

# CREATE REPORTS IN MS PROJECT

**DR. RICCARDO LONGO**

**08/31/2023**

**PHYS 523 - FALL 2023**

**LECTURE IV**



**UNIVERSITY OF  
ILLINOIS**  
URBANA-CHAMPAIGN



# PREPARE REPORTS IN MS PROJECT

- In the first 3x lectures, we have seen how to introduce all the main pieces of information of a project in MS project
- After approval, projects are usually reviewed with a certain periodicity (monthly, trimestral, bi-annual etc.)
- One of the great advantages of tracking a project via software like MS Project is the simplicity of creating reports at any time! This is a considerable QoL improvement for project managers

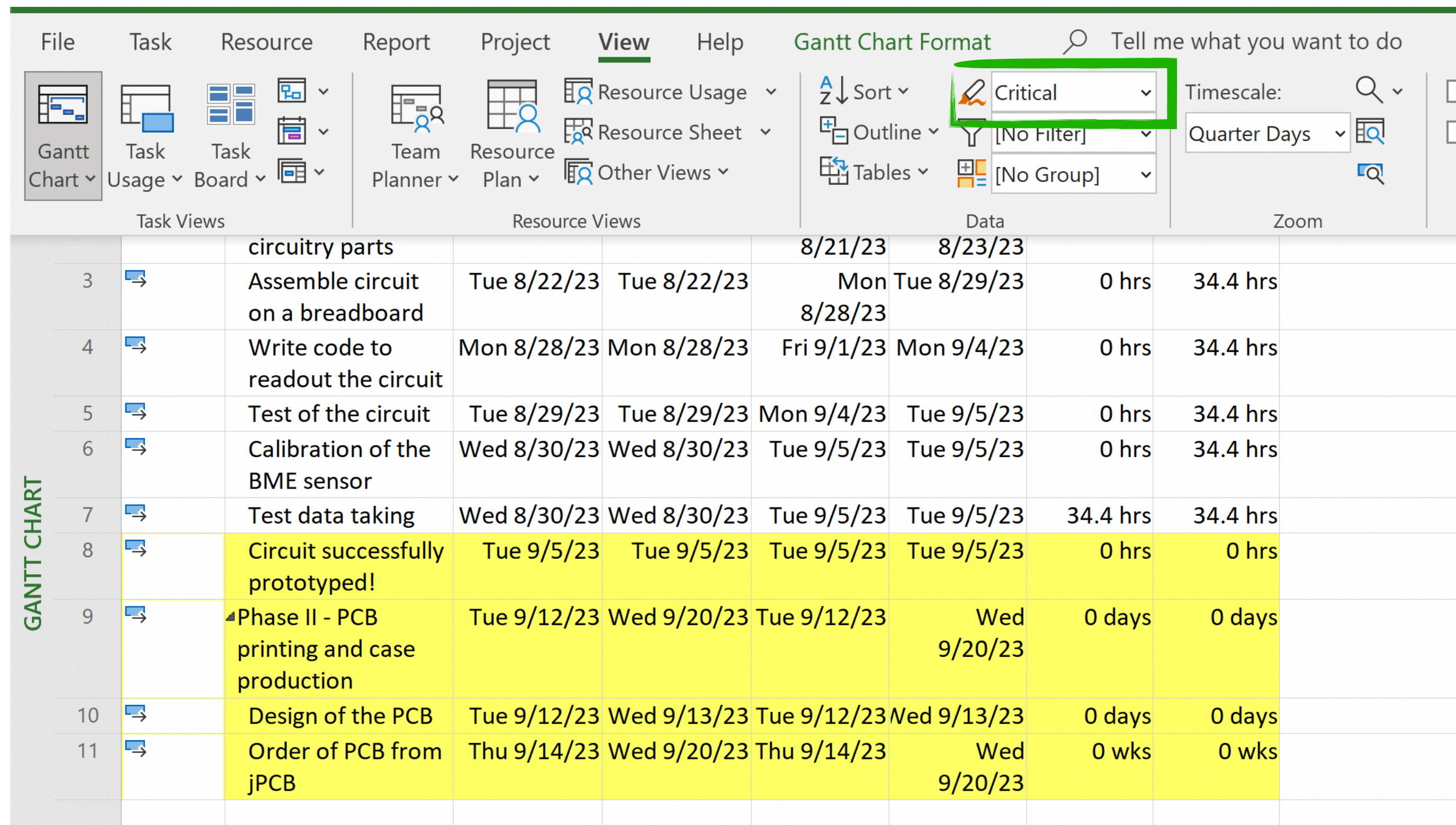
ID	Task Name	Cost	Resource Usage	Start	End
3	parts				
3	Assemble circuit on a breadboard	\$0.00	Prorated	\$200.00	\$200.00
4	Write code to readout the circuit	\$0.00	Prorated	\$200.00	\$200.00
5	Test of the circuit	\$0.00	Prorated	\$200.00	\$200.00
6	Calibration of the BME sensor	\$0.00	Prorated	\$84.00	\$84.00
7	Test data taking	\$0.00	Prorated	\$25.00	\$25.00
8	Circuit successfully prototyped!	\$0.00	Prorated	\$0.00	\$0.00
9	<b>Phase II - PCB printing and case production</b>	<b>\$0.00</b>	<b>Prorated</b>	<b>\$1,330.00</b>	<b>\$0.00</b>
10	Design of the PCB	\$0.00	Prorated	\$1,200.00	\$0.00
11	Order of PCB from jPCB	\$0.00	End	\$130.00	\$0.00
12		\$0.00	Prorated	\$0.00	\$0.00

- **Filters** are the first useful tool to provide different snapshots of the project status
- They provide substantial help to check the actual “sync” of your project - e.g. was I a good project manager or am I behind my tracking?
- You can also “**highlight**” tasks, or “**group**” them in major classes (e.g. active vs inactive)



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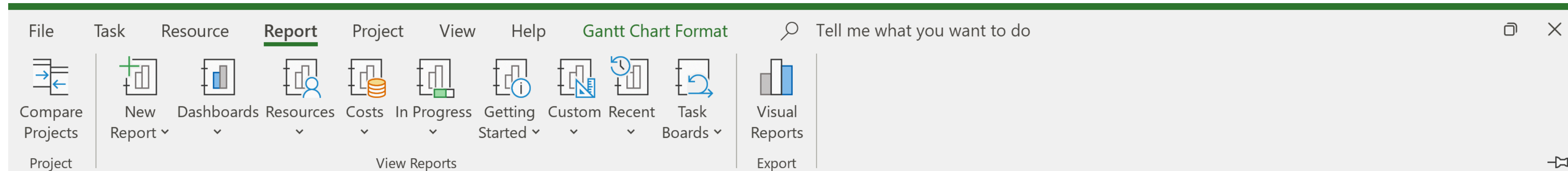
Critical tasks are automatically defined based on the constraint assigned to them. Examples of critical tasks are those characterized by a Must Finish On, or a Must Start On, or a As Late As Possible etc.

