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Overview of EU Project Management

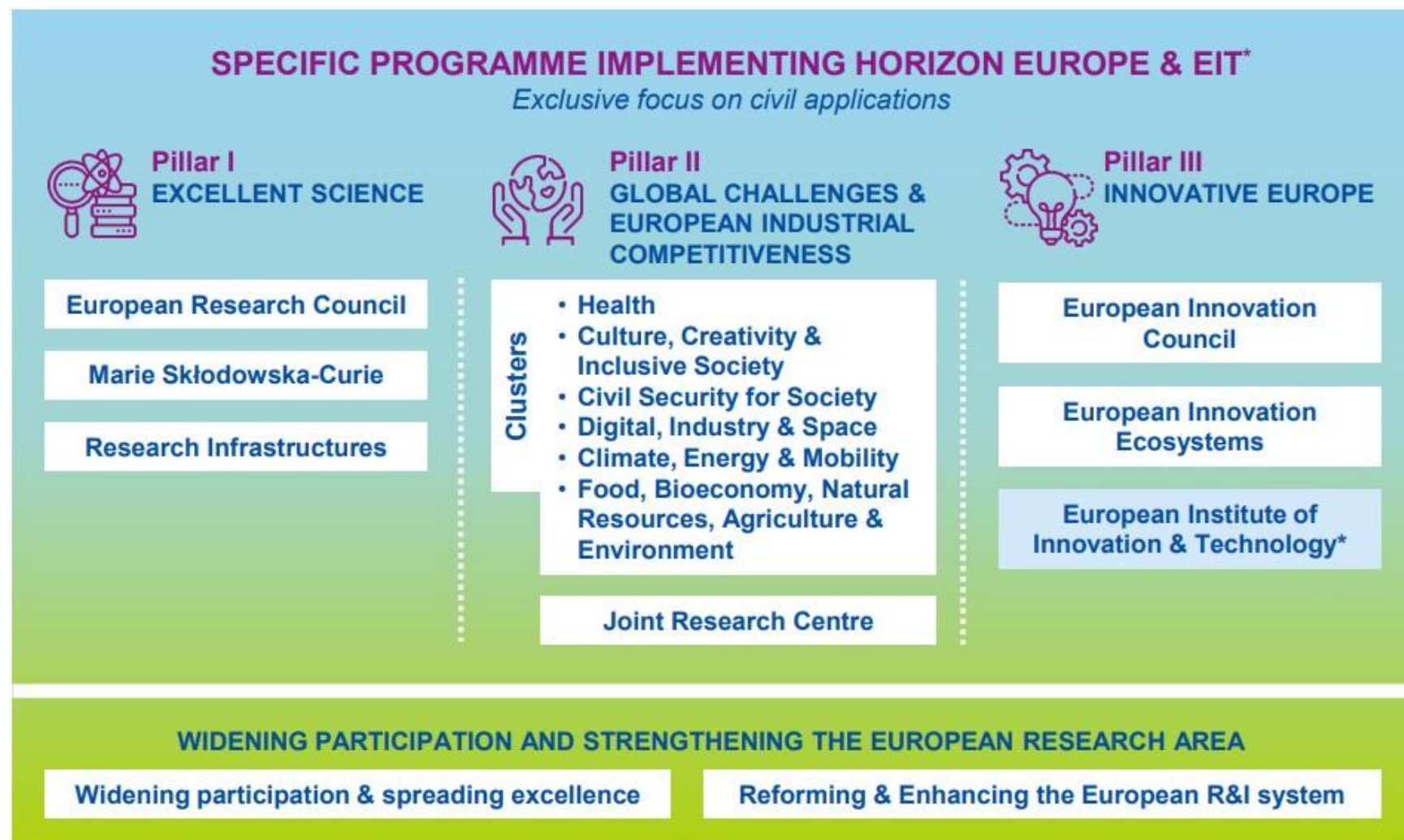
Giles Brandon (Intelligentsia Consultants), Project Management Training, Tuesday 3rd December 2024

