SIEMENS

Distributed Product Owner Team for an Agile Medical Development

Strategies for growth, communication, and customer collaboration

Andrea Heck, XP 2013 Conference, Vienna, June 2013

Speaker

Andrea Heck
Agile Transition Lead & Agile Coach
Dipl. Inf (Univ), CSM, CSPO, CSP

Siemens AG Healthcare
SYNGO
Hartmannstr. 16
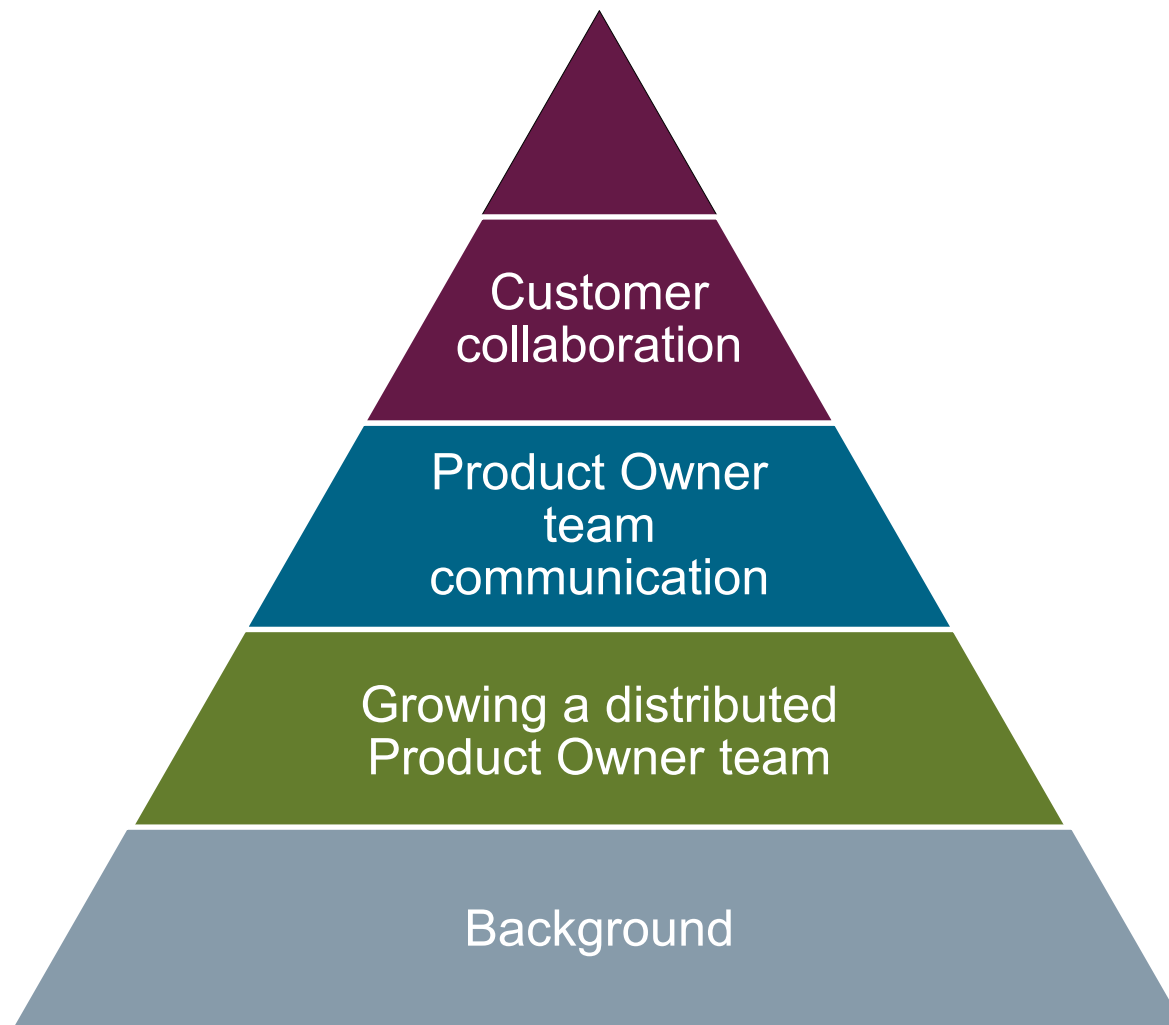91052 Erlangen, Germany

E-mail: andrea.heck@siemens.com

Twitter: @AgileAndrea

Blog: http://agileandrea.com/

Answers for life.

Distributed Product Owner team @ SYNGO

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Distributed Product Owner team @ SYNGO

Background

- Get the full picture – *syngo*.via

- Medical product development

- Product and modules

- Large-scale distributed agile transition

Background

Get the full picture.

The *syngo*.via 3D routine and advanced reading solution helps to accelerate workflows across all modalities, and is suitable for both day-to-day and more challenging cases.

It is **efficient**: by helping save valuable time, it allows physicians to focus on their core tasks.

It is **flexible**: users can customize applications, layouts and workflows.

And it is **intelligent**: it delivers powerful image reading, and guides users through the entire workflow.

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Background

Medical Software Development

It is special – many regulations need to be considered.

For our topic it is important that the **problem domain is different** from what developers have experience in.

"My developers keep telling me: but our users must understand our logic! – It is very hard for them to understand the doctors have a different work context, and a totally different way of thinking."

