



Sourcing of Software Development with nagarro

Overview



Software Development Sourcing with nagarro

Initial Situation and Goals

Description

Initial situation / Need for action

- With the fast growth of ANDRITZ we were not able to deliver custom-specific software development requests in acceptable timeframes anymore
- Quality of delivered products was limited because of lacking test and quality assurance processes
- Up & down scaling of external developers was somehow possible but time-consuming
- Increased cost pressure on custom-specific software development

Our main goals

- Faster time to market – scalability of teams based on business demands
- Increase quality, stability and performance of our software products
- Increase global usage with state-of-the art software architecture
- Financial impact – reduce costs for software development

Non – goals

- For the time being, full scale sourcing of software development

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Evaluation Process and Decision

Description

Evaluation

- Detailed evaluation done with near and offshore vendors
- Required capabilities were captured and evaluated
- Detailed discussions on working models and overall working relationship
- Duration was time boxed with roughly 3 months

Decision for nagarro

- Working model based on agile methodologies similar to ANDRITZ internal software development processes
- Culture and size of nagarro suitable for ANDRITZ needs
- Very lean, target oriented and straight forward ramp-up process
- Local presence with strong commitment to support the engagement

Ramp-up phase

- Ramp-up was done based on a very concrete topic
- Evaluating and staffing of the “right people” within nagarro – close cooperation
- Align on the working model, processes and tools
- Getting started collocated in India
- Duration ~ 4 months

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Close cooperation between all parties essential for success

Description

Success criteria

- Finding the right people with the culture and communication skills needed
- Define a working model which allows communication and fast feedback between the whole team and stakeholders
- Start collocated to have a motivated team with the same goals which understands the requirements
- Establish an open feedback process to allow to change if something is not working
- Allow for failure and open culture in all aspects of communication and cooperation → treat the people equally and with respect

Engagement metrics

- Evaluation phase done in 2015: ~ 3 months
- Ramp up phase done in 2016: ~ 4 months
- Considerable team size at the beginning of the engagement: ~ 8 persons in different roles and utilization
- Today: 6 delivery teams with roughly 36 persons
- nagarro is working on roughly 10 different products
- ANDRITZ Room established to have all persons working collocated together

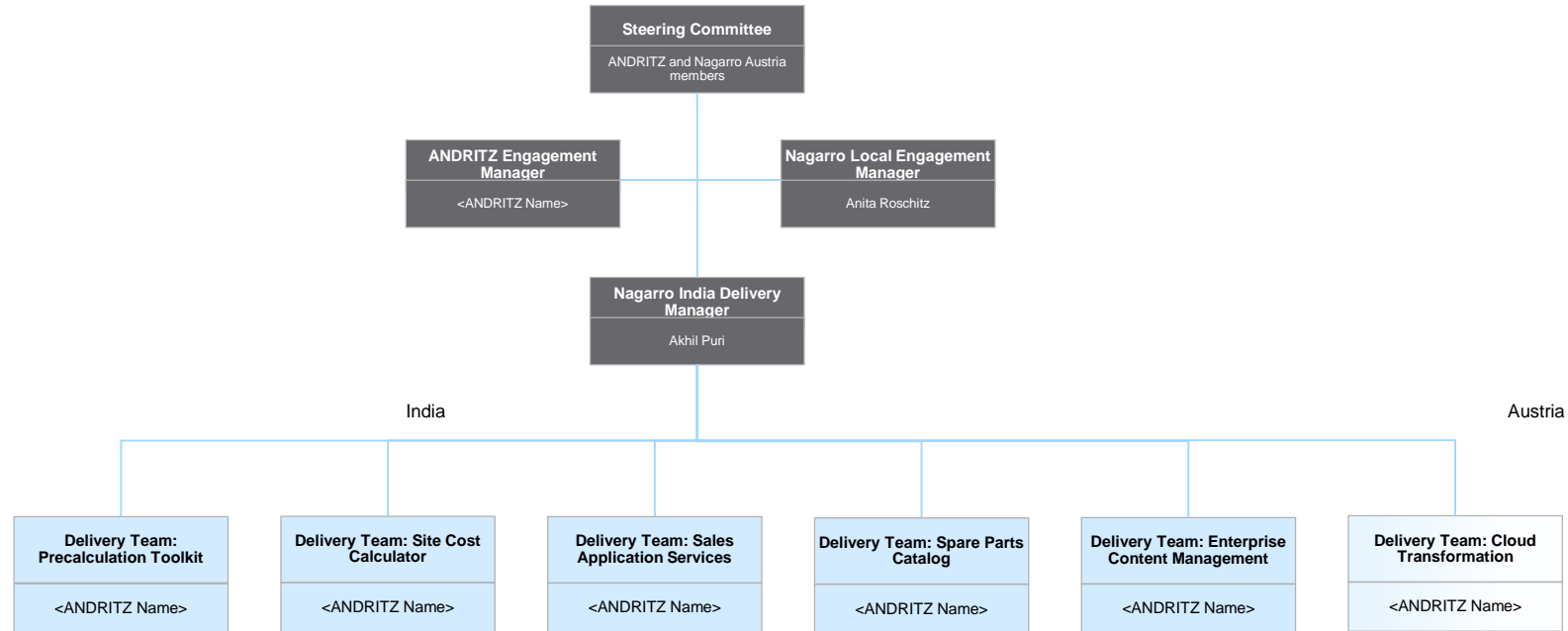
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ANDRITZ specific “red room” established