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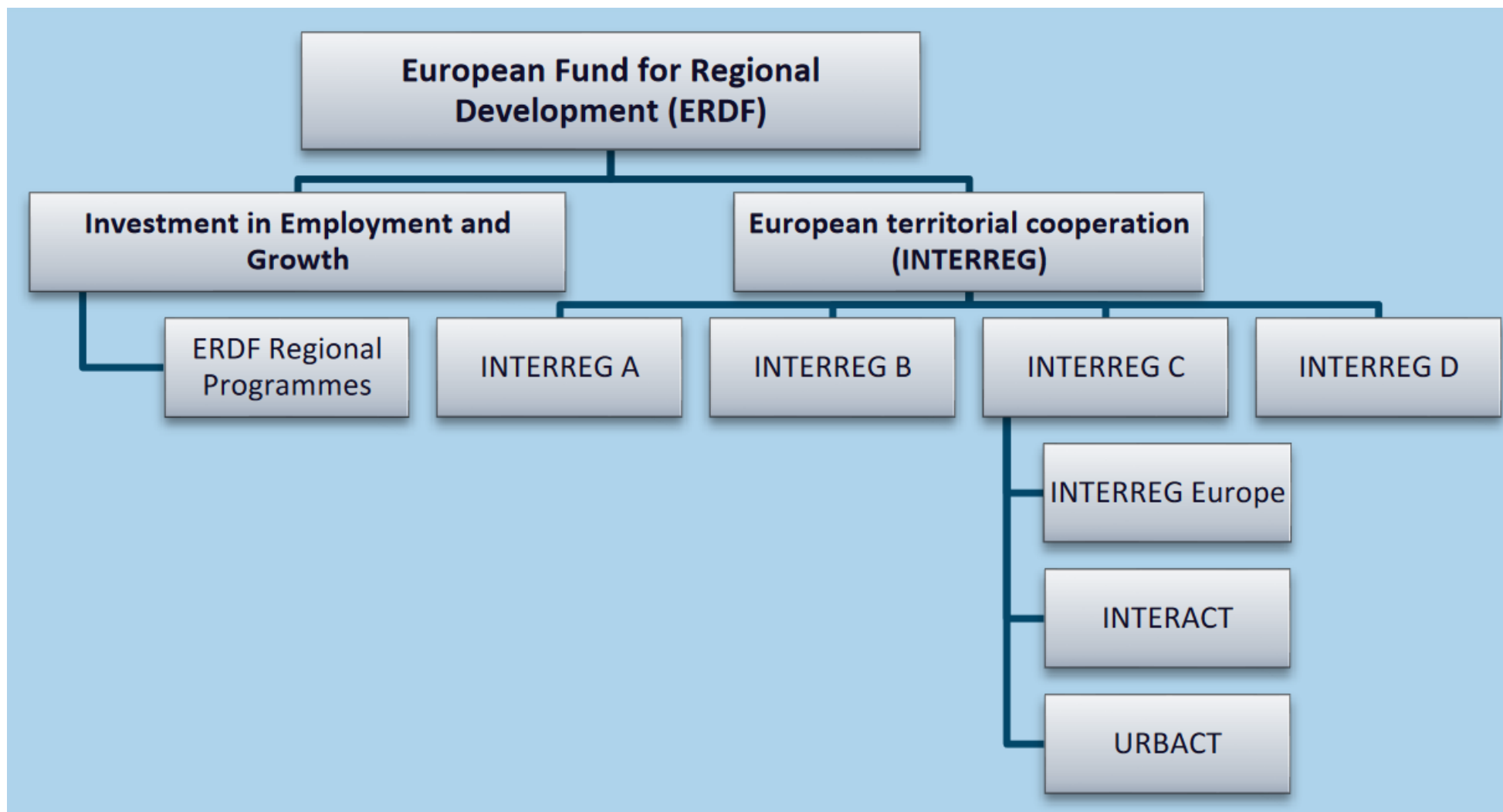
1. Basics of EU Research Funding Schemes

- **Budget:** €95.5 billion
- **Duration:** 2021-2027
- **Structure:** Three pillars: (1) Excellent Science, (2) Global Challenges and European Industrial Competitiveness, and (3) Innovative Europe
- **Support:** Supports a wide variety of projects and initiatives, from fundamental science to close-to-market activities.



