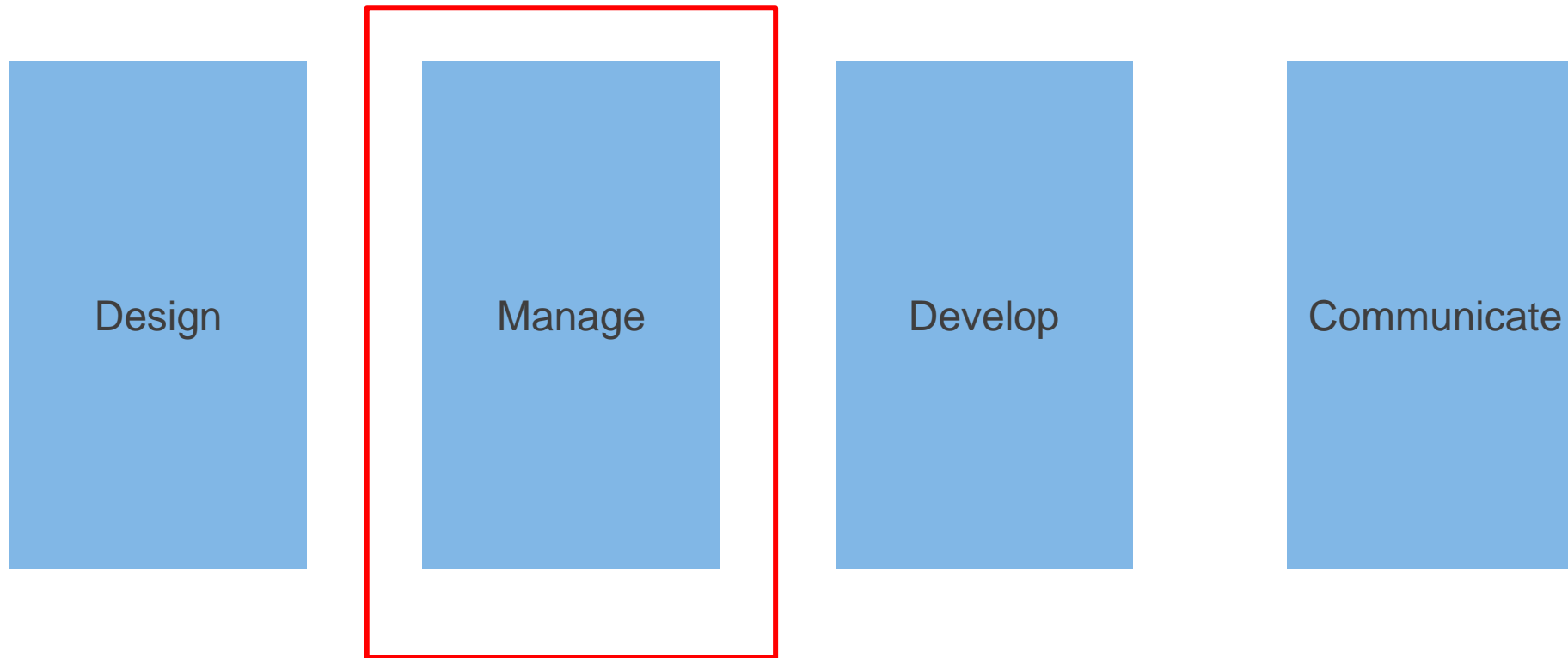


Applied Data Science Project

L09 – WBS and Gantt



Pillars



Knowledge tools

Work breakdown structure (WBS)

It is a hierarchical and incremental decomposition of a project into work packages (WP), tasks and outputs also called as deliverables

It is developed by starting with the end objective and successively subdividing it into manageable components in terms of size, duration, and responsibility

A WBS defines milestones (turning point) to have intermediate results such as software releases, documents, visuals

Example

overview of all WPs of a project

WP No	WP Title	Lead Name	PM	Start Month	End month
1	Project management	Partner 1	1	1	10
2	Co-design	Partner 2	2	2	3
3	AI tool	Partner 3	4	4	7
4	Integration system	Partner 4	4	6	10
5	Communication	Partner 5	4	6	10
	Total		15		

