



Středoevropský technologický institut
BRNO | ČESKÁ REPUBLIKA

PREFEKT & CEITEC PhD school Preparing International Grant Applications I.

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Grant Office CEITEC MU

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EVROPSKÁ UNIE
EVROPSKÝ FOND PRO REGIONÁLNÍ ROZVOJ
INVESTICE DO VAŠÍ BUDOUCNOSTI



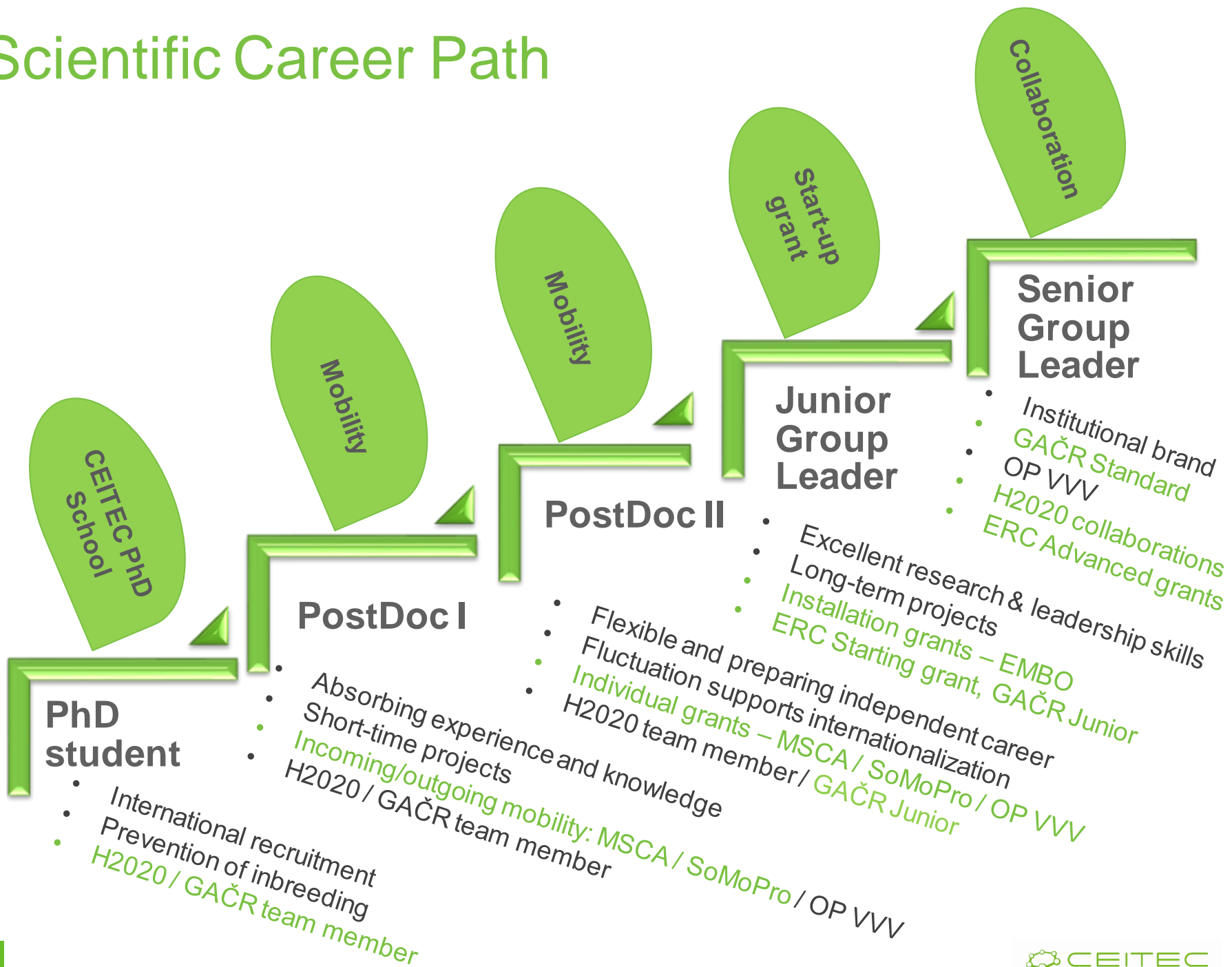
OP Výzkum a vývoj
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Content

- Project Management – Introduction
- Proposal structure and evaluation criteria
 1. Excellence
 2. Impact
 3. Implementation
- Running the Project on Day-to-Day Basis

Scientific Career Path





Project management – Introduction

What is a Project?



Project is...

- ...a set of tasks executed within pre-defined **time** and certain **costs** with **purpose** to create a unique product, service or result.
 - **Temporary** = it has a defined beginning and end in time, and therefore defined scope and resources.
 - **Unique** = a planned piece of work that has a specific purpose (such as to find information or to make something new)
- Project vs. routine operations

Project Management is...

- ... the application of **knowledge, skills and techniques** to execute projects effectively and efficiently.
 - Projects must be expertly managed to deliver **on-time, on-budget results**

Project Manager is...

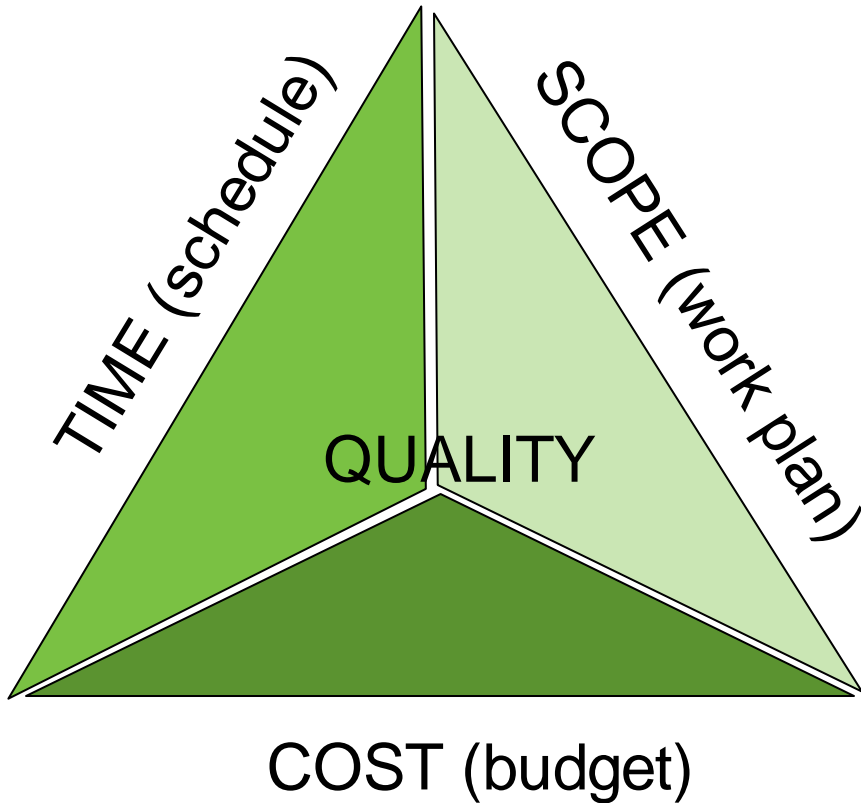
... the person assigned by the performing organization to **lead the team** that is **responsible for achieving project objectives**

- Knowledge
- Performance
- Personal approach

Reasons to start a project

- Market demand
- Strategic opportunity /business need
- Social need
- Environmental considerations
- Customer request
- Technological advantage
- Legal requirement
- ... What about in academia and R&D?

Triple constraint



Priorities?

1. Add time
2. Limit scope
3. Put more money

Project constraints

- Budget
- Scope
- Schedule
- Quality
- Resources
- Risk
- Customer satisfaction – no two person's expectations are same



Time management

- Ability to organize and plan the time spent on activities in a day effectively
- Develop scheduling skills
- Learn how to use several **basic project planning tools**:
 - WBS (Work breakdown structure)
 - Resource allocation
 - Gantt charts



Time management principles

„Time is terrible resource to waste. And it is the most valuable resource in a project.“

Projects have finite duration.

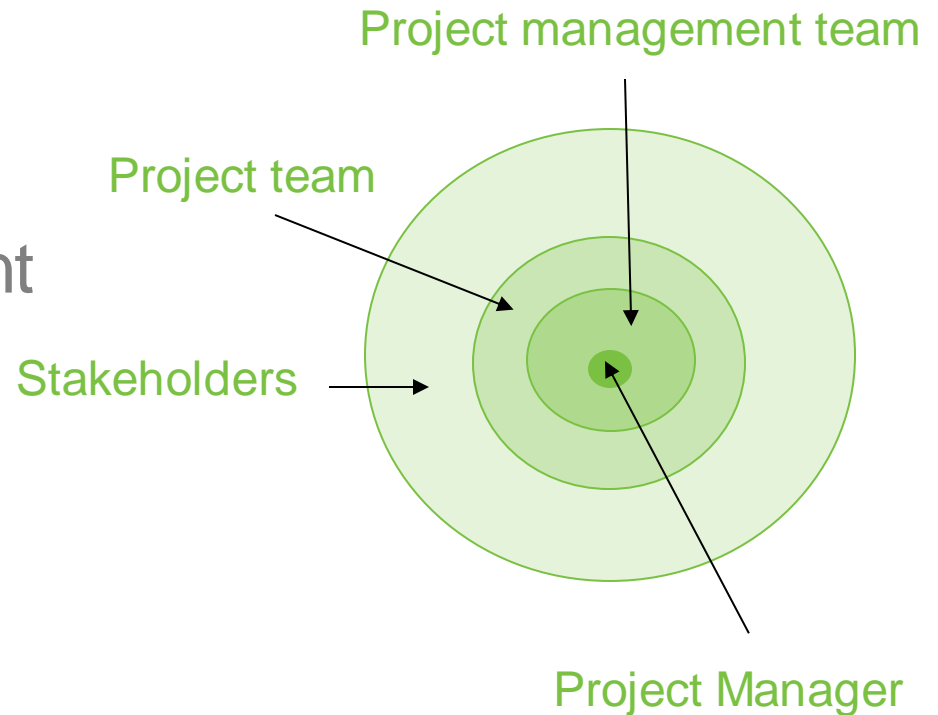
Managing a project requires awareness of 2 time frames:

1. The **amount of effort** a task will take (in time), e.g., 3 hours to write a report or 2 days to finish the analysis
2. The **time span** over which the activity will occur, e.g., the report will be done within a week, measurements will be accomplished by 6 o'clock



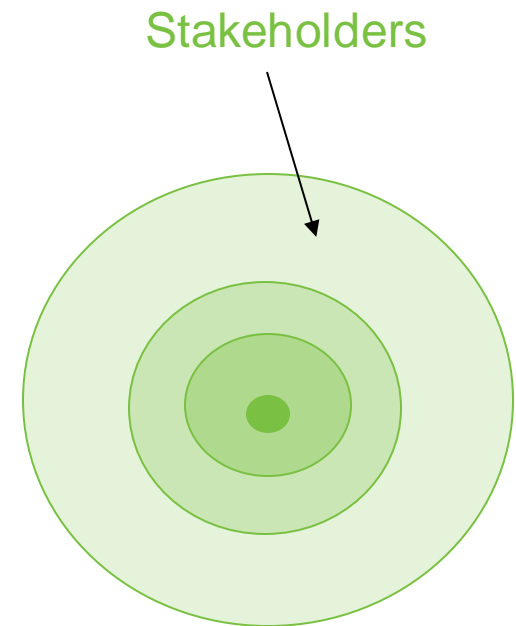
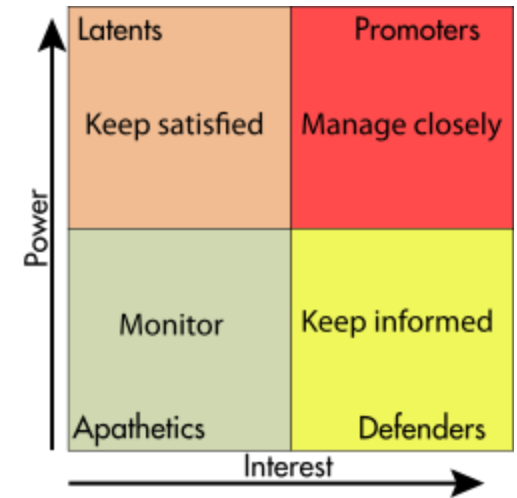
Project team

- Shared common goal
- Distinct responsibilities
- Time limited engagement
- Communication skills
- Project team:
- Project sponsor
- Project manager
- User or customer representatives
- Subcontractors and suppliers
- Partners



Project Stakeholders

- ... are people/organizations influenced or involved in the project.
- **Key points**
 - Who they are?
 - What interests they have?
 - How shall we deal with this?



Sponsor role

- ... is customer (= grant provider) or member of senior management
- Provides financial resources for the project
- Appoints Project Manager
- **Gathers support for the project, protects project**
- Determines priorities
- Approves changes
- Accepts deliverables

Project Manager role

- Leads the team and is responsible for achieving project objectives
 - Helps write the project / the grant proposal
 - Influences project team and atmosphere
 - Manages interactions with key stakeholders
 - Leads planning the project
 - Manages project team
 - Monitors project work and proposes changes
 - Performs closing activities
- Is proactive, has authority and accountability