Application Development Services

Well structured organization with balanced responsibilities

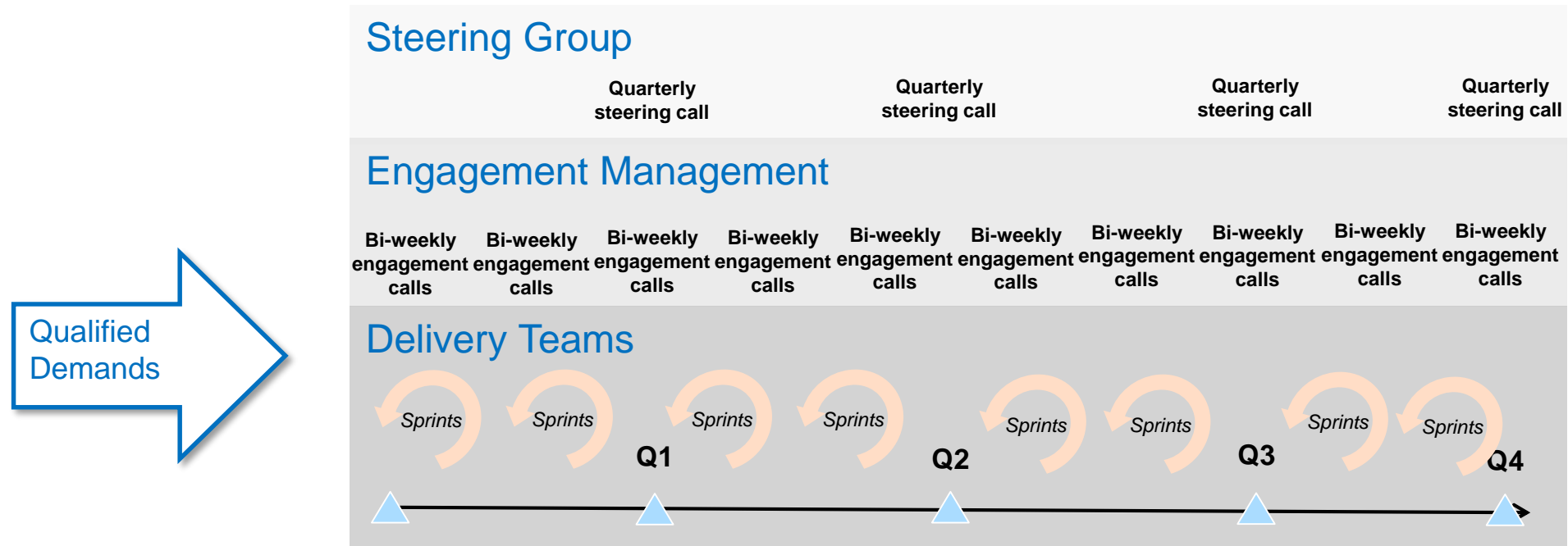


Success criteria

- Having local IT Product Owners supporting the Business Product Owners
- Team Sizes between 3 to 10 people for transparent feedback
- Identify motivated key resources in the Indian teams for the Agile Master Role
- Some projects staffed pure locally others in hybrid shoring mode