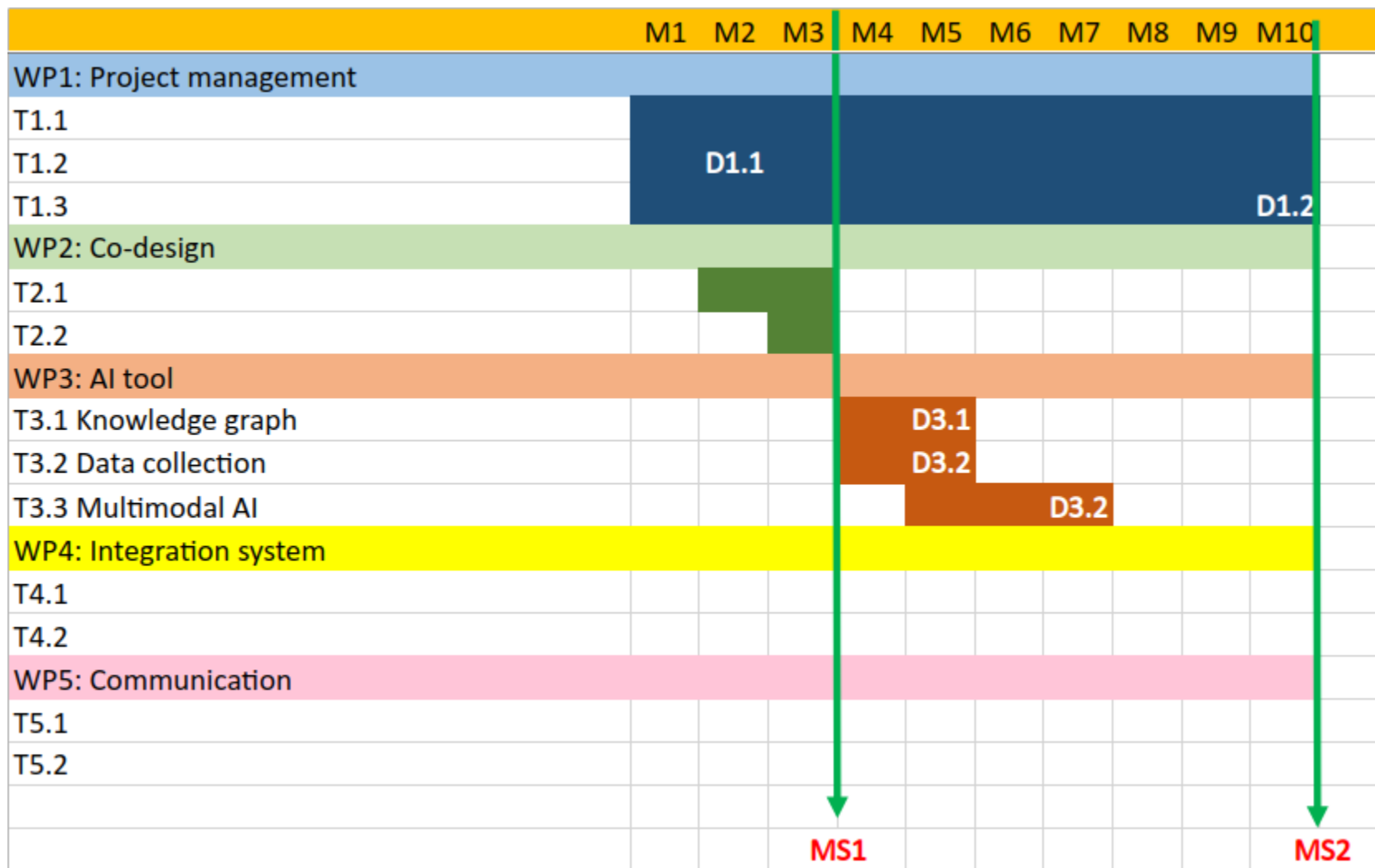
Example

Focus on a WP

Work package number	3	Lead beneficiary			Partner 3		
Work package title	AI tool						
Participant number	1	2	3	4	5	6	7
Short name of participant	P1	P2	P3	P4			
Person months per participant:	1	1	2	0			
Start month	4		End month		7		
Objectives: This work package encompasses the adoption of the AI tools and related validation process for ...							
Description of work							
T3.1 Knowledge graph (Leader: P1, Contributors: P1, P2, P3) [M4-M5]							
This task sets the basis for the Project knowledge graph that will host and expose to the system the information being generated within this work package. This software tool acts as a “brain” for the whole Project because ...							
T3.2 Data collection (Leader: P2), Contributors: P3, P1) [M4-M5]							
This task concerns the instantiation of a multimodal data collection pipeline that includes the data harmonization and storage into the knowledge graph. The modalities include ...							