(a Product Owner)

Background

Our product consists of

- **Modules** that represent certain feature areas, and can be re-used in different products

- **Apps** using the modules that are created especially for syngo.via

Some of the *syngo*.via apps are created by SYNGO, others are created by other Siemens Business Units who use our modules and deliver their advanced application, e.g. a CT cardiac app.

syngo.via

App | App

Module | Module | Module

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Background

We have done the transition to agile of a large-scale distributed development organization

- Gradually from 2008
- A complete rollout In 2010

Goals

- Improve time to market
- Improve quality of delivered products
- Customer centered development
- Increase team productivity and motivation

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Background

Our target structure is

- Collocated feature teams
- Distributed to multiple sites
- Suppliers as partners

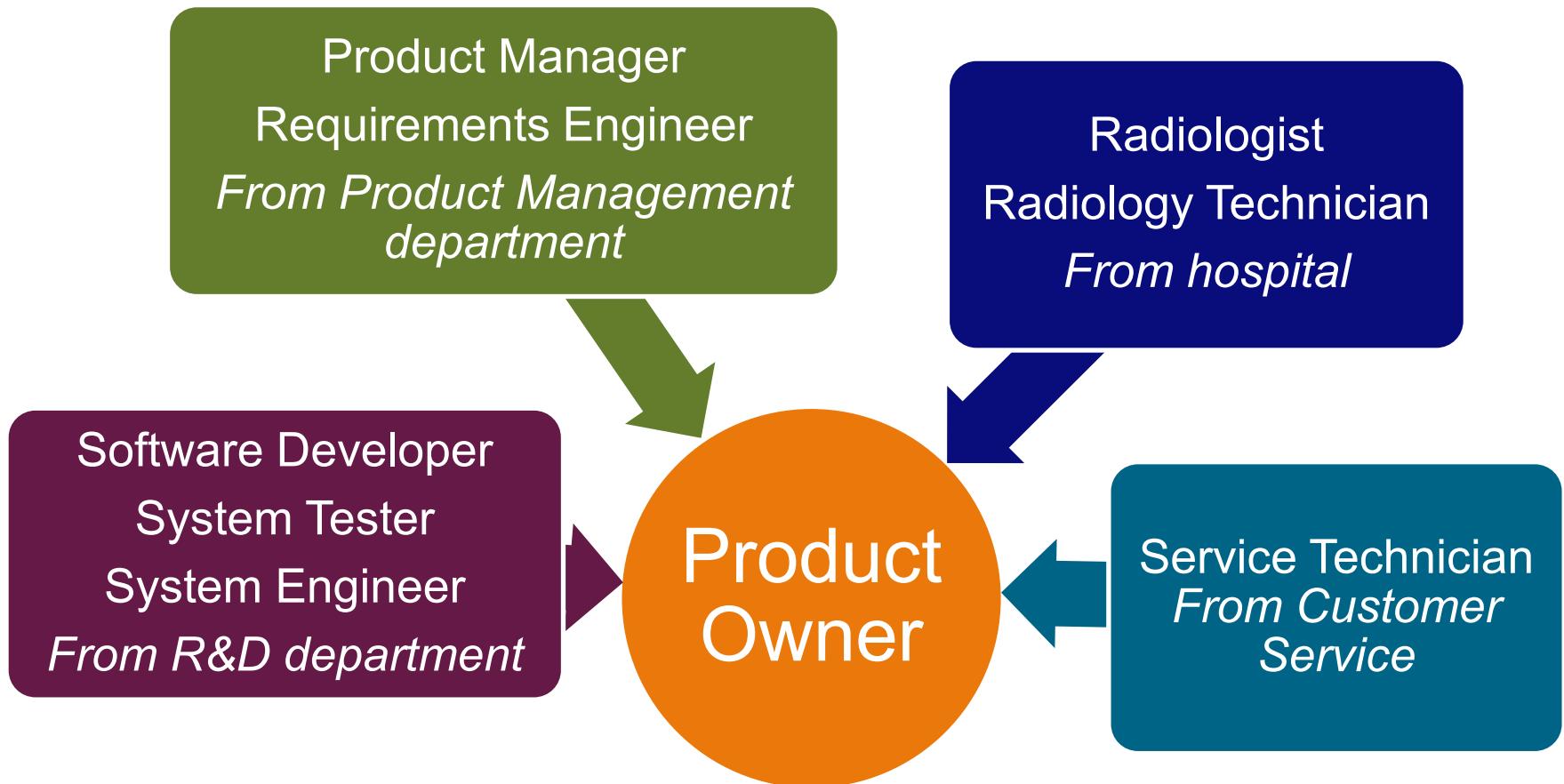Product Owner team needs to travel and get distributed