Erasmus+ Structure - 2021-2027





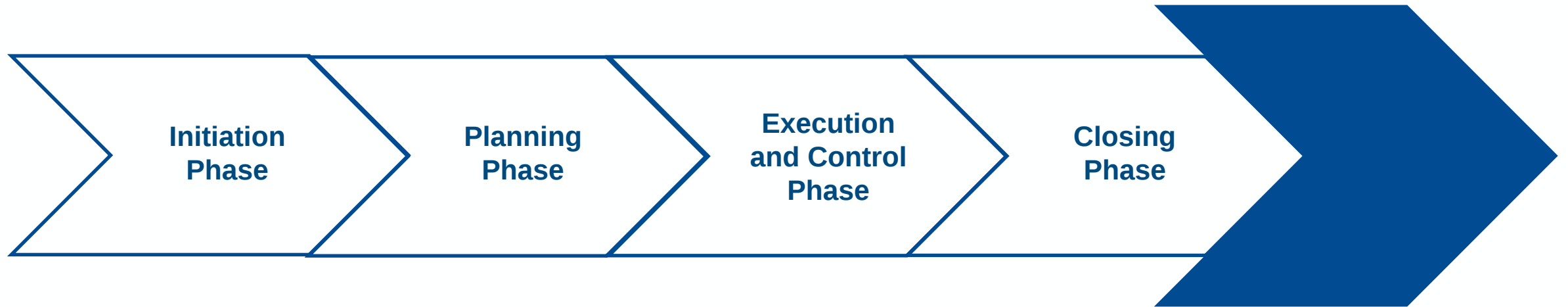
- **EU Funding Opportunities 2021-2027 – A Practical Guide:**

https://ec.europa.eu/programme/s/erasmus-plus/project-result-content/51b12903-16fe-4dbb-aeec-80c6d404d5fe/EU-Learning_Handbook_EU-Funding%20Opportunities%202021-2027_V5-2021.09.29.pdf



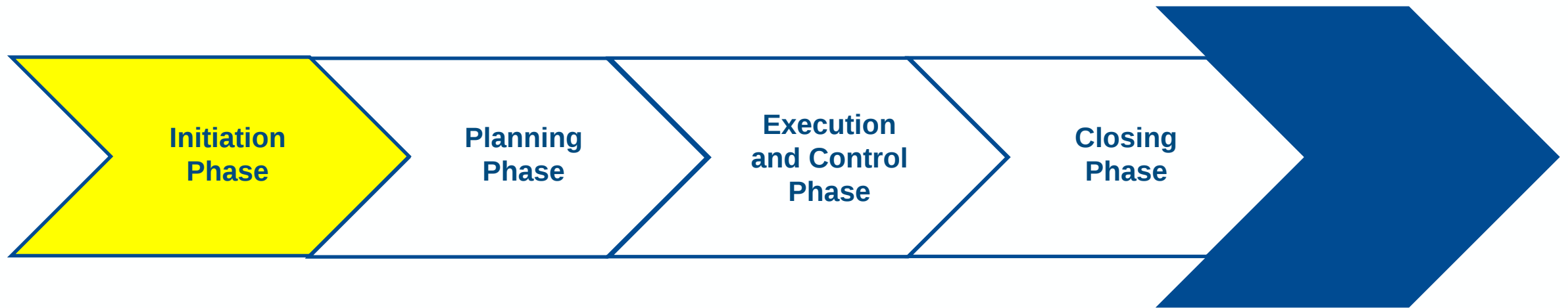
- **Funding Utilization:** Efficient project management ensures that the funding obtained from EU schemes is used effectively and responsibly, aligning with the proposed budget and reducing wastage of resources.
- **Compliance:** Project management helps in ensuring compliance with the rules and regulations set by the EU for these funding schemes, thus avoiding potential legal issues.
- **Time Management:** Proper project management allows for better time management, ensuring that research activities and milestones are completed within the given timelines.
- **Risk Management:** It helps in identifying, assessing, and managing potential risks that may affect the research project's progress or outcomes, thus reducing the likelihood of failure.
- **Quality Control:** Project management practices can help ensure that the research meets the required quality standards and delivers valuable and valid results.

2. Project Lifecycle



- **Project Lifecycle:** The project lifecycle refers to the consecutive stages a project goes through from inception to completion. In the context of EU research funding schemes, it entails the process of developing a research proposal, securing funding, executing the project, and evaluating its outcomes.
 - **Initiation Phase:** This is the stage where a project idea is formalized. In the context of EU funding schemes, this often involves identifying a research question that aligns with the priorities of the specific scheme, putting together a project team, and creating an initial project plan including objectives, potential impacts, and an overview of work packages.
 - **Planning Phase:** The planning phase involves detailing the steps required to achieve the project goals. In an EU research funding context, this phase is crucial to prepare a detailed proposal for submission.
 - **Execution and Control Phase:** Once funding is secured, the project enters the concurrent execution and control phase, which involves carrying out the research activities as planned. This includes regular reporting to the EU funding body, as per the scheme's requirements.
 - **Closing Phase:** The closing phase involves finalizing all activities, completing the documentation, and disseminating the results. In the context of EU funded research, this often requires a final management report or evaluation to the funding body, demonstrating the achievements and impact of the project.