T3.3 Multimodal AI (Leader: P3, Contributors: P1, P2) [M5-M7]							
This task investigates and designs an AI tool for ...							
Deliverables							
D3.1 Creation and initialization of the Knowledge Graph (P1, M5)							
D3.2 Instantiation of a multimodal data collection pipeline (P2, M5)							
D3.3 Initialization of the multimodal AI tool (P3, M7)							

Example

Timeline/Gantt



App for editing



Spreadsheets are also used for documenting WBS, WP description and Gantt

The basic operations of editing in table and sharing offers a (sufficient) entry level tool for this scope

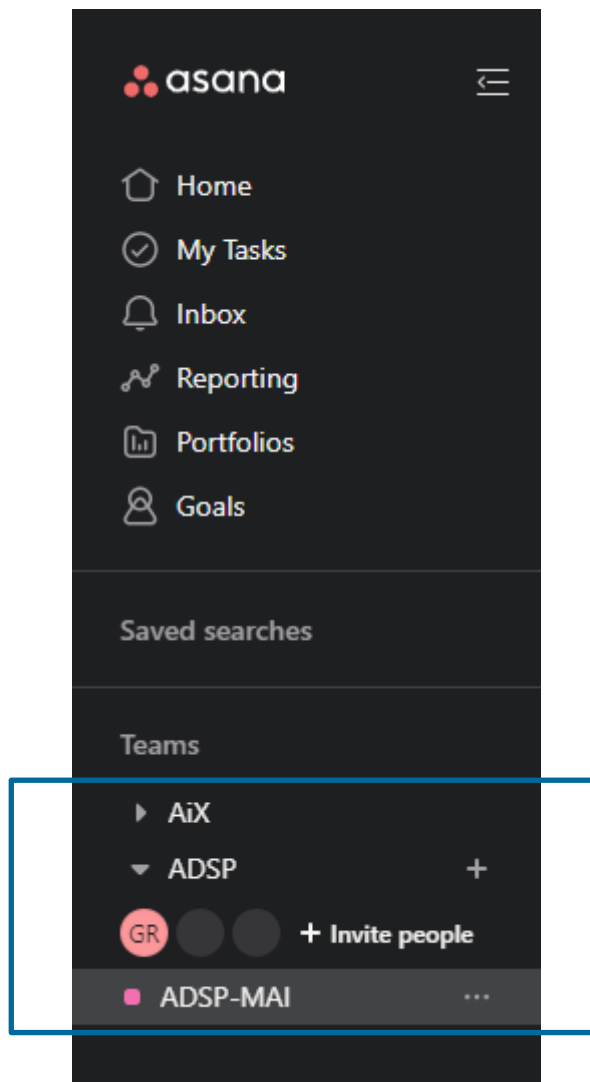
App for editing

Numerous other applications for editing a WBS (many are collaborative)

For instance, there is <https://asana.com>

- it is an application running in a browser or via a dedicated mobile application
- it can be utilized with a free license (though with restrictions)
- it offers the feature of collaborative editing within the app by inviting collaborators to the project