Distributed Product Owner team @ SYNGO

Growing a distributed
Product Owner team

Background

- Background of Product Owners

- Product Owner team structure

- Knowledge

- Skills

- Investing into Product Owners at partner organizations

Growing a distributed Product Owner team

Background of Product Owners – previous roles

Product Manager
Requirements Engineer
From Product Management department

Radiologist
Radiology Technician
From hospital

Software Developer
System Tester
System Engineer
From R&D department

Product Owner

Service Technician
From Customer Service
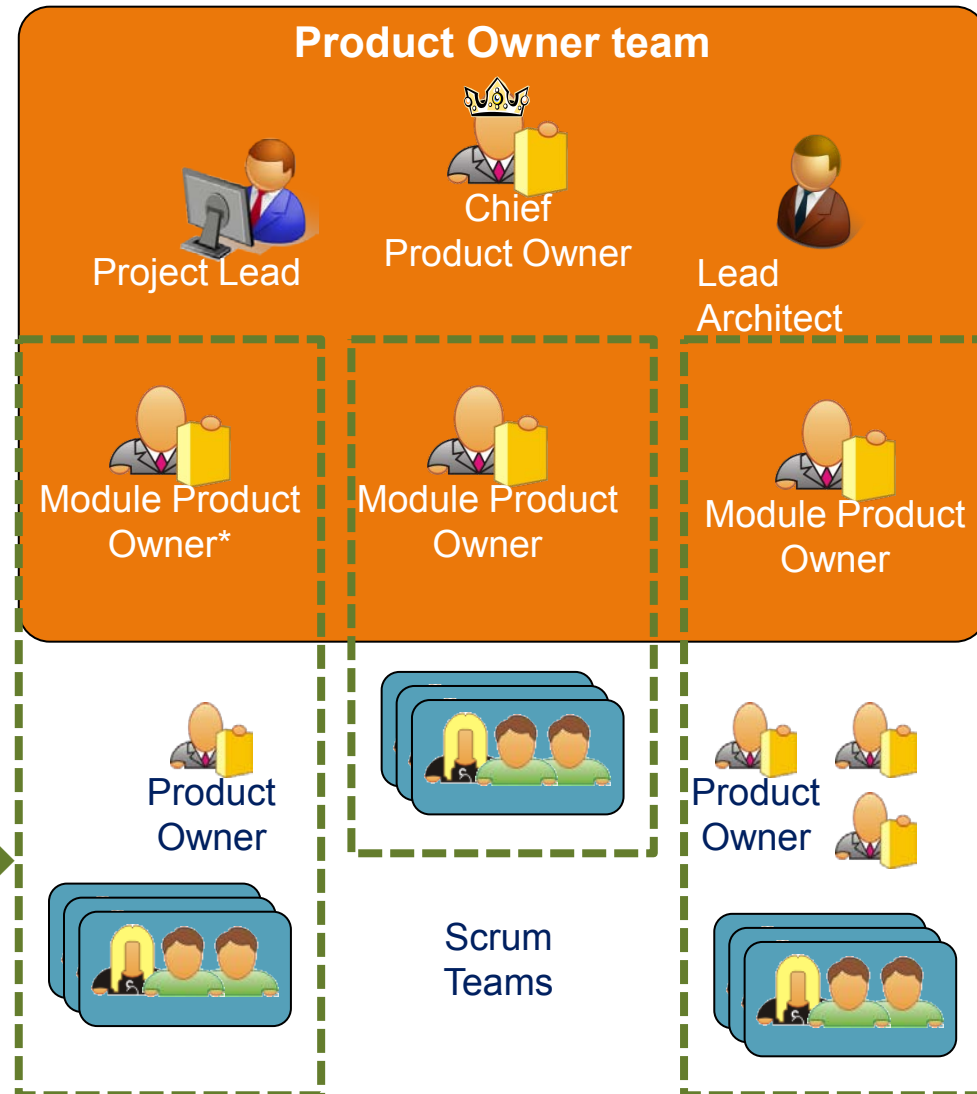
Growing a distributed Product Owner team

Product Owner team structure

At transition start:

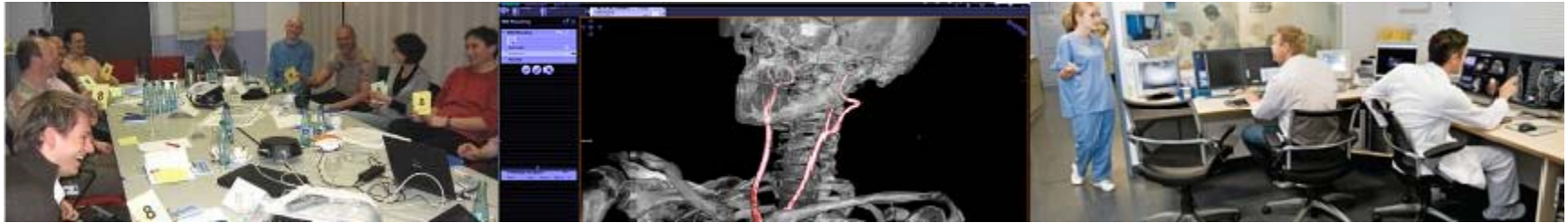Nearly the whole PO team was collocated in the headquarters

- Many POs have to travel frequently
- Their teams are at other sites
- Idea:
  Grow more Product Owners at all sites

*App or Module ➔

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Growing a distributed Product Owner team

Knowledge

Our product!

Medical knowledge

Agile Product Management

Workflows in hospital

Stakeholders and interfaces
within the organization

Context of work of users

Product Owner Role

Usability

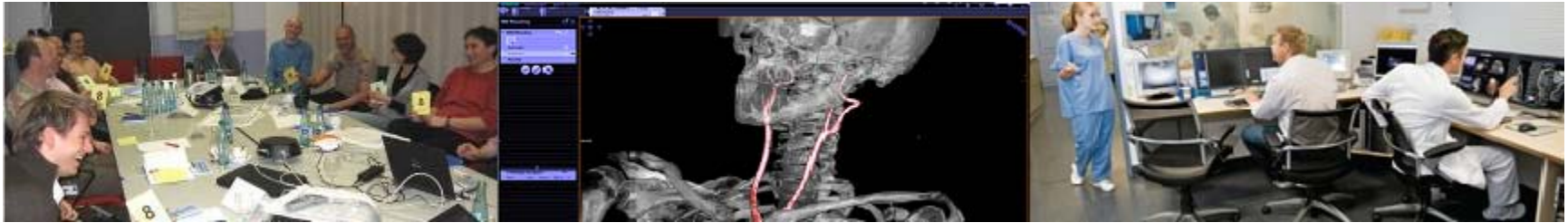Requirements Engineering

User Stories

Software development context

Software Quality   Process and Regulations

Growing a distributed Product Owner team

Skills

High communication skills

Lead without power

Listen to customers

Taking comprehensible decisions

Team Motivation

Presentation skills – clear, understandable, WIIFY

Ability to convince

Prioritization

Decide based on business value / customer value

Focus on substantial issues

Coaching

Know when you need to ask

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Growing a distributed Product Owner team

Investment into Product Owners at partner organizations

We have three successful models for Product Owners at partner sites:

1. Employ a Product Owner from external with **excellent problem domain knowledge** – in our case, radiologist, and teach SW development, agile, and our product

2. Take a **long years experienced person from a leading software development role**, and teach Product Owner role, customer and business topics

3. Ask an experienced Product Owner from headquarters to **move** (temporarily) to a site

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Growing a distributed Product Owner team

Investment into Product Owners at partner organizations

Should we do this at all?

