”EU-ETS Innovation Fund Basics”

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EU ETS and Innovation Fund (IF)

Innovation Fund is an initiative within the EU-ETS Phase 4, 2021-2030 (ETS DIRECTIVE (EU) 2018/410)

- **Objective is to accelerate deployment of CCS or CCU facilities, new renewable energy technologies and industrial innovation in low-carbon technologies and processes**
- **Based on allocation of 450 million EUAs (325 free quota+75 auction quota+50 market stability reserve) plus remaining NER300 funds.**
- **The Commission to adopt delegated acts* on the rules of operation of the IF, incl. selection procedure and criteria**
  - **Lessons learned from the NER300 program to be considered**
  - **ETS Phase 3 NER300 demonstration program 2013-20 for large CCS and RES projects funded by sales of 300 million EUAs, 2.2 billion €**
  - **39 projects selected in two calls.**
  - **Only six projects operational or in construction**

***Commission Delegated Regulation (EU) 2019/856 of 26 February 2019 supplementing Directive 2003/87/EC with regard to the operation of the Innovation Fund**

IF Selection Criteria and Support

(ETS DIRECTIVE (EU) 2018/410)

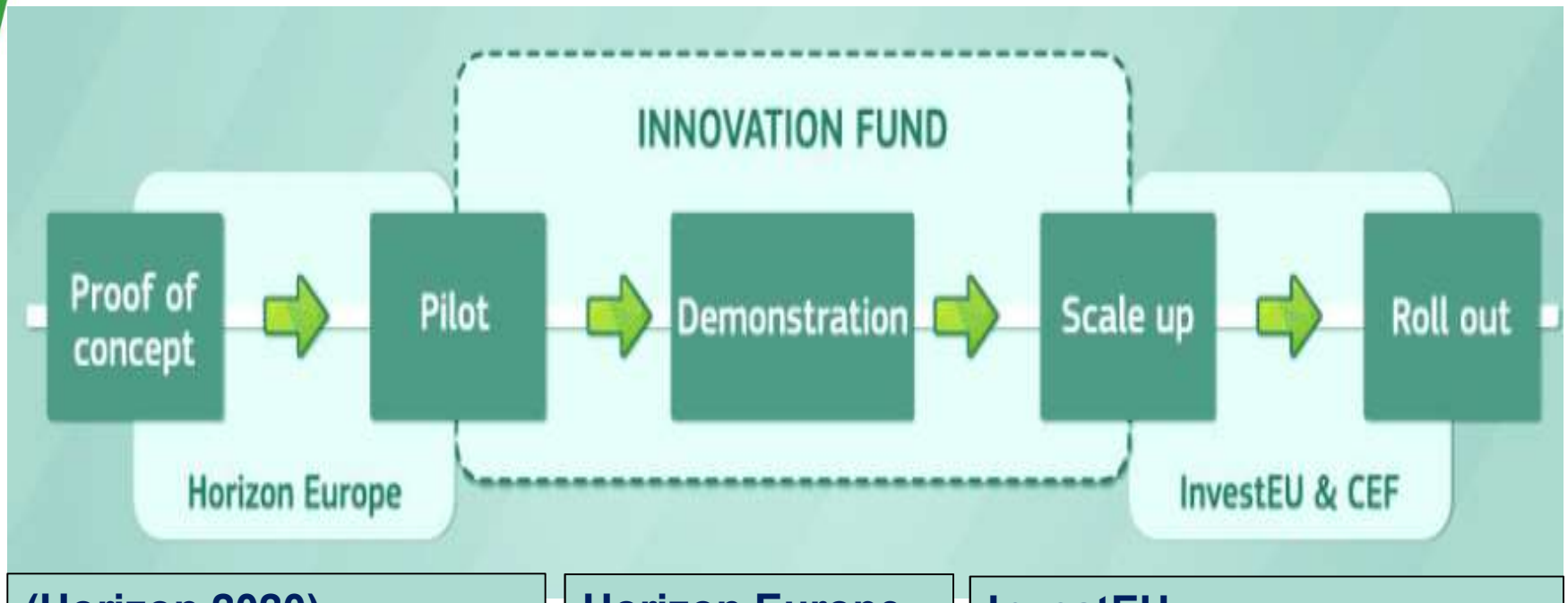
Selection by objective and transparent criteria