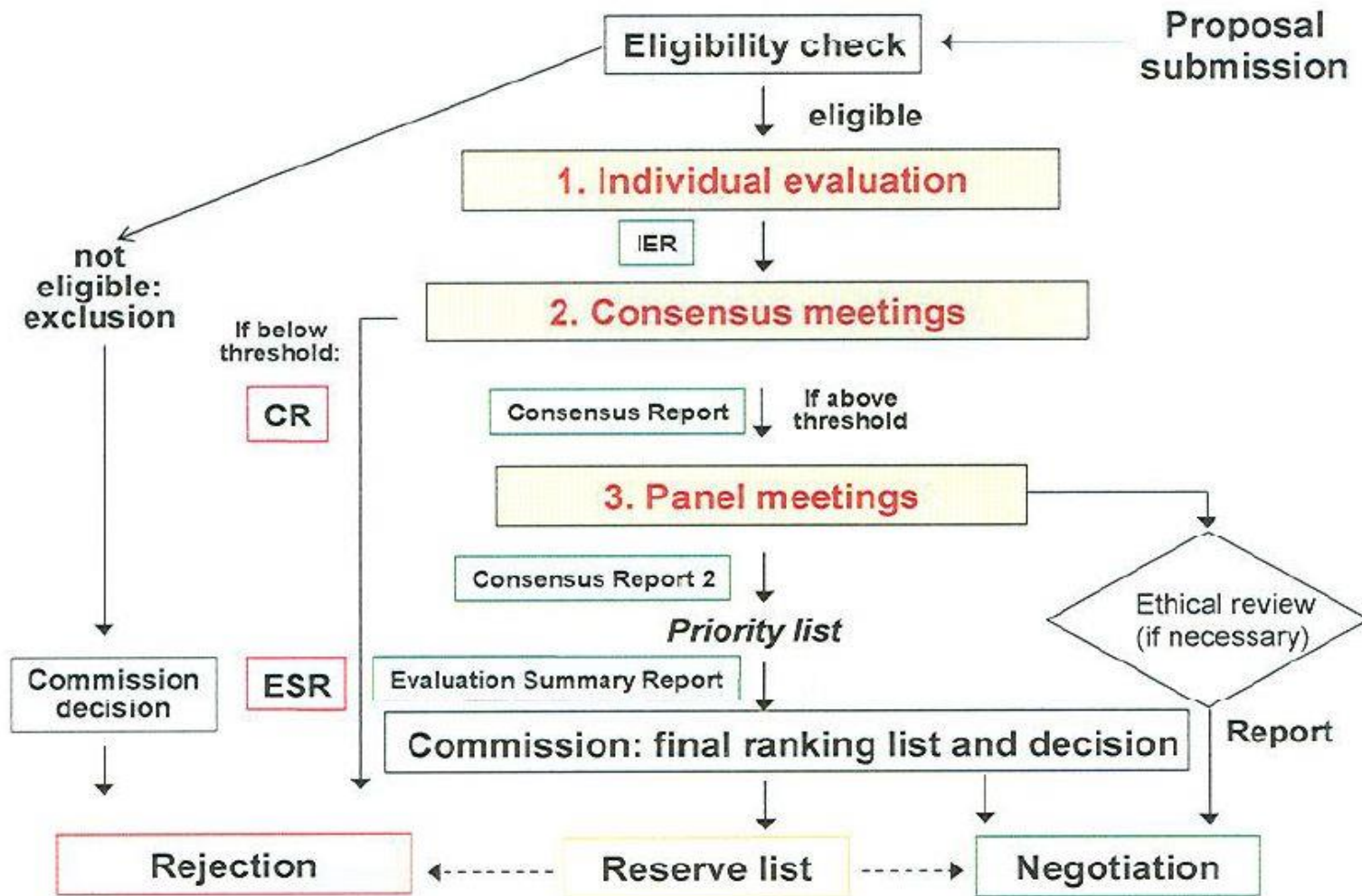
Project team role

- Project team completes the work of the project
 - Helps identify requirements, constraints and assumptions
 - Participates in activity planning and provides estimates
 - Does the work according to plan
 - Participates in meetings
 - Raises change request



Proposal Structure and Evaluation Criteria

Evaluation process



Eligibility check

- Different eligibility between grant schemes
- To be considered admissible, a proposal must be:
 - submitted via Participant Portal before the deadline given by the call;
 - readable, accessible and printable.
 - Complete (make sure no administrative data, parts of proposal or any supporting documents specified in the call are missing)

Evaluation – Process

- **Forms of evaluation** – remote or in-situ (in Brussels). In situ usually takes a week without the opportunity to contact the applicants, this usually covers both individual evaluation and consensus meeting; remote evaluation is usually individual, with consensus meeting later on in Brussels; sometimes, a hearing/interview is part of the evaluation (typically ERC)
- **Evaluation process** – starts with a briefing from EC (call objectives, work programme, call text, interpretation of evaluation criteria; „calibrating“ evaluators to minimize the risk of inconsistent evaluation)
- **Individual part** – at least 3 evaluator individually reviewing the same project, completing Individual Assessment Report (IAR), verbal and numerical scoring for each criterion
- **Consensus meeting** – all the 3 evaluators meet together and discuss the project jointly (ca. 0,5-1 h); the goal is to find consensus on verbal and numerical scoring of the project (not average, but consensus); in the end, one of the evaluators writes common position – Evaluation Summary Report (ESR)
- **Moderator = EC representative** – takes care of administration (appointing projects, gathering IAR), moderation of consensus meeting, control of evaluation quality (co rrelation between numerical scores and verbal comments), aims for consistency of „calibration“ of the three evaluators

Evaluation – Criteria

Excellence (50%) The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme.	Impact (30%) The extent to which the outputs of the project should contribute at the European and/or International level to:	Quality and efficiency of the implementation (20%) The following aspects will be taken into account:
<p>Clarity and pertinence of the objectives;</p> <p>Credibility of the proposed approach;</p> <p>Soundness of the concept, including trans-disciplinary considerations, where relevant;</p> <p>Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art (e.g. groundbreaking objectives, novel concepts and approaches).</p>	<p>The expected impacts listed in the work programme under the relevant topic;</p> <p>Enhancing innovation capacity and integration of new knowledge;</p> <p>Strengthening the competitiveness and growth of companies by developing innovations meeting the needs of European and global markets; and, where relevant, by delivering such innovations to the markets;</p> <p>Any other environmental and socially important impacts (not already covered above);</p> <p>Effectiveness of the proposed measures to exploit and disseminate the project results (including management of IPR), to communicate the project, and to manage research data where relevant.</p>	<p>Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources;</p> <p>Complementarity of the participants within the consortium (when relevant);</p> <p>Appropriateness of the management structures and procedures, including risk and innovation management.</p>

Evaluation – Criteria

- Criteria are general, interpretation may vary according to call (it is, however, possible, to deduce the interpretation from the call text – e.g. what impact is desirable)
- There are usually thresholds for the criteria (proposals not passing the threshold may not be financed) – usually 3 out of 5 for individual criteria and 10 out of 15 for the sum of scores; the criteria often have differing weights (excellence or impact the highest, according to focus on innovation)
- Marie Skłodowska-Curie Actions and ERC have slightly different evaluation procedure

For each criterion, your proposal will be given scores of 0 to 5 (half marks are possible), as follows:

0	The proposal fails to address the criterion or cannot be assessed due to missing or incomplete information (unless the result of an 'obvious clerical error')
1 — Poor	The criterion is inadequately addressed or there are serious inherent weaknesses
2 — Fair	The proposal addresses the criterion well but with a number of shortcomings
3 — Good	The proposal addresses the criterion well but with a number of shortcomings
4 — Very good	The proposal addresses the criterion very well but with a small number of shortcomings
5 — Excellent	The proposal successfully addresses all relevant aspects of the criterion; any shortcomings are minor

Evaluation – interpretation of criteria

Proper interpretation of evaluation criteria is the key to success!

■ Excellence

- Originality of the idea, progress in state-of-the-art, ambition of the defined goals, work plan and its quality (logic behind the work packages)

■ Impact

- Dissemination of results, use of results (expected impact is always specified in the text of call/work programme), impact beyond the project participants (involvement of industry/users, extension towards other countries, ...)

■ Implementation

- Management – governing structure of the project, quality of project participants and team as a whole (complementary expertise), budget (reasonably – no need to be over-modest, the key is reasoning, explanation)

Proposal Structure

- PART A
 - General information
 - Administrative data on receiving institution
 - Budget
 - Ethics
- PART B (Scientific part)
 - Excellence
 - Scientific quality and credibility of the proposal
 - Quality and appropriateness of the training and transfer of knowledge
 - Capacity of the researcher to reach or re-enforce a position of professional maturity
 - Impact
 - Implementation
 - Work plan
 - Project management
 - Budget

Proposal Structure

- (Mostly) scientists: It is the research idea that will catch their eye!
- But: they will look for flaws in other aspects (especially if they do not like the science)
- Get to know them: (ERC panels, GAČR etc.)
- Become an evaluator: register in Participant Portal; even early postdocs are sometimes selected!
- You may end up with specialist(s), generalist(s) or a combination of them; people from industry are often selected



1 – Excellence (Scientific Part)

Scientific Part – General Tips

- Make it short and simple = transmitting your message to others.
- Elaborate on each and every point of the evaluation criteria.
- Perfect flawless proposal is possible!
- Reserve 2 months for preparation.
- Consult it and get feedback from colleagues.
- Address the expectation of granting agency, read well the call conditions.

The golden rule is **KISS** – keep it simple, stupid 😊!

Quality and credibility of the project

- Introduction – *justify why this topic/research problem*
- State-of-the-art - *how does your project fit into the existing knowledge base?*
- Project aims – *specific, concrete, measurable and realistic*
- Methodology and approach – *any novel concepts or methods?*
- *Originality and innovative aspects - is it original, innovative? Do you expect any advancements within the project field?*
- The interdisciplinary aspects - *inter- and multidisciplinary are part and parcel of “excellence” and must be addressed*

First 1-2 pages must attract evaluator's interest!

Grant agency expectations/Funding scheme design

Ex. Preliminary data:

- No critical need in MSCA-IF
- Just a profile showing skills in ERC-StG
- Feasibility in ERC-CoG
- Have the whole project done in GAČR

Ex. MSCA-IF:

- Not just a research project: Training through research
- Resulting things to be addressed: Training goals and activities, Career development, Impact on career
- Still, strong research idea is vital!

Quality and appropriateness of the training and two way knowledge transfer

- Describe training you gain and the receiving institution
- What new knowledge you gain from the new supervisor, new colleagues, new institution and country?
- How does the host institution benefit from your experiences, what do you offer?

Key point where your experience and credibility should be shown.

Quality of supervision and of the integration in new team/institute

- Need inputs from your future supervisor and his institute e.g. supervisor's CV
- Is your supervisor renowned scientists but also good mentor? Will he/she have time for your project?
- Infrastructure of the hosting institution available to you
- Any admin/career and other support for you offered?

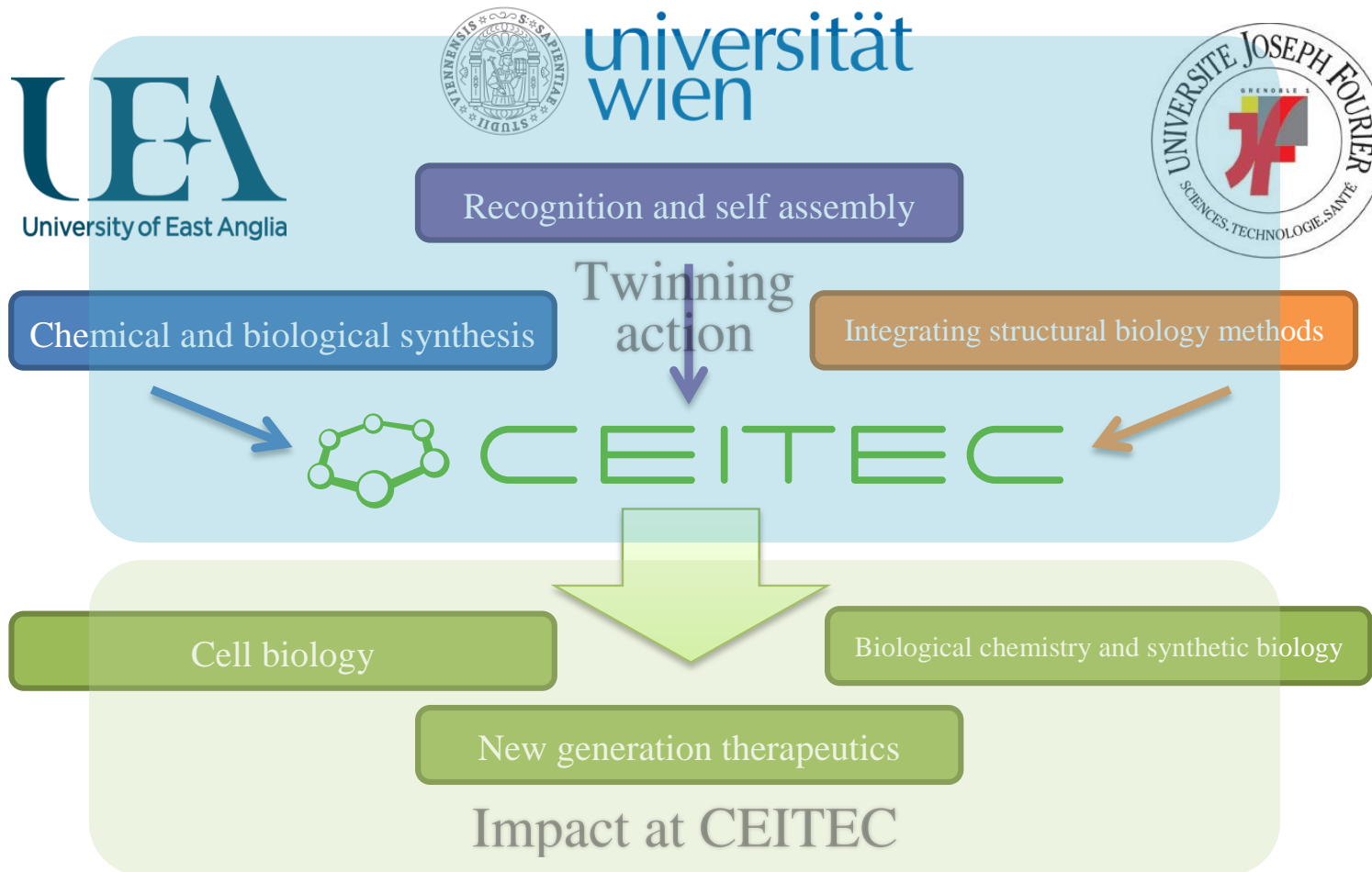
Without close collaboration with your future PI you can lose a lot.

Capacity to reach the position of professional maturity/independence

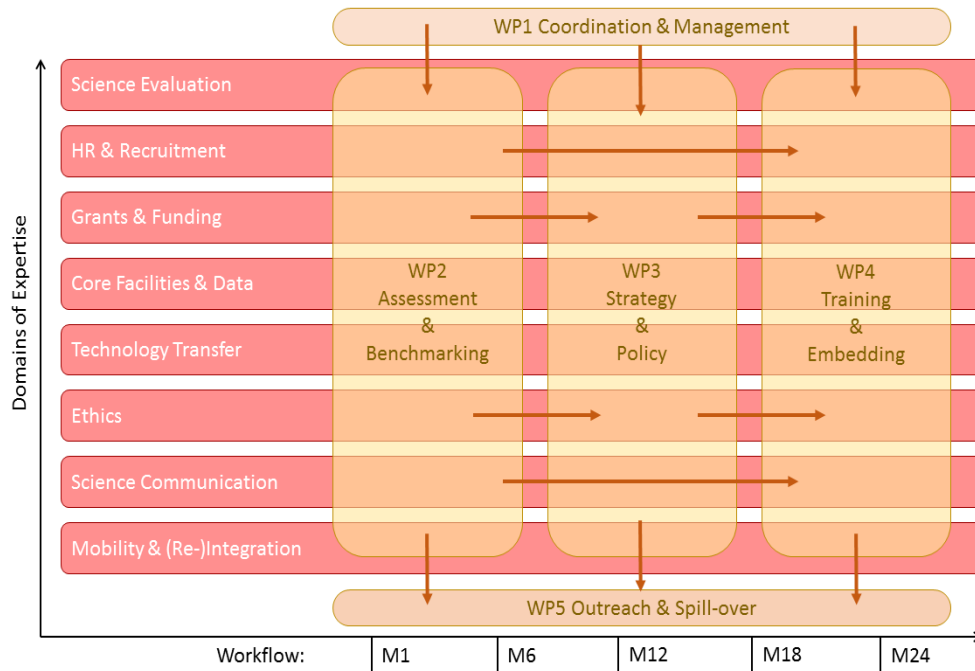
- Fellowship for talented individuals with promising career perspectives – explain yours.
- How the fellowship in specific lab will foster your career development
- What is your career vision upon the grant

Without close collaboration with your future PI you can lose a lot.