Can our partner ramp-up the competency and skill-set in due time?

?

Distributed Product Owner team @ SYNGO

Product Owner team communication

Growing a distributed Product Owner team

Background

- Whole PO team

- Core PO team

- Roles in Scrum Team

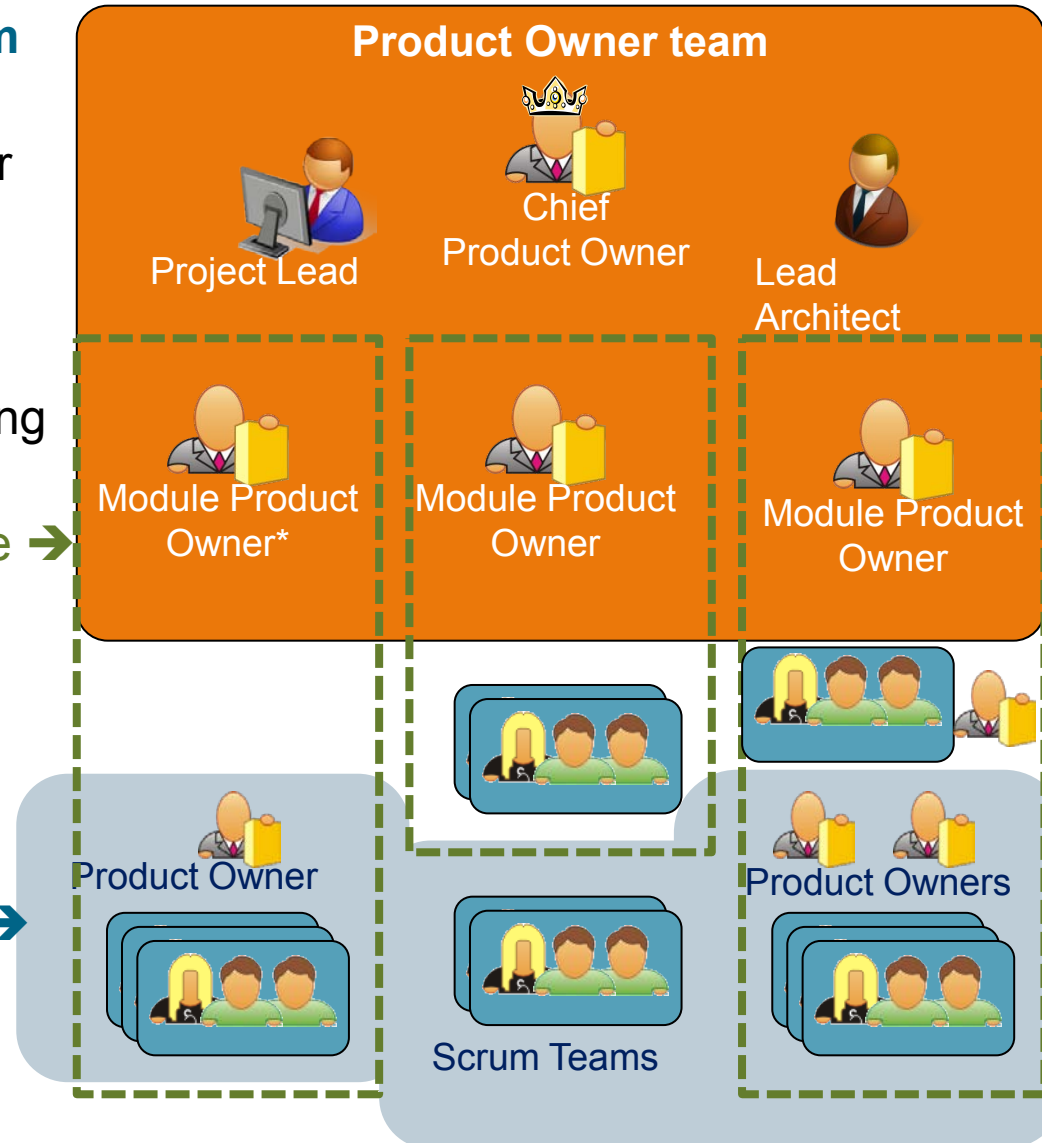- Within the Module (App) – three different models

- Travel needs

Product Owner team communication

In the whole Product Owner team

- Workshops - one to two times per year: roadmap, big features next release, process improvement

- Weekly sync: virtual status meeting

*App or Module ➜

Site ➜

Product Owner team

Project Lead

Chief Product Owner

Lead Architect

Module Product Owner*

Module Product Owner

Module Product Owner

Product Owner

Product Owners

Scrum Teams

Product Owner team communication

In the Product Owner Core Team

- Daily sync across modules. Important content topics are discussed. =>Virtual meetings!

- Weekly sync including module architects. Discuss features that concern other modules.

   =>Virtual meetings!