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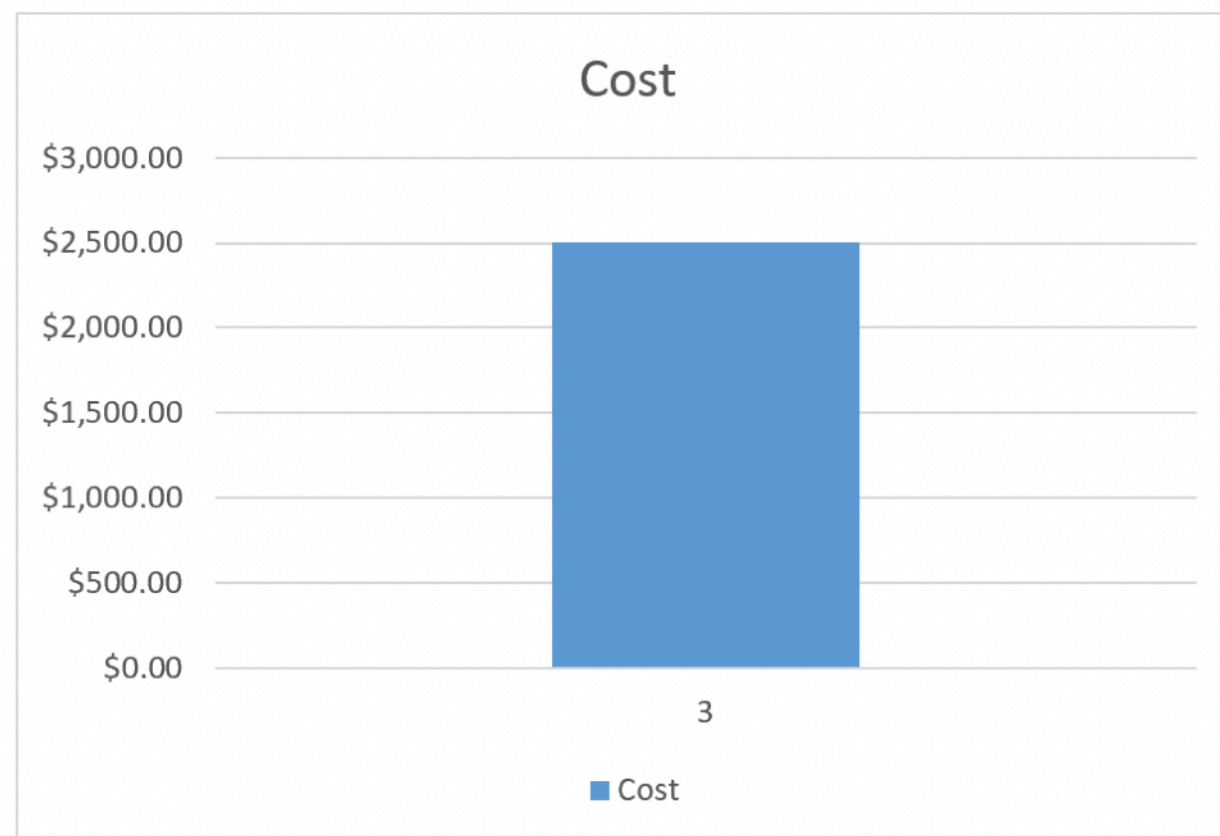
# CREATE REPORTS IN MS PROJECT

- Once you are confident that your project tracking is up-to-date, you can create reports (select “Report” tab)



## CASH FLOW

Actual Cost	Baseline Cost	Remaining Cost	Cost Variance
\$63.29	\$1,074.29	\$2,441.00	\$1,430.00



The chart shows the project's cumulative cost and the cost per quarter. To see the costs for a different time period, select the Edit option from the Field List.

The table below shows cost information for all top-level tasks. To see cost stats for all tasks, set the Outline Level in the Field List.

Here you can insert your various notes on the cash flow report!

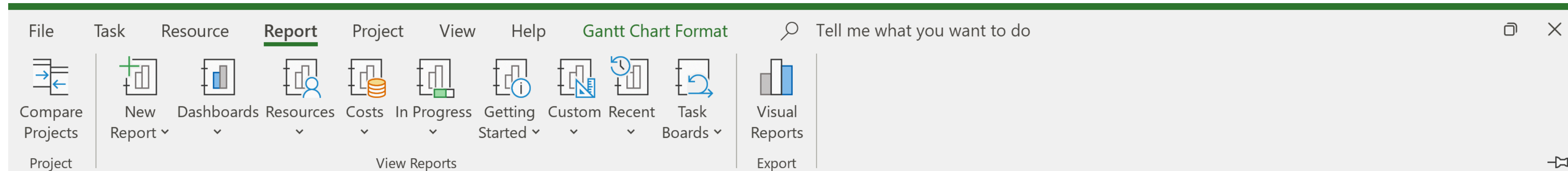
Name	Remaining Cost	Actual Cost	Cost
Phase I: Prototyping on breadboard	\$1,111.00	\$63.29	\$1,174.29
Phase II - PCB printing and case production	\$1,330.00	\$0.00	\$1,330.00

- Example of Cost -> Cash Flow report
- Pre-formatted excel spreadsheet with relevant piece of information about the budgeting of the project
  - It's evident that **I was not a good PM** when creating this example !
- Default structure -> Shows only L1 items