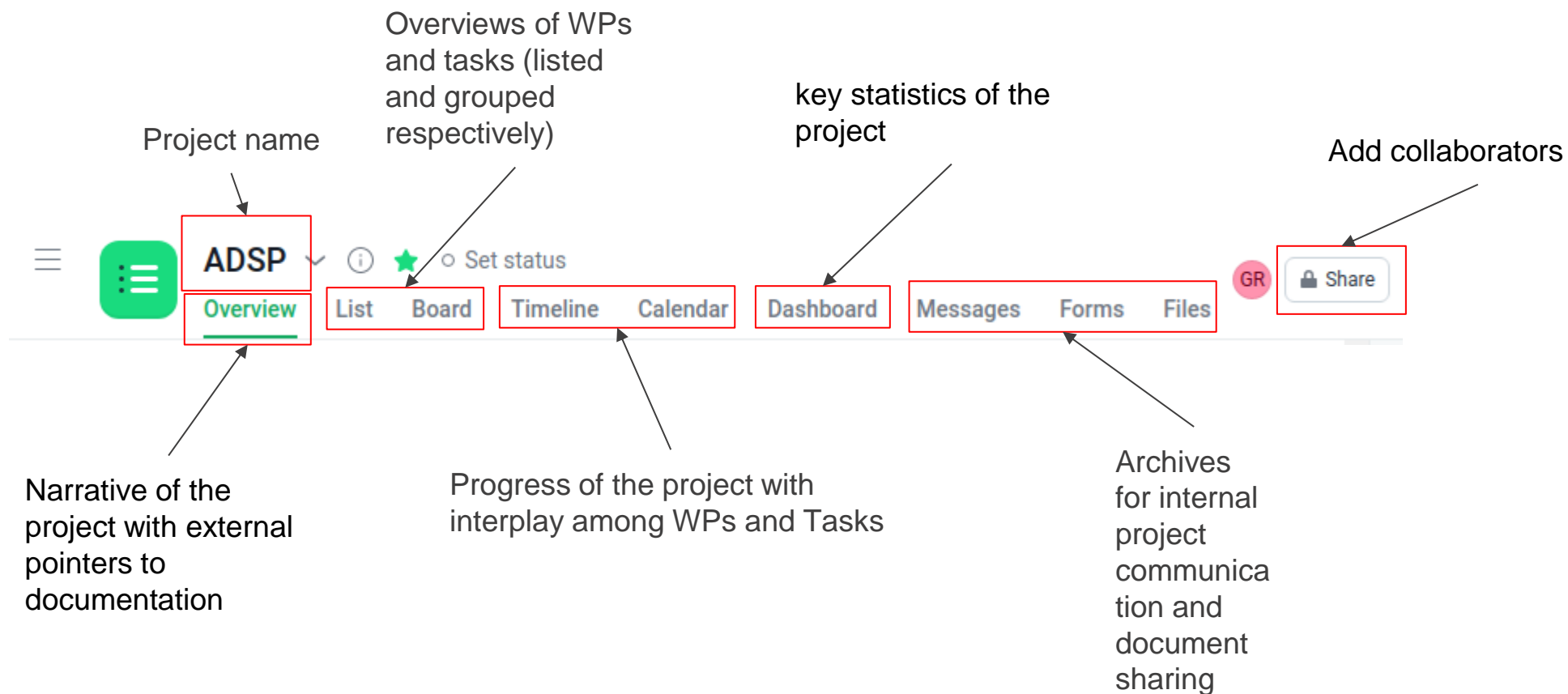
Teams and projects



Each team has the list of the people involved in the project

One team can manage one or multiple projects such as ADSP-MAI

Asana control panel



Overview

Collaboration details: link and plan of action

Members and roles

Claim

List of milestones

TORINO

GR

Share

Search

+

Upgrade

GR

How we'll collaborate

Link to the persona canvas and short description of the requirements

Link to the project diagram and short description

Link to the shared dev workspace

Link to the shared communication workspace

Project roles

+ Add member

GR **Giuseppe Rizzo** 
Project Owner

Key resources



Align your team around a shared vision with a project brief and supporting resources.

Create project brief

Add links & files


Milestones +


 T2.2


What's the status?

 On track


 At risk

 Off track

 No due date

 **You joined**
3 days ago

GR

 **Project created**
Giuseppe Rizzo 3 days ago

Project status

WBS

List of work packages

ADSP

Set status

Overview

List

Board

Timeline

Calendar

More...