- Face to face personal meetings between Module POs or with the Chief PO –very helpful.
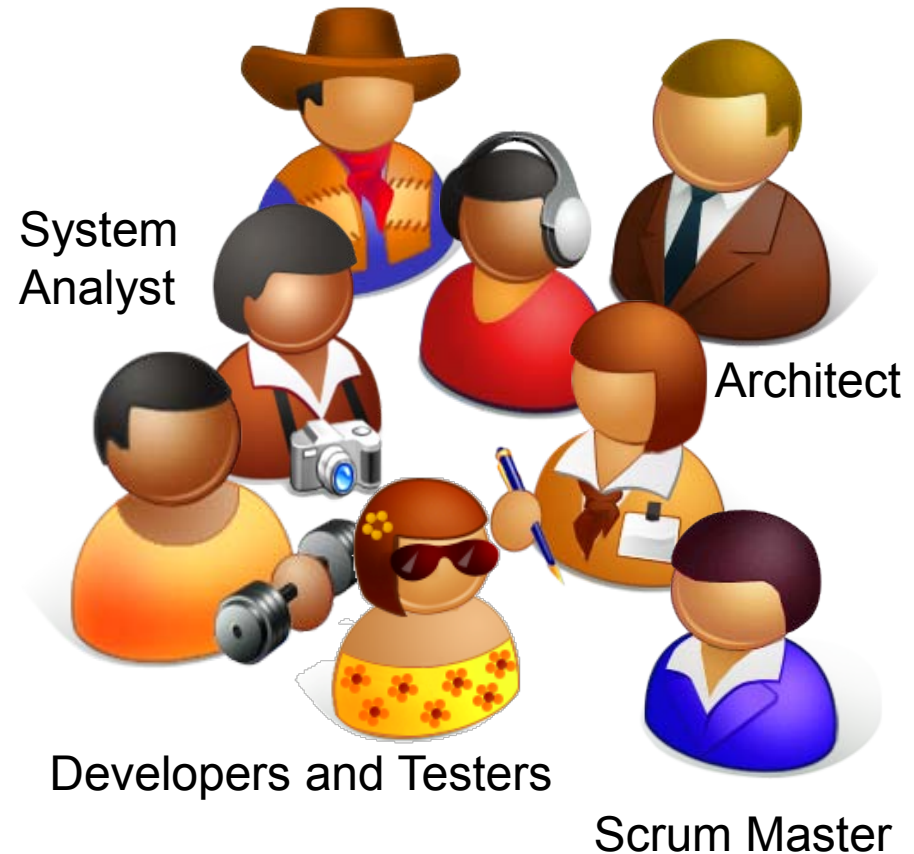
Product Owner team

Project Lead

Chief Product Owner

Lead Architect

Module Product Owner

Module Product Owner

Module Product Owner
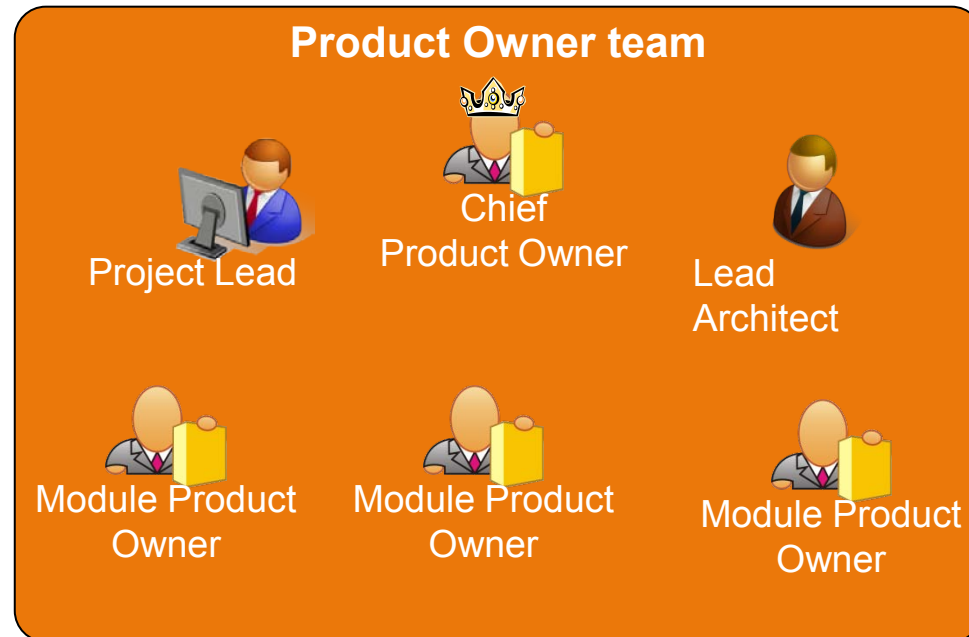
Recently we have one module PO at a different site. =>Virtual meetings!

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Product Owner team communication

Roles in Scrum Team

- **System Analyst** – supports Product Owner in detailed research and requirements. Documents backlog grooming results in backlog and specification document.

- **Team-Architect** – coordinates technical features, redesigns, takes care of technical debt, protects architecture

