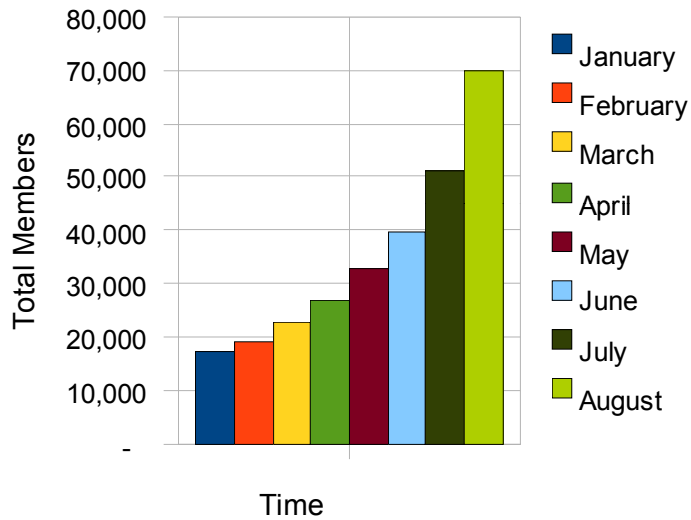


Project review in India by Mary & Tom Poppendieck

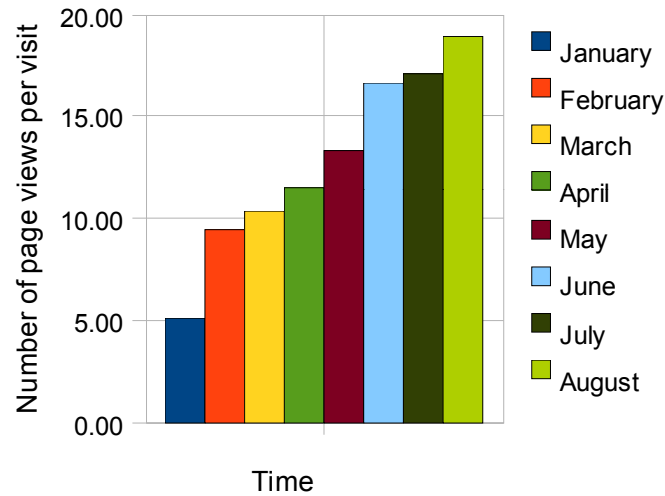


Focusing on business value

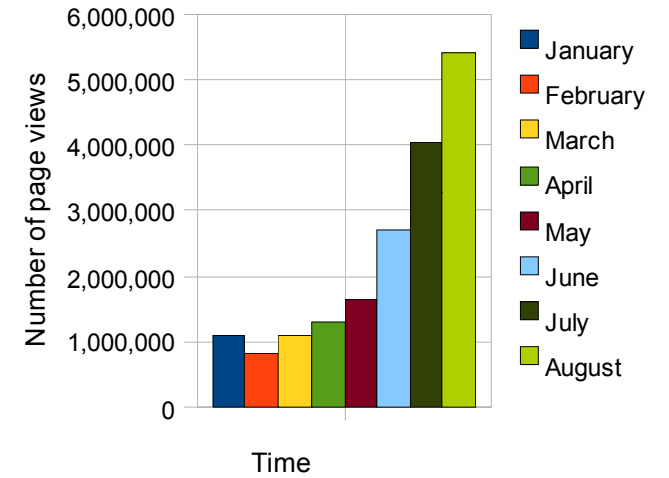
Member Growth



Monthly Page View per visit



Monthly Page Views



Success factors

- ❑ Same level of talent on both sides
- ❑ Indian developers very experienced in Agile and modern Java technology
- ❑ Extra Xebia expertise available as needed
- ❑ Matching company cultures
- ❑ Transparency and openness on business drivers by TBD.com
- ❑ Evaluation system brings out expectations
- ❑ Scrum cycle facilitates all communication

Difficulties faced

- ❑ Limited travel possible
- ❑ Distributed demos with external stakeholders are hard to organize
- ❑ Distributed design is limited due to little overlap
- ❑ Some work is local, like performance tuning the hardware environments with provider staff



Customer success factors

- ✓ Cost reductions
- ✓ Availability of skilled talent
- ✓ 24/7 support by development team
- ✓ Scaling up/down without layoffs and with full knowledge retention

Because of Fully Distributed Scrum
TBD.com got the max. offshoring benefits

Summary

**Fully Distributed Scrum brings Fred Brooks
“Radical Attack on the communication
problem” to distributed development. It
works around the entire globe.**

**This makes it the recommended way to apply
Agile to offshoring**



Fully Distributed Scrum solves the complete offshoring challenge

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