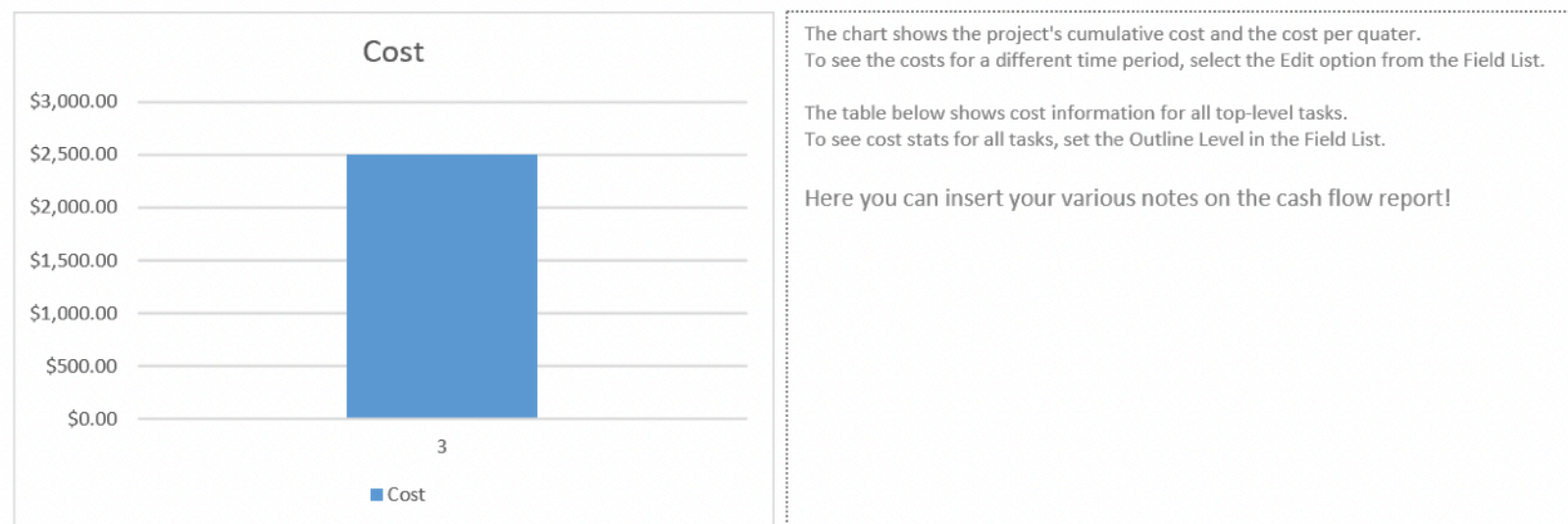
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Name	Remaining Cost	Actual Cost	Cost
Phase I: Prototyping on breadboard	\$1,111.00	\$63.29	\$1,174.29
Acquire all the circuitry parts	\$402.00	\$63.29	\$465.29
Assemble circuit on a breadboard	\$200.00	\$0.00	\$200.00
Write code to readout the circuit	\$200.00	\$0.00	\$200.00
Test of the circuit	\$200.00	\$0.00	\$200.00
Calibration of the BME sensor	\$84.00	\$0.00	\$84.00
Test data taking	\$25.00	\$0.00	\$25.00
Circuit successfully prototyped!	\$0.00	\$0.00	\$0.00
Phase II - PCB printing and case production	\$1,330.00	\$0.00	\$1,330.00
Design of the PCB	\$1,200.00	\$0.00	\$1,200.00
Order of PCB from jPCB	\$130.00	\$0.00	\$130.00

**Field List** [Close]

Tasks Resources

**Select Fields**

- ID
- Name
- Resource Names
- Cost
  - > Baseline
  - > Actual
  - > Remaining
  - > Variance

Name

Remaining Cost

Actual Cost

Cost

Filter: Active Tasks [Dropdown]

Group By: No Group [Dropdown]

Outline Level: Level 2 [Dropdown]

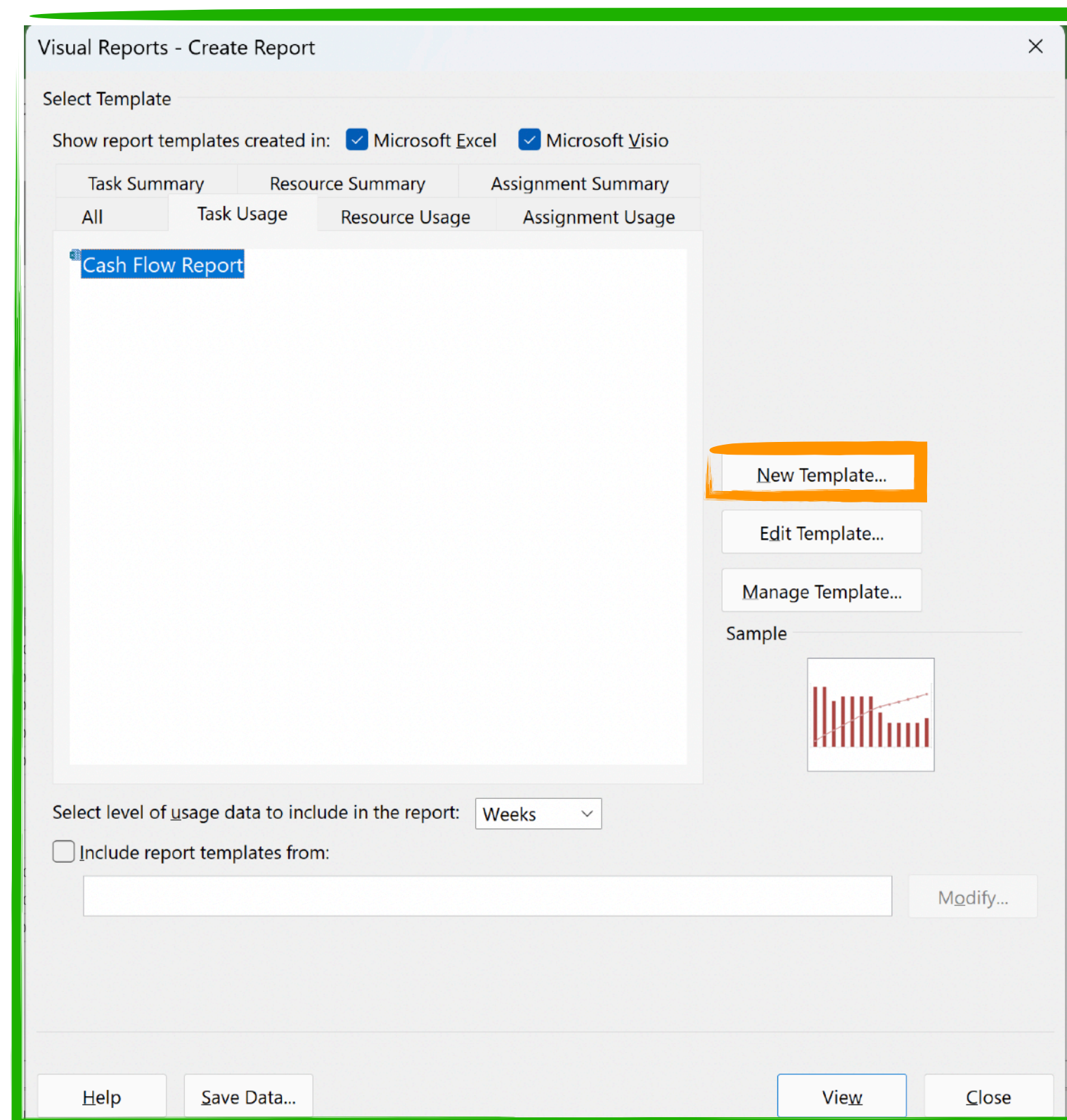
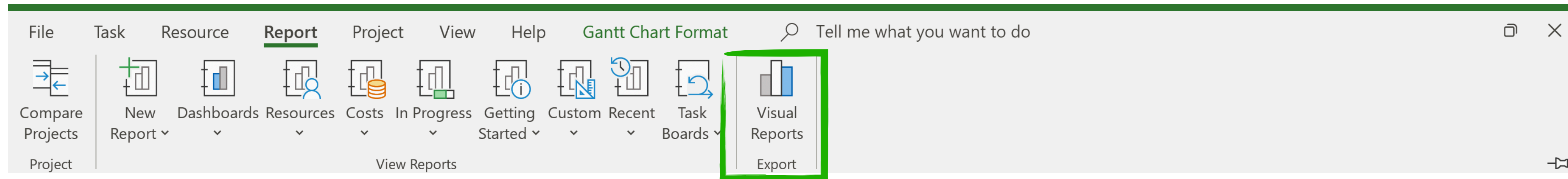
Show Hierarchy

- If you click on each of the elements, a menu with editing options will appear on the right, and from there you can choose exactly the type of information that you want to have on your report!

