



## **Proactive FET Observatory for early trends, project building and social responsibility**

Call - FET Open – Novel ideas for radically new technologies  
FETOPEN-02-2018: FET-Open Coordination and Support Actions  
Subtopic c: FET Observatory

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### **Deliverable No. 4.4**

### **IdeAcademy Materials**

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## Document Control

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## Revision History

Version	Date	Notes
1.0	08/12/2020	Compilation of the deliverable

## Table of Contents

Presentation.....	4
List of acronyms/abbreviations .....	5
1. Introduction to the deliverable and its objectives.....	6
1.1 IdeAcademy aim and objectives .....	6
2. Contents.....	7
3. Conclusions and lessons-learnt.....	9

# Presentation

PREFET is an EU funded project within the European Framework Programme for Research, Technology Development and Innovation, Horizon 2020, focused on the detection of early-stage technology trends and their analysis, combining the most advanced data mining AI engines with human intelligence and crowd/expert perception, tools for the implementation of responsible research and innovation, and innovation capacity building. PREFET started in November 2018 and will keep running until October 2020, carried out by a consortium of four organisations in UK and Spain specialized in technology foresight ([LinkNovate](#)), integral management of R&I projects (from idea – cradle – to markets and society – growth) ([RTDI](#)), and responsible management of research and innovation ([Trilateral Reseach](#) and [De Montfort University](#)) – [www.prefet.eu](#)

PREFET H2020 project implemented a process iterating from manually identified trend seeds to Intelligence-Augmented desktop research supported with text-mining, data-mining and machine-learning. “**Weak signals**” were detected, and trends were “informed” (insight generation), resulting into a list of “**45 pre-validated Trends**”. Trends were mapped with UN’s Sustainable Development Goals to leverage responsible research and innovation (RRI), thus research and innovation that are socially desirable and ethically acceptable. In parallel, they were opened to an on-line consultation involving more than 2,000 researchers in ICT, Health Sciences, Biotechnology and Environmental Sciences; enriched with interviews with artists, architects, and designers. A workshop around prioritisation of technology trends was organised in November 2019 (called **Trendington**), resulting into a list of “**top 20 future and emerging trends**”.

Finally, two workshops were organised with an Expert Committee in order to evolve this list towards a roadmap. This “**Windows to the future around Top trends in Emerging Technologies. Roadmapping exercise**” is the main output from this exercise, during which we enjoyed rich discussions around future and emerging trends among experts from very different fields listening to colleagues from other areas, altogether **assessing the potential evolution of each top trend in the coming 5 and 10 years: the benefits and, also, challenges they could bring to humanity and life**. Its main objective is to provide a concise and holistic approach (holistic in the sense of technology-based and RRI-based) to the top 20 future and emerging trends, and make them understandable to policymakers, the research community and society in general via metaphors (“dreams and nightmares”) and futuristic scenarios.

In parallel, these trends were transformed into “**play-grounds**” where building disruptive project ideas, and several added value activities were carried out in this direction and for offering researchers top level training, interactions and information, under the umbrella of the so called **PREFET IdeAcademy**. This deliverable reports on the contents of this initiative.

## List of acronyms/abbreviations

Abbreviation	Explanation
D	Deliverable
FET	Future and Emerging Technologies (acronym under H2020 programme)
H2020	European Framework Programme in R&I for period 2014-2020 – Horizon 2020
IAWEEK 2020	PREFET IdeAcademy Week – Edition 2020

*Table 1: List of acronyms/abbreviations*

# 1. Introduction to the deliverable and its objectives

This deliverable is part of a family of documents around PREFET IdeAcademy activities, program and results:

- D4.1 – IdeAcademy program
- D4.2 - IdeAcademy report
- D4.3 – PREFET methodological platform open services report
- D5.3 - Roadmap presentation event report

For this reason and in order to avoid duplicities and repetitions, this deliverable focuses strictly into the materials generated as a result of the IdeAcademy Week, in short called the IAWEEK (edition 2020). It consists in a series of videos recording all sessions during the event<sup>1</sup>:

1. Panel discussions with experts around top trends in future and emerging technologies;
2. Added value training webinars;
3. Informative sessions around future funding opportunities for projects focused in formulating, leveraging and developing future and emerging technologies.

## 1.1 IdeAcademy aim and objectives

IdeAcademy aims to deep up in the spirit of FET (Future and Emerging Technology area from Horizon 2020 Programme, H2020), by:

1. Helping the research community to reinforce the formulation of their project ideas, increasing their chances to reach long-term scope, engage multiple stakeholders and get financial support;
2. Helping them to achieve interdisciplinarity, more and more important for the development of deep and disruptive technologies, increasing in complexity not only from scientific and technological perspectives, but also in terms of their potential impact in society, politics, environment, etc.
3. Helping researchers to design initiatives for exploratory deep-tech collaboration, and community building for consolidating new technological paradigms. These are key requirements for projects to be submitted to all H2020 FET calls (and some equivalent opportunities for financial support).
4. Offering information about “PREFET’s list of 20 trends in future and emerging technologies” as areas with greater potential for long-term R&D focused in creating strong positive social or environmental impact. Apart of being valuable and relevant information for researchers, IdeAcademy will use it to create “creativity play-grounds” where to think about project ideas. This will offer good opportunities specially to young and mid-career researchers looking for areas to focus their activities and efforts in the coming years.