Agile working model throughout all involved teams

Established working model as main key for success



Working model and success criteria

- Agile working model from daily cycle (stand up's) to quarterly cycle (steering call)
- Close cooperation between the team members and the local leads
- Still, some visits and joint working time on-site needed
- Transparent overview about progress and impediments to be able to react asap

Software products developed jointly with nagarro

Site Cost Calculator – calculation of site erection

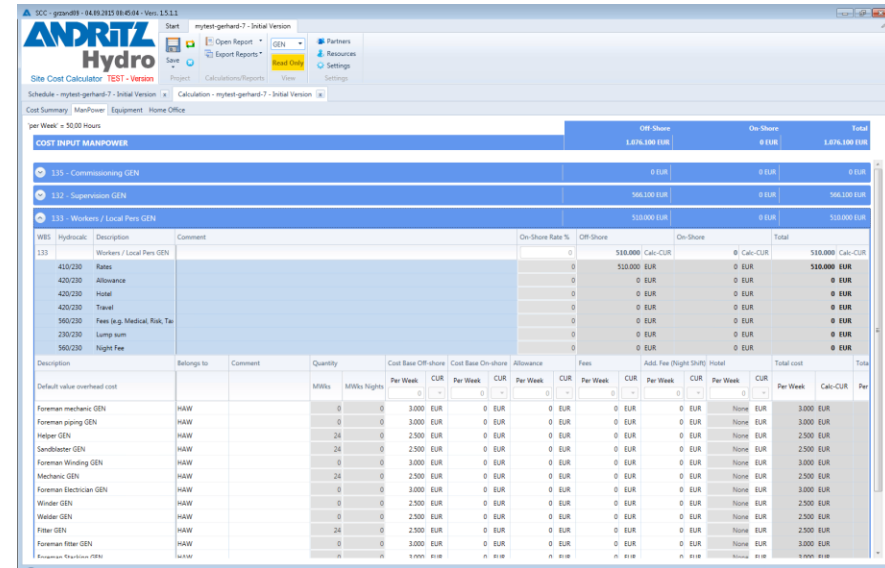
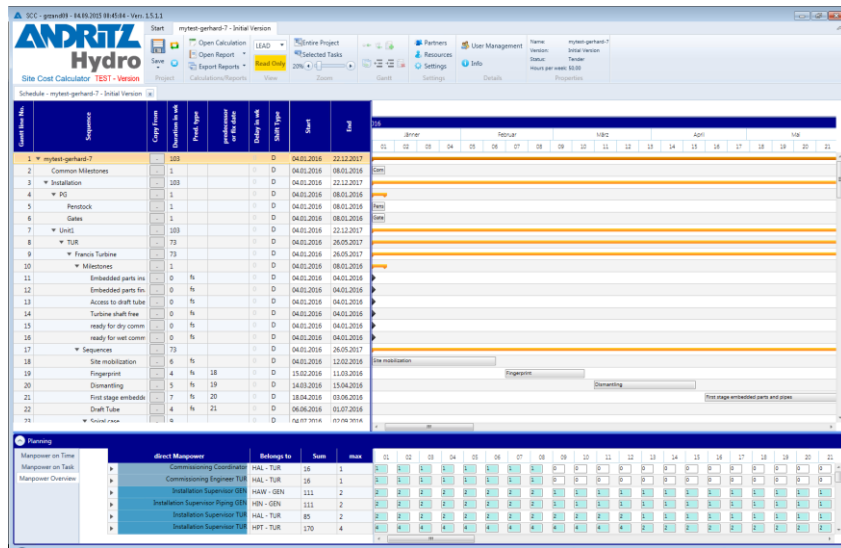
Challenge

- Complete financial planning and time scheduling of a site erection project (years of project duration with thousands of people on-site)
- Complex project structures with multiple parties involved



Deliverables

- Easy to use application with complex reporting and follow-up structures
- Plan vs actuals mapped into the ANDRITZ SAP structure for cost bookings and controlling
- 4 – 7 developers / testers deeply involved