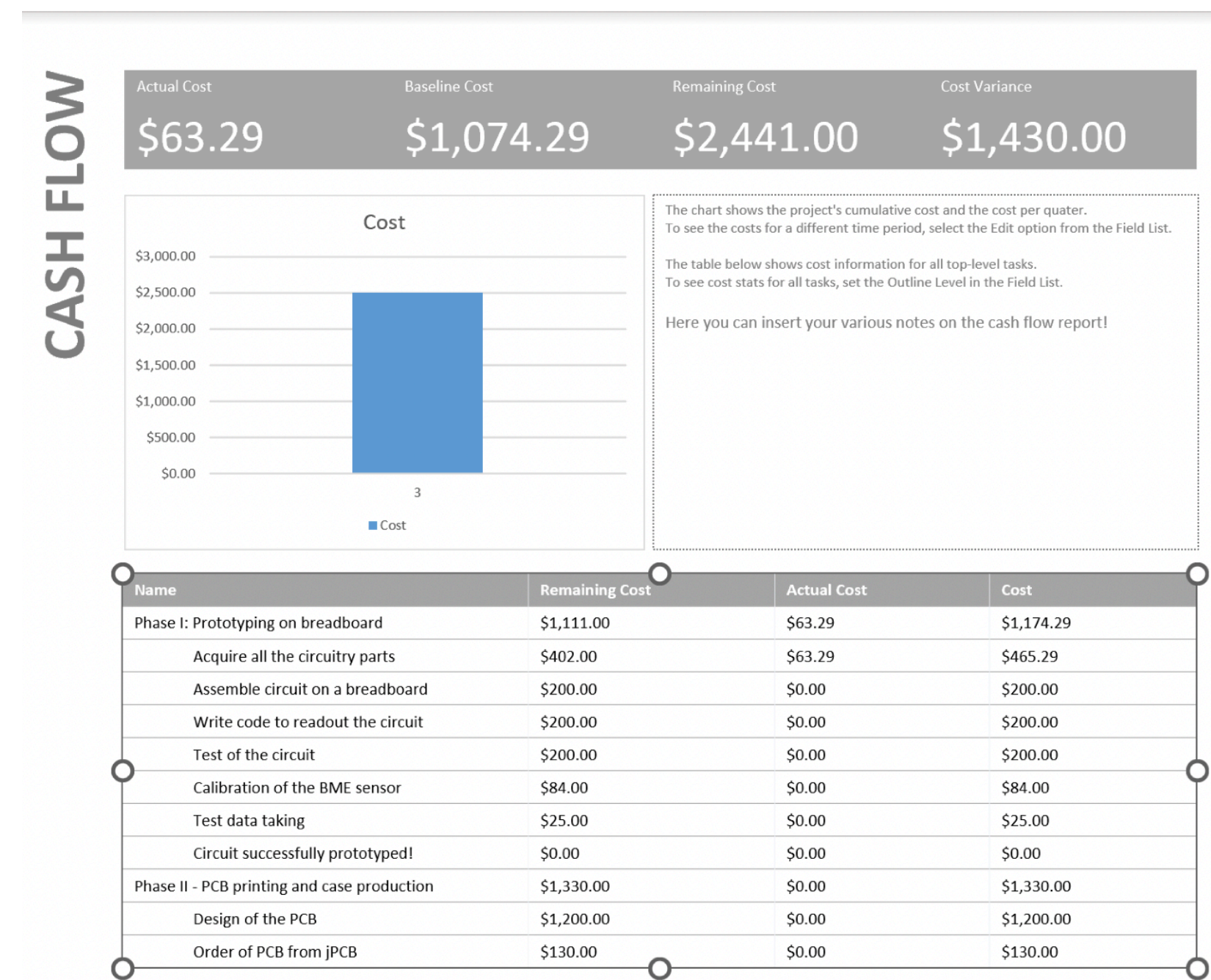


# EXPORT REPORTS

- Once you are confident that your project tracking is up-to-date, you can create reports (select “Report” tab)



- Through here, you can open these reports directly in editable mode in Excel
- You can also create **new templates** that are custom for your project
- If you like the project visualization, you can always edit there and then “print” the report to PDF!





# RISK ANALYSIS & MANAGEMENT

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# LAST LECTURE OF THIS MINI-CYCLE: RISK!

- Let's try to introduce in the picture one last concept - very relevant for solid project management: **Risk**
- What is a risk?

