Module GESTION DE PROJET
POLYTECH
Université de Nice - Sophia-Antipolis

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Presentation

❑ 45 ans, 2 enfants

❑ Diplome universitaire DESS Genie du Development Industriel (Universite de Nice – Sophia-Antipolis)

❑ Experience Professionnelle : +20 ans dans le Semiconducteur
- 1997 / 2013 : Texas Instruments avec 9 ans de HW Program Management de Circuits analogiques ou numériques et 2 ans de PMO Management -
- 2013 / XXX : NXP - 6+ ans de HW Project Managements sur des circuits Audio (analogiques/numeriques), "Smart Amplifiers" et System Project Manager (pour des solutions Audio comportant du HW / SW et System)
- XXX : HW Project manager at Goodix

❑ Enseignant vacataire Polytech depuis 2016

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Module Gestion de Projet

Objectif

❏ Vous permettre de découvrir le management de projet, ses caractéristiques, son importance dans la réalisation d'un produit ou d'un service.

Compétences

❏ Connaître les missions d'un chef projet
❏ Identifier les besoins, les exigences des parties prenantes et le périmètre du projet
❏ Appliquer les outils de la gestion projet pour les projets scientifiques et techniques et dans tous les évènements organisés à Polytech Nice

Organisation du cours

❏ 16h sur 8 semaines : du 16 Septembre au 18 Novembre 2019 (2 Lundi sans cours : 28OCT / 11NOV)
❏ 2 notations : Exercises (Note1) + QCM (final sur les chapitres 2→7)(Note2) avec le même coefficient

❏ Support des cours : **Toutes les slides présentées seront envoyées par mail à la fin de chaque chapitre.**

❏ **En cours : pas d'ordinateur ouvert**

WHAT IS A PROJECT? KEY WORDS ?

WHAT DO WE MEAN BY PROJECT MANAGEMENT ?

Module Gestion de Projet / Project Management : Content

1. Introduction to Project Management

2. Project

3. Time

4. Resources

5. Cost

6. Quality

7. Risks Management

Chapter 1 : Introduction to Project Management :

Chapter 1 : Introduction to Project Management :

1. **Definition**
2. Different types / Approaches of Project Management
3. Types of Certification

1.1 Project Management : Definition

- Project management is a practice that can be found everywhere. Project management does not belong to any specific domain or a field.

- Regardless of the size of the activities or effort required, every project requires project management.

- Project management is the process and activity of **planning**, **organizing**, **motivating**, and **controlling resources** to achieve specific goals of a project.

So **the goal of a Project manager** is to achieve all of the project goals and objectives
The primary constraints are **scope, time, quality and budget**.
The secondary — and more ambitious — challenge is to optimize the allocation of necessary inputs and integrate them to meet pre-defined objectives.

Chapter 1 : Introduction to Project Management :

1.2 Project Management : Different Types / Approaches

- **The traditional approach :** identifies five components, or stages, of a complete project: Initiation / Planning and design / Execution / Monitoring and controlling / Closing

Initiation	Planning and Design	Execution	Monitoring and Controlling	Closing

The simplest version of the traditional approach goes through these components one-by-one in the order described