Example of general project design



Example of general project design

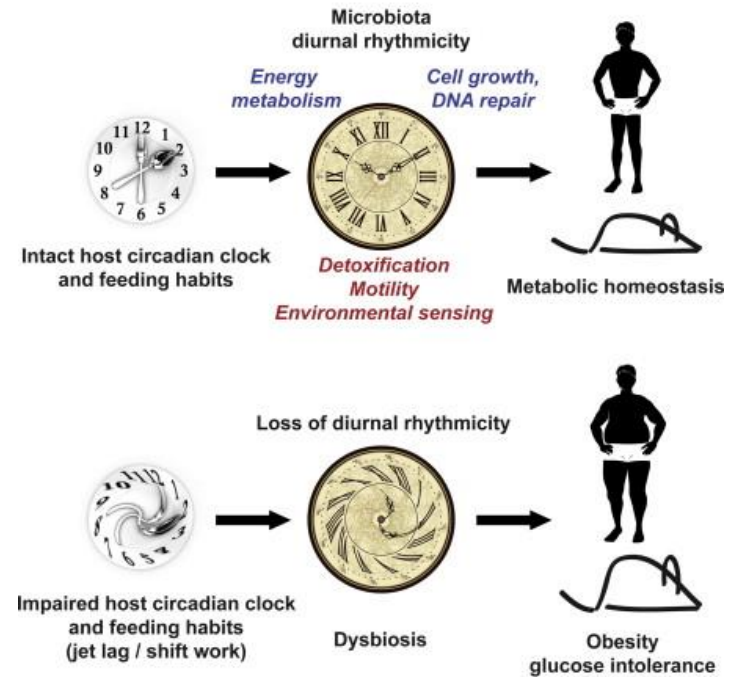
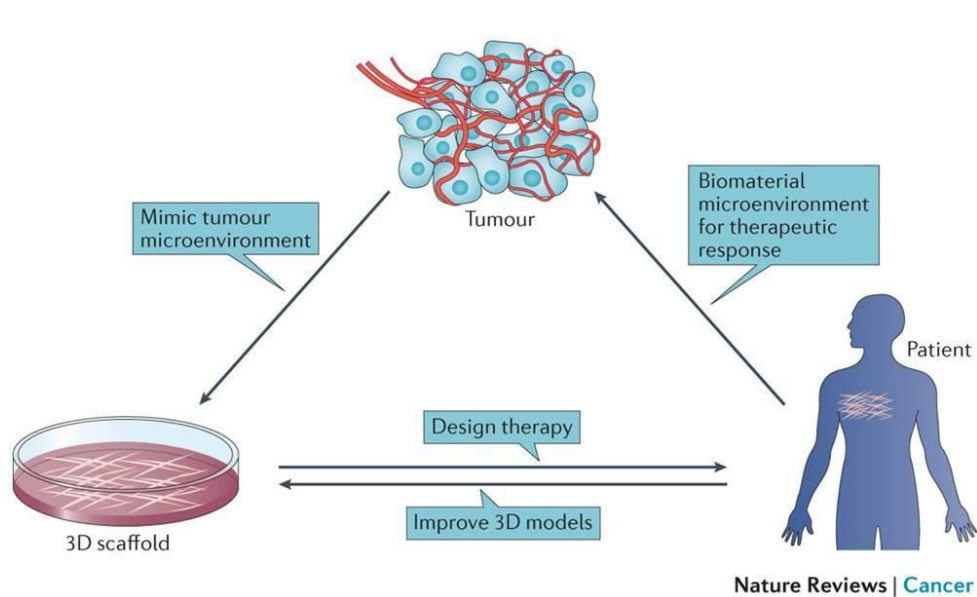


How to write an abstract

- Summary that identifies the purpose, problem, methods, results, and conclusion of your work.
 - present your motivation – why do we care?
 - explain the problem you are trying to solve.
 - which approach/method do you use to solve it?
 - what are the expected results?
 - what implications will your results bring?
- Pay attention to key words, highlight them.

Emphasise the take home message and motivate the reader to be keen on reading further!

Graphical abstract



Background study on existing projects

- Cordis webpages, web databases, e.g. <http://www.healthcompetence.eu>

The screenshot displays the HealthCompetence website interface within a Firefox browser window. The browser's address bar shows the URL: www.healthcompetence.eu/converis/publicweb/area/1353?jsessionId=245b521d0f33543206dd24cec0ee?show=Project&sortBy=start_date. The website header features the "HealthCompetence" logo and navigation links for "CONTACT", "ABOUT", "REGISTER", and "LOGIN". Below the header, the page is titled "Startpage » Project Search".

The main content area is divided into two columns. The left column contains a "Project Search" section with instructions: "Here you can search the list of health related projects. Please use the filter below to limit this list and find the project of your interest." Below this is a "Filter Settings" sidebar with expandable categories: "Organisations", "Persons", "Thematic areas", "Keywords", "Countries", "Instrument", and "Ongoing in year", along with a "Reset" button.

The right column displays a list of projects under the heading "Projects". It shows "3822 Elements." and sorting options "Sort by: Date | Alphabet". A navigation bar with letters A through Z and "All" is visible. Three project entries are shown:

- SPTPCDR2 - Spatio-temporal Control of Cell Division in Fission Yeast »**
Scientific coordinator: Anne Paoletti ()
Period: 2011-10-01 - 2013-09-30
Cytokinesis is a critical and irreversible step of cell cycle, which eventually separates daughter cells. This event is consequently subject to strict spatial and temporal regulations. Spatial integration of the DNA distribution and the global geometry of the cell are necessary to determine the ...
- LEARNING AND MEMORY - The zebrafish as a new vertebrate model for molecular and cellular mechanisms of learning and memory, including synaptic dysfunction in Alzheimer's disease »**
Scientific coordinator: Henrik Zetterberg ()
Period: 2011-08-01 - 2013-07-31
A majority of our most common neurological diseases, such as Alzheimer's disease, Parkinson's disease, age-related dementia and multiple sclerosis, are manifested by memory loss and a reduced potential for learning. Additionally, a substantial portion of our population suffers from various forms of ...
- GENSTAGE - Genome Stability Mechanisms in Aging »**
Scientific coordinator: Christian Klar ()
Period: 2011-07-01 - 2016-06-30
Genome Instability has been recognized as causal factor of cancer and recently also as a major contributing factor of aging. A number of progeroid (premature aging-like) syndromes are linked to defects in nucleotide excision repair (NER). NER thus provides a highly relevant experimental system to ...

Below these, two more project entries are partially visible:

- THC-ASKID - T Helper cell lineages and their Cytokines in Autoimmune SKin Disease »**
Scientific coordinator: Alexander Enk ()
Period: 2011-06-01 - 2014-05-31
Autoimmune skin diseases like psoriasis and atopic dermatitis are in part CD4 T cell mediated. After stimulation, CD4 T cells differentiate into different T helper cell lineages with distinct cytokine profiles. While in atopic dermatitis for example skin infiltrating T cells mainly show a ...

The bottom of the screenshot shows the Windows taskbar with various application icons and the system clock displaying "22:58".

Consultation with the grant provider

- Is your topic the right one?
- What is expected from the grant provider?
- Does your proposal correspond to the call description?
- Do you understand the call correctly?
- *Information days and seminars, e-mail, phone calls, meeting in Brussels, ...*

Consultation with the grant provider ideally before call official opening => smaller competition!

Grant writing

- Key for securing your funding
- Different style/skill from academic writing
- Active language
- Write in short, hard-hitting sentences
- Convincing and with confidence
- Get help and consult the proposal

Academic vs. Grant Writing *

Academic writing:

Researcher-centered:

Scholarly passion

Past oriented:

Work you have done

Expository:

Explaining to reader

Impersonal:

Objective, dispassionate

Individualistic:

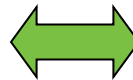
Usually solo activity

Verbosity rewarded:

Few length constraints:

Specialized terminology:

"Insider jargon"



Grant writing:

Sponsor-centered:

Service attitude

Future oriented:

Work you wish to do

Persuasive:

"Sell" the reader

Personal:

Convey excitement

Team-oriented:

Feedback needed


Brevity rewarded:

Strict length constraints

Accessible language:

Broad audience

*Porter R. (2007): Why Academics have a hard time writing good grant proposals, *Journal of Research Administration*, 38(2), 161-167



2 – Impact

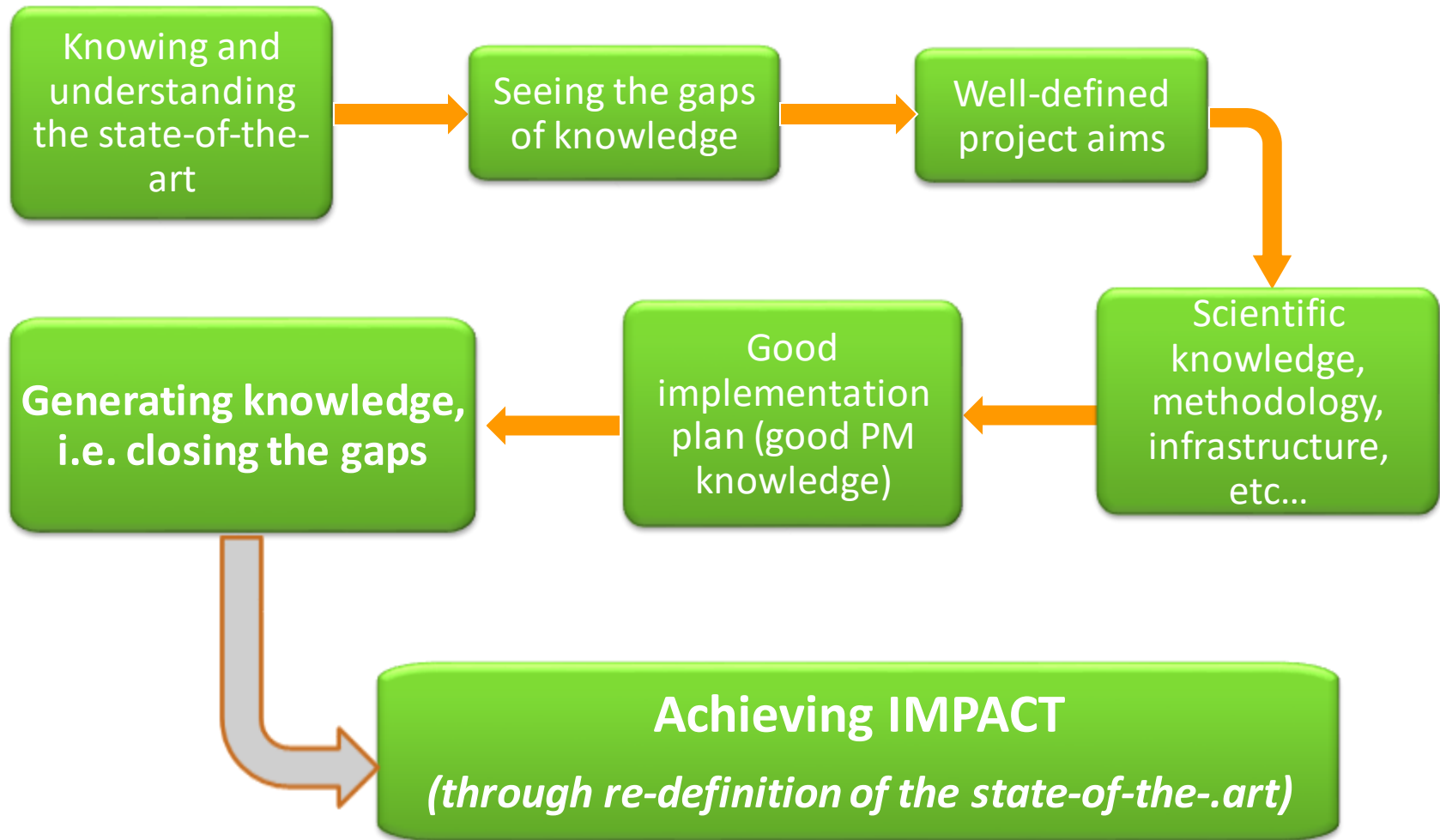
Impact – what is it?

- Generally, the impact of your project is the **positive change** it will induce
- Thus, there can be many varied kinds and levels of impact

The key is answering the following questions:

- **What** will be the **results** of the project?
 - **What / Who** are the results for – target group?
 - What **differences** they can bring about / **why** are the results **needed**?
-
- In other words, what the **scientific/societal impacts** of the results will be

Foundations of impact throughout the project proposal



Impact in H2020 – evaluation

- IMPACT is one of 3 evaluation criteria
- The role of IMPACT has **increased** in H2020, and will be even more important in FP9
- Preparing of the text on impact must be more **specific, and credible** than before
- The weight of the criteria in the collaborative H2020 projects:
 - SCIENCE (50%, 3/5)
 - **IMPACT(30%, 3/5)**
 - IMPLEMENTATION (20%, 3/5)

Impact in example of H2020 call

SC1-PM-04–2016: Networking and optimising the use of population and patient cohorts at EU level

- **Specific Challenge:** Population cohorts are invaluable resources to obtain detailed description of individual biological variations in connection with a variety of environmental, pathogenic, occupational, societal, and lifestyle determinants that influence the onset and evolution of diseases. Europe currently has some of the most valuable population and patient cohorts, including well annotated clinical trial cohorts. However, the lack of integration of these cohorts hampers the optimal exploitation of these resources, essential to underpin and facilitate the development of stratified and personalised medicine⁹.
- **Scope:** Proposals should aim at maximizing the exploitation of cohorts by bringing together national and/or European cohorts with common scientific interests (e.g. across diseases, children, mothers, elderly, birth, gender, etc.), and by taking advantage of new technologies (e.g. ICT, social platforms, etc.) and new type of data (e.g. geographical, genetic, eHealth records, etc.). Based on those cohorts using a comprehensive integration strategy to facilitate hypothesis-driven research, data sharing, harmonisation and analysis, proposals should provide expanded resources and knowledge on health and disease determinants, onset and course of diseases (including aspects of co-morbidity and/or co-infections), clinical, public health and socio-economic research. Synergies with relevant existing European infrastructures and additional collaborations with relevant international initiatives are encouraged. Proposals should also engage with relevant international/national/regional authorities to ensure that findings are implemented and translated into health policy.
- The Commission considers that proposals requesting a contribution from the EU of between EUR 8 and 10 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

- **Expected Impact:** Expected impacts include one of or a combination of the following point(s):
 1. Make major conceptual, methodological and analytical contributions towards integrative cohorts and their efficient exploitation.
 2. Contribute to providing novel information on health maintenance, onset and course of diseases, or population stratification, with a view to tailor diagnosis or to optimise prevention and treatment.
 3. Provide the evidence base for the development of policy strategies for prevention, early diagnosis, therapies, health economics as well as addressing health inequalities. Wherever relevant, evidence for economic evaluation of interventions should also be included.
 4. Optimise the use of population cohorts in defining/improving clinical practice and public health policy.

Impact in H2020 – how to approach it

- Consider Impact from the very **beginning**
- Make sure you understand what the funder requires – can you find a **match?**
- The **idea** makes the impact, however, knowing broader context is important...
- ... hence, consults **relevant** EU and H2020 **policies** and **documents** (i.e. basically context of the „funder’s requirements“)— Work Programmes, Europe2020...