3. Initiation Phase



- **Determine the project's goals and feasibility:**

- **Define the Research Question:** For example, a project in the field of renewable energy technologies, a goal could be developing a novel, cost-effective solar panel. The research question might involve exploring new materials or technologies to increase the efficiency of solar panels.
- **Align with EU Priorities:** One of the key goals of any EU-funded project is alignment with EU priorities. For instance, a project under the Horizon Europe scheme would need to align with key strategic orientations such as promoting open innovation, addressing global challenges, or strengthening the European Research Area.
- **Assess Technical Feasibility:** For example, if applying for a grant that aims to develop a new medical device for remote monitoring of patients, part of the initiation phase would be understanding whether current technology can support the intended functionality. Need to assess the state-of-the-art in telemedicine and wearable sensors.
- **Assess Economic Feasibility:** In a project aiming to develop a more sustainable agriculture method, a goal might be to produce a crop yield equivalent to current methods but with 30% less water usage. The feasibility assessment could involve an analysis of potential methods, costs, and return on investment. This would also include potential market size and economic impact.
- **Assess Time Feasibility:** An important aspect of project initiation is estimating the time needed to achieve the project goals. For instance, a project aiming to develop a vaccine against a new viral disease would need to take into account the time needed for preclinical development, clinical trials, regulatory approval, and production scale-up.

- **Identify project stakeholders and their interests:**

- **Project Team Members:** These are the researchers, scientists, and technical staff involved in the project. Their interests lie in successfully completing the project, advancing their careers, and contributing to their field of study.
- **Funding Body:** In the case of EU-funded research, the funding body could be the European Commission under schemes like Horizon Europe. Their interest would be in ensuring the project aligns with their strategic priorities, is carried out as planned, and leads to impactful results.
- **Partner Organizations:** If your project involves collaboration with other universities, research institutes, or companies, these are crucial stakeholders. Their interests may include new knowledge, tech-transfer, reputational enhancement, or financial benefits.
- **Regulatory Bodies:** If your project involves activities that require regulatory approval (like clinical trials or environmental impact assessments), regulatory bodies are important stakeholders. Their interests lie in ensuring compliance with laws and regulations.
- **End Users or Beneficiaries:** These could be patients (in case of a medical research project), consumers (if you're developing a new product), farmers (for an agricultural project), and so forth. Their interest is in the successful development and implementation of the project's results.
- **Society at Large:** For projects dealing with societal challenges or public goods (like climate change, public health, etc.), society at large is a stakeholder. Their interests lie in contributions to societal well-being, economic growth, or environmental sustainability.

- **Document project initiation by creating a *Project Charter*:**
 - A ***Project Charter*** (also referred to as *Project Abstract*) serves as an informal contract between the project team and the sponsor, and outlines the scope, objectives, stakeholders, and key deliverables of the project.
- **Case Study: Researching Sustainable Agriculture Methods**
 - **Project Title:** "Promoting Water Efficiency in Agriculture Through New Irrigation Methods"
 - **Project Objectives:** To research and develop a novel irrigation method that reduces water usage by 30% without affecting crop yield, and to promote its adoption among European farmers.
 - **Key Stakeholders:** Project team, European Commission (funder), partner universities and research centres, farmer associations, environmental regulatory bodies, potential end-users (farmers).
 - **Expected Deliverables:** Development and testing of the new irrigation method, research papers documenting the method and its benefits, training materials for farmers, a final report to the funding body.
 - **Preliminary Timeline:** 3 years from the project's start date.



- **Set up initial project team:**
 - Involves identifying key roles, responsibilities, and the skills required to fulfil these roles.

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- **Principal Investigator:** A seasoned researcher in sustainable agriculture. They will guide the research direction, supervise the team, and communicate with the funding body.
- **Agriculture Specialists:** These team members will conduct field experiments to test the new irrigation methods. They should have a strong background in crop science and irrigation.
- **Environmental Scientist:** This role involves assessing the environmental impact of the new irrigation method, ensuring it aligns with sustainability goals.
- **Outreach Coordinator:** This role focuses on communicating with farmer associations and promoting the adoption of the new irrigation method. They should have skills in communication, education, and stakeholder engagement.
- **Project Manager:** They will be responsible for the overall management of the project, ensuring it stays on track with its timeline and budget, and facilitating communication within the team and with external stakeholders.



- **Secure initial resources, including funding:**

- In the initiation phase of EU-funded research projects, securing initial resources is a critical step. This includes funding from EU schemes, but also other resources like personnel, equipment, or facilities.
- Vital to identify what resources are needed for the project, where these can be obtained from, and how they can be secured in a timely and cost-effective manner.