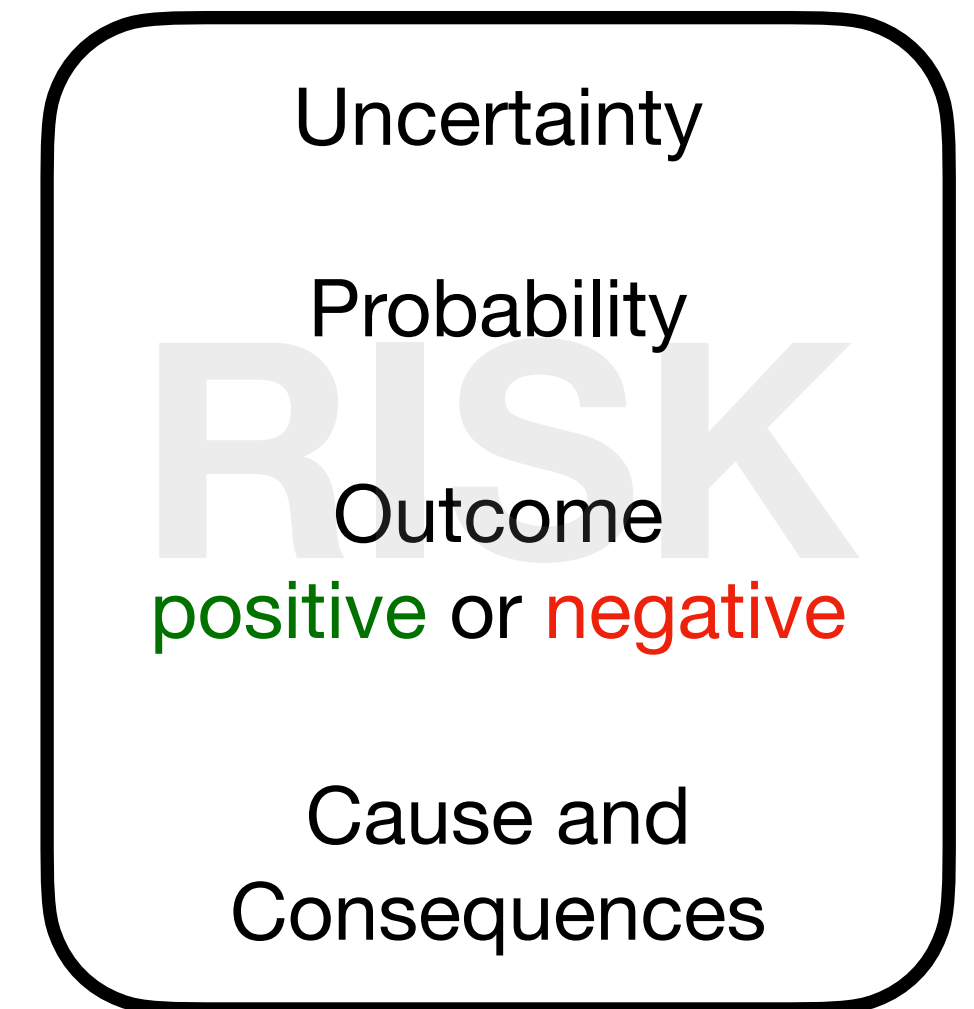


No - not a board game at this stage!



# LAST LECTURE OF THIS MINI-CYCLE: RISK!

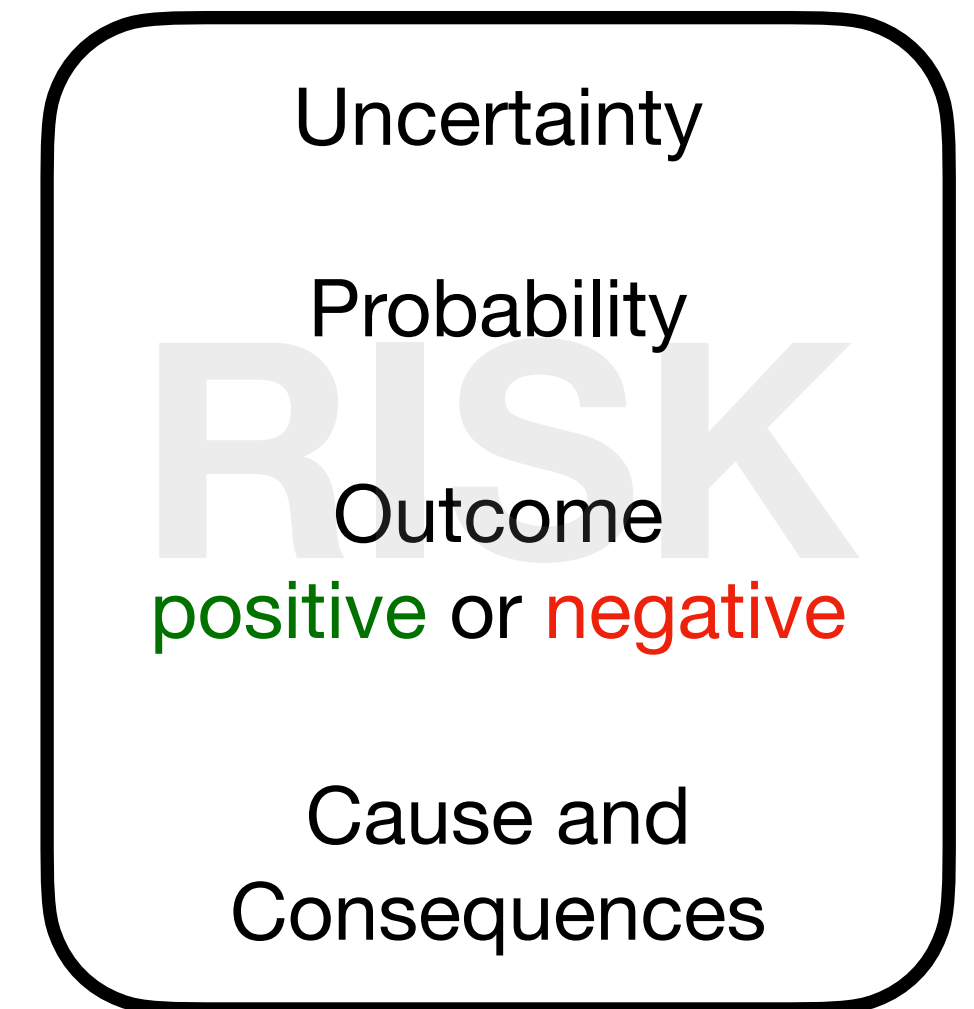
- Let's try to introduce in the picture one last concept - very relevant for solid project management: **Risk**
- What is a risk?
  - An event that, if it occurs, causes either a **positive** or **negative** impact on a project
- What is **risk management**?
  - We usually define risk management as the systematic process of identifying, analyzing and outlining a first response strategy to risks affecting our project





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- What is a risk?
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- What is **risk management**?
  - We usually define risk management as the systematic process of identifying, analyzing and outlining a first response strategy to risks affecting our project
  
- **Why risk management?**
  - Do you prefer proactive decision-making or “fire-fighting”?
  - Do you and your collaborators know the nature of the project, its strengths and its weaknesses?
  - Can you use this knowledge to improve your scheduling and cost performance?





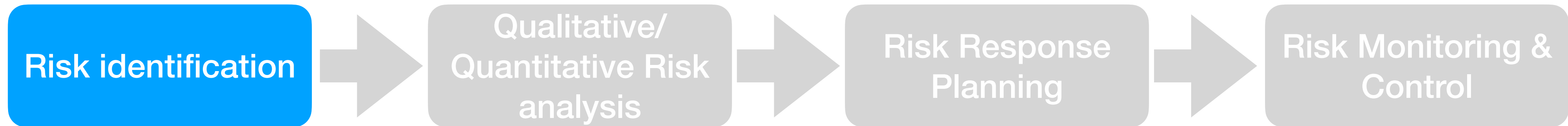
# WHAT CAN POSSIBLY GO WRONG?

- The first step to good management of risk is to overcome the perception that there's not too much that can go wrong
  - Unforeseen events happen all the time - and assuming the worst-case scenario is never a bad idea
  - Murphy's law is always around the corner
- A detailed and comprehensive risk analysis is not a symptom of weakness!
  - A project with a substantial risk analysis before the start is a sign of good planning
- Ignoring risks will just amplify their negative impact if they end up happening during the project





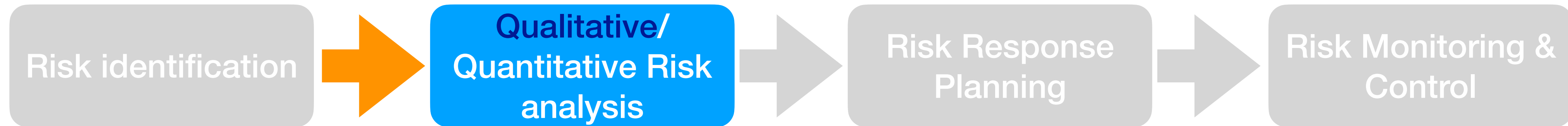
# RISK MANAGEMENT PROCESS



- My project is laid out. What are the risks that affect the various tasks and, ultimately, the deliverables?