- **Scrum Master** – takes care for organization, improvement, process

System Analyst

Architect

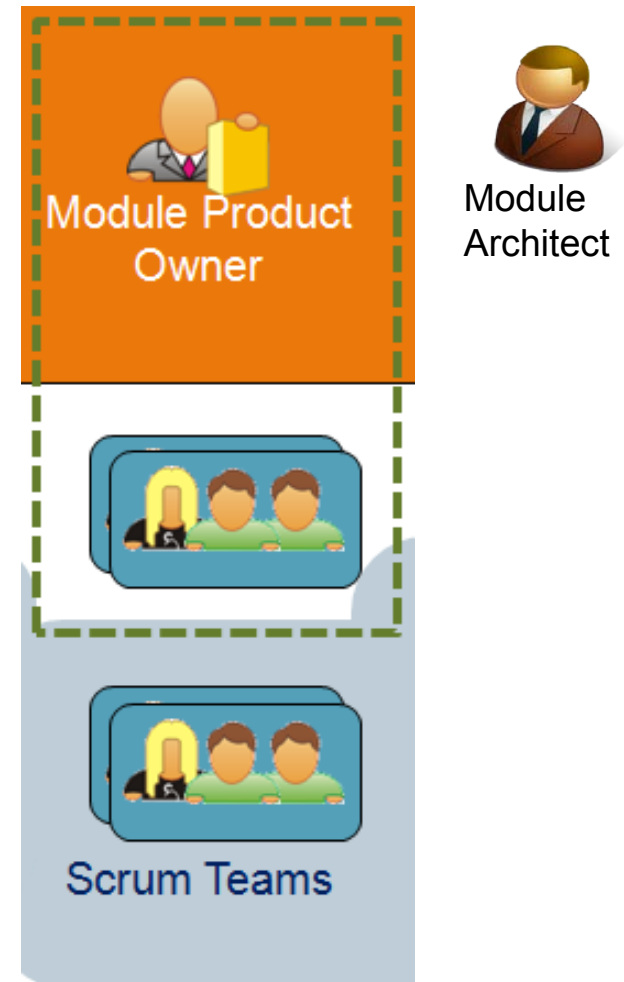Developers and Testers

Scrum Master

Product Owner team communication

Within the Module – model 1

Module Product Owner and module architect in HQ, a few teams - onsite and offsite.

- Module PO prioritizes backlog alone

- Backlog grooming with teams is supported by system analyst, module architect and team architects

- Module PO participates in the sprint reviews with each team and accepts the results

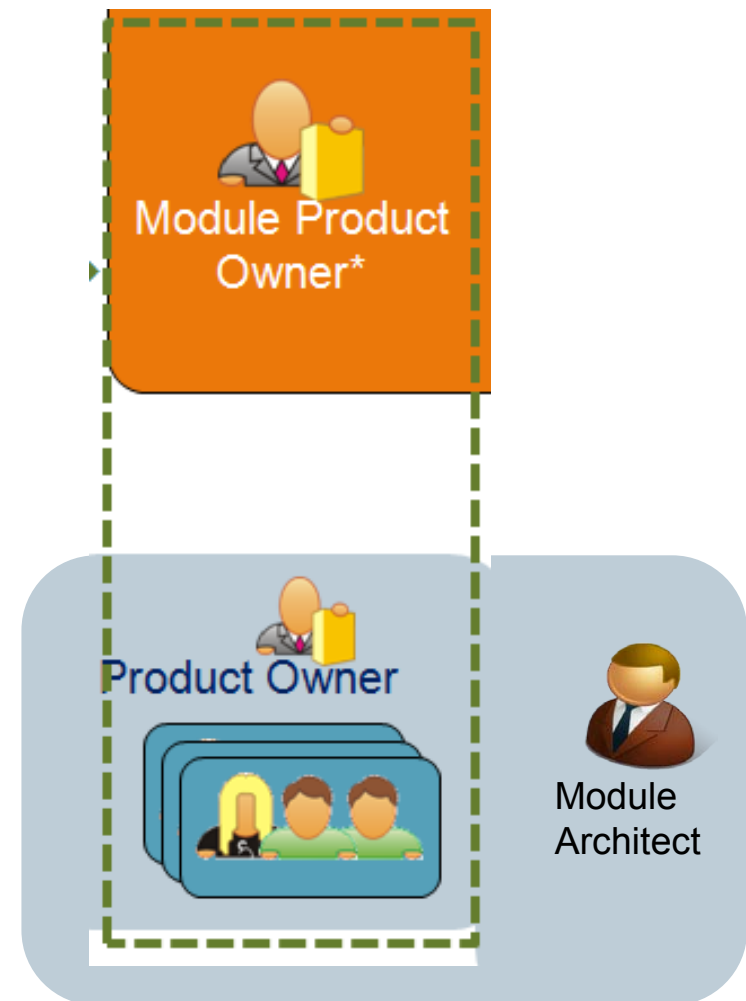Module Architect

Scrum Teams

Product Owner team communication

Within the Module – model 2

Module Product Owner in HQ, a local Product Owner and a module architect, a few teams – all offsite on the same site.

- Module PO prioritizes with local PO

- Intense communication M-PO and local PO by virtual sync meetings and visits

- Backlog grooming with teams mainly by local PO

- Local PO participates in the sprint reviews with each team and accepts the results
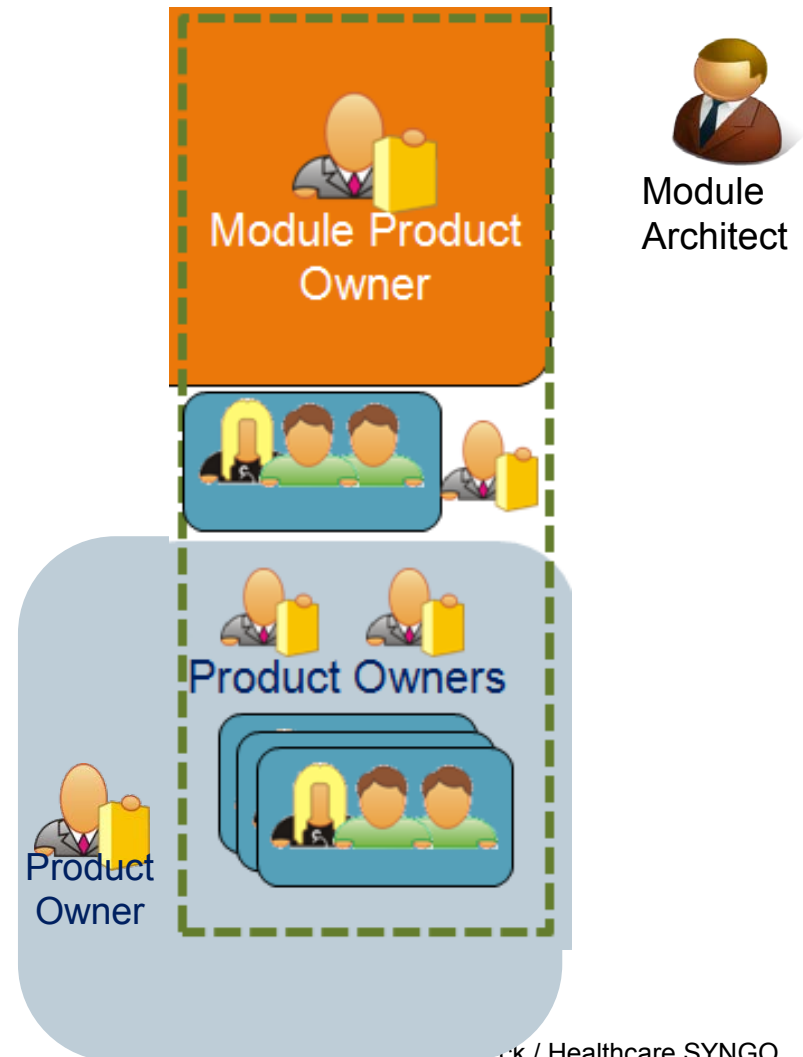