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- **Funding:** The team might apply for funding under the Horizon Europe scheme, specifically targeting calls related to sustainable agriculture or water efficiency. The grant application would detail the project's aims, approach, potential impact, and budget.
- **Personnel:** The team would need agriculture specialists for field experiments, an environmental scientist for assessing sustainability, and an outreach coordinator for working with farmers. These roles could be filled by existing staff, new hires, or collaborators at partner institutions.
- **Field Sites:** For testing the new irrigation method, the team would need access to suitable agricultural land. This might be available through the host institution, partner organizations, or local farmers willing to participate in the research.



- **Define project deliverables:**

- In the initiation phase of an EU-funded research project, you define the deliverables that the project is expected to produce. Deliverables will vary based on the nature and scope of the project.
- Deliverables provide tangible proof of the project's progress and outcomes, which is important for accountability to the funding body, communicating with other stakeholders, and disseminating the results to the wider community.

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- **Research Publications:** Peer-reviewed articles detailing the research findings related to the new irrigation method and its benefits.
- **Training Materials:** Instructional resources designed to teach farmers how to implement the new irrigation method. These could be manuals, online courses, video tutorials, etc.
- **Field Trial Reports:** Detailed reports on the field trials conducted, including methodology, data, analysis, and conclusions.
- **Final Report to Funding Body:** A report detailing the project's achievements, use of funds, impact on water efficiency in agriculture, and any potential next steps for further research or implementation.



- **Prepare for possible challenges:**

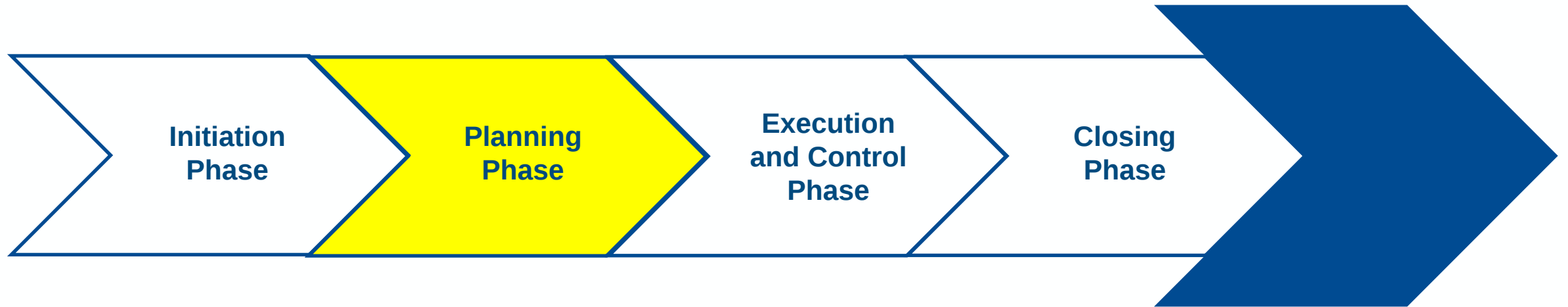
- During the initiation phase of EU-funded research projects, identifying potential challenges (risks) and developing mitigation strategies is an important step.
- Identifying challenges early on allows the project team to anticipate them, develop strategies to address them, and thus increase the chances of project success.

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- **Field Trial Challenges:** Field trials could be affected by unpredictable factors like weather conditions, pests, or crop diseases. The team could set up multiple trial sites to mitigate this risk and plan for longer trial periods to account for variability.
- **Adoption by Farmers:** New irrigation methods might be resisted by farmers due to the cost of implementation or lack of awareness. Outreach activities, training sessions, and demonstrating the cost-effectiveness and benefits of the new method could be planned from the beginning.
- **Delays in Funding:** Delays in funding could impact project timelines. Having a contingency plan with alternative funding sources or adjusted timelines would be beneficial.



4. Planning Phase



- **Develop a detailed project plan:**

- Developing a detailed project plan is a crucial step in the planning phase of EU-funded research projects.
- Plan serves as a roadmap for the project, outlining the activities to be performed, the resources required, and the timeline for completion.

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- **Work Breakdown Structure (WBS):** Tasks might include literature review, design of the irrigation method, setup of field trials, data collection and analysis, outreach to farmers, etc. Each of these would be broken down into sub-tasks.
- **Resource Allocation:** The project plan would detail the personnel, equipment, budget, and other resources required for each task. For instance, field trials would require agriculture specialists, farmland, irrigation equipment, and a portion of the project budget.
- **Timeline:** The project plan would specify when each task should begin and end. For example, design of the irrigation method might take place in the first two months, field trials from month 3 to month 24, etc.
- **Milestones:** Key points in the project would be marked as milestones. These could include the start of field trials, the completion of data analysis, the first training session for farmers, etc.