- potential for widespread application
- potential to significantly lower the costs of transitioning towards a low-carbon economy
- technologies not yet commercial but being breakthrough solutions or ready for pre-commercial demonstration
- geographical balance
- also small-scale projects (< 7.5 million € CAPEX) eligible

Support

- IF support is not state aid
- conditional an agreement + knowledge sharing agreement
- support up to 60 % of the relevant project cost, of which 40 % need not be dependent on verified related to avoided of GHG emissions, i.e. effectively a grant.
- support to Project Development Assistance (PDA) possible

IF and Other EU Financing Sources



(Horizon 2020) **Horizon Europe** **Enhanced European Innovation Council (EIC)**	**Horizon Europe** **Innovation Fund** **(Horizon 2020)** **(NER300)** **(InnovFin EDP)**	**InvestEU** **Connecting Europe Facility** **Modernisation Fund** **Cohesion Fund** **(InnovFin Energy Demo)**

National programs
Industrial and private capital

Innovation Fund in Euros and Cents

Sales of EUAs in tranches at several auctions 2021-30

- Current EUA value 25 €*450 million EUAs= 11.3 billion €
- NER 300 2nd call leftovers, ≈ ? + 0.5 billion €

- **DG Clima conservatively states "over 10 billion €".**

But, more stakeholder and activities than in NER 300

- **RE energy,** e.g. wind, solar, geo,, **bioenergy and biofuels**
- **CCS and CCU**
- **Energy storage,** e.g. batteries, thermal heat, grid balancing systems, large scale hydrogen production.
- **Energy-intense manufacturing industries** e.g. refining, ferrous & non-ferrous metals, cement & concrete, lime & gypsum, clay & refractories, glass, pulp & paper, chemicals, etc.
- **Cross cutting activities**

The Relevant Costs

"The relevant costs" is the basis for the project support

- **"The relevant costs"** can be calculated as:
  - The **additional costs of the innovative technology**, is calculated as the difference between the project cost and the cost of a conventional production facility at the same capacity.
  - The default basis for the **additional costs** is the best estimate of the CAPEX, the net present value of OPEX and benefits for 10 years after initiating operation of the project, and the same best estimate for the conventional production, respectively.
  - In the absence of conventional production, the relevant cost is the best estimate of the CAPEX and the net present value of OPEX and benefits arising during 10 years after initiating operation .
  - for small-scale projects (< 7.5 million €) it is the total CAPEX