1.2 Project Management : Different Types / Approaches

- Variant approach : **Waterfall**
  Waterfall methodology is the one that is the most used across all industries, and it is very common in software development and construction. There are many versions of the waterfall method, like below one :
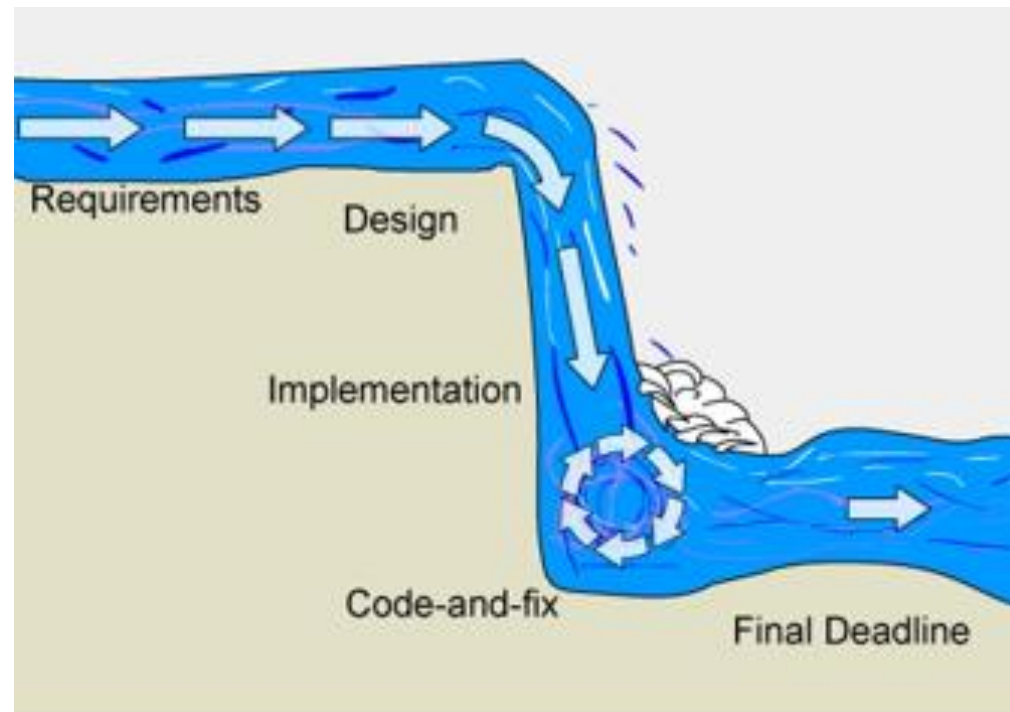
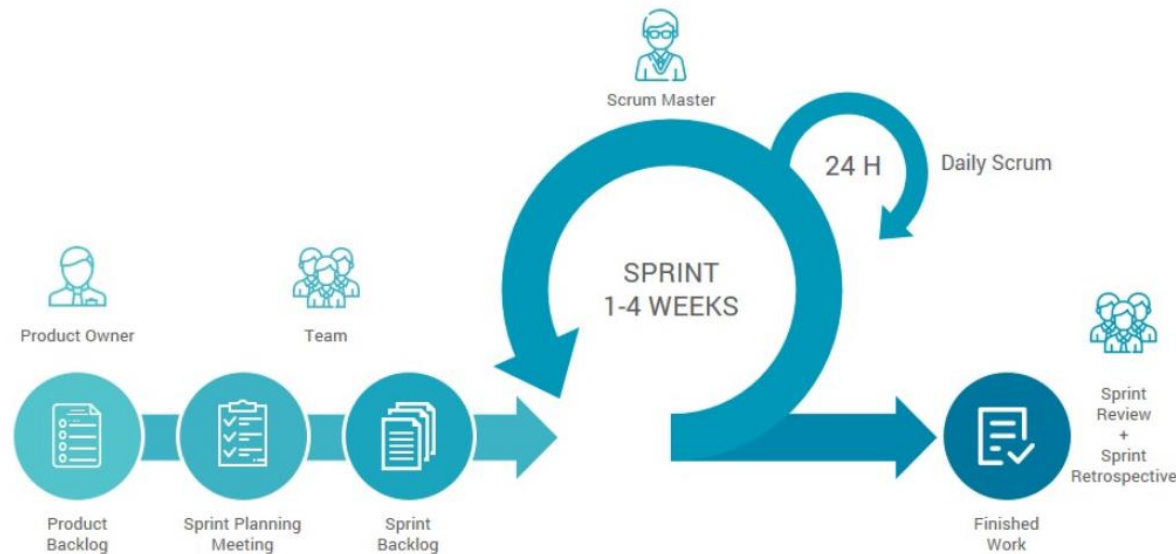# 1.2 Project Management : Different Types / Approaches

- **Critical Chain Project Management** :
This approach emphasizes the **efficient use of resources**. The "critical chain" of the project is the **longest sequence of tasks that are constrained by the availability of a resource.**

    - CCPM is less concerned with task order and scheduling.