Module Product Owner*

Product Owner

Module Architect

Product Owner team communication

Within the Module – model 3

Module Product Owner and module architect in HQ, each team with a team Product Owner - onsite and offsite teams.
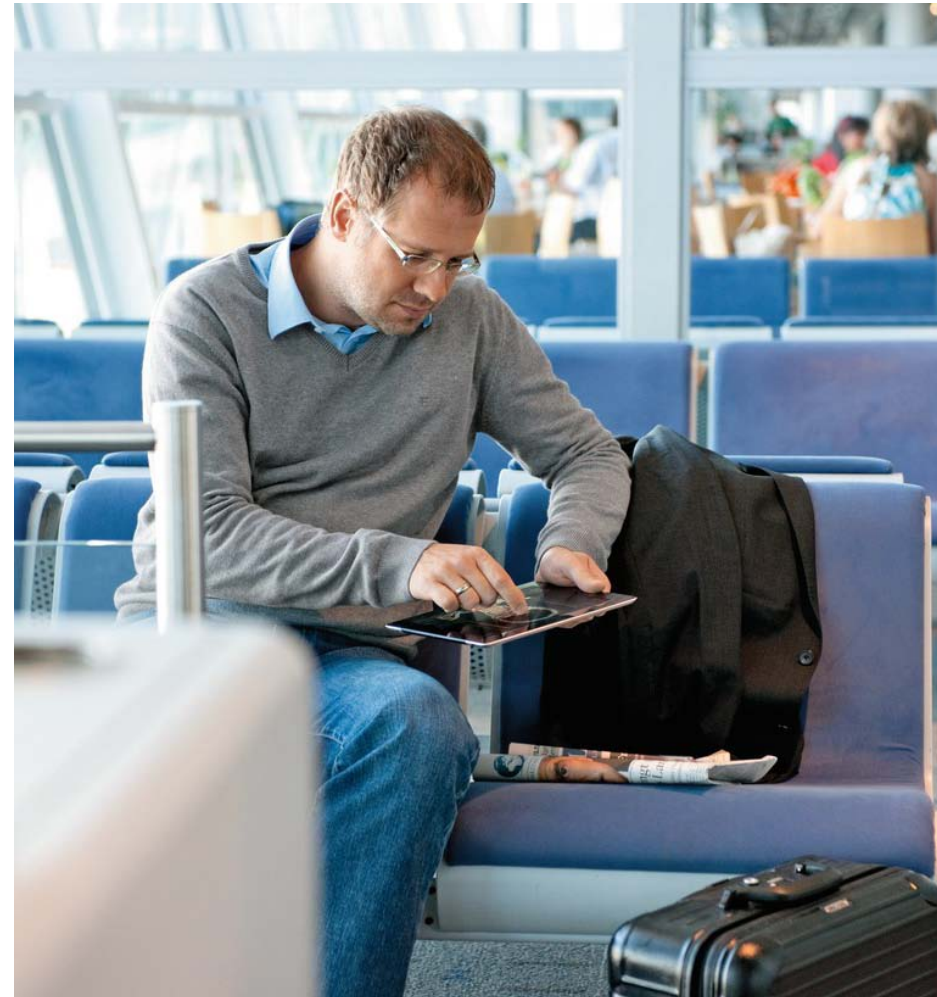
- Module PO prioritizes top level

- Top level backlog grooming with team POs, and module architect

- Weekly virtual sync meetings of module PO, module AR, team POs

- Team PO accepts the results of each sprint for his/her team

- Module PO participates in selected sprint reviews

Module Product Owner

Module Architect

Product Owners

Product Owner

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Product Owner team communication

Travel needs

- Module Product Owners travel every sprint (4 weeks) to spend a few days with their remote teams

- Local Product owners from sites travel to HQ to stay in contact with the rest of PO team, and with other stakeholders (5 to 10 times per year)

Distributed Product Owner team @ SYNGO

Customer collaboration

Product Owner team communication

Growing a distributed Product Owner team

Background

- Different customer types

- Congresses

- Local collaboration sites

- Customer Use Evaluation sites

- POs travel to special sites

- Radiology workshop

- Admin workshop

Customer collaboration

Challenge:
Different Customer Types

All Product Owners need to have access to different types of customers, reflecting different market segments

In our case

- Big and small hospitals
- distributed hospitals with common infrastructure
- Less and more tendency to automation of workflows
- Country, culture, tradition…

Customer collaboration

Congresses

Product Owners need to travel to
important congresses which our
customers visit as well, in our case e.g.
ECR in Vienna,
RSNA in Chicago,
Arab Health in Dubai

- Personal customer contacts
- Learn from customers
- Organize user meetings

Customer collaboration

Local collaboration sites

We have collaboration contracts with hospitals at the cities where our development teams are

- Hospital visits for team members
- Product Owners have a local contact
- Sometimes local contact can be used for showing intermediate state of features

Customer collaboration

Customer Use Evaluation sites

We do a **Customer Use Evaluation** before each product release at 15 to 20 sites around the globe

- Each Product Owner is responsible for one site as main contact for all topics
- All Product Owners get summarized feedback from Customer sites
- All Product Owners can ask selected Customer sites about their specific topics

Customer collaboration

Product Owners travel to special sites

Some Product Owners still need quite specific customers for their topics:

- Who is advanced enough or thinks abstract enough about future needs to talk about this particular topic?