Calls

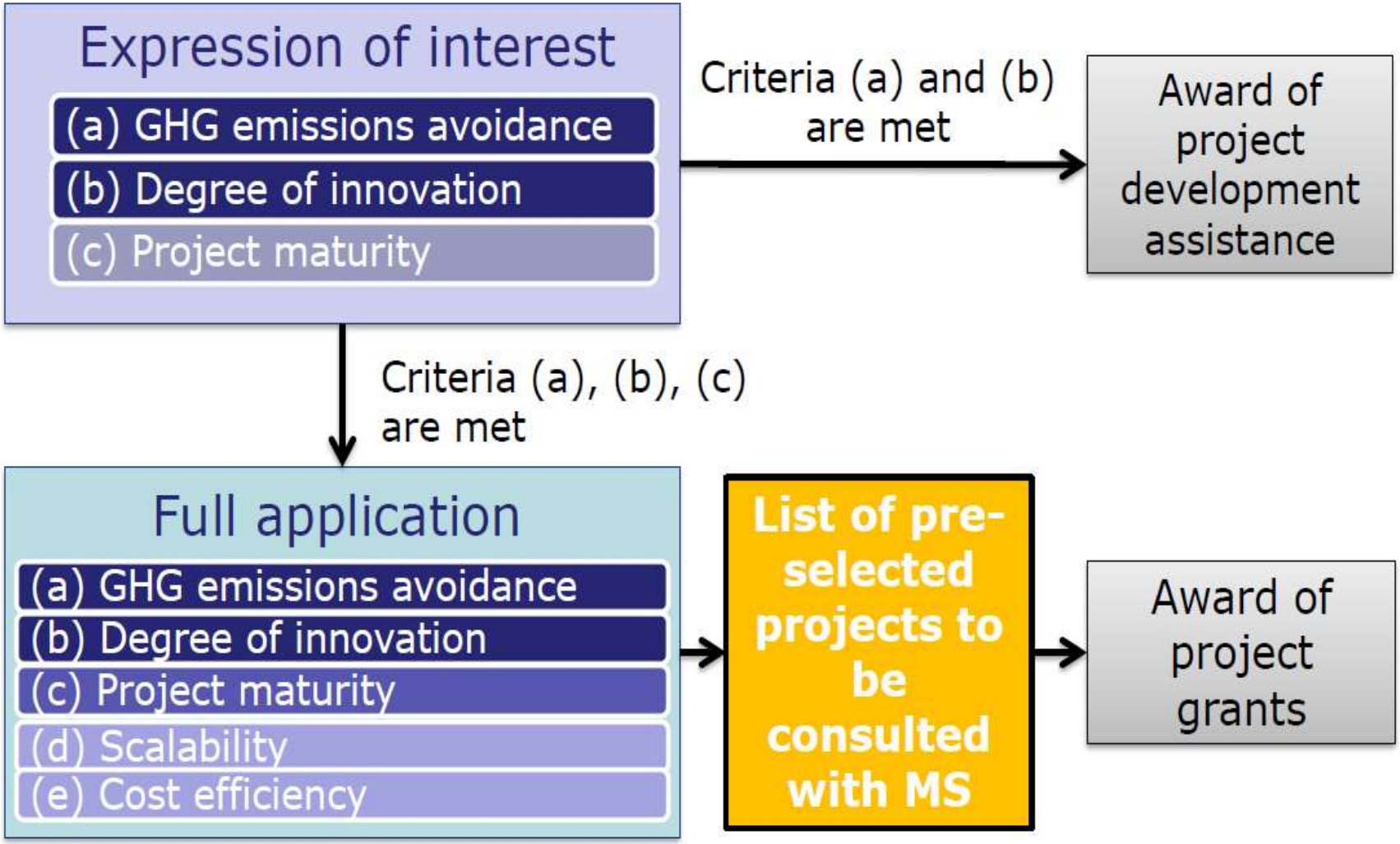
Annual calls in between 2020 and 2030

- Two phase application
  - Expression of interest (EoI)
  - Full application only for selected EoI projects
- "First call mid-2020, expected 1-1,5 billion €"
- "Product orientation rather than sectorial orientation"

Call information to include but not be limited to:

- the overall support amount, to PDA and to small-scale projects, respectively
- the types of solicited projects or sectors
- the application procedure incl. information/documentation required in each phase for large and small projects
- the selection, evaluation and ranking procedures
- (additional selection criteria for geographical balancing)

Call Evaluation Procedure



The Evaluation and Selection criteria

The selection criteria:

EoI phase

- **a) effectiveness: GHG emission avoidance potential**
- **b) project degree of innovation compared to the state of the art**
- **c) maturity: planning, business model, financial and legal status**
- **c) prospect of financial close within 4 years from the award**