    - Schedules and deadlines are seen as less important due to a phenomenon known as Parkinson's Law, which states that "Work expands so as to fill the time available for its completion."

    - Ironically, it seems that a lack of deadlines actually speeds up work, as workers will complete their tasks as quickly as possible rather than waiting until just before the deadline.

1.2 Project Management : Different Types / Approaches

- **Agile** : It is an **iterative and incremental method** of managing the activities in a **highly flexible and interactive manner**.
    - This approach allows teams to deliver projects piece-by-piece and make rapid adjustments as needed.
    - Especially useful in complex projects, Agile can result in more customer needs met at less cost. Agile-based methodologies are "**most typically" employed in software development** as well as the "website, technology, creative, and marketing industries."

Scrum Master

24 H   Daily Scrum

SPRINT
1-4 WEEKS

Product Owner

Team

Sprint
Review
+
Sprint
Retrospective

Product
Backlog

Sprint Planning
Meeting

Sprint
Backlog

Finished
Work

1.2 Project Management : Different Types / Approaches

- **Agile** :
Agile is an umbrella term for multiple project management methodologies, including:
  - **Scrum** : the product is built in **a series of fixed-length iterations called sprints** that give teams a framework for shipping software on a regular cadence.
  The Scrum framework :
    - A **product owner** creates a prioritized wish list called a **product backlog**.
    - During sprint planning, the team pulls a small chunk from the top of that wish list, a **sprint backlog**, and decides how to implement those pieces.
    - The team has a certain amount of time — **a sprint (usually two to four weeks)** — to complete its work, but it meets each day to assess its progress (**daily Scrum**).
    - Along the way, the **ScrumMaster** keeps the team focused on its goal.
    - At the end of the sprint, the work should be potentially **shippable**: ready to hand to a customer, put on a store shelf, or show to a stakeholder.
    - The sprint ends with a **sprint review and retrospective**.
    - As the next sprint begins, the team chooses another chunk of the product backlog and begins working again.