Basic dimensions of IMPACT

- Stakeholders
 - (your) **scientific community** (all levels of it)
 - **Society** you (might) live in and its **institutions**
 - Your **funder**, i.e. the aims of the grant scheme/programme
- Time – immediate or short-term or long-term impact
- Control / Influence
- impact on your **career** is a specific impact of MSCA-IF

Example of impact in MSCA-IF

- **2.1 Enhancing the potential and future career prospects of the researcher**

Explain the expected impact of the planned research and training on the career prospects of the experienced researcher after the fellowship.

Which new competences will be acquired?

- Specific and clear **objectives** of your research **training**
- Identify **crucial benefits (skills and knowledge)** of your training (= project) and put them in the contexts of what is **required for excellence** in your field
- Impacts of the project on your **career development**
- Any **cross-sectoral mobility** (academic – non-academic)

Example of impact in MSCA-IF

- **European aspects**, i.e. impacts on the HI/yourself integration/participation **in European networks**, projects, initiatives (such as contribution to *EuroBioImaging*, *ELIXIR*, and other *ESFRI projects*; *H2020 projects*; etc.)
- Impact of the **HI's participation** and commitment
- **Transferable skills**
- Specific **outreach activities** (public engagement)
- Identify your **career perspectives** – opportunities arising thanks to the MSCA-IF, employment „landscape“

IMPACT – exploitation, dissemination

- **EXPLOITATION = USE**, i.e. direct or indirect **utilisation of knowledge** in research activities or developing products/service etc...
- Your task is to describe **how you will promote your research results to the „Lead users“**
- This may, and often will, include the scientific communities, or research labs bringing your results to a higher TRL* (e.g. proving your concepts), or even SMEs preparing products to be marketed (e.g. diagnostic kits)
- **DISSEMINATION = (CREATING) AWARENESS**
- To achieve effective exploitation you need to properly disseminate your results
- Obvious means of results dissemination include **papers, conferences, workshops, brokerages, business negotiations...** –again, depending on the TRL of your projects

*TRL – Technology Readiness Level

IMPACT

- **2.2 Quality of the proposed measures to exploit and disseminate the action results**
- This section covers mainly communication within the **scientific community**
- Still this community needs to be **stratified** in line with character of your results
- Identify **different audiences** that can be addressed with your results
- At first **think generously** – the results can be not only the direct outputs of your research, but the acquired knowledge and skills (that can be spread throughout the community)
- Think about engagement of a **broader team**
- **Identify events and activities** that present good opportunities to disseminate the results

IMPACT

- ***2.3. Quality of the proposed measures to communicate the action activities to different target audiences***

Please make also reference to the guidelines **Communicating EU research and innovation guidance for project participants** as well as to the "communication" section of the H2020 Online Manual .

Concrete planning for section 2.3 must be **included in the Gantt Chart** (see point 3.1).

The following section of the European Charter for Researchers refers specifically to public engagement:

Public engagement

Researchers should ensure that their research activities are made **known to society at large** in such a way that they can be **understood by non-specialists**, thereby improving the public's understanding of science.

Direct engagement with the public will help researchers to better understand public interest in priorities for science and technology and also the public's concerns. 😊

Communicating EU research and innovation guidance for project participants – sent as an attachment together with this presentation.

Make sure to read it!

IMPACT – public outreach

- The awareness of your research needs to be raised also **BEYOND** the research community
- A mandatory part of all H2020 projects is **communication towards the general public...**
- ... as the public should be aware of research being funded by the EC
- ... and interest in science should be **increased in youth**
- Dissemination at this level usually includes **Open Days, lectures for public, popularization of your topic through appropriate media** (e.g. interviews for papers/radio/TV, website, facebook site...)

For all dissemination activity find communication channels, often **specific for your research field**, that are most efficient in delivering information to the right persons (Lead users, End users, general public, etc.)

IMPACT – Open Access

- Papers in **Open Access mode** – mandatory for papers in H2020 anyway, but worth to mention it, telling that the papers will be available in specific open sources, such as:
 - **institutional repositories**
 - **ZENODO repository** – supported by the EU, own webspace, both paper (including „grey“ literature“ and connected data (<http://zenodo.org/>)
 - Obviously your **website** or other **on-line resources** (e.g. ResearchGate)
- **Open Data Pilot** – your can make your project data accessible, defining **specific polls of data** (i.e. not necessarily ALL of your data, excluding sensitive data, of course...)

Example: Dissemination – communication target groups

Target Groups	Description and content	Expected impact
SCIENTIFIC PUBLICATIONS		
Scientific and clinical community	8 manuscripts of a scientific publication submitted to high-impacted journals, see List of deliverables, pgs. 26-27)	Number of publication in high-impacted journals, usual ones in the References (B5)
Scientific and clinical community	Conferences: OHMB, AD-PD, IPMDS, IAPRD, NMDPD, AAIC ¹ , 3-4 participants/year, 13 active participations in total (posters; invited lectures)	Hundreds of researchers in the relevant scientific and clinical communities (see footnote)
INTERNALLY ORGANISED DISSEMINATION ACTIVITIES (WORKSHOPS, TRAININGS)		
Scientific and clinical community ²	<i>MSCA RISE International workshop on behavioural neurology</i> MU: Universal and languages-specific neural networks for reading, spelling, speech production and writing; duration 1 day; USZ: neural networks for visual processing; duration 1 day	Expected number of attendees at MU 60/event in USZ 30 person). 90 attendees in total; proceedings from the workshops
Clinicians, students of neurology & neuroscience	<i>MU: fMRI course and workshop</i> innovative methods of fMRI (April each year). 4 (1/year), duration 1.5 days; <i>USZ: Neuroimaging Workshop on innovative methods</i> (March 2018), duration 1.5 days	Expected number of attendees MU: 50/y – 200 in total USZ: 50 participants

Example: Dissemination – communication target groups

Target Groups	Description and content	Expected impact
PUBLIC ENGAGEMENT ACTIVITIES		
Academic, students & public	MSCA Open Days Introduction of the MSCA RISE scheme and project results	Every year at the MU, 40 attendees, 160 attendees in total
Academic, students & public	An article in university magazines; content: Information about the project, its activities, progress and results	1 article / partner, the print run of the monthly MU magazine 6,000 pcs; on-line version more than 10,000 impressions
Patient groups (primarily)	An article in journal Parkinson	Distributed to members of the Czech Parkinson Society (patients, physicians, hospitals, etc.), print run 1,300 pcs, 3 times/year
Academic, students & public	Website of the project presenting project activities, progress and results	Maintained and run by the PR Department of CEITEC MU; promoted through established channels of the partners
Academic, students & public	BEER Night: lectures and discussion with public in casual settings of a café	Expected number of visitors: 40/event, in total 80
Academic,	European Researcher's night	Expected number of visitors: 100/event; 200 in total

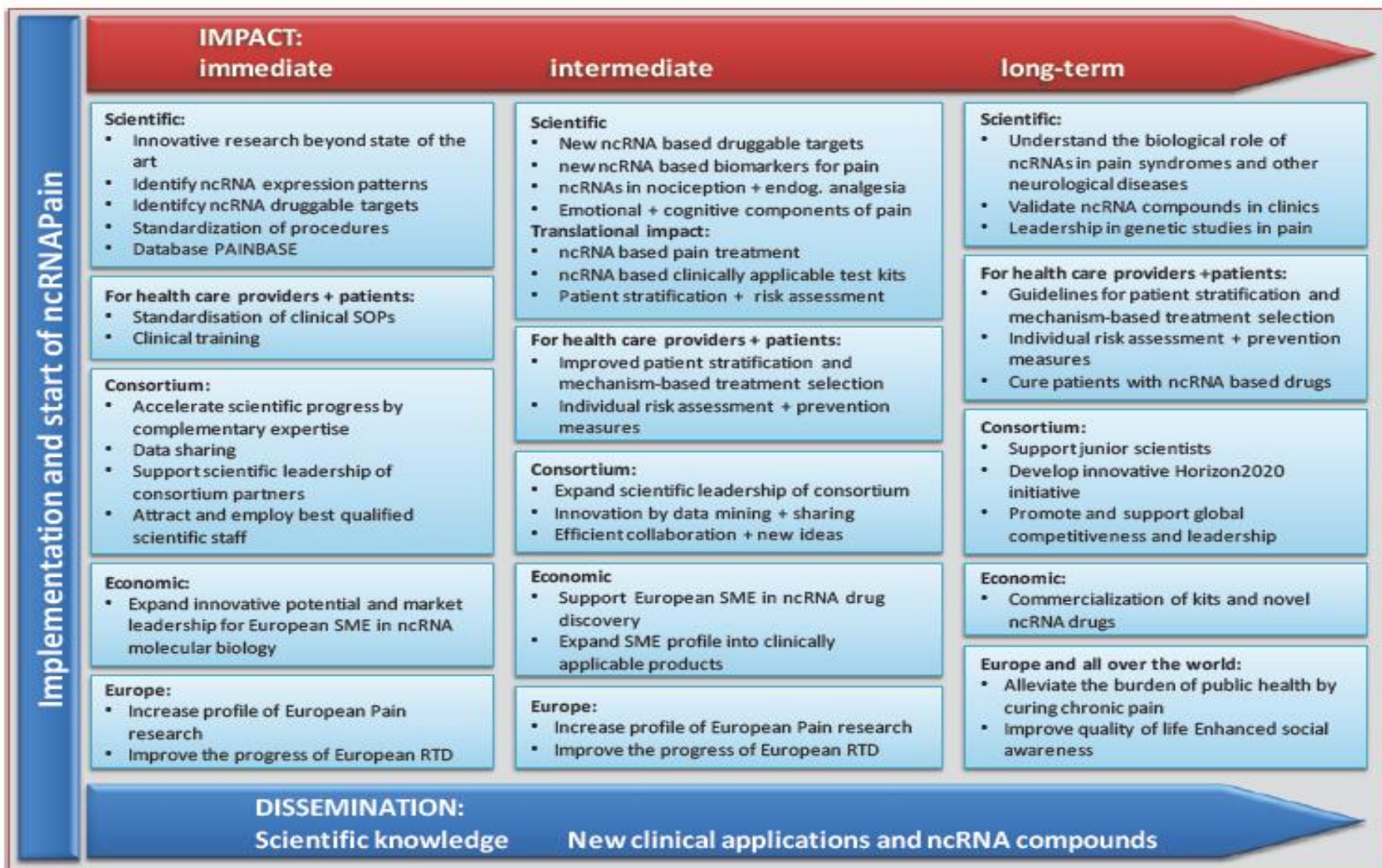
Example of impact scheme

	Research community	Students	Industrial partners	General public	Policy makers
Scientific publications	<ul style="list-style-type: none"> • KPI increase – citations 	<ul style="list-style-type: none"> • attracting talented and motivated students through top results 	<ul style="list-style-type: none"> • presentation of applicable results 		
Conferences (external)	<ul style="list-style-type: none"> • new collaborations • KPI increase – citations 	<ul style="list-style-type: none"> • attracting talented and motivated students through interactions 	<ul style="list-style-type: none"> • presentation of applicable results and interactions 		<ul style="list-style-type: none"> • presenting value of international collaboration
Workshops, seminars, conferences (internal)	<ul style="list-style-type: none"> • new collaborations through invited speakers 	<ul style="list-style-type: none"> • attracting talented and motivated students through interactions 	<ul style="list-style-type: none"> • presentation of applicable results and interactions 		<ul style="list-style-type: none"> • presenting value of international collaboration
Summer schools	<ul style="list-style-type: none"> • new collaborations through invited speakers 	<ul style="list-style-type: none"> • attracting talented and motivated students through interactions 			
Website	<ul style="list-style-type: none"> • occasional visits 	<ul style="list-style-type: none"> • presentation of strong training programme 	<ul style="list-style-type: none"> • occasional visits 	<ul style="list-style-type: none"> • occasional visits 	
Newsletter	<ul style="list-style-type: none"> • strengthening profile – presentation of achievements 	<ul style="list-style-type: none"> • presentation of strong training programme 	<ul style="list-style-type: none"> • highlighting application relevant achievements 	<ul style="list-style-type: none"> • showing research relevance for society 	
Press releases (media)	<ul style="list-style-type: none"> • strengthening profile – presentation of achievements 	<ul style="list-style-type: none"> • strengthening profile – presentation of achievements 	<ul style="list-style-type: none"> • strengthening profile – presentation of achievements 	<ul style="list-style-type: none"> • showing research relevance for society 	<ul style="list-style-type: none"> • presenting value of international collaboration • showing research relevance for society
Researchers' Nights		<ul style="list-style-type: none"> • attracting talented and motivated students through interactions 		<ul style="list-style-type: none"> • popularization • presenting CZ as equal partner to old EU MS 	
Open Days		<ul style="list-style-type: none"> • attracting talented and motivated students through interactions 		<ul style="list-style-type: none"> • popularization • presenting CZ as equal partner to old EU MS 	
Policy boards and committees			<ul style="list-style-type: none"> • raising support for academic-industry collaboration 		<ul style="list-style-type: none"> • showing value of international collaboration • increasing awareness about societal relevance of research

Figure 16: Dissemination and communication of project achievements – measures and target groups