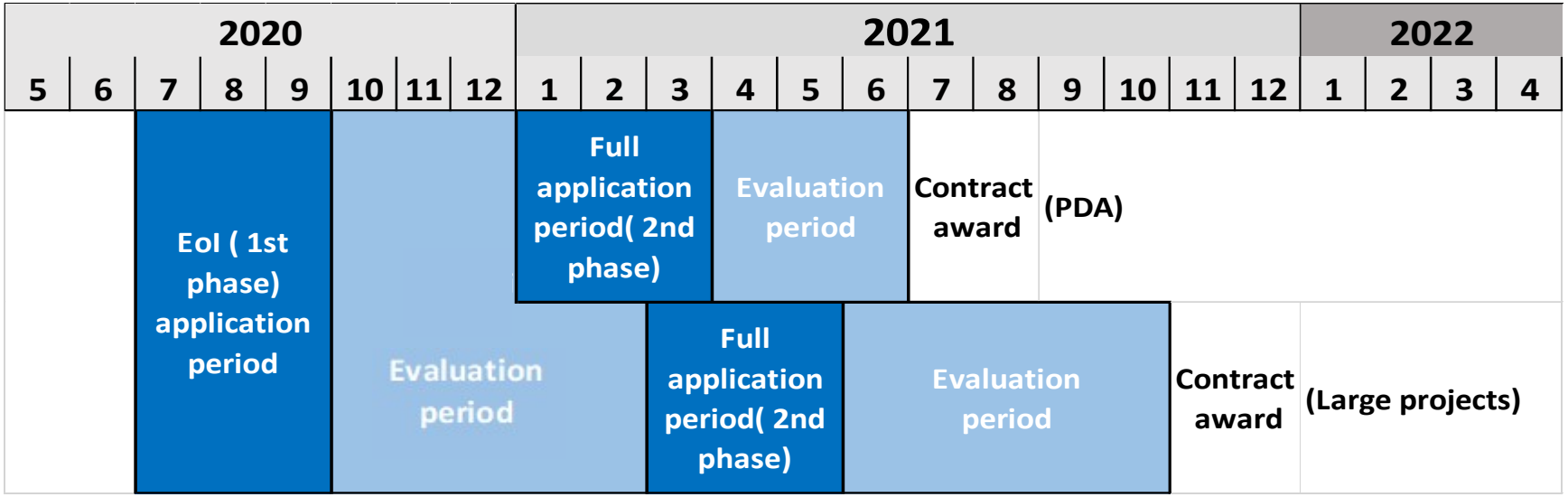
2nd phase

- **d) technical/market potential: replications, future cost reductions**
- **e) support cost efficiency: the project relevant costs less the contribution to those costs from the project proponent, divided by the projected amount of GHG avoided/energy produced/ energy or CO_2 stored /in 10 years of operation**
- additional criteria aimed at achieving a geographically balanced distribution of the Innovation Fund support may also be applied.