1.2 Project Management : Different Types / Approaches

- **Agile** :
  - **Scrum**

The Agile - Scrum Framework

1.2 Project Management : Different Types / Approaches
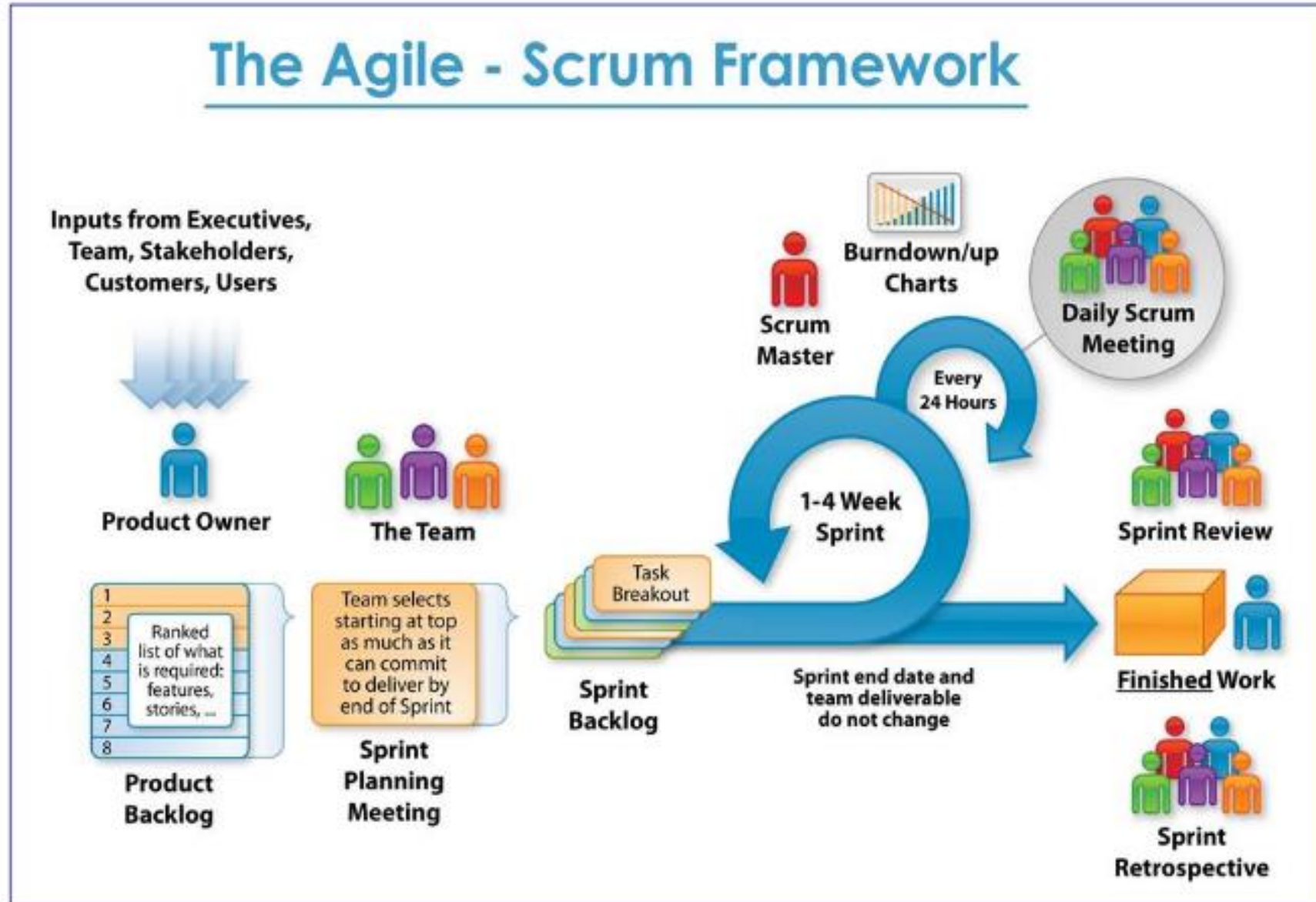
▪ **Agile** :

  • **Scrum** :