# RISK MANAGEMENT PROCESS



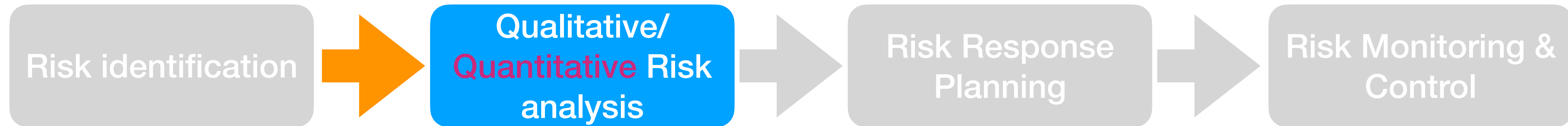
- My project is laid out. What are the risks that affect the various tasks and, ultimately, the deliverables?
- What's the likelihood of the risk that I have identified to occur?
- What are the consequences of these risks occurring from a budget and scope perspective?

## Qualitative analysis

- First step in your Risk Analysis
  - Subjective - based on your assessment
  - Still encoded in “grid-parameters” you define for your risk analysis, e.g.
    - Risk categories [i.e. High, Medium, Low]
    - Potential impact on the project [i.e. 1-10]
    - Priorities/Ranks in case of occurrence
- directly related to monitoring strategy  
→ not written in stone! Evolve with the project



# RISK MANAGEMENT PROCESS



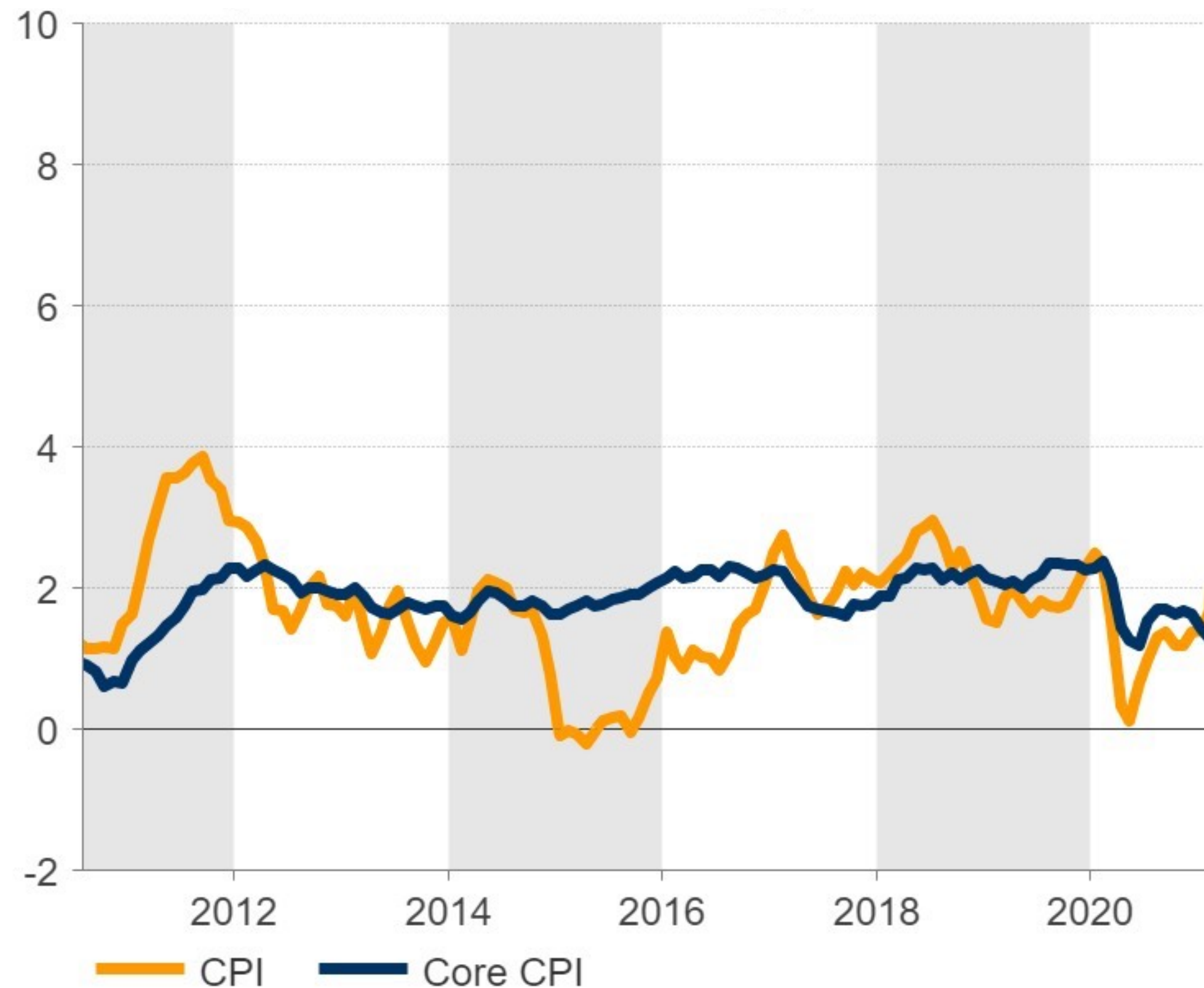
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## Quantitative analysis

- More advanced, uses statistical analysis of each risk within the project schedule
- Usually based on historical data
- Should be focused on those that were identified to be the highest risks at level of qualitative analysis

# A LESSON FROM [RECENT] HISTORY : INFLATION

- We have seen last class how including inflation in cost projections across years is good practice