Open issues: scope/sectors/funding, methodologies for a-d, PDA scope

1st Call Tentative Timeline

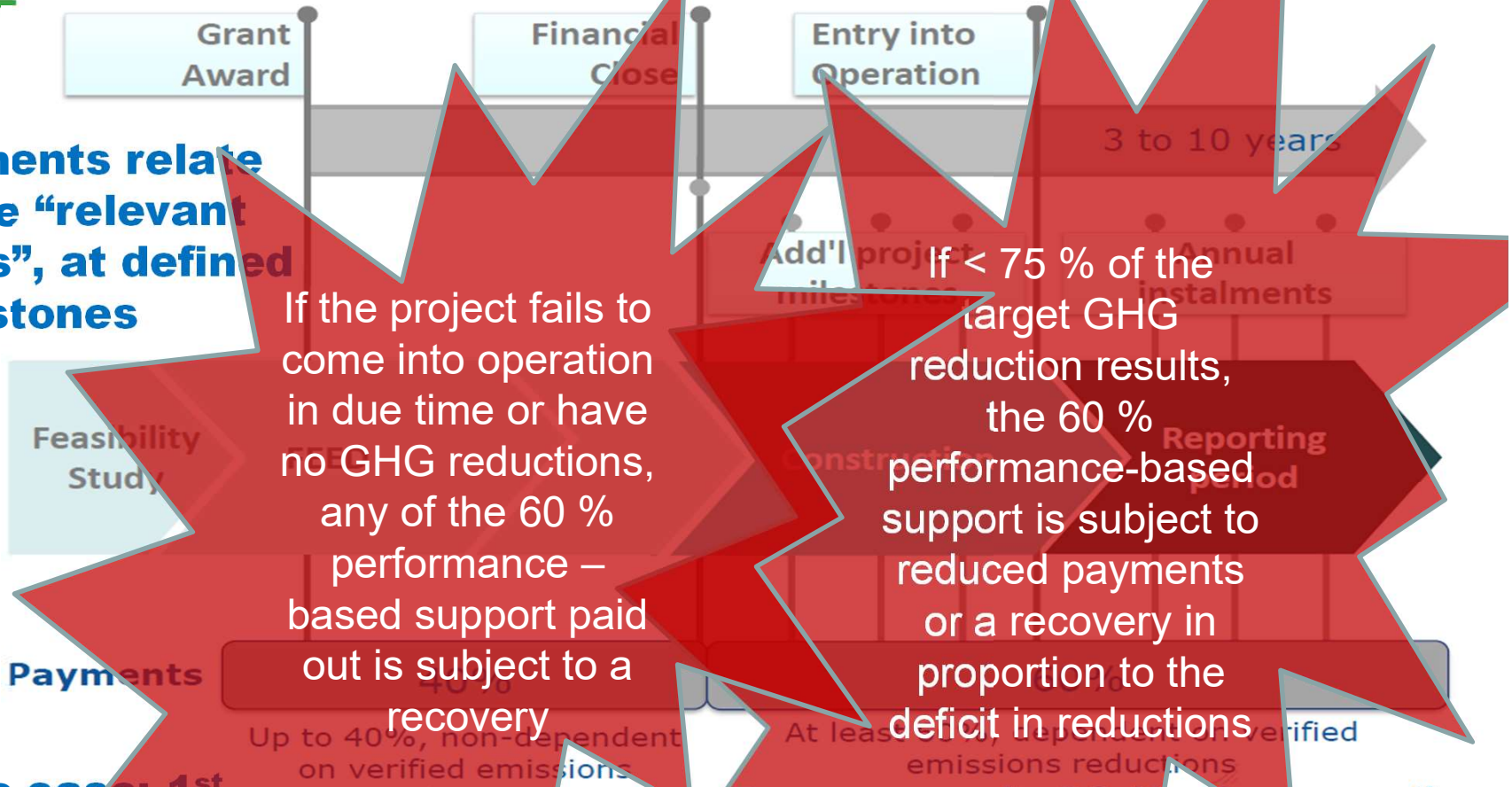
Based on timeline as orally indicated by DG Clima and EIB, based on NER 300 experiences for best and normal case



1st call opening in Q2 2020 effectively means project awards and contracts in Q3 and Q4 2021 at the earliest.

If applications need to be additionally clarified or supported, then…….

Support Disbursement Instalments



Payments relate to the "relevant costs", at defined milestones

If the project fails to come into operation in due time or have no GHG reductions, any of the 60 % performance – based support paid out is subject to a recovery

If < 75 % of the target GHG reduction results, the 60 % performance-based support is subject to reduced payments or a recovery in proportion to the deficit in reductions

Base case: 1st payment (< 40 % of support) at financial close (except for PDAs)

Base case: (> 60 % of support) annual instalments vs. verified GHG emission reductions. Milestones instalments during construction may be possible?

Finally

Thank you for your attention.

Further information can be found at:

https://ec.europa.eu/clima/policies/innovation-fund_en

But also at:

http://www.etipbioenergy.eu/

http://artfuelsforum.eu/

EU Emission Trading System

ETS DIRECTIVE (EU) 2018/410 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814

- **Cap-and-trade GHG emission reduction system**
  - **for energy intensive industry and aviation in the EU and EEA**
  - **11 000 installations 40 % of the GHG emissions in 2008**
- **Obligated parties must provide European Emission Allowances (EUAs) in relation to their actual emissions annually**
- **Emission allowances (EUAs = 1 tonne GHG CO_{2e}) are obtained**
  - **from the EC for free, in the case of some specific industrial sectors, based on production volume and bench-marks for the lowest emitting industries in each sectors, but reduced 2.2 % annually**
  - **from the EC by buying in auctions**
  - **by trading in market places**