https://www.scrumalliance.org/why-scrum
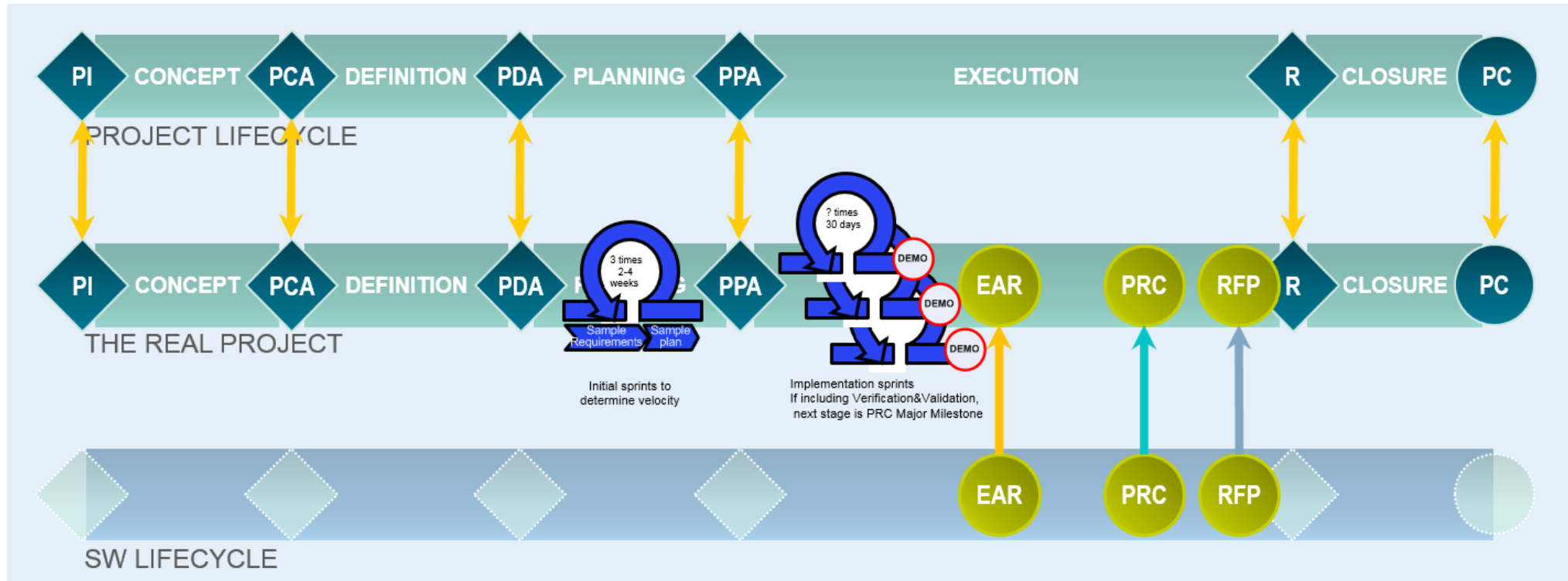
1.2 Project Management : Different Types / Approaches

- **Agile** :
  - **Kanban** - A lean framework for process improvement that is frequently used to manage work in progress (WIP) within agile projects. Kanban has been specifically applied in software development.
  - Extreme Programming (XP)
  - eXtreme Manufacturing (XM)
  - Crystal Clear
  - Scrum ban (mixed scrum and kanban approach)

1.2 Project Management : Different Types / Approaches

- Different types of Project management approaches :
  - **Conclusion** :
    - There is no better approach, it depends of the project scope / company organization / …
    - We can combine in one Project different PM approaches

Chapter 1 : Introduction to Project Management :

1.3 Project Management : Different certifications

- **From PMI :**
  in 1969, the Project Management Institute (PMI) was formed in the USA.PMI publishes A Guide to the Project Management Body of Knowledge (PMBOK Guide), which describes project management practices that are common to "most projects, most of the time." PMI also offers multiple certifications.

  Link : http://www.pmi.org/Certification.aspx
  - **PMP** : Project management Professional – PMP is one of the most important industry-recognized certification for project managers. Globally recognized and demanded

  - **CAPM** : Certified Associate in Project Management - understanding of the fundamental knowledge, terminology and processes of effective project management.

  - **PgMP** : Program Management Professional – for multiple, complex projects to achieve strategic and organizational results.

  - **PMI ACP** : PMI Agile Certified Practitioner - It's the only agile certification that requires a combination of training, experience and an exam.

1.3 Project Management : Different certifications

- **From Prince2** :
Acronym for **PR**ojects **IN C**ontrolled **E**nvironments is a **process-based method** for effective project management. Used extensively by the UK Government, PRINCE2 is also widely recognized and used in the private sector, both in the UK and internationally.

PRINCE2 is a project management methodology **: it is what a project manager should do**. It is made up of processes, principles and themes that step you through the project from conception to close

PMP is based on the Project Management Body of Knowledge (PMBOK) - which is the knowledge of the project management profession. **It is what a project manager should know**.

So PRINCE2 and PMP are complementary

Link : https://www.prince2.com/prince2-qualifications-explained
- **PRINCE2 Foundation**
- **PRINCE2 Practitioner**

1.3 Project Management : Different certifications

- **Agile :** Certification by
  - APMG-International
  - ESI International
  - Scrum Alliance
  - …