- With whom can we talk about a topic that is still totally confidential?

Customer collaboration

Radiology workshop

- Once per year, 10 -15 radiologists from customers are invited to one site for 3 days
- Good mixture of customer types and countries
- All Product Owners can present and participate
- They present the features of the current release for early feedback
- They give a preview on concepts for next release:
  a) useful feature?
 b) useable concept?

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Customer collaboration

Admin workshop

- Once per year, 10 IT admins and clinical admins from customers are invited to one site for 3 days
- Selection criteria: long term installed site and intense usage of admin tools and features
- Mainly for Product Owners from the admin related module, others can participate
- Excellent feedback from users
- The Module PO gives the admins virtual money to spend on different future features and wishes => they learn how we prioritize

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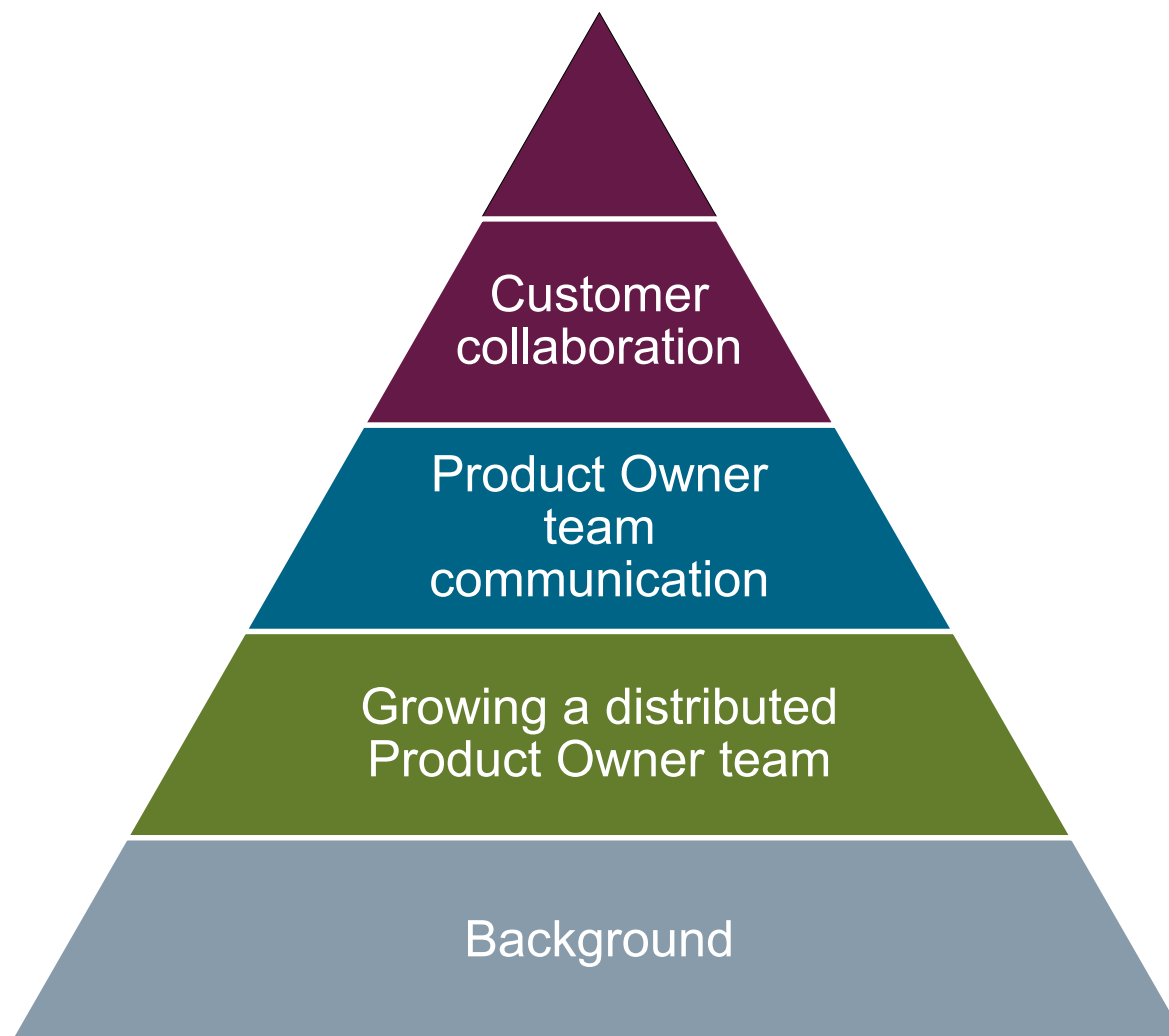
Conclusion?

Yes, we can!

Yes, it is possible and has lots of advantages to distribute the Product Owner team with the collocated Scrum teams to the sites.

However, it requires
- A lot of travel for the POs in the headquarters as well as the POs at supplier sites
- Careful, background and skill oriented selection of persons for the PO role
- Investment into closing the knowledge gaps and improving skills

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Speaker Bio

Andrea Heck
Agile Transition Lead & Agile Coach
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Siemens AG Healthcare
SYNGO
Hartmannstr. 16
91052 Erlangen, Germany

E-mail: andrea.heck@siemens.com

Twitter: @AgileAndrea

Blog: http://agileandrea.com/

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