+ Add task

Task name	Assignee	Due date	Projects	Tags	Priority
WP1					
T1.1		Oct 7 - 12			
T1.2		Oct 13 - 30			High
Add task...					
WP2					
T2.1		Nov 1 - 5			
T2.2					Medium
Add task...					
WP3					
T3.1					Low
T4.1					Medium
Add task...					
WP4					

GR

Share

Search

+

Upgrade

GR

All tasks

Filter

Sort

Customize

Leaders of the assigned task(s)

Task to be completed by when

Reference to external projects

Leaders of the assigned task(s)

Task to be completed by when

Reference to external projects

A condensed view of the WBS

The screenshot displays the ADSP project management interface. At the top, the navigation bar includes the ADSP logo, a dropdown menu, a star icon, a 'Set status' link, a 'GR' badge, a 'Share' button, a search bar, an 'Upgrade' button, and another 'GR' badge. Below the navigation bar, the main workspace is titled 'Created on Friday' and features a toolbar with 'All tasks', 'Filter', 'Sort', 'Customize', and a menu icon. The workspace is organized into three columns: WP1, WP2, and WP3. Each column contains task cards with details such as task ID, status, priority, and due date. WP1 has two tasks: T1.1 (Completed, Oct 7 - 12) and T1.2 (High priority, Done, Oct 13 - 30). WP2 has two tasks: T2.1 (Nov 1 - 5) and T2.2 (Medium priority, In Progress). WP3 has two tasks: T3.1 (Low priority, Not Started) and T4.1 (Medium priority, Not Started). Each column also has an 'Add task' button at the bottom.

ADSP Overview List **Board** Timeline More...

GR Share Search Upgrade GR

Created on Friday All tasks Filter Sort Customize ...

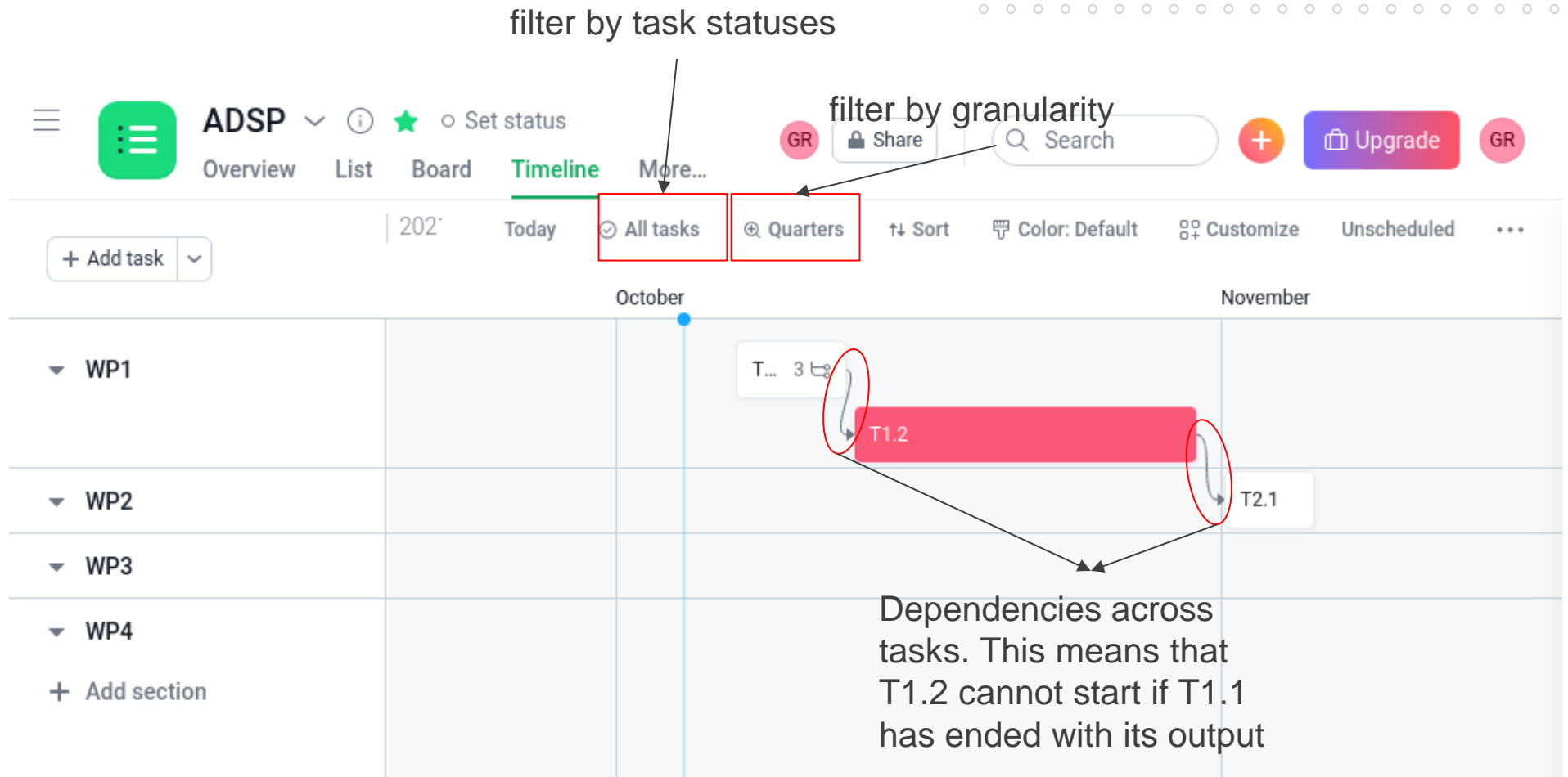
WP1 + ... WP2 + ... WP3 + ...