2.2.1 Dissemination and exploitation of results

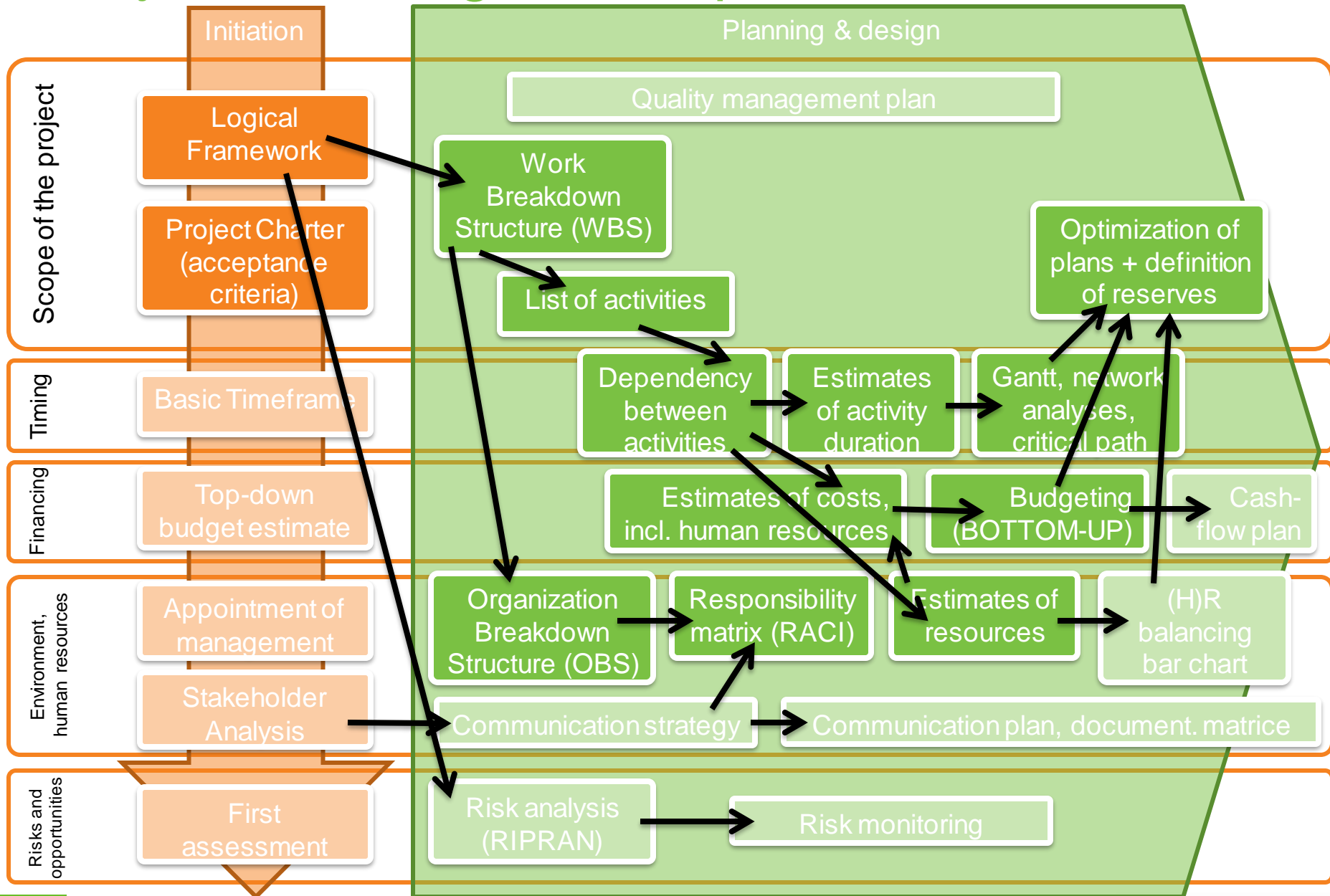
Examples – Impact





3 – Implementation

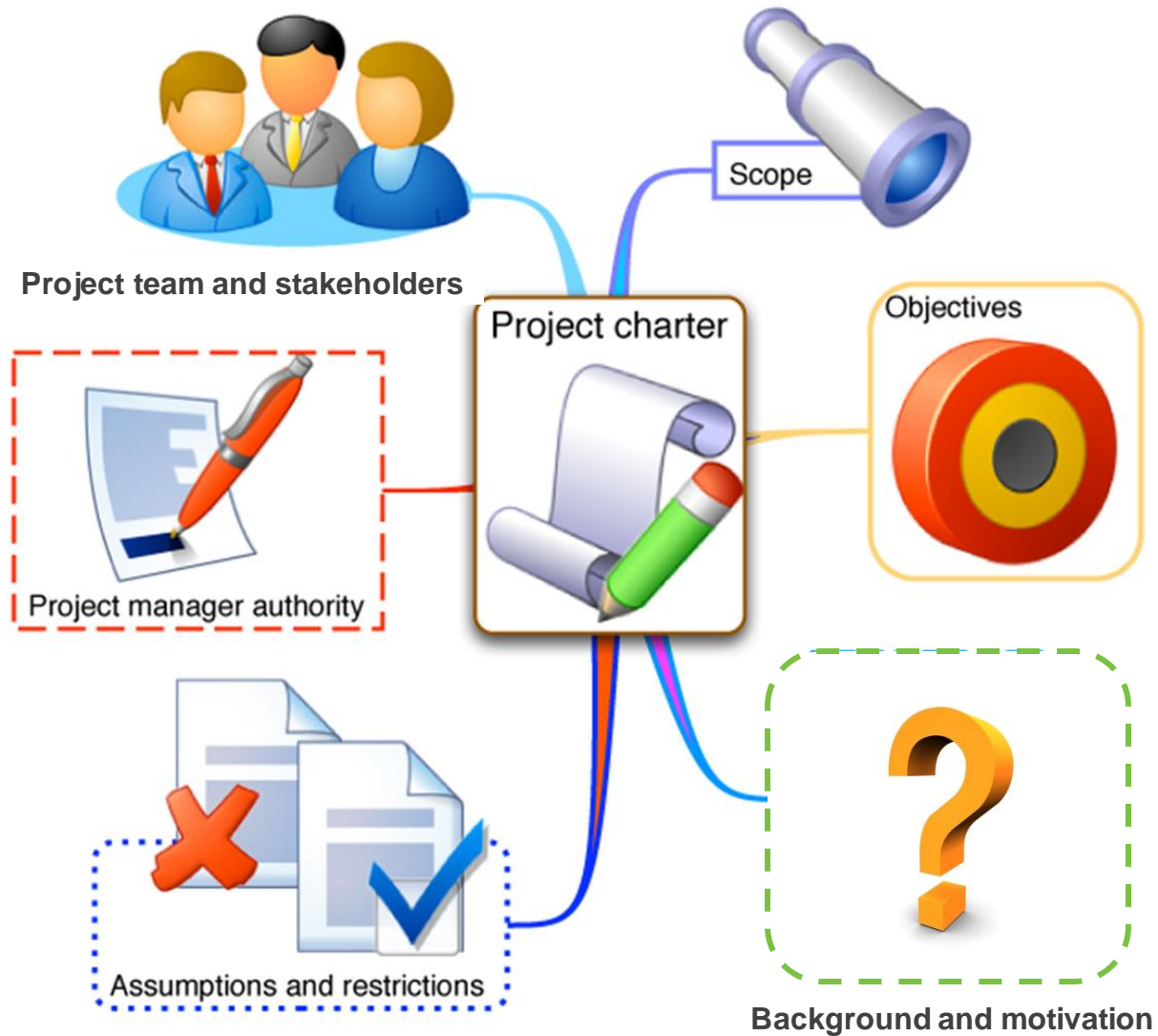
Project Planning Techniques and Tools





Work Plan

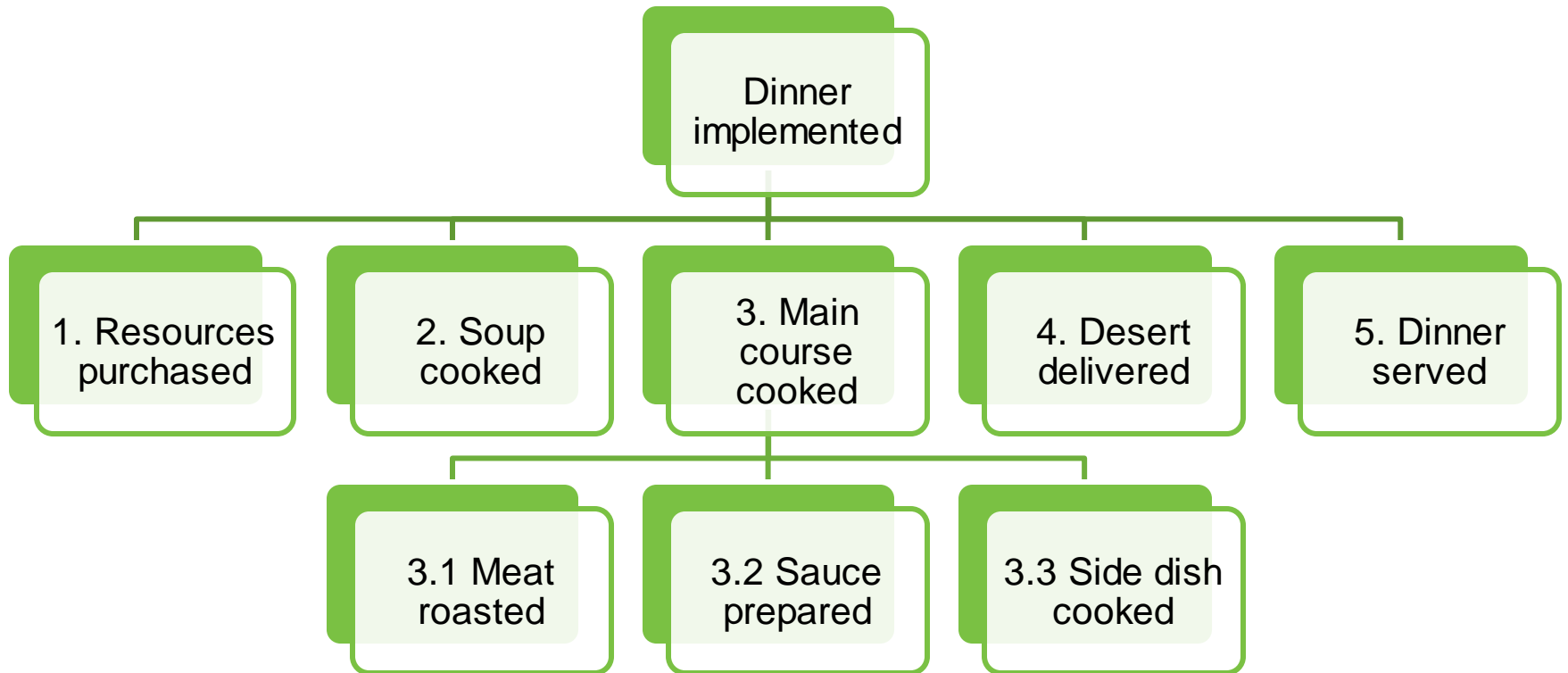
Project Charter



Work Breakdown Structure (WBS)

- WBS is a hierarchical decomposition of the total work scope on the project
- Developed in planning stage (based on logical framework)
- No pre-defined number of levels (usually 3-4)
- **Responsibility** for each box can be allocated to a single person
- The lowest level – **Work Package**
- Work Package is an **output**, not an activity

Work Breakdown Structure (WBS)



Work Breakdown Structure (WBS)



Work packages

- Work package is a set of activities required to produce a **major project output** (i.e. a tangible result, deliverable). It is characterized by **effort and time** and may cover a single task or several related tasks.

Work package No	Work package title	Type of activity	Lead participant No	Lead participant short name	effort	time	
					Person-months	Start month	End month
WP1	Setting and activating the scene	SUPP	1	JIC	9.50	1	6
WP2	State-of-Play directory and analysis	SUPP	5	CBM	36.50	1	12
WP3	Mentoring and mutual learning	SUPP	4	AREA	39.75	6	24
WP4	Joint Action Plan towards integration	SUPP	2	MU	40.00	21	36
WP5	Dissemination & Information management	SUPP	4	AREA	22.25	1	36
WP6	Project coordination and assessment	MGT	1	JIC	13.50	1	36
				TOTAL	161.50		

Work package collaborative H2020 project

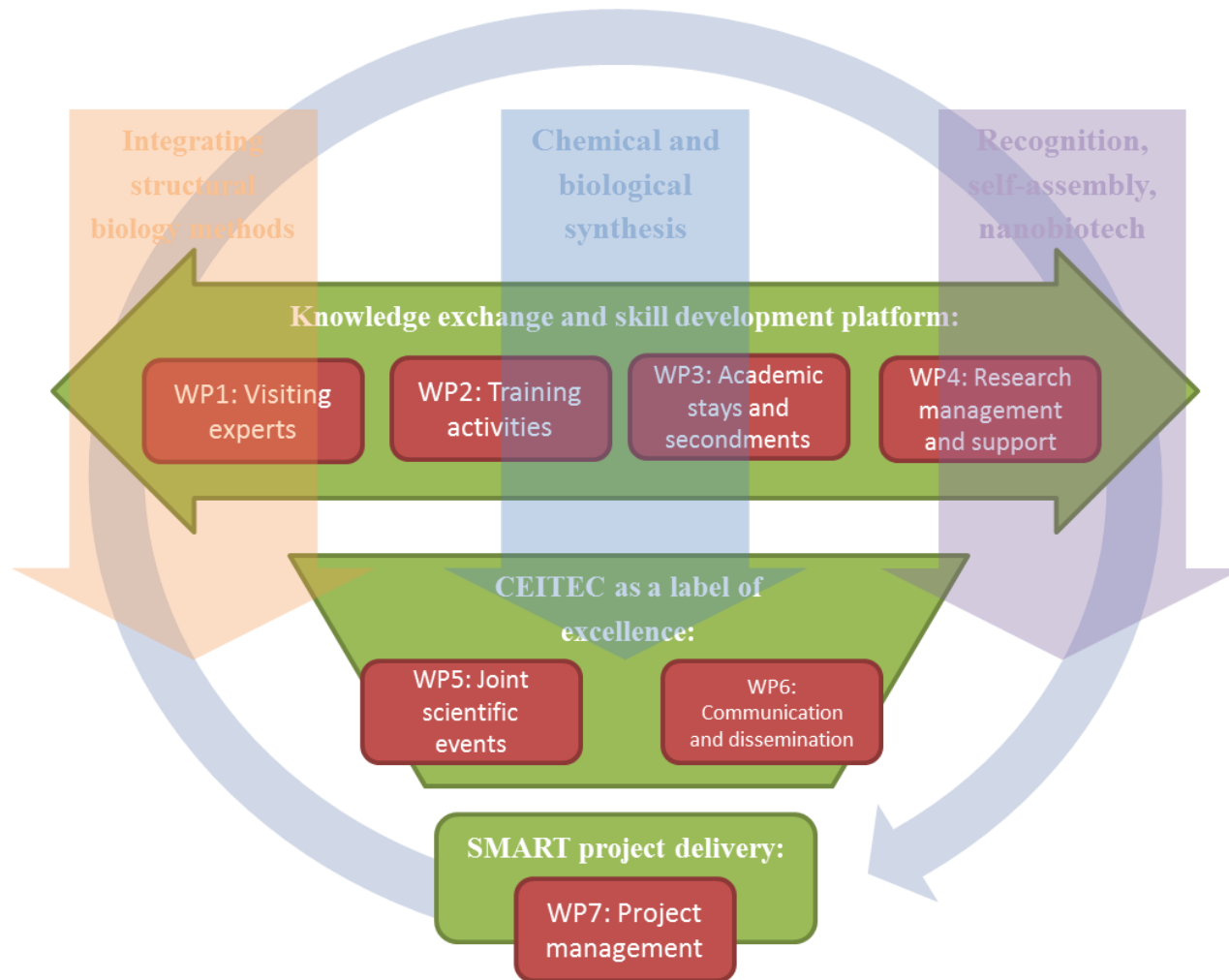
Workpackage number	1	Start date or starting event	Month
Workpackage title			
Participant number			
Short name of participant			
Person/months per participant			
Start month		End month	
Objectives 1.			
Description of work Task 1.1: Task 1.2			
Deliverables: D1.1 D1.2			

Milestones:

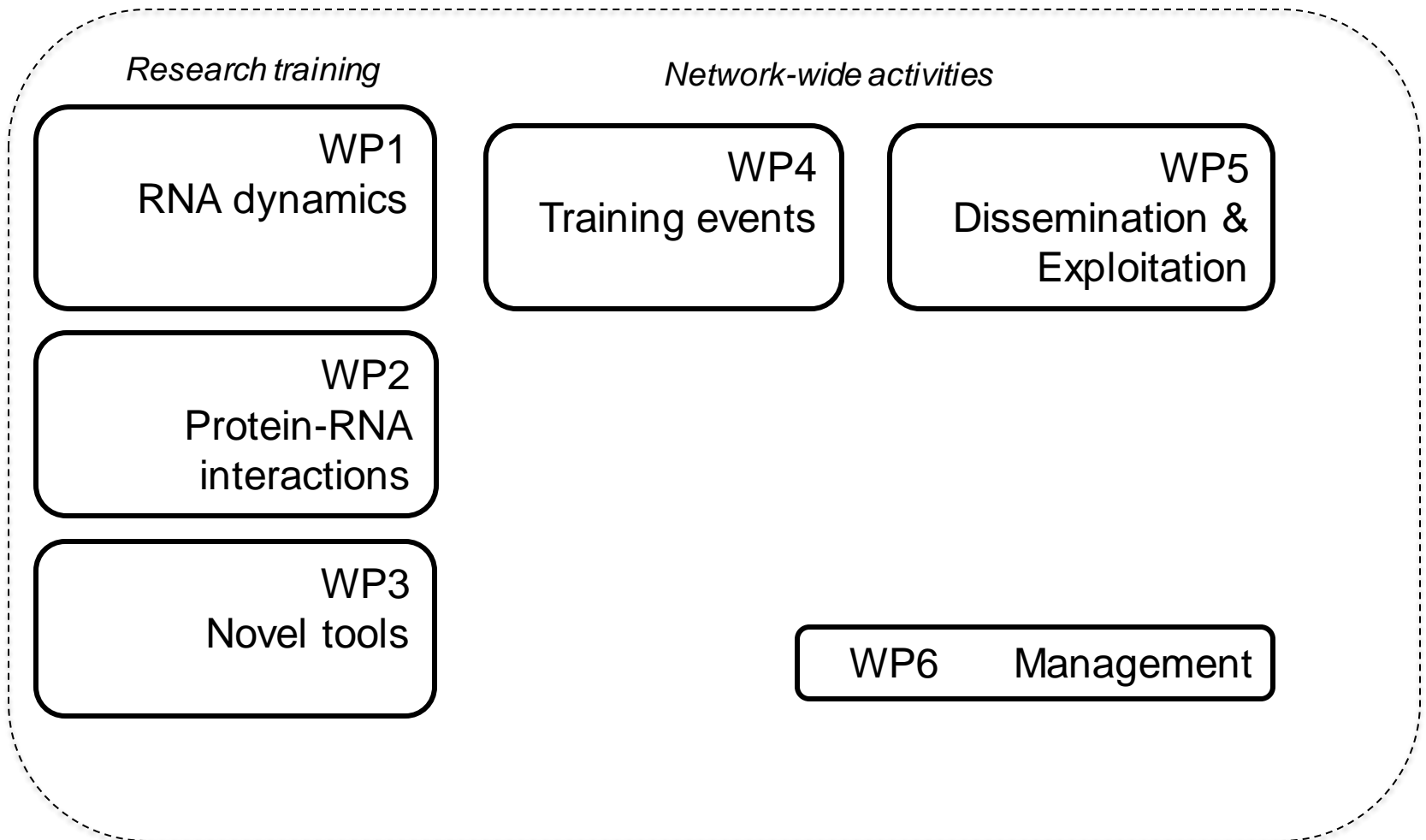
M1.1

M1.2

Work packages - Example

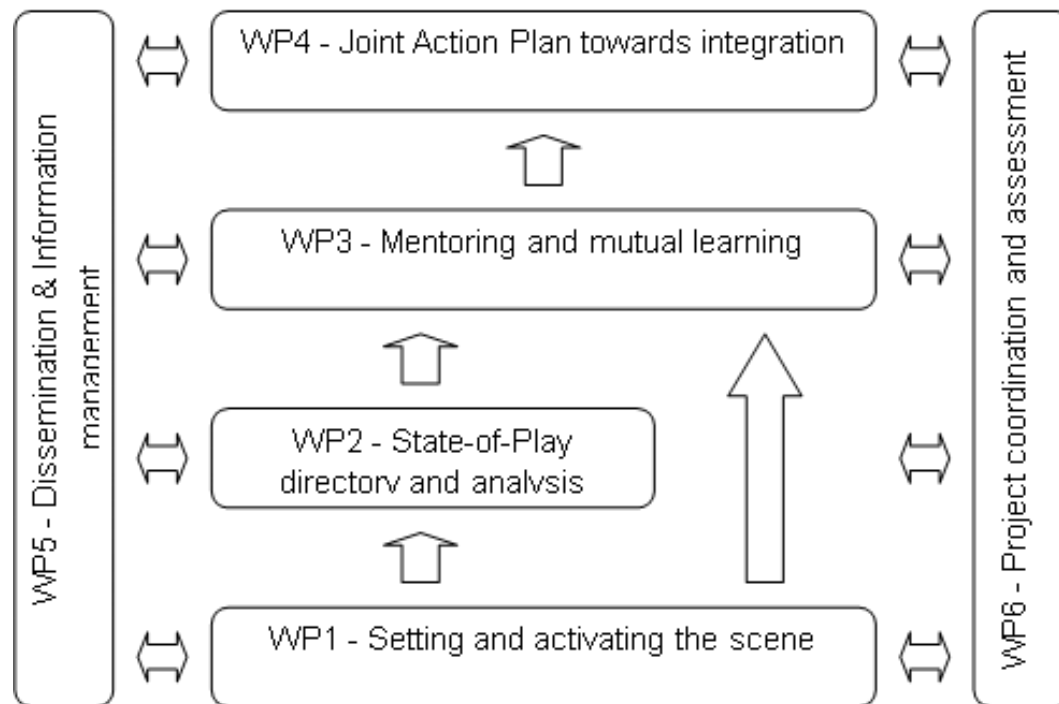


Work package - Example

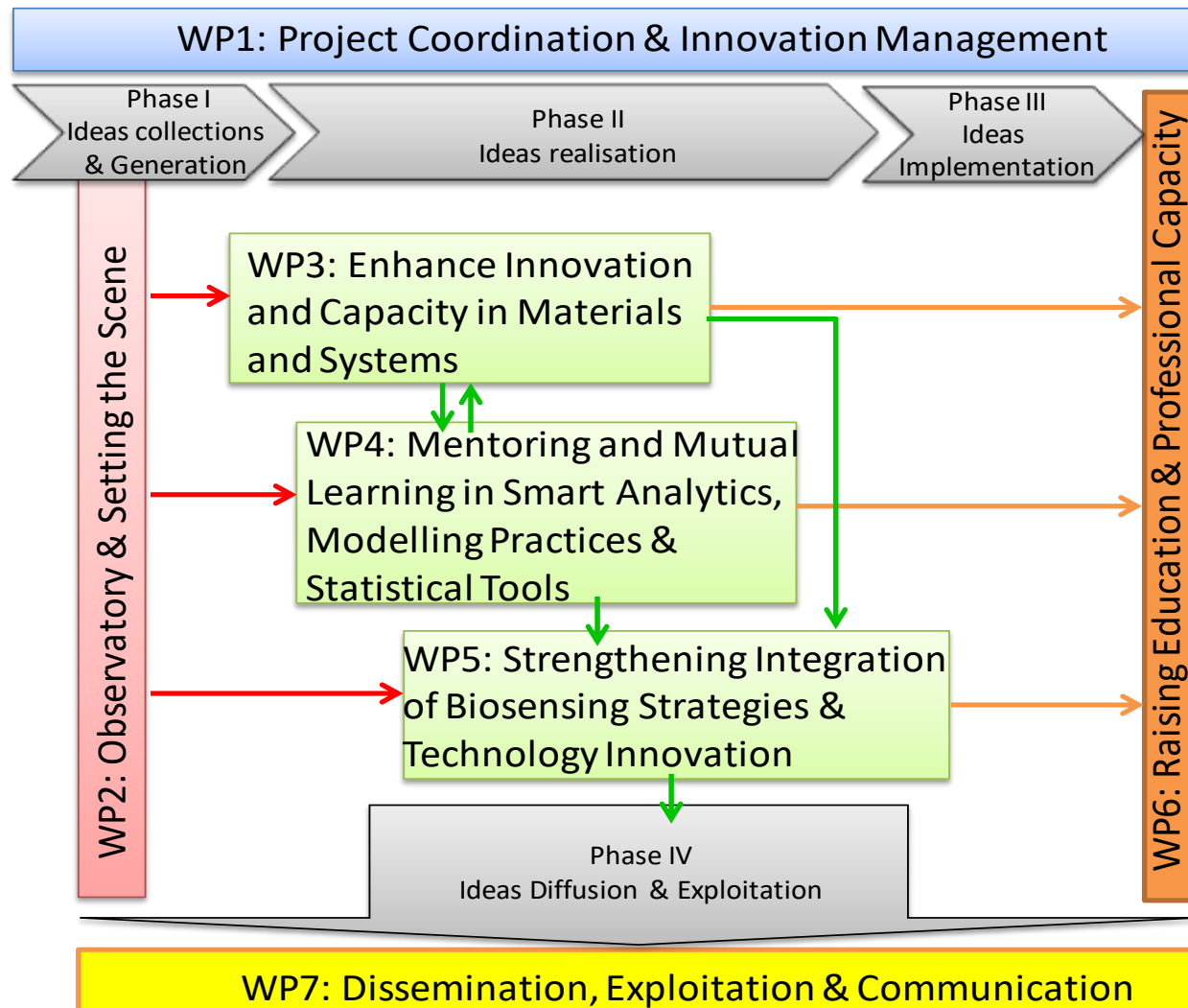


PERT chart

- Pert chart is a **network diagramme** which represents **interdependencies** between and among work packages



Another example of a PERT chart



Deliverable

- Deliverable is a tangible or intangible **result of the project to be** delivered and **accepted** by the customer / grant provider
- **Deliverable** differs from **milestone**: milestone is a measurement of progress towards an output whereas the deliverable is the result of the process
- **Examples**: report, document, server upgrade, functional design, prototype, web portal, knowledge base, publication, business plan, kick-off meeting minutes...

Example:

List of Deliverables

Deliverable (number)	Deliverable name	Work package number	Short name of lead participant	Type	Dissemination level	Delivery date
D1.1	Mid-term report on expert visits	1	CEITEC	R	PU	M18
D1.2	Final report on expert visits	1	CEITEC	R	PU	M36
D2.1	Training plan	2	UJF	R	PU	M6
D2.2	Career development plans of jointly supervised PhD students	2	UJF	R	CO	M9
D2.3	Mid-term training report	2	UJF	R	PU	M18
D2.4	Final training report	2	UJF	R	PU	M36
D3.1	Secondment plan	3	UEA	R	PU	M6
D3.2	Mid-term secondment report	3	UEA	R	PU	M18
D3.3	Final secondment report	3	UEA	R	PU	M36
D4.1	Management knowledge transfer report	4	CEITEC	R	PU	M21
D5.1	Annual report on strategic events Year 1	5	CEITEC	R	PU	M12
D5.2	Annual report on strategic events Year 2	5	CEITEC	R	PU	M24
D5.3	Annual report on strategic events Year 3	5	CEITEC	R	PU	M36
D6.1	Communication, dissemination, and exploitation plan	6	UNIVIE	R	PU	M6
D6.2	Mid-term communication, dissemination, and exploitation report	6	UNIVIE	R	PU	M18
D6.3	Final communication, dissemination, and exploitation report	6	UNIVIE	R	PU	M36
D7.1	List of CEITEC MU publications for the last 3 years	7	CEITEC	R	PU	M3
D7.2	Periodic report	7	CEITEC	R	PU	M18
D7.3	Final report	7	CEITEC	R	PU	M36

^[1] R: Document, report; DEC: Websites, patents filing, market studies, press & media actions, videos, etc.; OTHER: Software, technical diagram, etc. PU = Public, fully open, e.g. web; CO = Confidential, restricted under conditions set out in Model Grant Agreement; CI = Classified, information as referred to in Commission Decision 2001/844/EC.

Milestone

- Milestone is a **measurement of progress** towards an output. It is a **decision point** and **control gate** within the work plan
- **Milestones** are decisions influencing further progress of the project



List of Milestones

Milestone number	Milestone name	Related work package(s)	Estimated date	Means of verification
M1.1	Project started	WP1	M1	Kick-off Meeting
M1.2	Project running on schedule	WP1	M18	Mid-Review Meeting KPI Mid-Review
M2.1	TWINFUSYON Website operational	WP2	M3	Website running
M2.2	Collaborative platform and open network scheme establishment	WP2	M18	Database of organisations, industry, stakeholders with 500 inputs
M3.1	Schools/Workshops scheme on materials innovation running	WP3	M18	Event executed/ Statistic on participation available
M3.2	YOUNG research group running	WP3	M24	Group of at least 3 people with 2 submitted papers running
M4.1	Access to CEITEC core facilities enabled	WP4	M18	At least 3 applications activated through consortium
M4.2	Evaluation/Revision and implementation of best practices on analytics & modelling	WP4	24	Number of trainings executed and papers published/submitted on related subject
M5.1	Efficiency of secondments plan	WP5	M24	2/3 of secondments executed
M5.2	Decision on Materials/Technology Priorities and Strategies for Technology Implementation	WP5	M29	Good practices in optronic biosensing recommendations towards exploitation formulated
M6.1	Schools action plan running	WP6	13	1 st /2 nd Schools executed/ Statistic on participation available
M6.2	Mobility program running smoothly	WP6	18	A number of mobility actions executed and statistic on participation available
M6.3	Educational instruments working	WP6	15	e-Library and e-Lab running 500 access executed
M6.4	Schools program towards effective completion	WP6	M30	3 rd -4 th School executed/ Statistic on participation available
M7.1	Evaluation/Analysis of the stakeholder initiatives/groups networking with TWINFUSYON	WP7	12	50-100 stakeholder contacts and data included in database of WP2
M7.2	Evaluation/revision of dissemination/communication plan	WP7	18	Planned dissemination/communication events executed according to quantification criteria at pgs XXX

Template and example: List of Milestones

Table 3.2a: List of milestones

Milestone number	Milestone name	Related work package(s)	Estimated date ¹	Means of verification ²

B 1.3.7 List of milestones and planning of reviews

List and schedule of milestones					
Milestone no.	Milestone name	WPs no's.	Lead beneficiary	Delivery date from Annex I ¹	Comments
M1.1	SynBIOsis collaborative regional executive platform and open network scheme established	WP1	JIC	4	
M2.1	Analytical framework drafted	WP2	JIC	5	
M2.2	RTD directory created	WP2	CBM	9	
M2.3	SWOT including needs and complementarities identified, analyzed, compared and verified	WP2	CBM	11	
M3.1	Personal links between academia and industry established	WP3	MU	15	
M3.2	Exchange of personnel and study visits between academia and industry performed	WP3	CBM	20	
M3.3	Good practice recommendations towards integration on a trans-regional level formulated and verified	WP3	AREA	24	

¹ Month in which the milestone will be achieved. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

¹ Measured in months from the project start date (month 1)

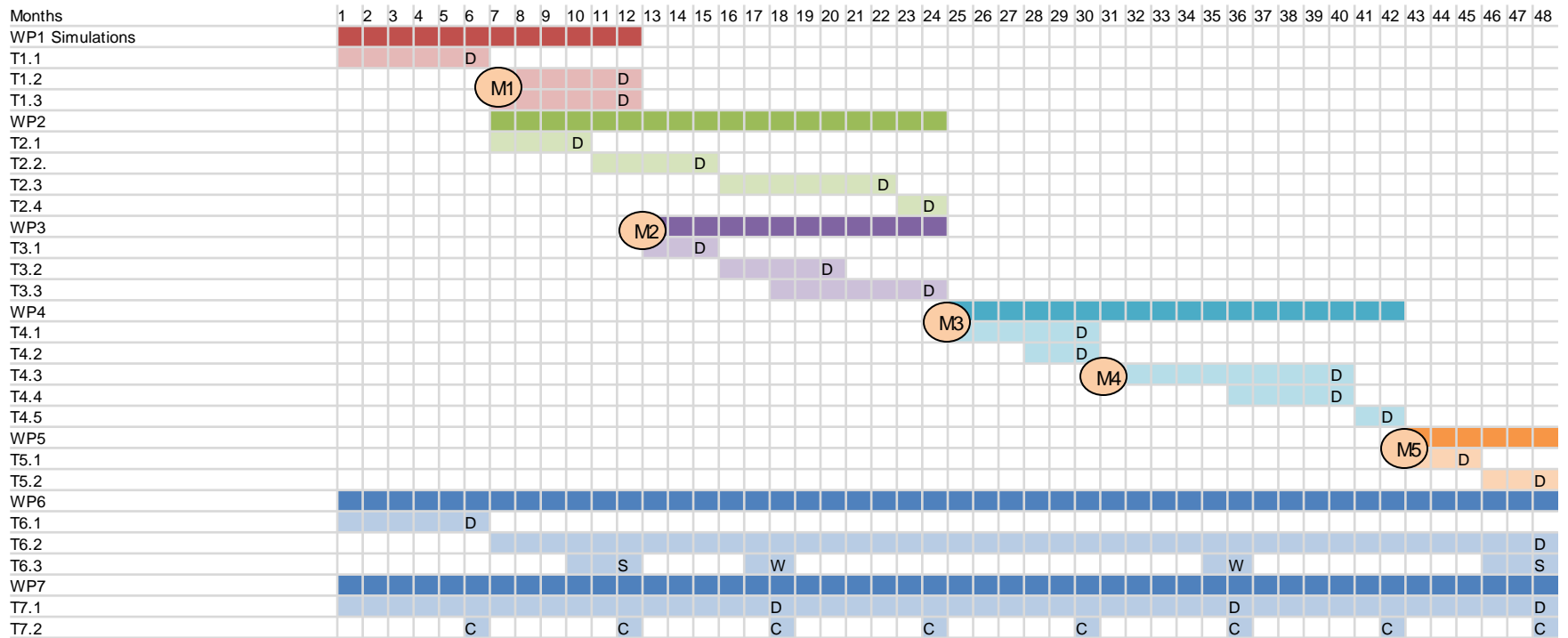
² Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype that is 'up and running'; software released and validated by a user group; field survey complete and data quality validated.