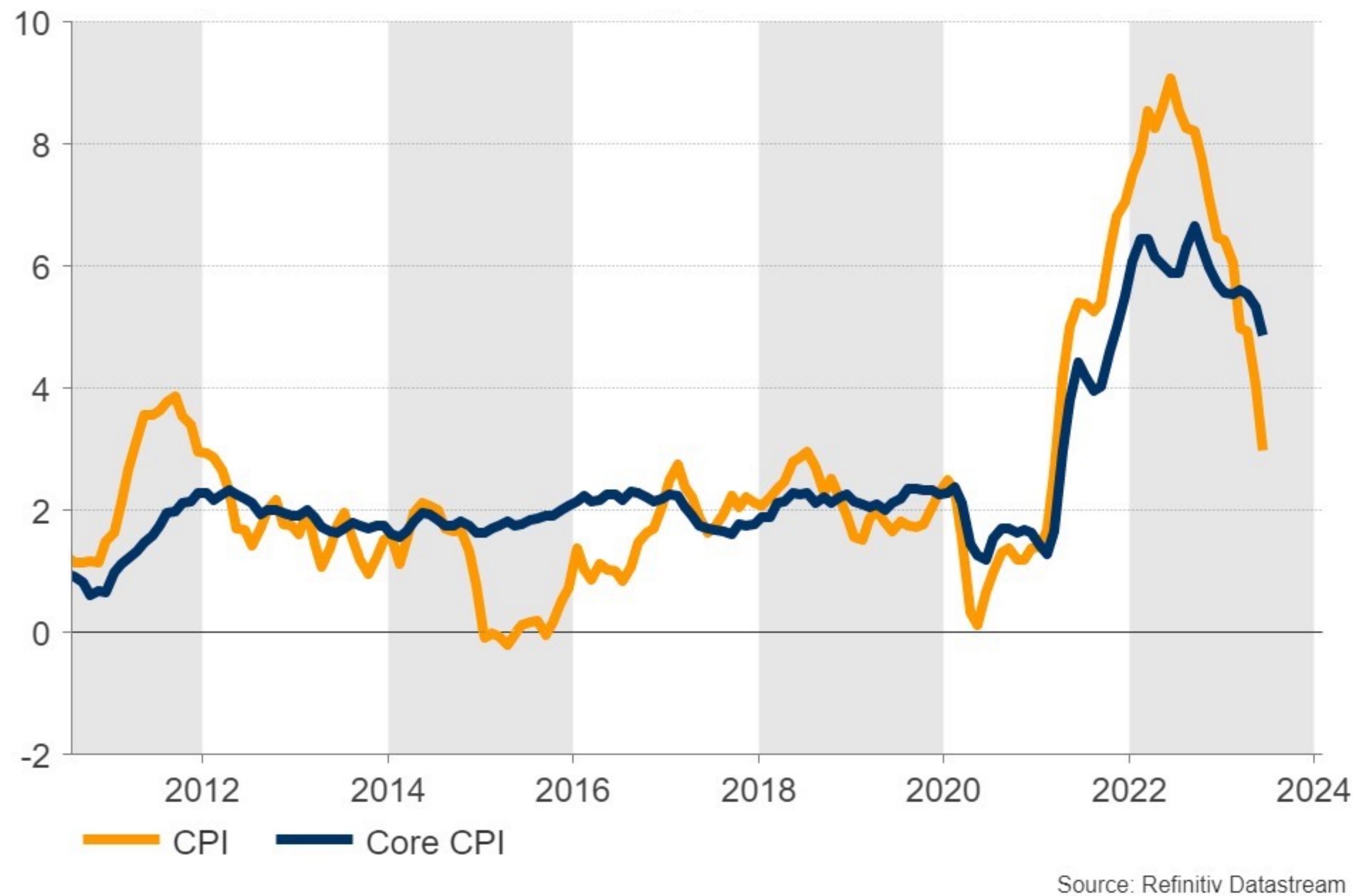


- To compile my basis of estimates for the cost of an item in the future, I can take data from the past and make a reasonable projection:
- I account for inflation of 2% (**average** for 2011-2021), and maybe I can introduce a 1% of the cost in the contingencies to account for eventual fluctuations - neat! I have 10 years of stable data what can go wrong?



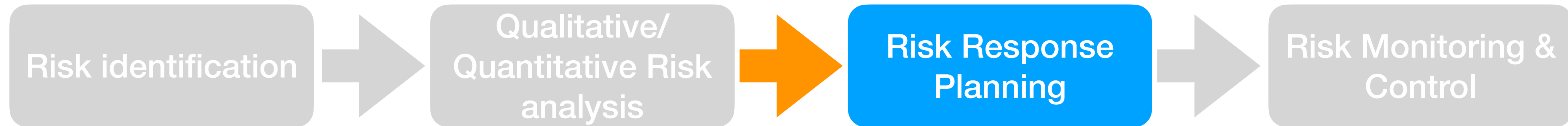
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- Unluckily - we all know the answer....
  - The high level of inflation that affected the US (and the EU) in the last ~2 years is out of the norm and is a clear example of **risk occurrence**
- If you outline a project now, you should either include inflation as a positive risk, or assume lower inflation according to official projections and assign a risk for those to not be effective

# RISK MANAGEMENT PROCESS



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- Draw up plans to avoid or minimize the impact of these risks on the project (mitigation strategies)

## Risk Mitigation

4 main strategies are usually adopted for risk mitigation:

Avoidance

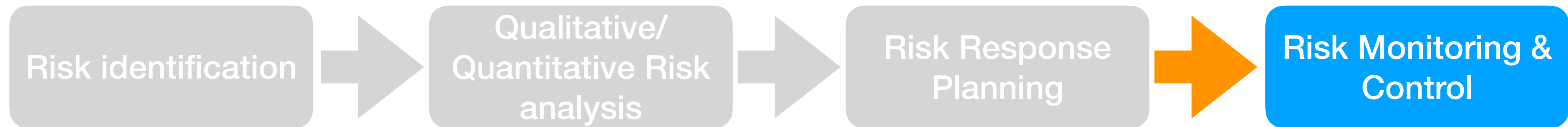
Acceptance

Reduction  
or control

Transference



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- What are the consequences of these risks occurring from a budget and scope perspective?
- Draw up plans to avoid or minimize the impact of these risks on the project (mitigation strategies)
- Keep track of how the project evolves and its risks with it! Key aspect for a fast response to risks effects.
- **Risk management is an active part of a project from the proposal to its completion**
- Usually, a dedicated Risk Manager monitors the risks and takes the responsibility for activating mitigation strategies in case a risk becomes active
- All the aspects related to risk handling during the project are defined **before the project starts**
  - Make sure you limit extraordinary interventions to extraordinary cases!

**BACKUP SLIDES**



# OH NO: I DON'T HAVE WINDOWS!

- I share the feeling - I don't have it too!
- If, by chance, you are using Mac OS and you have **Parallels** - you are all set.
- If not - or if you use Linux - no problem - the University provides a program that prevents the need for partitioning or other time-consuming and disruptive actions on your laptop!

**UIUCAnyWare**: virtual desktop environment allowing students to access software whether remote, on campus, or in class.