- **Set up budgeting and scheduling plans:**

- Crucial to establish budgeting and scheduling plans. This ensures that the project has the resources it needs to achieve its objectives on time.
- They also provide a basis for monitoring project performance and accountability to the funding body and other stakeholders.

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- **Budgeting Plan:** This would cover costs for field trials (land, seeds, irrigation equipment, etc.), personnel salaries, overhead costs, outreach activities, publication costs, and so forth. The budget would be distributed across these categories according to their importance and the project's funding constraints.
- **Scheduling Plan:** The schedule would specify the timeline for each task in the project. For example, designing the irrigation method might take 2 months, setting up and conducting field trials might take 24 months, data analysis and report writing might take an additional 6 months, etc.



- **Define quality metrics and objectives:**

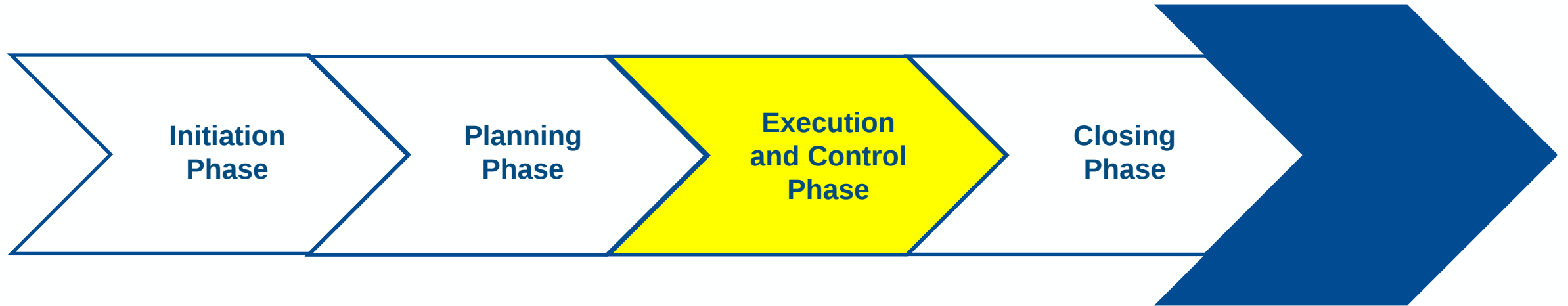
- Defining quality metrics and objectives during the planning phase of EU-funded research projects is vital to ensure the project meets the expected standards and achieves its goals.
- Quality metrics and objectives provide a clear definition of what constitutes "success" for the project. They provide a standard against which project performance can be measured and evaluated, which is essential for accountability to the funding body and other stakeholders.

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- **Water Efficiency:** The new irrigation method should achieve a certain percentage of water savings compared to traditional methods. This percentage should be defined as a target objective.
- **Crop Yield:** Despite water savings, crop yield should not decrease and ideally should increase. A target yield per hectare could be defined.
- **Adoption Rate:** A certain percentage of participating farmers should adopt the new irrigation method after the project. This percentage should be set as a target.
- **Publication Quality:** The number of high-impact, peer-reviewed publications resulting from the research could be set as a target.



5. Execution and Control Phase



- **Deploy resources and execute the project plan:**

- Resources are deployed, and the project plan is put into action.
- Involves coordinating people and materials, conducting project activities, and ensuring tasks completed as planned.
- Busy phase that requires effective coordination, problem-solving, and communication to ensure that the project stays on track and achieves its objectives.

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- **Field Trials:** The project team begins setting up the field trials, which could involve preparing the land, installing the irrigation equipment, and planting the crops.
- **Data Collection:** Team members start their assigned tasks, such as designing the data collection protocol, collecting and analysing data, or conducting outreach to farmers.
- **Collaboration:** Farmer associations or other partners begin their roles in the project, such as promoting the new irrigation method to farmers or providing practical advice.
- **Reporting:** The project manager starts tracking progress, documenting activities, and preparing reports for the funding body and other stakeholders.



- **Manage teams and their tasks:**

- Involves ensuring that everyone knows what they need to do, coordinating team activities, resolving any issues that arise, and maintaining a productive and positive work environment.
- Good team management helps to ensure that project activities are carried out effectively, that team members feel valued and motivated, and that any issues are addressed promptly.