Software products developed jointly with nagarro

Precalculation toolkit – cost calculation during the offer phase

Challenge

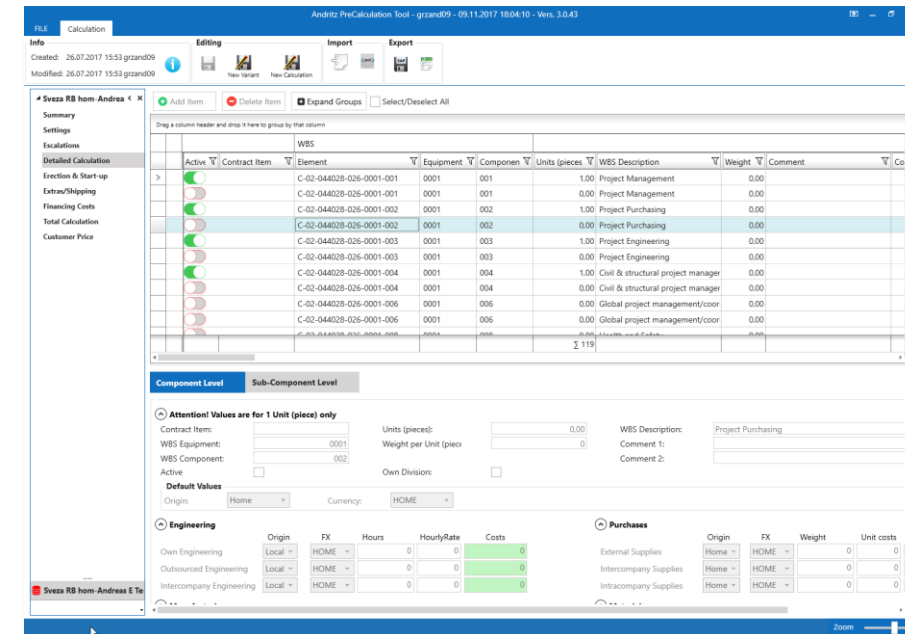
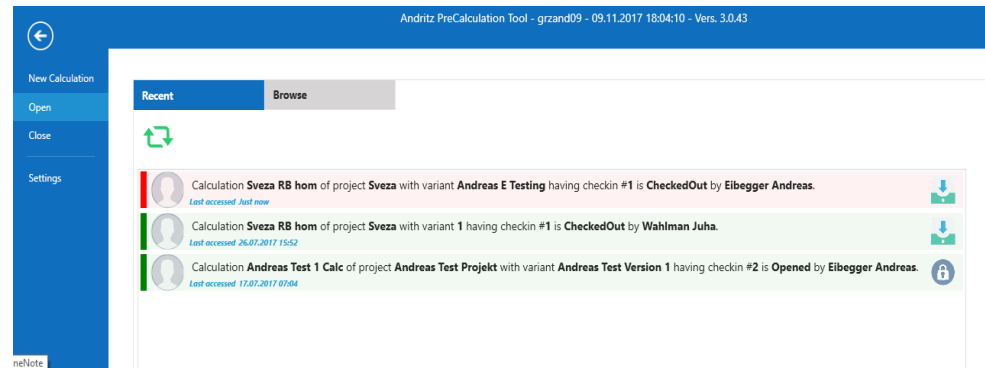
- Complete cost calculation of project costs for Pulp & Paper capital projects – up to 200.000 single elements involved
- Global usage of the tool in all PP locations



Deliverables

- Easy to use application delivered
- Architectural redesign during the project phase due to global usage requirements
- Further requirements to be implemented

Application screen shot



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Challenges need to be consequently followed-up

Success criteria

- Communication and “understanding” issues
 - Need to be overcome with good communication infrastructure, co-located working on new release planning and daily standups
- Cultural differences
 - Selecting the right people as product owners on ANDRITZ side
- Over estimation with too high safety margins
 - Establishment of an atmosphere which allows mistakes, again communication
- Meeting Timelines
 - Transparent status reporting on progress is key, working strictly agile for fast feedback

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Next steps and future goals

Next action items

- Implement changes based on feedback loops in different teams in all aspects of the cooperation
- Rework / improve our agile processes which are currently used → better usage of the scaled agile framework guidelines
- Harmonizing the way of working in different teams → we want to reach the same level of maturity in all teams
- Further pushing the agile culture in ANDRITZ and nagarro