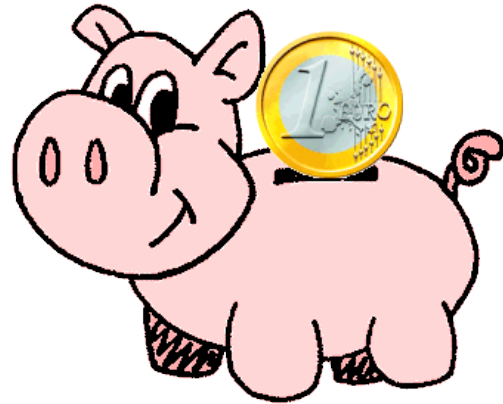


ShopAdmin

Control your expenses with receipt scanner



PITCH SLIDES

SHOPADMIN GOING AGILE

SCRUM AND SHOPADMIN

GENESIS OF SHOPADMIN



ShopAdmin

Control expenses app with receipt scanner

Vision

Whom is it for?

students or young family.

Functionality:

- Manually enter your outgoing transactions
- Scanners that auto-extract receipt information such as shop names, data and time, amount

What problems does it solve?

Save time for counting expenses.

What alternatives are available?

- Cashbook Expense Tracker
- Expense Manager
- Expensify



Architecture



Model

Store required info:
shop name, date and
time, amount.

Retrieve Data

Store Data

Controller

Number & text
recognition OCR
(optical character
recognition)



View

- Display receipt information
- Sort and categorize expenses
- Summarize expenses

Challenge

- Using Android for the first time
- Implementing Tesseract Library OCR engine and Leptonica Image Processing Library

Example:

Receipt	Amount
ALDI	19.86
PENNY	15.31
REWE	25.35
Total:	60.52



PITCH SLIDES

SHOPADMIN GOING AGILE

SCRUM AND SHOPADMIN

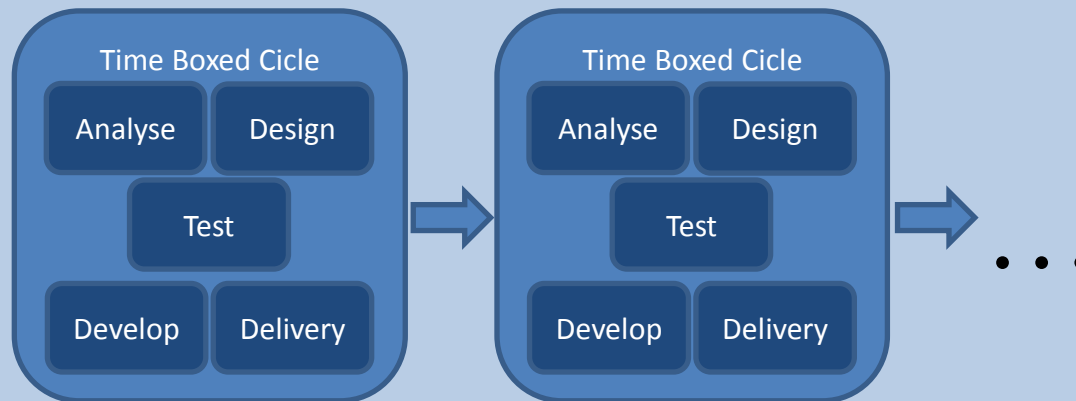
GENESIS OF SHOPADMIN

- In general the development of ShopAdmin will take place in an agile way
- Mainly differentiation between being agile and a classical approach
 - time boxed approach
- But furthermore agile has its merits and principles

Merits

- Commitment
- Focus
- Openness
- Respect
- Courage
- Simplicity
- Communication
- Feedback

Agile



Principles

1. Satisfy the customer
2. Welcome changes
3. Frequent deliveries
4. Cross-functional
5. Support and trust
6. Direct communication
7. Working software
8. Sustainable speed
9. Ambition for technical excellence
10. Self organization
11. Review and adapt