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- **Task Allocation:** Tasks must be assigned based on the work breakdown structure (WBS), and team members must be briefed on their roles and deadlines.
- **Field Coordination:** The project manager must coordinate field activities, ensure that all necessary resources are available, and troubleshoot any problems that occur.
- **Performance Monitoring:** The project manager must track the performance of team members and the quality of their work, providing feedback and guidance as needed.
- **Conflict Resolution:** If conflicts emerge, the project manager must facilitate discussions to find a resolution and maintain a positive team climate.
- **Team Building:** Team-building activities could also be beneficial in this project to strengthen team relationships and boost morale.



- **Implement approved changes:**

- Implementing approved changes is a common part of the execution and control phase in EU-funded research projects.
- Despite careful planning, circumstances can change, new information can emerge, and adjustments may be needed.
- The process typically involves reviewing and approving the changes, communicating them to all stakeholders, and updating the project plan accordingly.

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- **Methodology Changes:** If initial field trials suggest that the new irrigation method isn't as effective as expected, it might be necessary to modify the method. This change would need to be documented, approved, and communicated to all stakeholders.
- **Location Changes:** If a planned trial site becomes unavailable or unsuitable, it might be necessary to select a different site. This change would need to be approved and communicated to all stakeholders.
- **Staff Changes:** If key team members leave the project, new personnel might need to be recruited, which could involve adjustments to roles and responsibilities, timeline, and budget. These changes would need to be approved and communicated to all involved parties.



- **Track, review, and regulate project progress:**

- Crucial to track, review, and regulate project progress to ensure alignment with the project plan, detect any issues early, and take corrective action if necessary.

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- **Project Dashboard:** A project dashboard should be used to monitor key project metrics.
- **Field Visits:** The project manager or designated team members should make regular visits to the field trial sites to check on progress, resolve any issues, and collect feedback from farmers.
- **Status Reports:** Regular status reports should be prepared for the funding body, farmer associations, and other stakeholders, providing updates on the project's progress and any issues or changes.
- **Data Quality Checks:** Regular checks should be conducted on the collected data to ensure its quality and reliability. Any issues identified should be investigated and addressed.



- **Compare actual performance with planned performance:**
 - Helps to ensure that the project is progressing as expected, identify any deviations from the plan, and take corrective action if necessary.
- **Case Study: Researching Sustainable Agriculture Methods**
 - **Timeline Tracking:** The actual progress should be compared with the planned timeline to check if the project is on schedule.
 - **Budget Comparison:** The actual spending should be compared with the budget plan to monitor costs and identify any areas of overspending.
 - **Data Quality Measures:** The actual quality and quantity of the collected data should be compared with the defined data quality objectives.
 - **Farmer Adoption:** The actual adoption of the new irrigation method by farmers should be compared with the planned level of adoption to see if the project is achieving its impact goals.



- **Identify issues and implement corrective actions:**

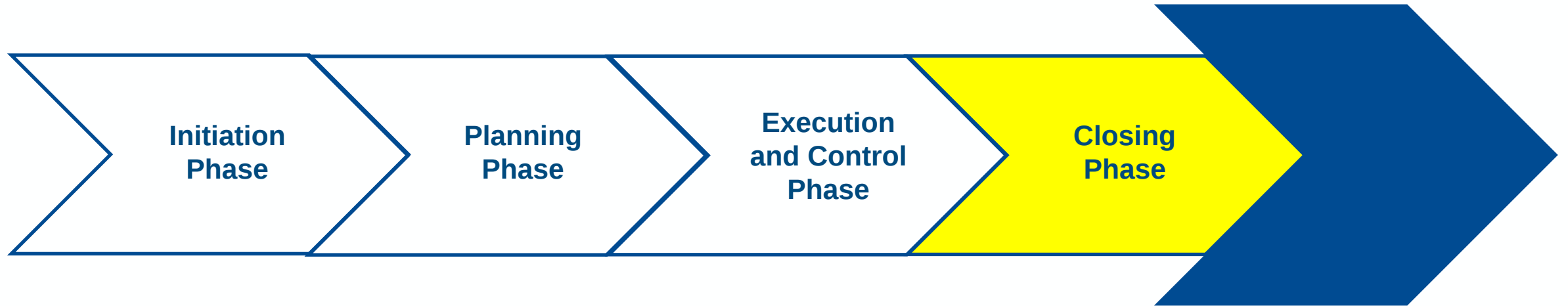
- Identifying issues and implementing corrective actions are critical for maintaining the progress and quality of the project.