- Provides remote access to Windows Desktop from anywhere - w/o need for VPN access or other restrictions that may apply to UIUC computing resources
- Loads environment according to your UIUC NetID - and keeps memory of your user's space

**[Instructions on how to install the Citrix Workspace app](#)**

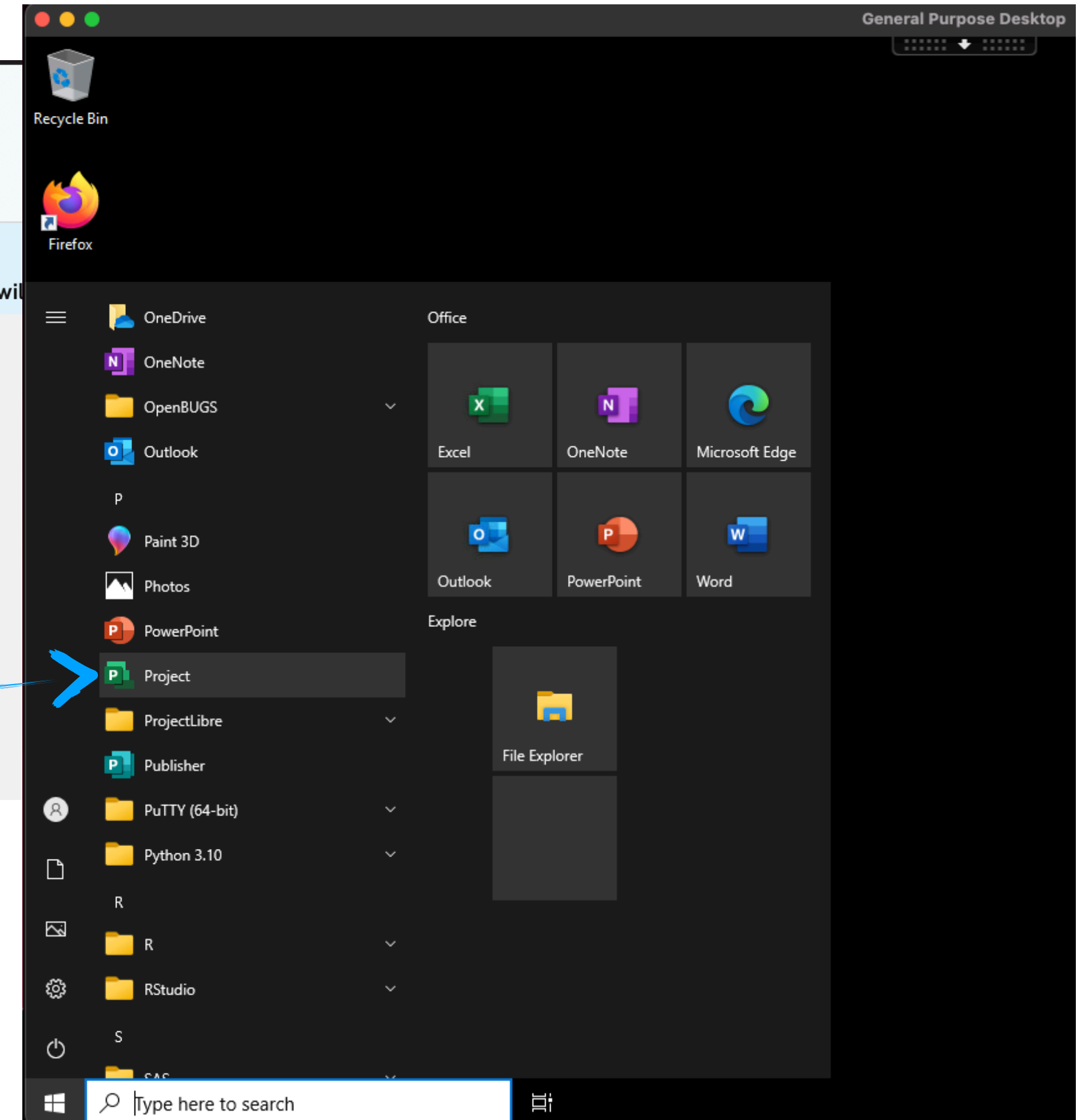
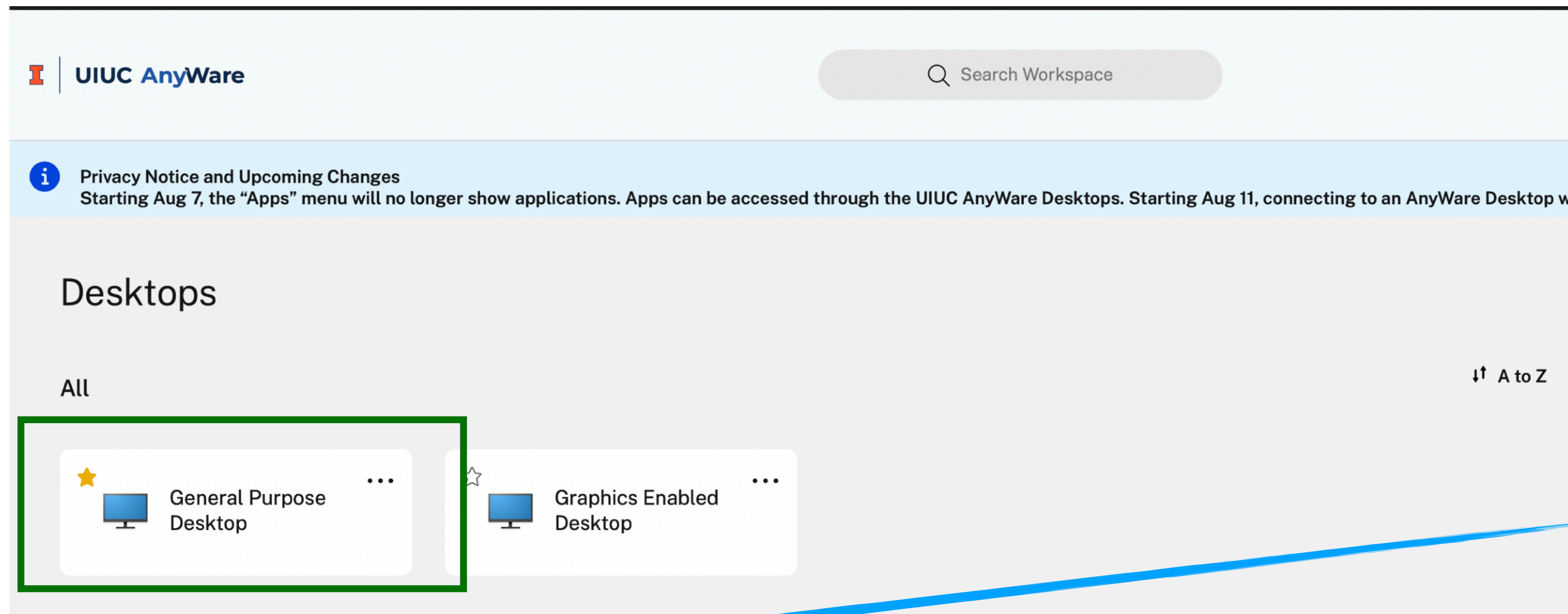
**[Instructions on how to setup the Citrix Workspace app for UIUCAnyWare](#)**



**Citrix Workspace app**

# CITRIX + PROJECT

- Because of a recent (< 2 weeks) change, the “App” installation by the user is not possible anymore
- Once you have booted Citrix and logged in UIUC AnyWare, select the **General Purpose desktop** option and log-in.



- The **Project app** will be already available in the Windows menu
- The version of the software is not the latest (2021), but this should not affect the work for the class!