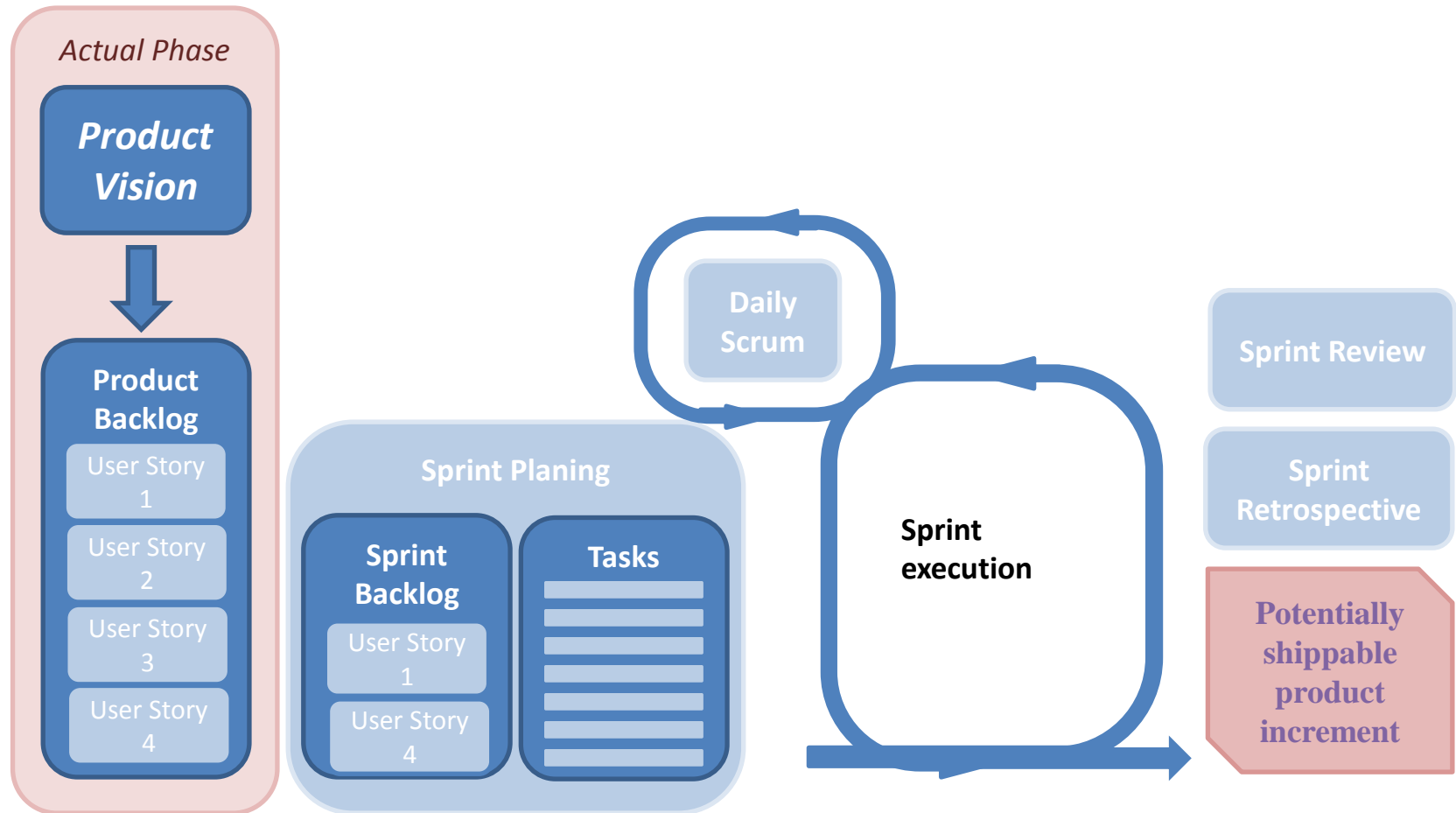
PITCH SLIDES

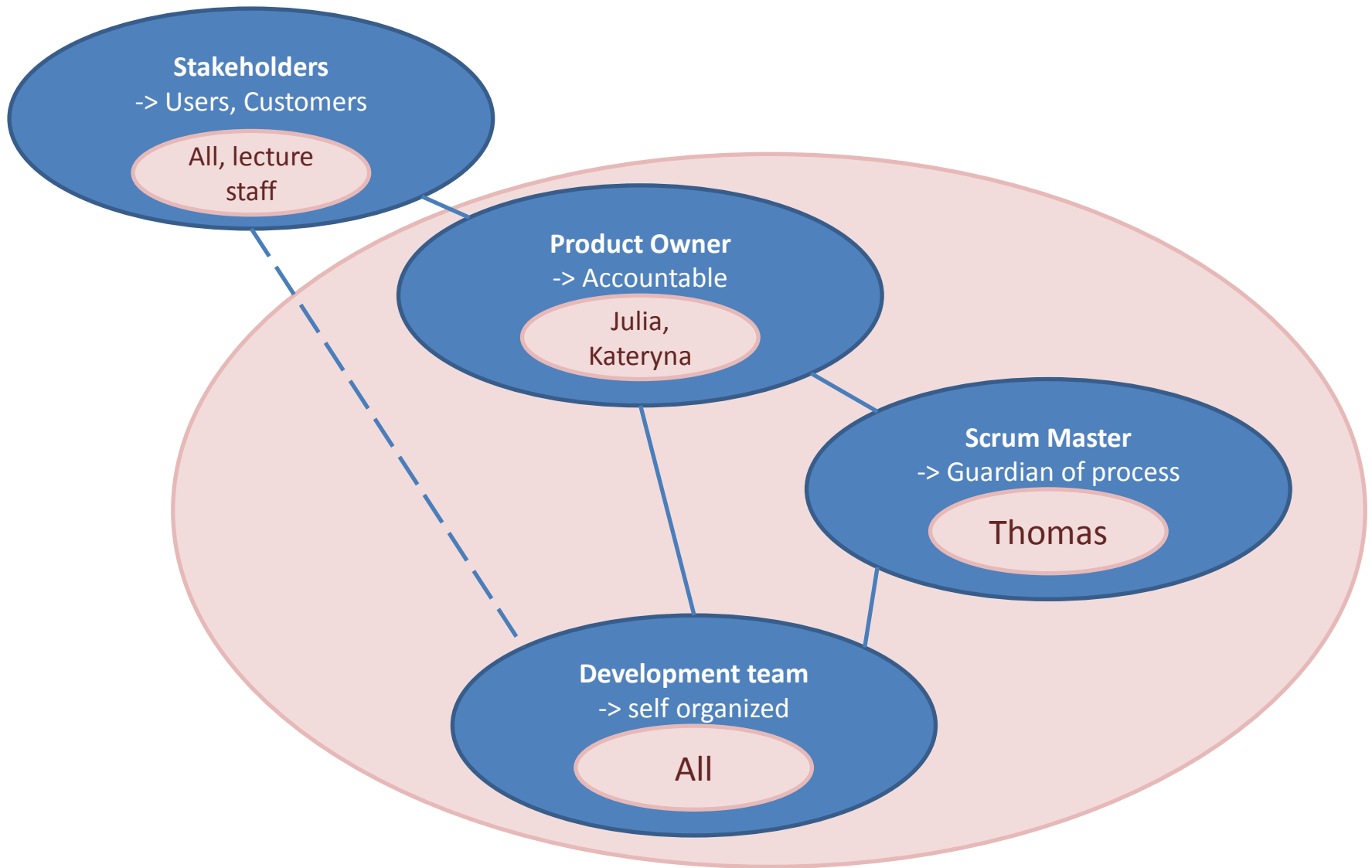
SHOPADMIN GOING AGILE

SCRUM AND SHOPADMIN

GENESIS OF SHOPADMIN

- While being agile the development approach of ShopAdmin follows the SCRUM Process



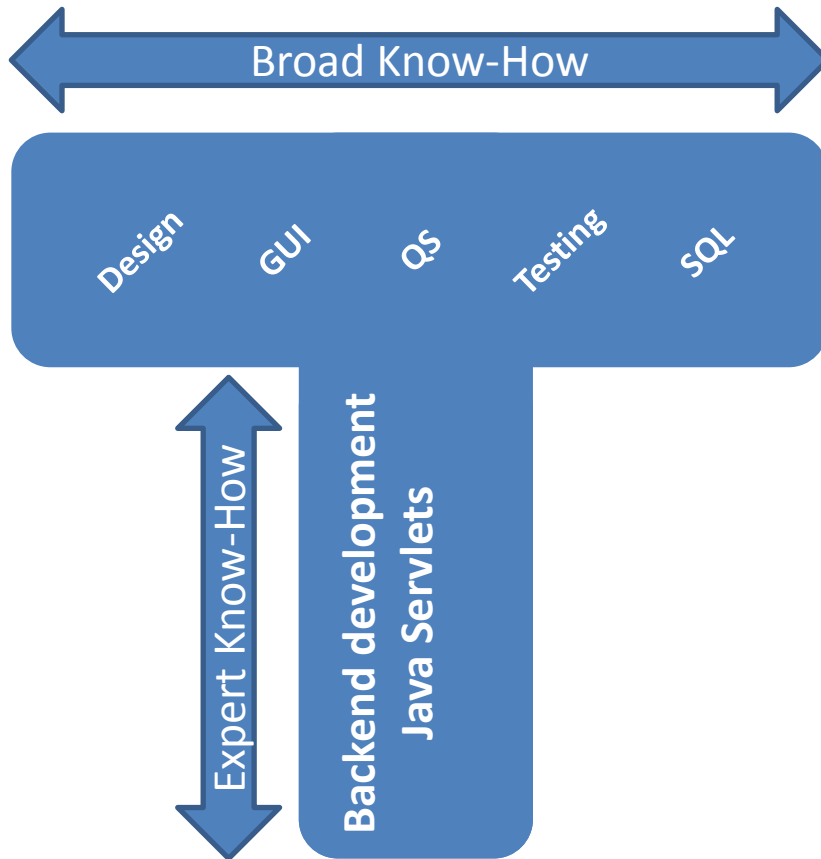


Characteristics:

- Self organizing team following the one-team-approach
- Interdisciplinary
- Close coworkers of the product owner
 - Support regarding product backlog refinement
- Responsible for sprint planning

Attributes:

- 3 – 9 persons
- Ideally T-Shaped members

The T-Shape and you...**Idea:**

- Many T-Shapes cover all aspects and everybody has base knowledge in all areas

PITCH SLIDES

SHOPADMIN GOING AGILE

SCRUM AND SHOPADMIN

GENESIS OF SHOPADMIN

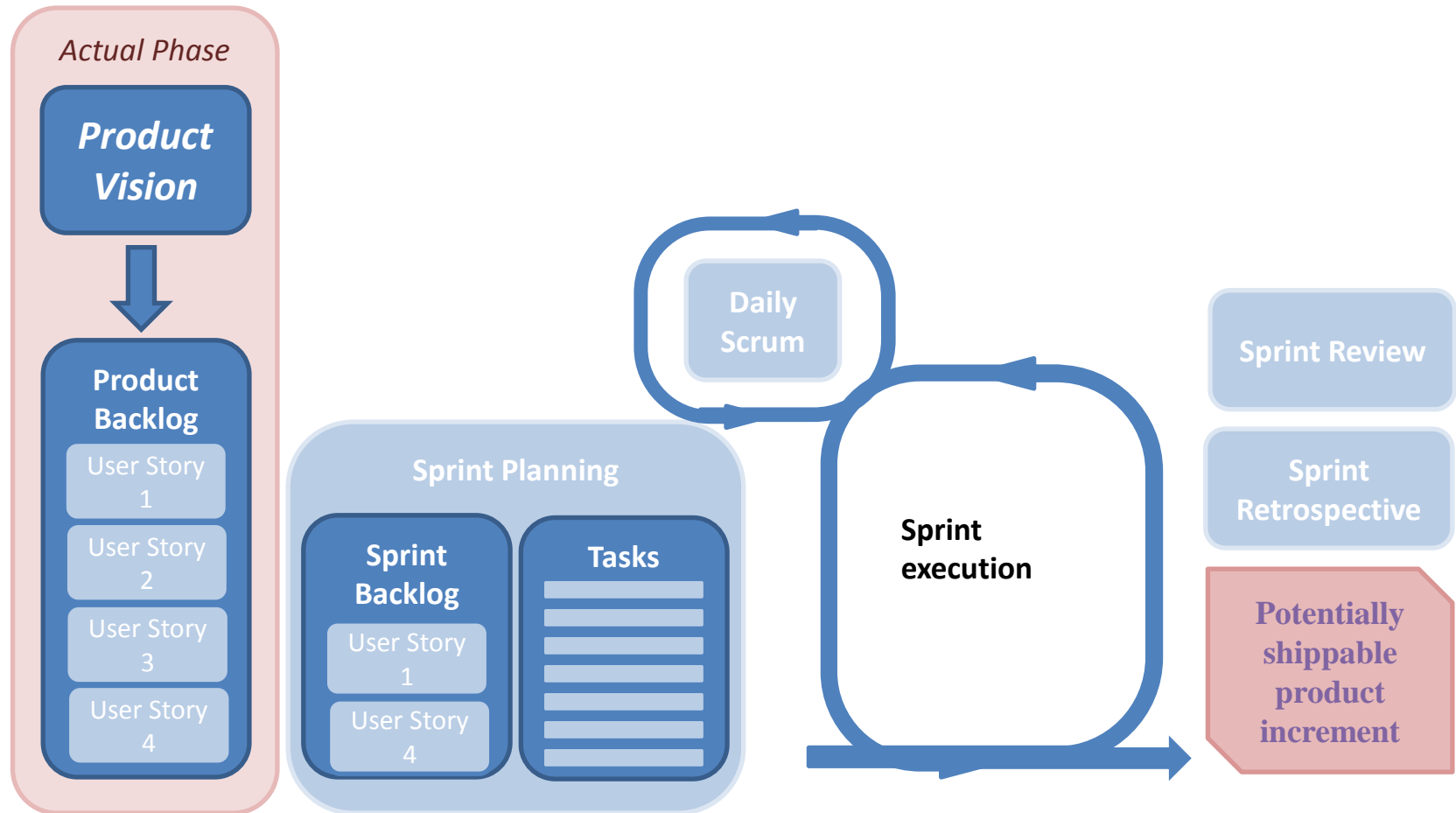
VISION ESTABLISHMENT *15.11.2015 – 27.11.2015*

TIMELINE

SPRINT I *27.11.2015 – 08.01.2016*

SPRINT II *09.01.2015 – 22.01.2015*

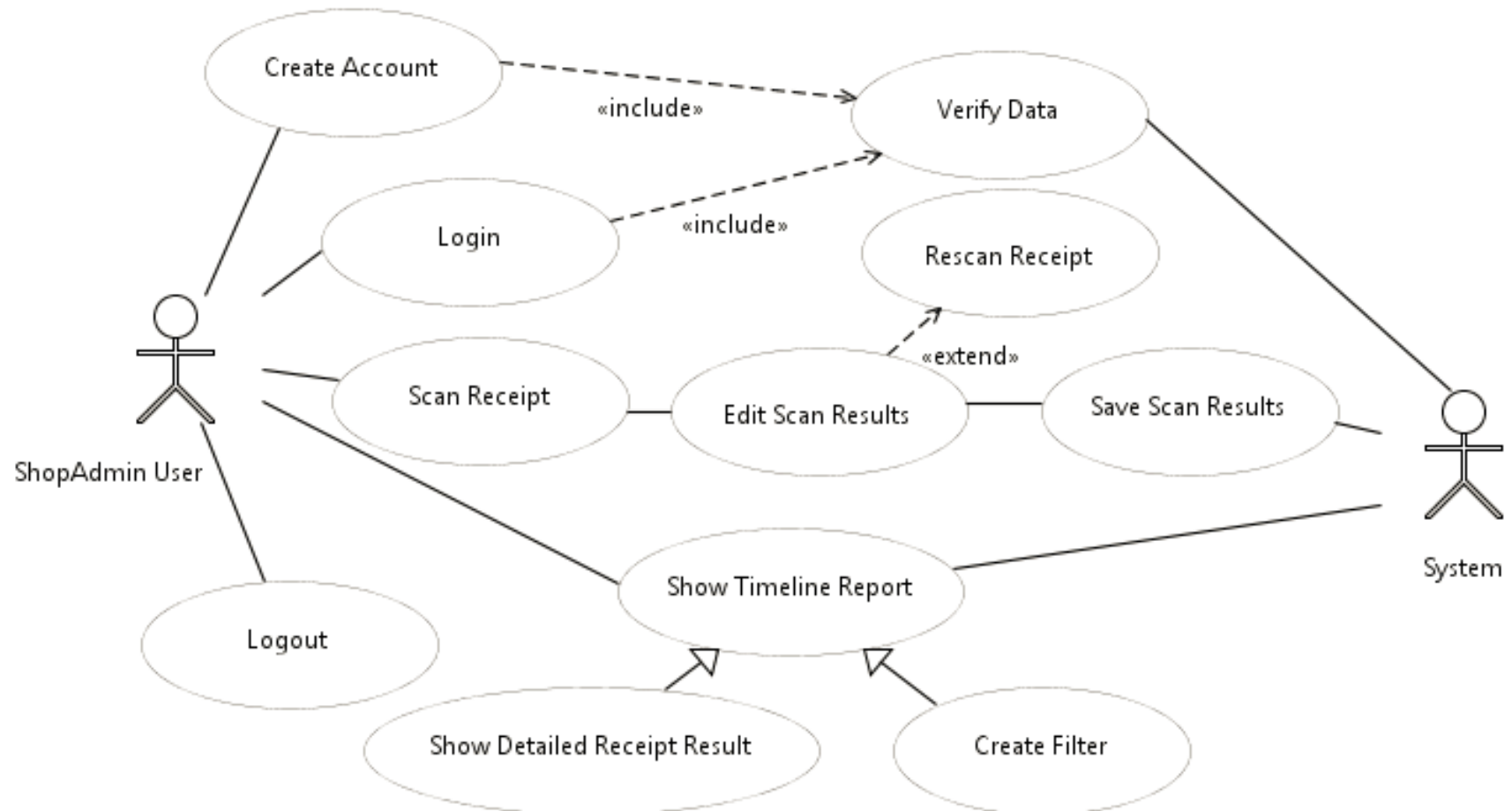
Where are we now?