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<sup>1</sup> See full agenda in D4.1.

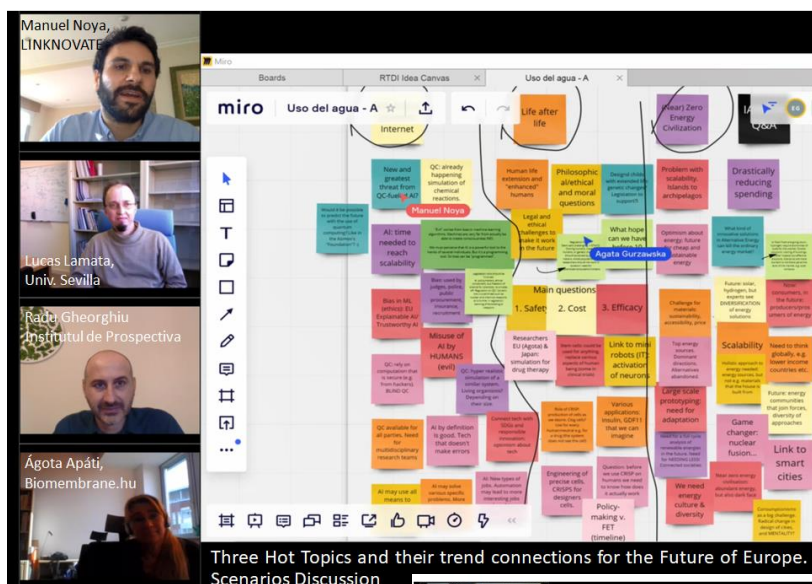
- Supporting reflection about the potential impacts technologies can bring to Earth and Humanity, considering UN's Sustainable Development Goals as well as "Ethics by design", learning useful methodologies, and engaging different profiles of experts.
- Influencing decision-making in relation to the role of FET in coming Horizon Europe (changing its name to Pathfinder).


## 2. Contents


It was a strategic decision (and a great offer from the European Commission) to host all these recordings as part of the recently launched EU Academy platform (in fact, the IA WEEK 2020 became part of EU Academy launching activities). This way, all contents or materials can be accessed via the following link: <https://academy.europa.eu/local/euacademy/pages/course/overview.php?id=122>

And will remain there far beyond PREFET's project lifetime.

Some pictures of these contents:







European IP Helpdesk

www.iphelpdesk.eu

## IP Management - Managing the KEY assets!

**IP Used**

- access and usage rights for background and 3rd party IP
- during AND after the project (if needed for exploitation)

**IP Generated**

- How to capture?
- Ownership?
- Who manages?

**Assess and protect**

- Where are the opportunities?
- Protection?


**Disseminate and Exploit**

- Who to tell?
- What to tell?
- How to tell?
- How to transfer?
- Exploitation pathways

**Post project**

- IP and IPR management
- Dissemination and exploitation
- Post deal management

Before the project
During the project
After the project



### Basic elements of an R&I project idea

- The Challenge.** A project must be borne from a need or gap that is necessary to cover; and projects must convince that it is possible and necessary to find a solution to that need, fill in that gap, or take that opportunity.
 

**Why?**
- The Vision.** What is the specific approach proposed? It must really address the Challenge, and show it is feasible.
 

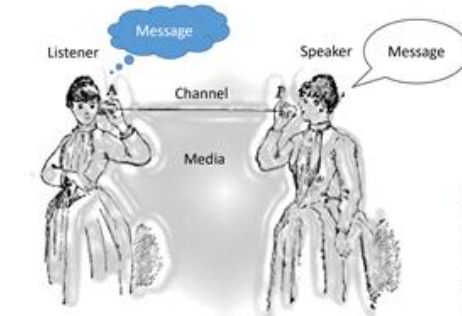
**How?**
- The Technology.** A project must deliver concrete results (outcomes), that must be measurable against the Challenge.
 

**What?**


**Barriers / Main development activities and technical risks.** For achieving the Vision, R&D additional efforts are required (Watch out!).

**Follow-up and exploitation aspects:** How will we take the Vision beyond (medium-to-long term) which are the most relevant aspects to achieve it?

### Talking about early-stage R&D...



### Take time to think about the target audiences and define adapted messages



©RTDI

This [video](#) shows a little how these workshops happened.



### 3. Conclusions and lessons-learnt

Being hosted at EU Academy is considered crucial for the long-term sustainability and openness of IAWEEK 2020 materials, as well as compiling these materials in the form of videos recording slides, video contents used during the sessions, interactive panels, full explanations from speakers, and track of questions and answers.

As a final remark, it is important to highlight that the training contents belong to the speakers offering webinars to the audience during the IAWEEK 2020, and no transference of Intellectual Property has been implemented.