Milestones - example

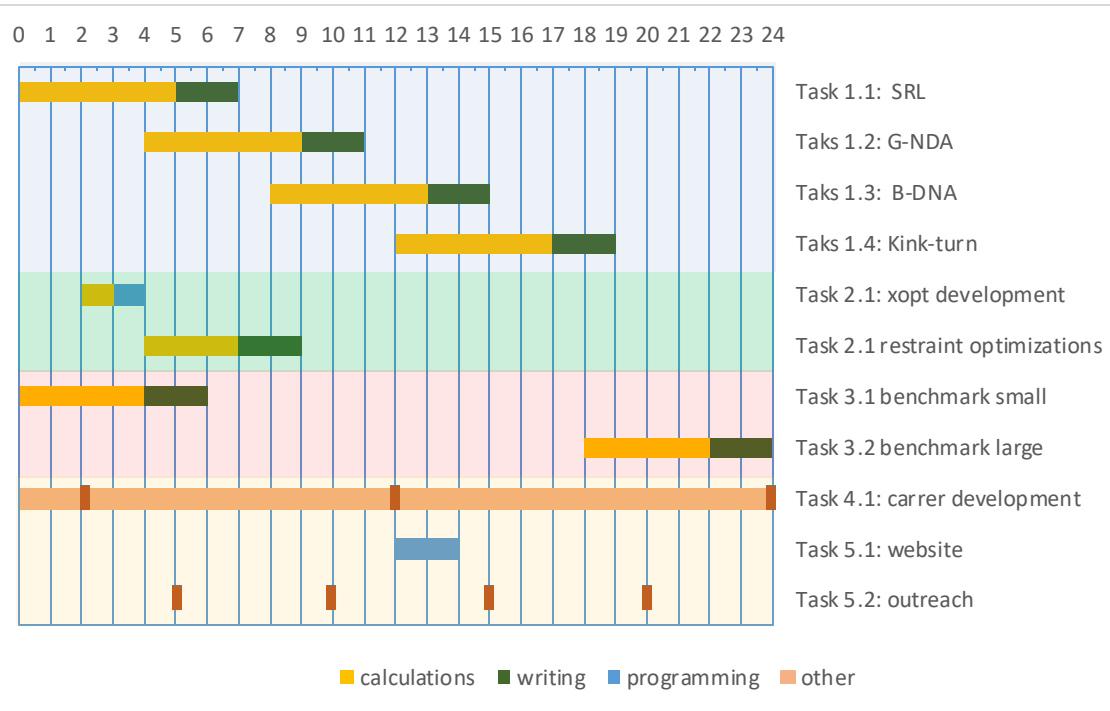
Milestone number	Milestone name	WP	Due month	Means of verification
MS1.1	Research groups identified	1	M3	List of research groups and lacking expertise authorized by the Steering Committee
MS1.2	Research group leaders identified	1	M9	Ranking list authorized by the Steering Committee
MS2.1	Jointly supervised/co-supervised PhD positions advertised	2	M9	PhD themes published on partner websites
MS3.1	Key application partners identified	3	M6	Three proposed strategic partners per research theme listed, list authorized by the Steering Committee
MS3.2	Phase 2 incorporated in regional S3 action plan	3	M12	Steering Committee informed by RIS JMK Research Working Group

GANTT Chart – tasks and milestones

- Gantt chart is a graphical presentation of Project schedule. It describes timing of tasks and milestones.

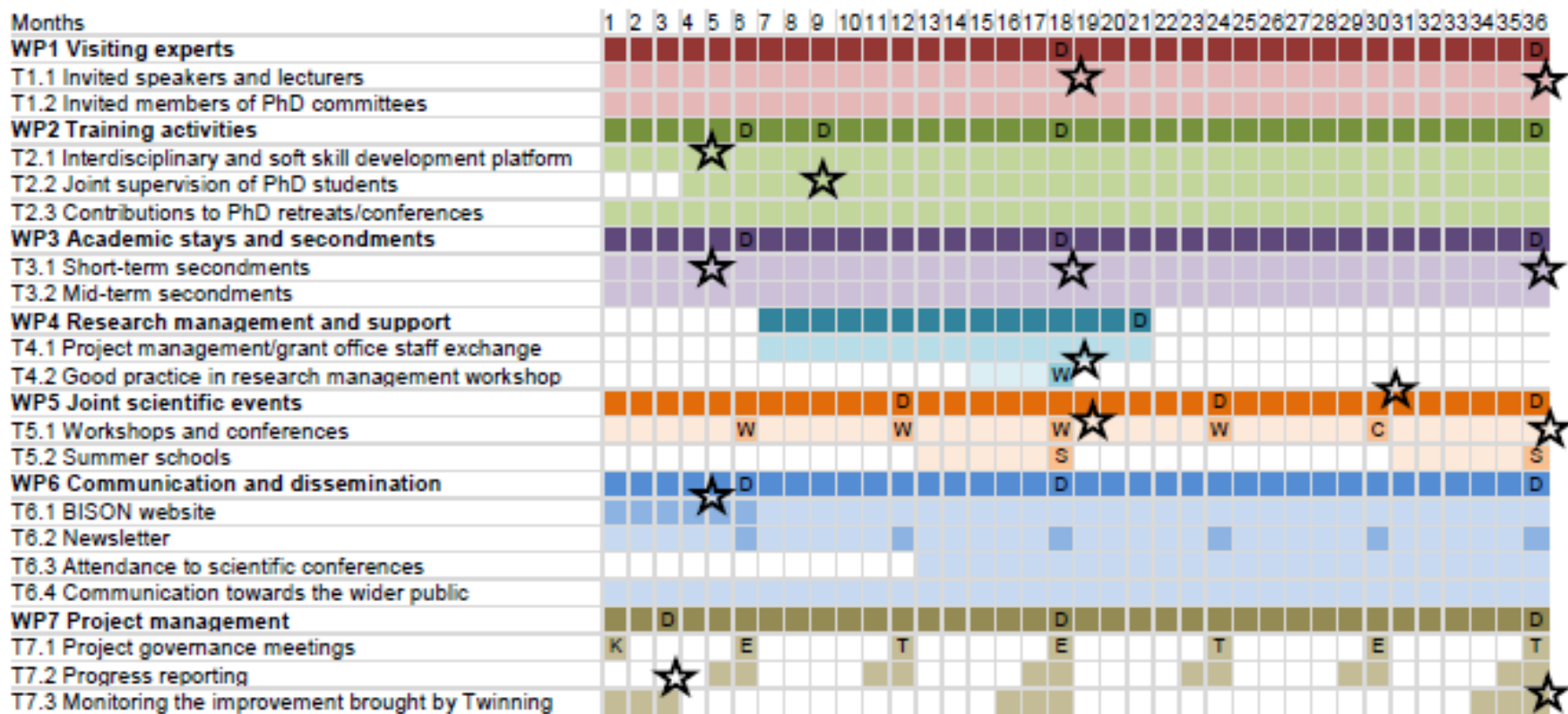


GANTT Chart - examples



RESEARCH ACTIVITY	YEAR		
	1	2	3
Aim 1. Structure determination of LRV RdRp			
Large scale LRV RdRP production			
Determination of RdRP crystallization conditions			
RdRP X-ray data collection and structure determination			
Determination of the structure of RdRP in complex with inhibitors			
Aim 2. Structural analysis of Leishmania cells under phagosome conditions			
Preparation of LRV+ and LRV- Leishmania cells			
Optimization of FIMB protocols for preparation of thin cells of Leishmania cells			
Cryo-EM of LRV virions in phagosome conditions			
Calculation of LRV virion particle reconstruction			
Cryo-ET of LRV-1 in phagosome conditions			
Aim 3. Structural insights into the dsRNA release from the LRV			
Large scale LRV-1 production			
Optimization of protocols for vitrification of LRV on Cryo-EM grids			
Cryo-EM data acquisition and 3D particle reconstruction and analysis			
Cryo-ET data acquisition and 3D particle reconstruction and analysis			

Gantt Chart Example



D – deliverable; W – workshop; C – conference; S – summer school; K – kick-off meeting; E – Executive Board meeting; T – Scientific Steering Committee meeting

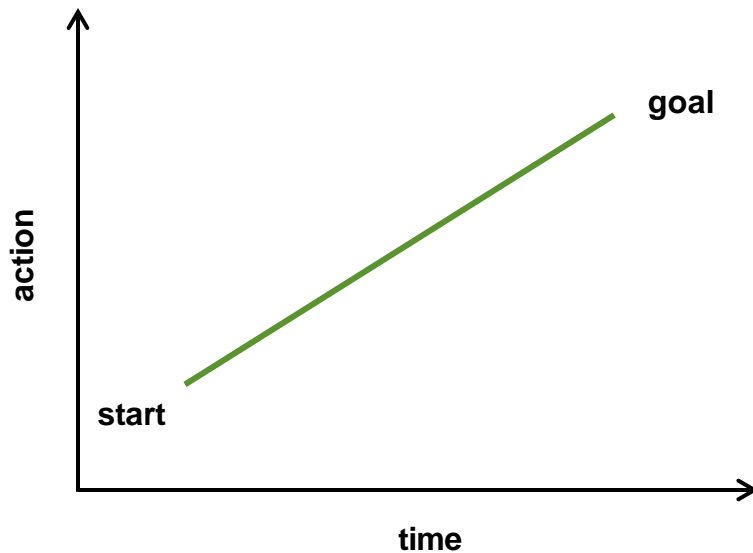
★ - milestone



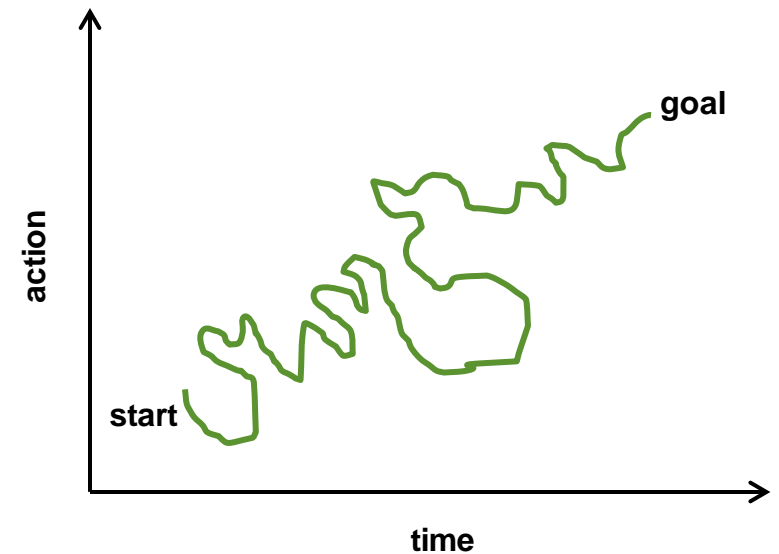
Project management

Time management principles

How we think projects evolves...



What the reality demonstrates



Q: Is time like a sail boat or a motor boat?

A: It's more like a sail boat shifting in the wind

Scheduling



What do you manage?

- You DO NOT manage time
- You DO manage your commitments

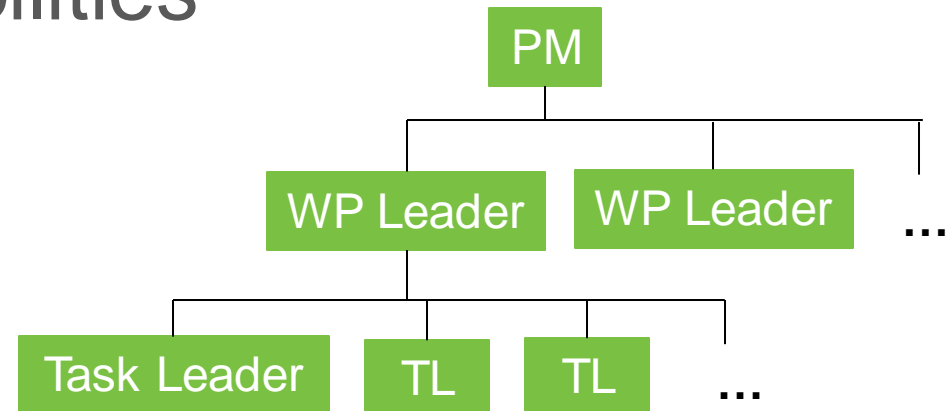
How to manage your commitments?