Starting from the vision of ShopAdmin during the establishment phase following topics have been addressed and solved:



- SetUp product backlog
 - Preparation of user stories
 - Stabilization of vision by UML diagram
 - Concretization of user stories by definition of use cases
- Arrangement of technical infrastructure
 - GitHub: created and tested
 - Development platform: Android SDK available to the team
 - ScrumDesk: Initialized for convenience



Definition of done:

1. All tasks have to be completed
2. All implementations have to be commented
3. All tests have to successfully run through
4. Documentation has to be updated
5. Everything has to be pushed to git
6. Scrum user story has to be set to completed

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TIMELINE

SPRINT I *27.11.2015 – 08.01.2016*

SPRINT II *09.01.2015 – 22.01.2015*

- Timeline 2015:

<i>Task/KW</i>	<i>46</i>	<i>47</i>	<i>48</i>	<i>49</i>	<i>50</i>	<i>51</i>	<i>52</i>	<i>53</i>
Product Vision								
Sprint I Sprint Planning Daily Scrum								
Holiday								

- **Timeline 2016:**

Task/KW	53	1	2	3	4	5	6	7	8
Holiday									
Sprint I									
	Review								
Sprint II									
	Planning								
	Daily Scrum								
	Retrospective								
Sprint III									
	Planning								
	Daily Scrum								
	Retrospective								
Sprint IV									
	Planning								
	Daily Scrum								
	Retrospective								

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TIMELINE

SPRINT I *27.11.2015 – 08.01.2016*

PLANNING THE FIRST SPRINT *27.11.2015*

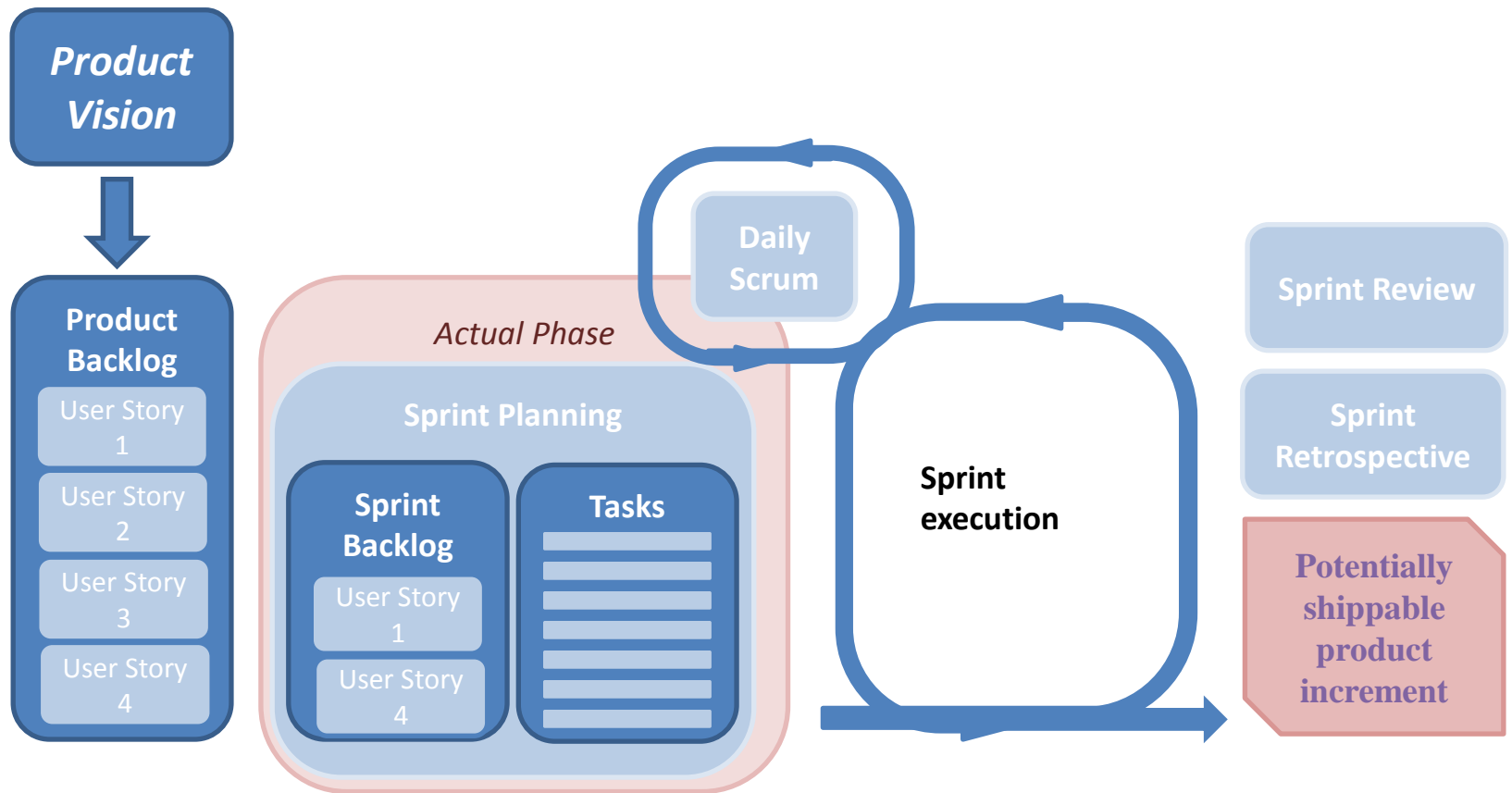
DAILY SCRUM *04.12.2015*

DAILY SCRUM *11.12.2015*

DAILY SCRUM *18.12.2015*

SPRINT II *09.01.2016 – 22.01.2016*

Where are we now?



Purpose of the sprint planning:

- Define the product backlog items which will be developed (***What?***)
- Plan the development (***How?***)

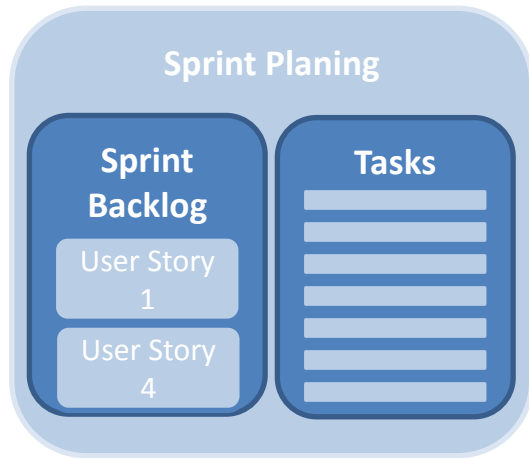
Preconditions:

- Product backlog is sufficient cultivated
- Business owner has a clear idea of the sprint goal
- Clarity of the capacity of the development team (resources and tools)

Result:

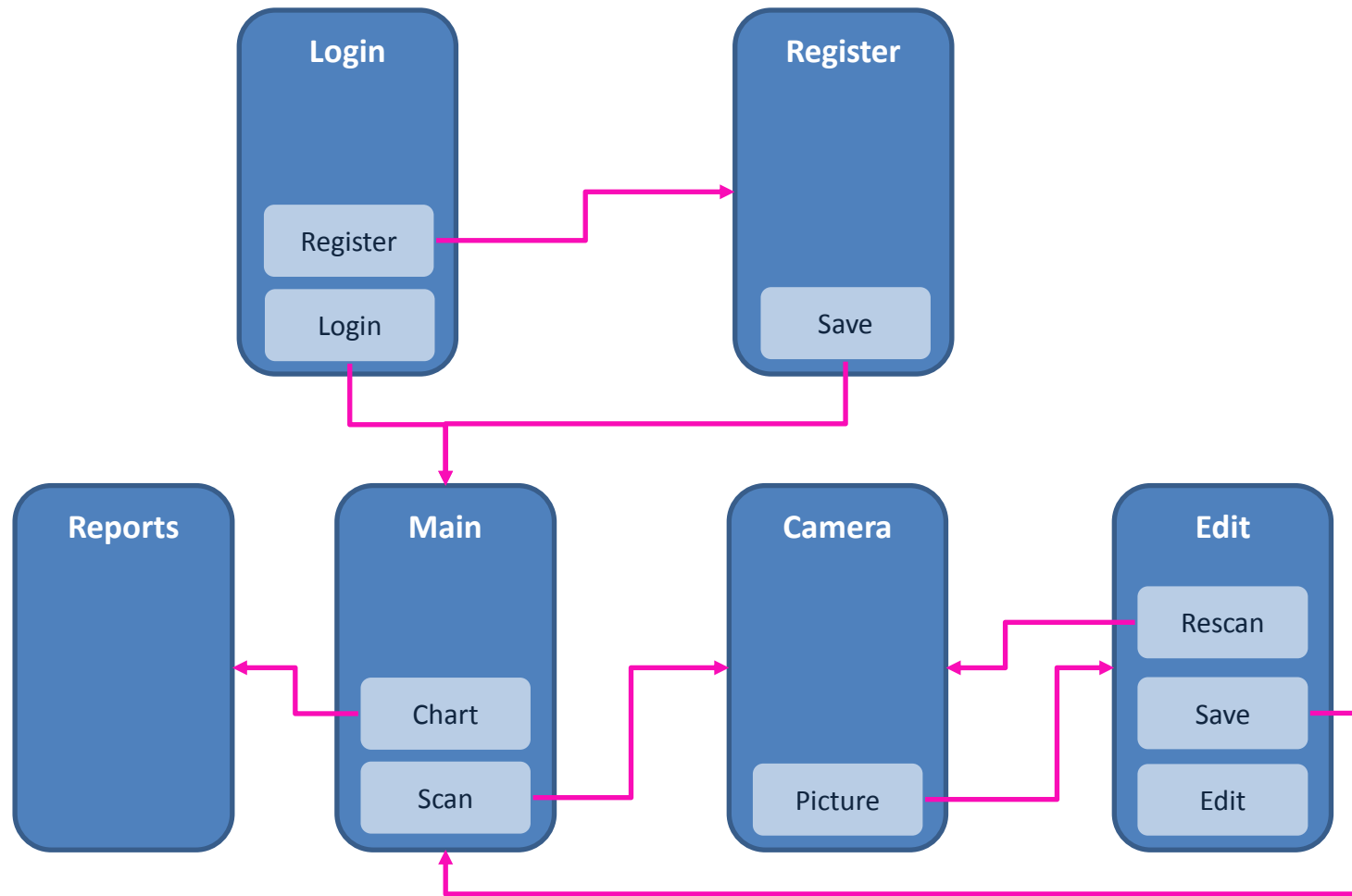
- Formalized Sprint Backlog
- Commitment on sprint goal

The Sprint Goal:



- Main goal for the first sprint is to develop a technical spike for the whole screen flow of the app, to build a sustainable base to grow further in the following sprints.
 - Furthermore the UserStories Registration and Login are targeted for implementation.
-
- Additional benefit in getting used to Android development and strengthening of the SCRUM methodology.

- Scheme of screens:



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TIMELINE

SPRINT I *27.11.2015 – 08.01.2016*

PLANNING THE FIRST SPRINT *27.11.2015*

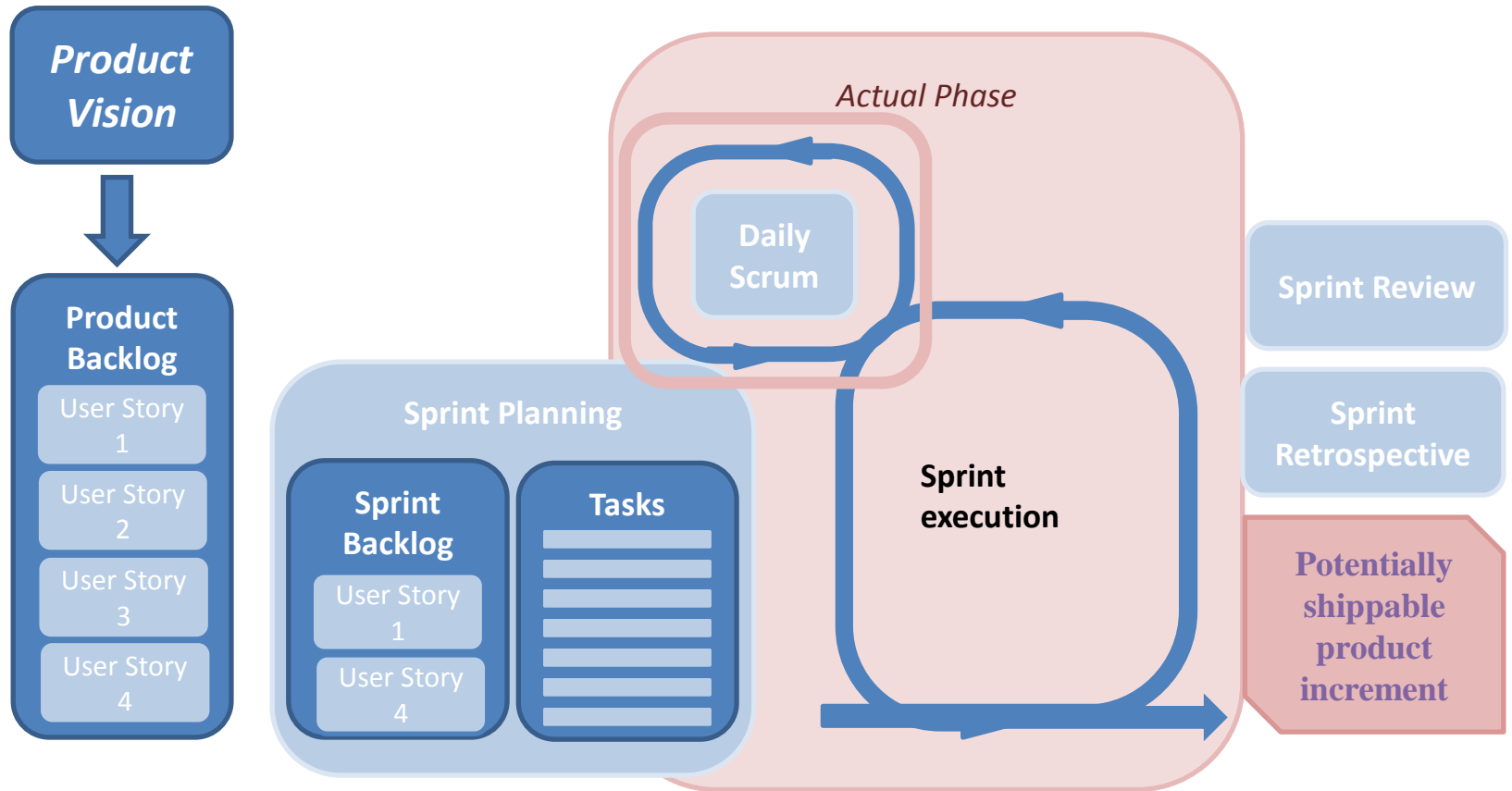
DAILY SCRUM *04.12.2015*

DAILY SCRUM *11.12.2015*

DAILY SCRUM *18.12.2015*

SPRINT II *09.01.2016 – 22.01.2016*

Where are we now?