T1.1 Oct 7 - 12 3 3 T2.1 Nov 1 - 5 T3.1 Low Not Started

T1.2 High Done Oct 13 - 30 T2.2 Medium In Progress T4.1 Medium Not Started

+ Add task + Add task + Add task

Gantt



At a glance

+ Add chart

Completed tasks

1 Filter

0

Task count

Incomplete tasks

1 Filter

7

Task count

Overdue tasks

1 Filter

0

Task count

Total tasks

7

Task count

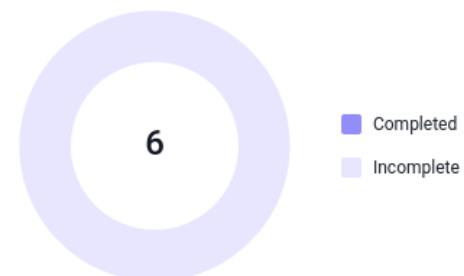
Incomplete tasks by section

2 Filters



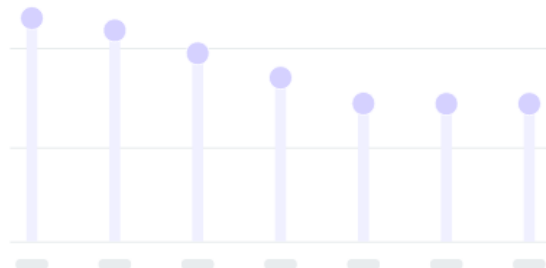
Tasks by completion status

1 Filter



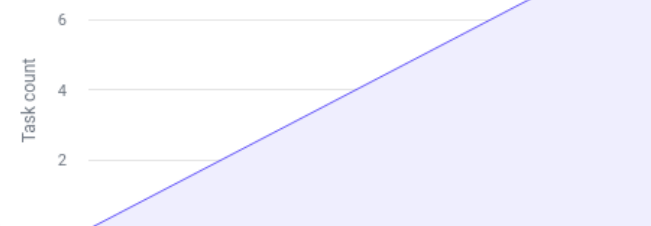
Upcoming tasks by assignee

2 Filters



Task completion over the last three months

Incomplete Complete



App for editing

Another solution is Trello <https://trello.com/> likewise Asana:

- it is an application running in a browser or via a dedicated mobile application
- it can be utilized with a free license (though with restrictions)
- it offers the feature of collaborative editing within the app by inviting collaborators to the project
- you build import boards to load WBS and GANTT

Recommendation in adopting WBS and GANTT

Both tools can be seen as an overhead, but they bring clearance in the process of project execution (what should I do/other do), and bring time into consideration

Even with solo projects, GANTT is important

WBS becomes more important when the project gets big and involves a certain number of contributors. This is not the case of the project in this course, since you'll be sharing the project with a few mates. Still, WBS can be lightened up and list the activities to perform and who is the responsible for



Thank you for your attention.

Questions?



CONTACTS

Giuseppe Rizzo

Program Manager (LINKS Foundation) and
Adjunct Professor (Politecnico di Torino)

giuseppe.rizzo@polito.it

FONDAZIONE LINKS
Via Pier Carlo Boggio 61 | 10138 Torino
P. +39 011 22 76 150
LINKSFOUNDATION.COM