- Have list of **tasks / activities**
- Have list of **deliverables**
- Have list of **milestones**
- Have **risks** analysed
- **Sequence activities** considering logical relationships among them
- **Estimate activities duration** and add risk reserves

Planning – HR Management Plan

- Roles and responsibilities

- Role
- Authority
- Responsibility
- Competency



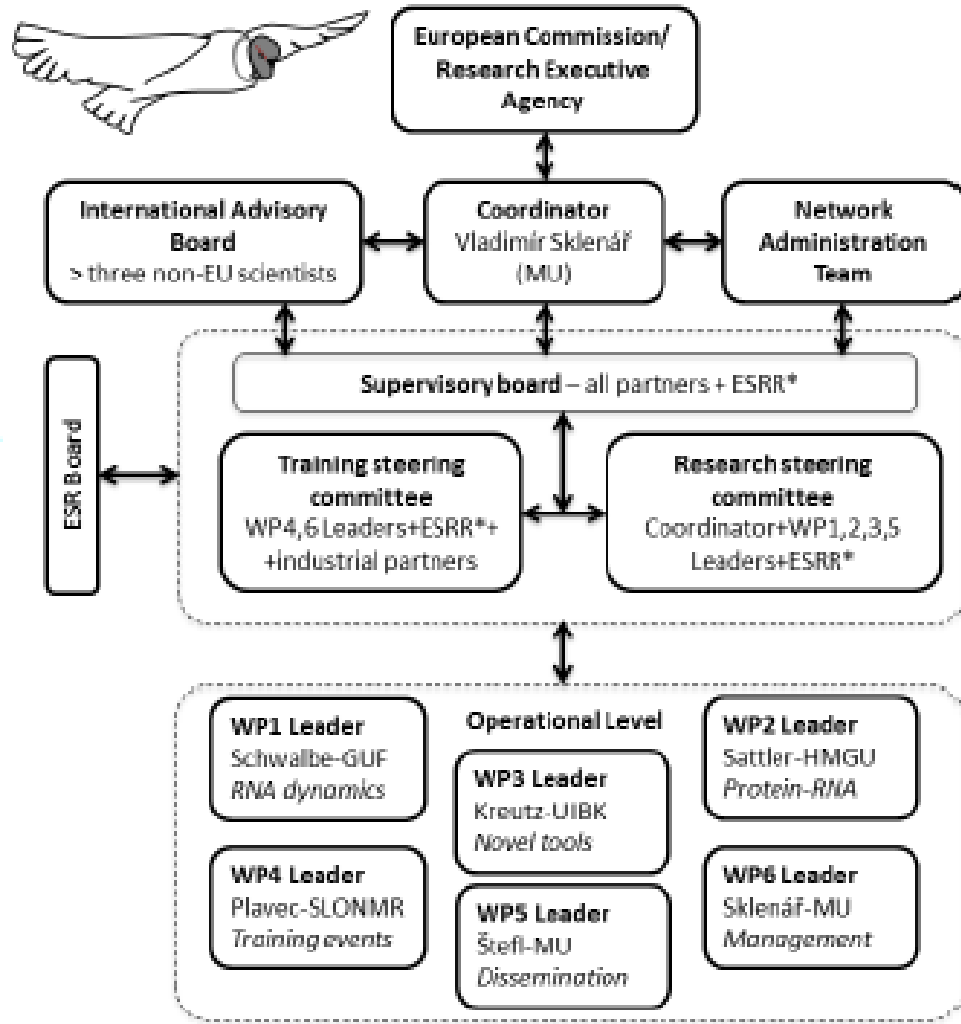
- Human Resource Plan

- Project organization chart
- RACI matrix

Work package	Brno team	Prague team	Vienna team
Sample preparation	A	R	R
Sample analyses	A	R	C
Conference organization	I	I	A,R

R – responsible
A – accountable
C – consulted
I – informed

Example



* ESRR = Early Stage Researchers Representative

Figure 7: Organization of the CONDOR network

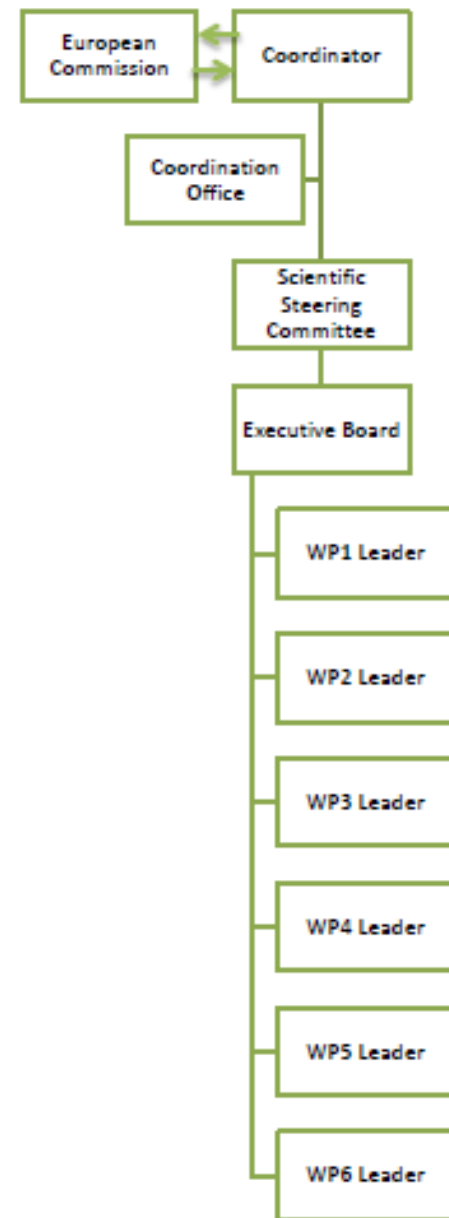


Figure 19: Project governance

Responsibility Matrix (RACI)

	Mom	Dad	Son	Daughter
Dinner implemented	A	R	R	R
1. Resources purchased	A	R	-	I
2. Soup cooked	A	R	I	R
3. Main course cooked	A	-	I	R
3.1 Meat roasted	R	A	C	R
3.2 Sauce prepared	R	A	C	R
3.3 Side dish cooked	R	A	-	-
4. Desert delivered	C	R	I	A
5. Dinner served	A	-	R	R

R – Responsible

A – Accountable (also approver or final approving authority)

C – Consulted (sometimes counsel)

I – Informed

Acquiring & Developing Project Team

- Pre-assignment
- Negotiation with
 - Key project team members,
 - other project teams,
 - external subjects, partners, contractors, suppliers,...

based on multiple criteria like

- availability, cost, experience, ability, knowledge, skills, attitude, international factors,...
- Considering virtual teams



Budget

Preliminary issues to be considered

ELIGIBILITY

- Are you **eligible**? Make sure your research **can be funded** by the funder in the **extent** you expect
- Funder can be supporting only:
 - Certain kinds of research (basic, applied, ...)
 - ...or fields of sciences
 - ...or defined target groups (experienced researchers, woman, (new) EU-member countries researchers, ...)
 - Specified types of organizations (SMEs, NGOs, ...)

APPROPRIATENESS

- Is your research **in line with funder's intention**?
- Are the expected **impacts** of your research of any interest to the funder?

Practical issues to be considered

RESEARCH COSTS (RC) – the costs you need to implement your project

- Are your estimated **research costs (RC)** within what the funder can provide?
- What is the **structure** of your RC?
- Are all of the **RC categories eligible** fundable/eligible for funding?
- Do you need to budget **indirect costs** (overheads) and if so, are these eligible costs?
- Are there any other limitations regarding eligibility of the RC?

Planning the budget

Direct x Indirect costs

- **Direct costs** are specific costs **directly linked to the performance of the project** and which can therefore be directly booked to it (**= *accountancy***)
- Any cost declared by a beneficiary as a direct cost of the action must be **justified by supporting evidence** (showing the link to the action)



CONFUSED?

Just remember the **direct costs** are the money you need to budget to cover your research activities.

Planning the budget

- **Indirect costs** are costs not identifiable as specific costs directly linked to the performance of the project
- In practice, they are costs whose attribution to the specific project / action **cannot be** or has not been **measured directly**, but only by means of cost drivers or a proxy, which apportion the total indirect costs (overheads) among the different activities



CONFUSED?

Just remember the **indirect costs** are the costs related to „utility bills“ of your institution are a **percentage of the direct cost**

Planning the budget

COMMON BUDGET CATEGORIES

- **Personnel costs** – often a major part of the budget
- **Non-personnel cost**
 - Equipment, facilities
 - Services
 - Travelling costs
 - Other direct cost
 - Materials, consumables
 - Special categories such as inflation allowance or contingency reserve

Planning the budget

PERSONNEL COSTS

- Personnel costs = costs of the work on the projects
- You must figure out **WHO** you need to achieve your research objectives - **composition of your team**
- You must make a good **estimate of** how much **effort** you need to complete research activities (and defined tasks and work packages)
- You should calculate the effort as **FTEs** (full-time equivalents) or **person-months**

Planning the budget

PERSONNEL COSTS

AN EXAMPLE:

- Working on a project **ALL the time** means working **full-time = 1 FTE = 12 PMs/year**
- Then you need to **match the effort with** the team **positions**

Planning the budget

PERSONNEL COSTS

- Different pay rates for different positions
- The ranges of **pay rates** usually **defined** and there is a **salary cap**
- **Multiply** the number of **PMs** for individual positions **with the pay rates** for the positions and make a sum of it = **personnel budget**



CONFUSED?

Consults your **CEITEC** dedicated **project manager** and **Personal Department**

Budget – tips

- Make it realistic (this helps your credibility)
- Justify the personnel and their time incl. experts and subcontracting to be paid (services)
- Justify your time, justify everything. Be not too modest, count with reserves (EUR/CZ exchange rates...)
- Consider risks, such as changes in prices in time
- Don't be afraid of giving details – the budget is indicative. It cannot be increased, but costs can be shifted during negotiation.

Big budget is nothing wrong if properly justified.

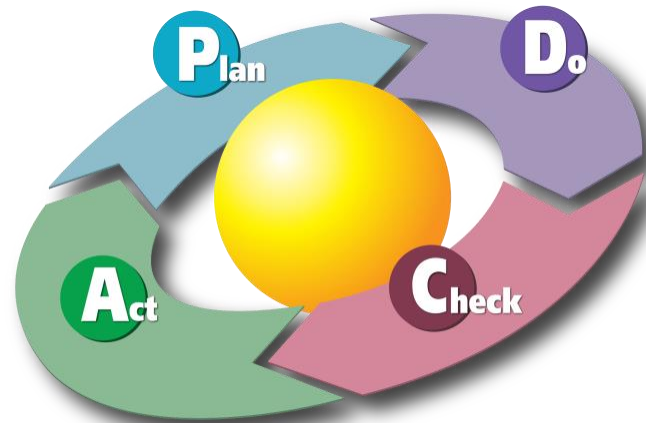
Budget – another example

A Slovakian researcher from Masaryk university applies for a collaborative project with US laboratory for 2 years. His project team consists of himself (FTE 0.2) and 2 PhD students (FTE 0.5 each). One student will visit US laboratory during 1st year and the other one in 2nd year, each for 3 weeks. They plan to use MRI Core Facility for 150hours of imaging (1h/74EUR). They do not need major investments into equipment, apart from two computers (2 x 1481 EUR) and one SW licence (2222 EUR). Costs of US partner are eligible and both institutions will sign an grant agreement with provider. They will disseminate results in 2 joint publications and on 2 international conferences and a one-day workshop at the MU (attendance expected: 50 persons). Project allows 20% indirect costs.

Running the Project on Day-to-Day Basis – Monitoring, reporting and control, Project closing

Day-to-day project management

- Implementing
- Monitoring and controlling the progress
- Reporting
- Change management
- Communication



Implementing

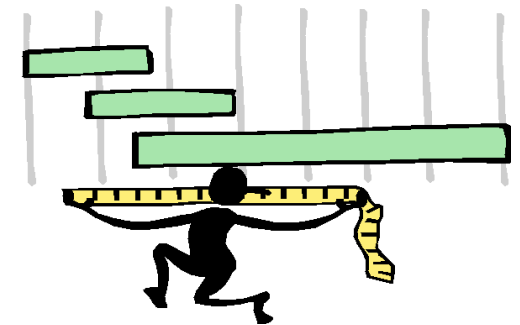
- During project implementation refer to:
 - Scope – Work plan
 - Time schedule – Gantt chart
 - Resources
 - Budget
 - Intermediate outcomes – Deliverables, Milestones
 - Risks
- Team (roles and responsibilities)

Monitoring

- Regular collection and analyses of relevant information about the project implementation
- Comparison actual vs. planned performance
- Well structured projects are easier to monitor

Key questions for monitoring:

1. Do I have enough and appropriate **resources**?
2. Am I running in **time** on schedule?
 - Start and end dates for each activity
 - Dates when milestones are reached
3. **Scope** – quality of achieved progress



Reporting

- Effective analysis of the project (**Progress** Report or **Final** Report) which usually includes:
 - **Financial** and **scientific** part
 - Objectives that have been achieved, work completed during the period, evaluation of progress, changes requested and approved
 - Future plan, key steps and dates
- Include illustrations, charts and tables
- Hand your report on time






dreamstime.com

Timesheets

- Record of the amount of a researcher's time spent on the project

Timesheet

Employee (full name):	Marie Kobličková	
Position:	PhD	
Employer:	Masaryk University	
Full title of the project:	Next Generation Sequencing for platform for targeted Personalized Therapy of Leukemia (NGS-PTL)	
Project contract number:	306242	
Supervisor:	prof. RNDr. Jan Slaný, Ph.D.	
Month/years:		

Type of activity:	Hours/month:	Description of work:
WP3 – Creation of a biological biobank	120	Collection of samples of periferal blood and bone marrow, preparation of list of inclusion criteria
Total hours:	120	

Information related to time spent on the project (hours):	
Hours worked:	120
Holidays:	16
Illness:	0
Bank holiday:	8
Paid time off:	0
Total:	144

Date and signature of person carrying out work:

23.3.2015

Date and signature of supervisor:

24.4.2015

Change management



Change is possible if:

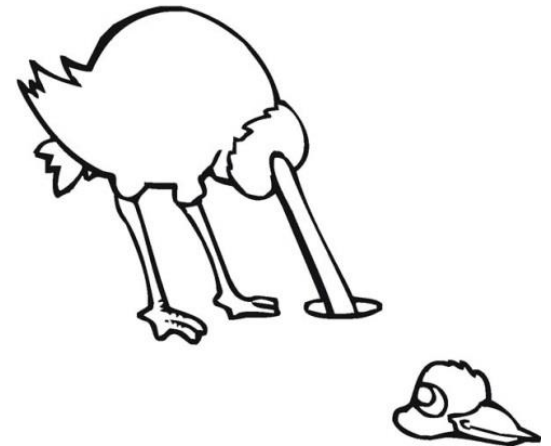
- 1) you justify the reasons – outline benefits
 - 2) it is well communicated – good communication is important in overcoming resistance to change
 - 3) you ask for it in time – do not imply the change until the funder approves it. Plan ahead, change approval may take even weeks.
- **Minor change** – e.g. duration of one activity, minor financial changes
 - **Major change** – e.g. project aim, duration of project, big shifts in cost categories etc.

Communication

- Good communication is essential to wellbeing of any project
 - Personal communication
 - E-mails
 - Publications
 - Website
 - Presentations
 - Project meetings
 - Communication plan – clearly assign key roles, responsibilities, their importance and preferred way of communication

Communication – common failings

- Unwillingness to communicate bad news
- Not asking for help when it's needed
- Poor communication channels
- Lack of honest communication



Closing a project

- A process of finalizing all activities across the project and to **formally complete** the project or phase.
 - Review all information (especially deliverables) to make sure that work is completed and objectives have been met
 - Actions to transfer project outcomes to next phase
 - Collect records, audit of success or failures, gather lessons learned and archive project information
 - Give recognition and reward to the team

Sources of information

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