Purpose:

- Synchronization of the development team
- Planning till the next daily scrum (*Inspect & Adapt*)

Preconditions:

- Discipline regarding time box, communication, accuracy

Result:

- Answers on the **3** questions by *all* participants:
 1. What was achieved since the last daily scrum
 2. What is planed till the next daily scrum
 3. Are there impediments on the way to the sprint goal

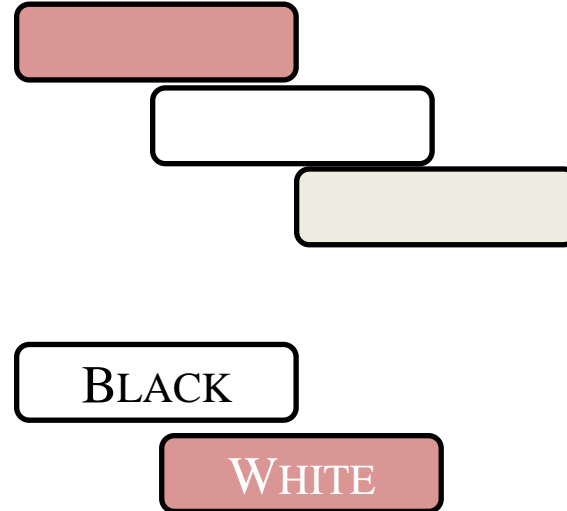
- **MokUp**

- Corporate Design based on three colors:

- pink
 - white
 - light grey

- Font:

- black
 - white



- **MokUp**

- Defined GUI-Elements

- Buttons



CLICK ME

- Tables

- Header



COLUMN



COLUMN

- Data



DATA



DATA

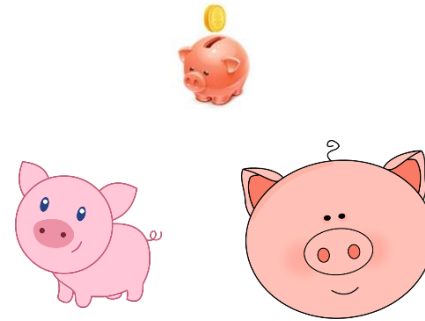
- 1x Dropdown Box

- Category on EditView

- 1x Undefined very fancy element to choose different reports

Impediments:

- **Pigs!** We need more pigs...



- **User Stories:**

- Dependencies regarding developments.
 - I.e. activity *register* needs to be finished before work on activity *login* can start.
- Reduce scope of user stories, so that one developer can work individually on one user story.
 - User stories will be recombined via Epics in ScrumDesk
- Furthermore the impediment adapted to the commonly used android app
 - Technical resolution is based on interfaces