- **Case Study: Researching Sustainable Agriculture Methods**

- **Field Trial Problems:** If the new irrigation method is not working as expected in field trials, the project team could troubleshoot the problem, identify the cause, and modify the method or the trial setup as necessary.
- **Data Quality Issues:** If the collected data is not reliable or sufficient, the project team could review the data collection process, identify any problems, and improve the process or the training of data collectors.
- **Budget Overruns and Delays:** Budget overruns and delays should be managed by identifying the causes and implementing corrective actions.
- **Farmer Resistance:** If farmers are reluctant to adopt the new irrigation method, the project team should investigate the reasons, such as lack of knowledge or perceived risks, and implement measures such as additional training, demonstrations, or modifications to the method.



6. Closing Phase



- **Deliver the final product or service:**
 - This refers to the final output of the project being ready for use or implementation.

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- **Method Documentation:** The new irrigation method should be fully documented and the documentation provided to farmer associations and agricultural extension services. This represents the delivery of the final product in the form of a new farming practice that can be implemented.
- **Training Programmes:** Training programmes should be developed and delivered to train farmers in using the new irrigation method. This represents the delivery of the final product in the form of a capacity-building service.
- **Publication:** The research findings should be published in a scientific journal.
- **Policy Briefs:** Policy briefs could be prepared and distributed to government agencies, advocating for the wider adoption of the new irrigation method.



- **Release project resources:**

- Involves ensuring that human, physical, and financial resources that were tied up in the project are properly closed off, redirected or reassigned.

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- **Human Resources:** Project team members could be reassigned or their contracts terminated.
- **Physical Resources:** Field trial sites, equipment, and other resources used in the project would be cleaned up and returned to their original state or reassigned to other projects or purposes.
- **Financial Resources:** Any unspent project funds would be accounted for and returned or reallocated according to the terms of the funding agreement.



- **Document lessons learned:**

- Involves reflecting on what went well and what could be improved in the future.

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- **Field Trials:** The project team could document lessons learned from conducting field trials, such as effective ways of engaging with farmers or strategies for collecting reliable data.
- **Project Management:** The project manager could document lessons learned about various aspects of project management.
- **Stakeholder Engagement:** Lessons about engaging with stakeholders, such as strategies for motivating farmers to adopt the new irrigation method or effective ways of communicating with government agencies, could be documented.
- **Use of Resources:** Lessons about the use of resources could be documented.





7. Project Management Methodologies

- **Waterfall Methodology:** This traditional project management methodology is linear and sequential. Each phase must be completed before the next one can begin, making it suitable for projects with clear, unchanging requirements and where tasks are dependent on each other, such as many research projects.
- **PRINCE2 (Projects IN Controlled Environments):** PRINCE2 is a process-based approach that provides a detailed roadmap for how the project should be managed and executed. It's widely used in the UK government and in many sectors and countries worldwide.
- **Agile Methodology:** Agile methodology is iterative and flexible, allowing for regular adjustments throughout the project. Although it's widely used in software development, it can also be applied to research projects, especially those involving complex tasks, rapid changes, or a high level of uncertainty.



8. Roles and Responsibilities of Project Teams

- **Key Roles in an EU-Funded Research Project Team:**

- **Project Manager:** Responsible for overall project management, coordination, and delivery of the project on time and within budget.
- **Principal Investigator:** The lead researcher who is responsible for the scientific and technical direction of the project.
- **Project Administrator:** Handles administrative tasks such as financial management, reporting, and compliance with EU funding requirements.
- **Research Associates/Assistants:** Conduct the research tasks under the direction of the Principal Investigator.
- **Stakeholder Representatives:** Individuals who represent the interests of different stakeholder groups, often providing valuable inputs, feedback, and support.
- **Dissemination and Communication Officer:** Develops and implements a communication strategy, promotes project results, organizes events, engages with stakeholders, and fulfils reporting requirements.

- Homework towards receiving a *Certificate of Project Management*:
 - Outline the *Initiation Phase for Your Own Case Study*.
 - The case study can be on any topic of science and technology – choose a topic relevant to you.
 - Provide: Title, objectives, key stakeholders, deliverables, preliminary timeline.
 - Describe the issues to be considered in the Initiation Phase – in a similar way as was done for the Case Study on “Researching Sustainable Agriculture Methods”
 - Describe: Project charter, initial project team, initial resources, project deliverables, and possible challenges.
- Email homework to giles.brandon@intelligentsia-consultants.com
- Homework deadline: 06/01/2025

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Thank You - End of Training Presentation!

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