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TIMELINE

SPRINT I *27.11.2015 – 08.01.2016*

PLANNING THE FIRST SPRINT *27.11.2015*

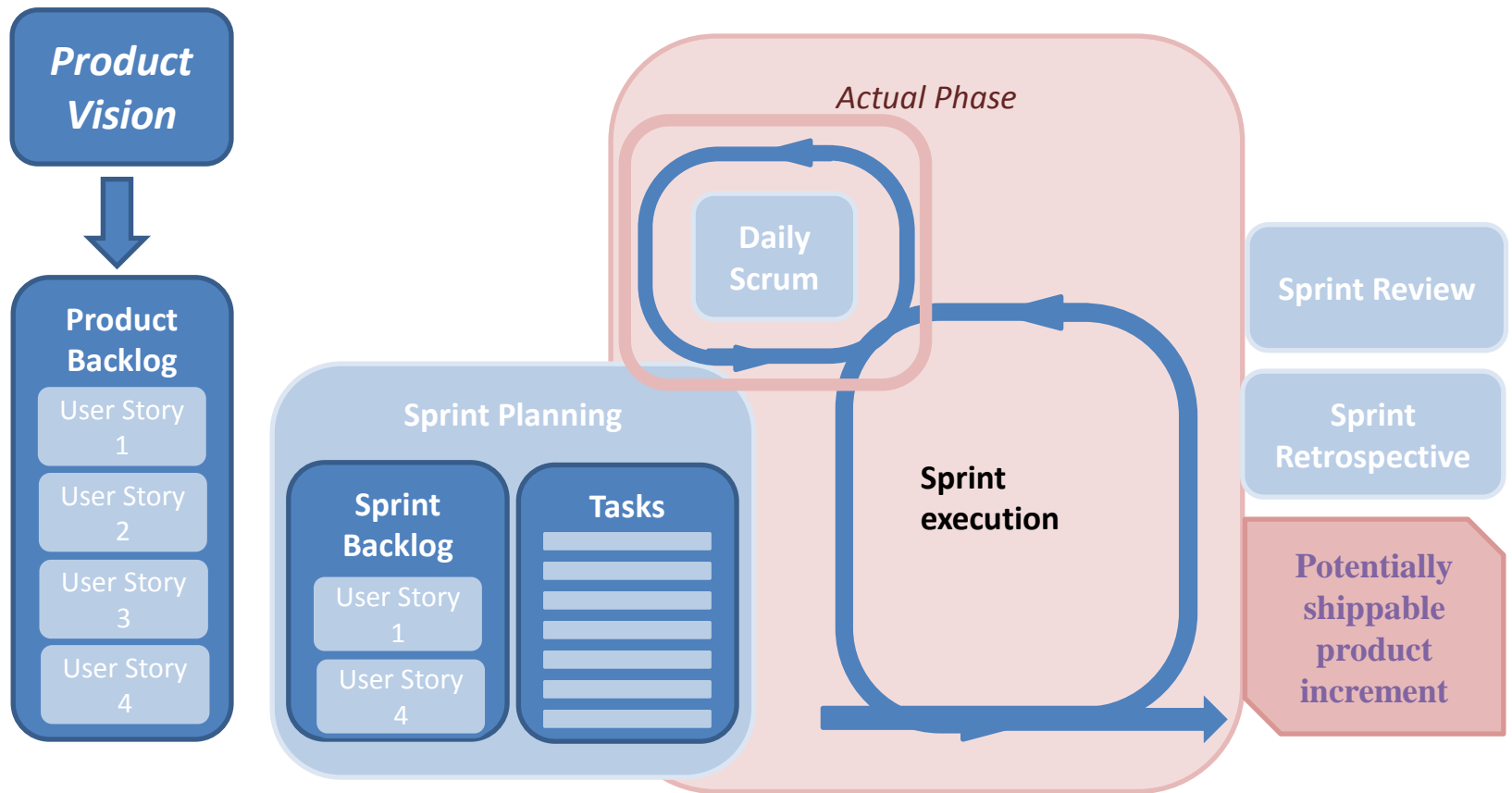
DAILY SCRUM *04.12.2015*

DAILY SCRUM *11.12.2015*

DAILY SCRUM *18.12.2015*

SPRINT II *09.01.2016 – 22.01.2016*

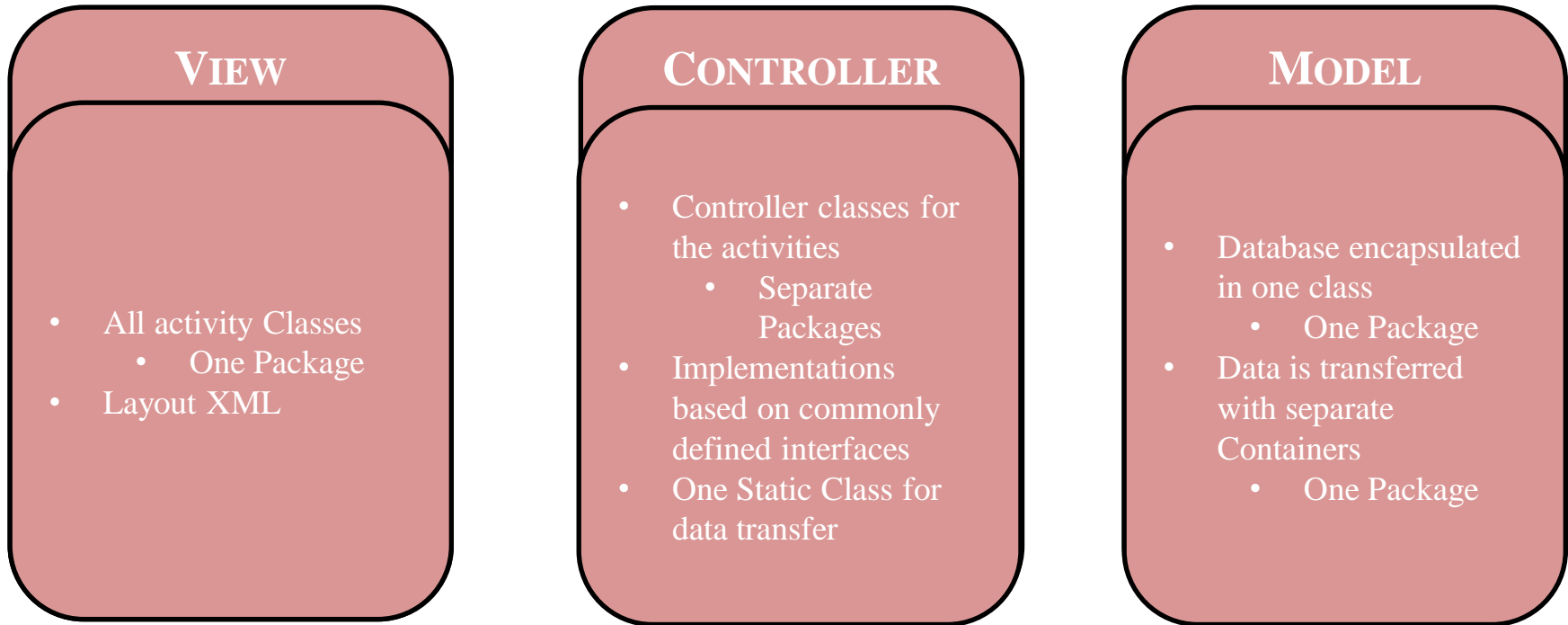
Where are we now?



Conclusions:

- Based on the identified impediments new tasks were defined to achieve the sprint goal
- The new technical architecture was established and further clarified
 - Added new Static class for Session and controller handling
- Further focus on implementation

- **Redesigned technical architecture:**



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TIMELINE

SPRINT I *27.11.2015 – 08.01.2016*

PLANNING THE FIRST SPRINT *27.11.2015*

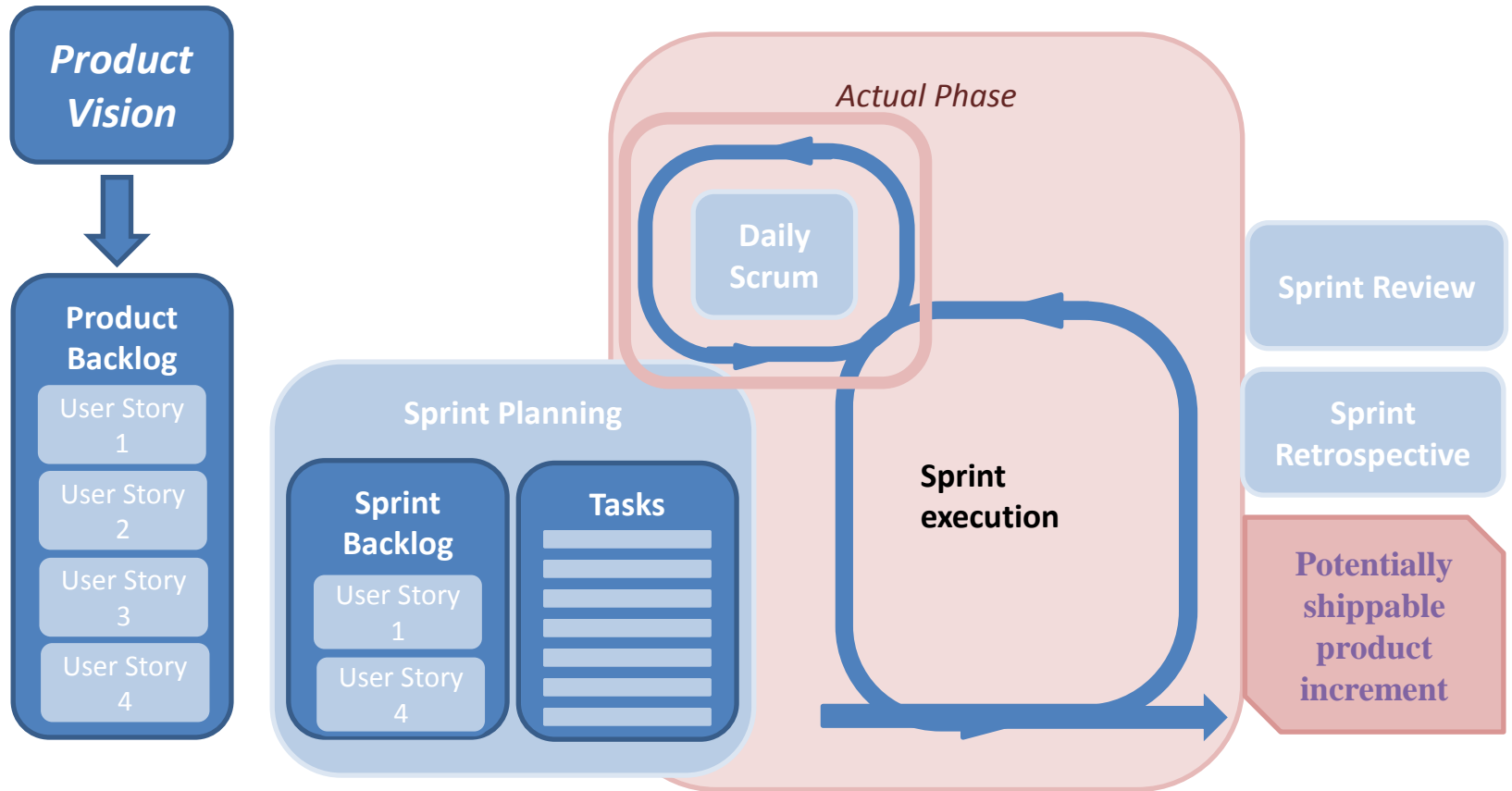
DAILY SCRUM *04.12.2015*

DAILY SCRUM *11.12.2015*

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SPRINT II *09.01.2016 – 22.01.2016*

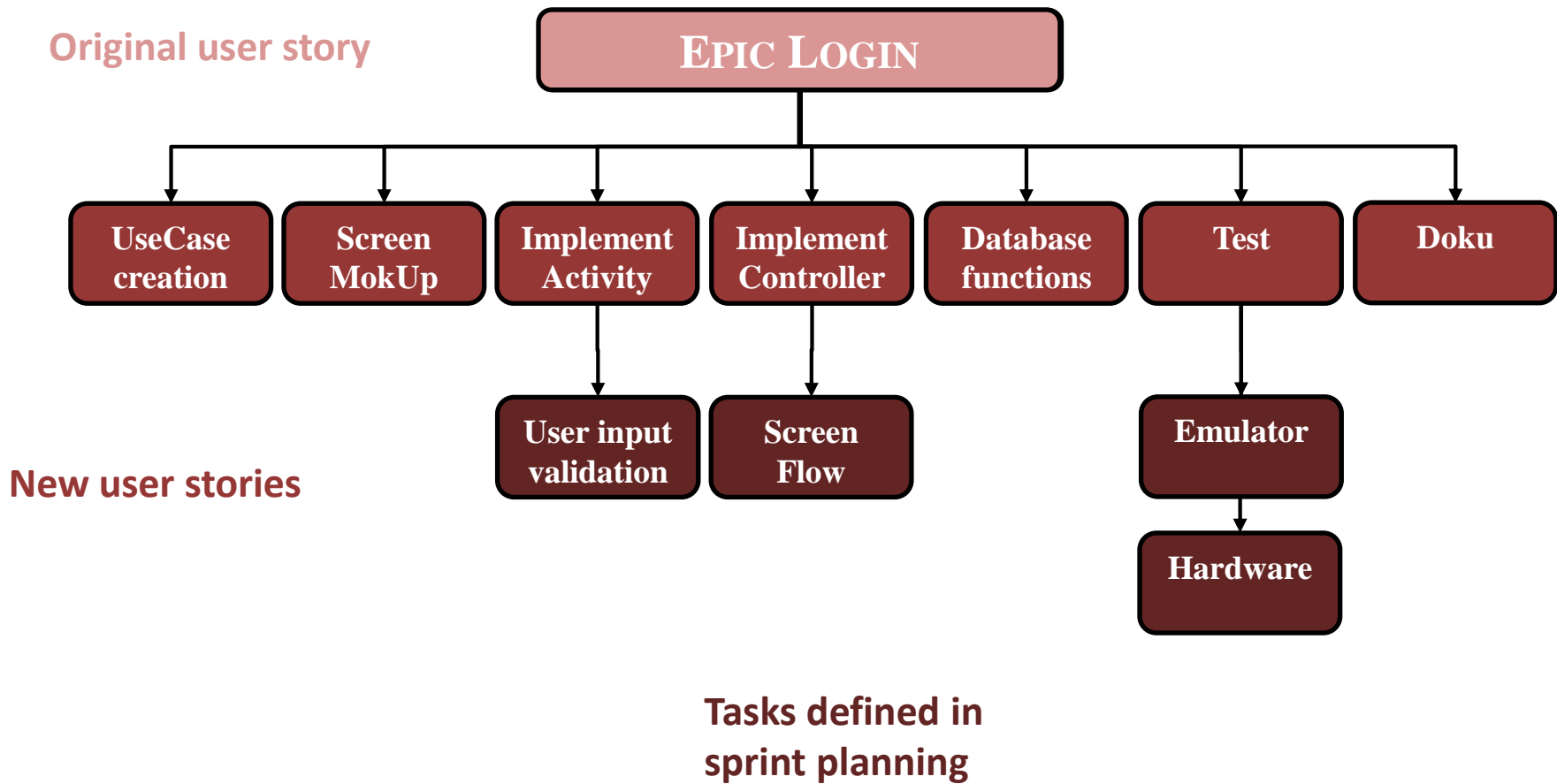
Where are we now?



Conclusions:

- Focus on image processing requirements
- Decision to not end the current sprint for the holiday season
 - Additional time will be used on further implementation based on personal preferences
 - Also ongoing rework to reduce scope of user stories

- Sample of the Transformation of user stories to epics:



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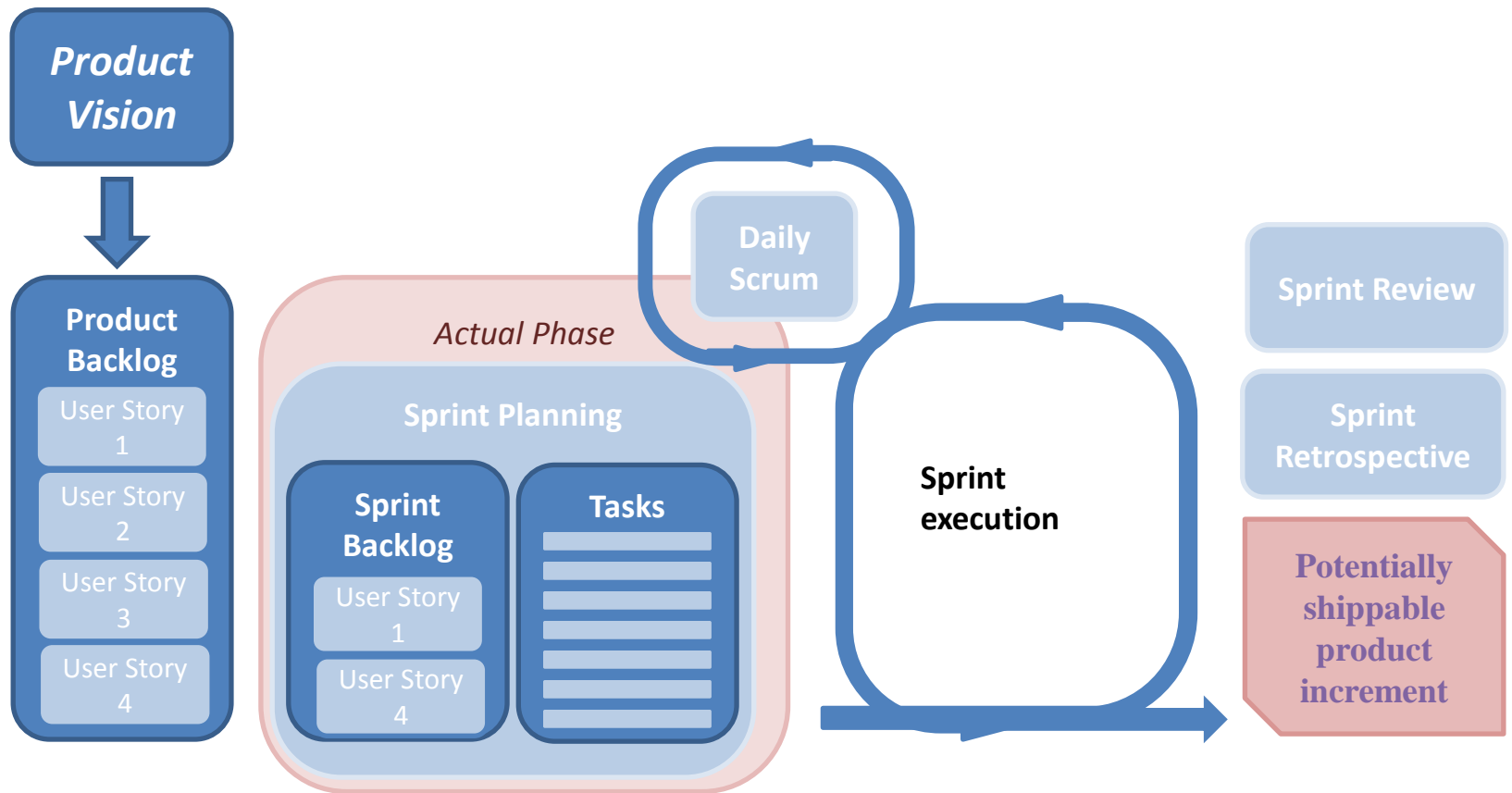
TIMELINE

SPRINT I *27.11.2015 – 08.01.2016*

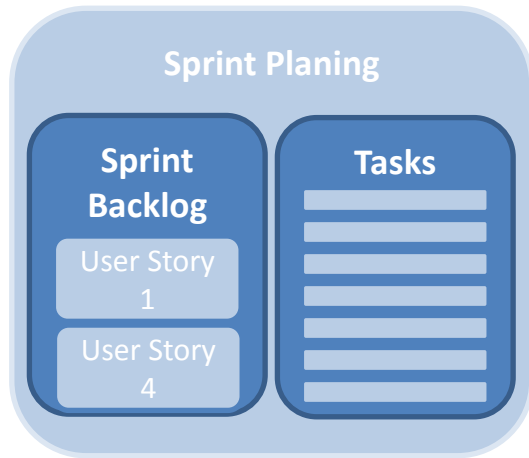
SPRINT II *09.01.2016 – 22.01.2016*

SPRINT PLANNING *09.01.2016*

Where are we now?



The Sprint Goal:



- Main goal for this sprint is the integration of the tesseract OCR component
- Furthermore the implementations regarding the basement of the app (i.e. container classes and database model) need to be finalized
- Also additional requirement clarifications and more detailed descriptions are intended