

PAVING THE PATHWAYS TO IMPACT

MONITORING AND
EVALUATING IMPACT IN
HORIZON EUROPE

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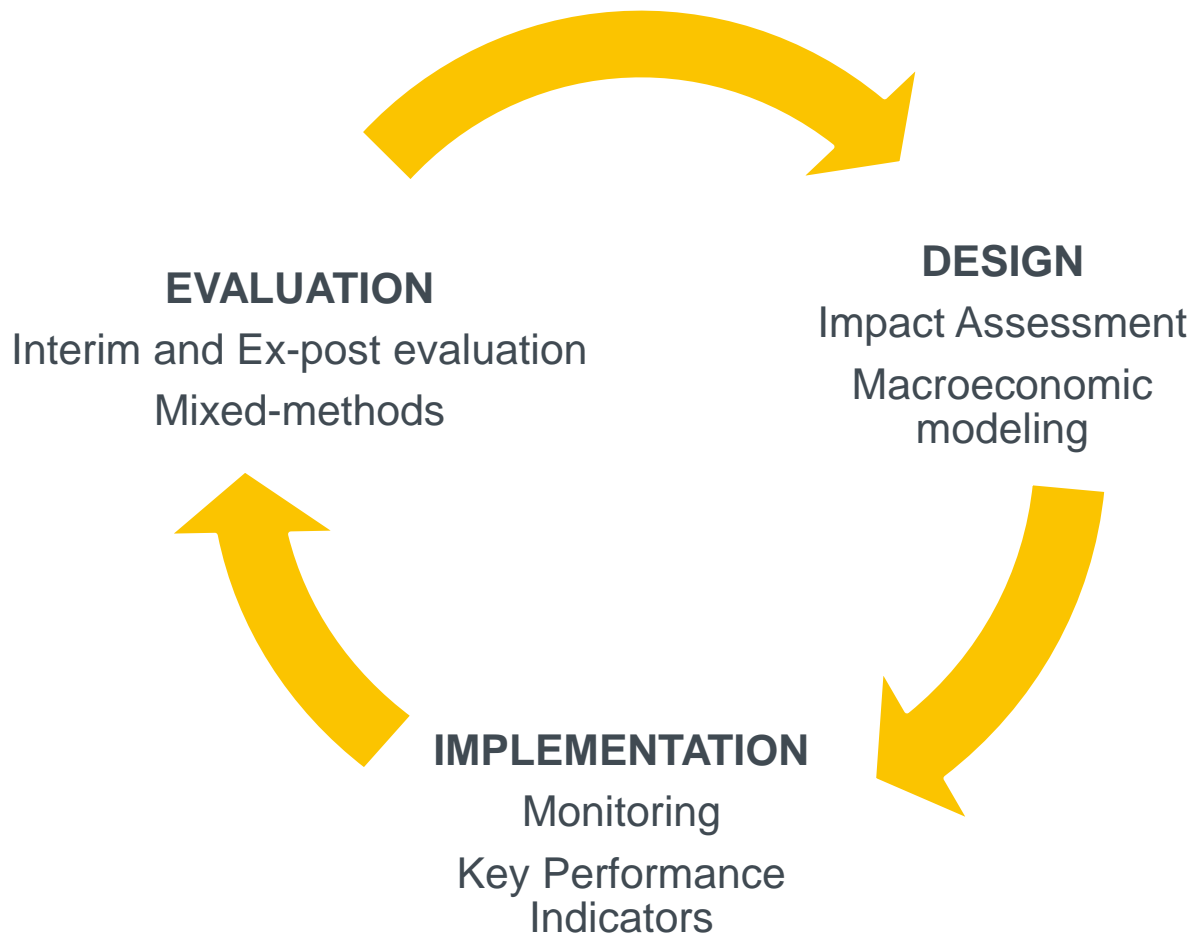


1. INTRODUCTION

- Horizon Europe is **an impact focused programme**
- Aim to **maximize impact** of the Framework Programme incl. through programme design clusters, missions, EIC, rationalised approach to European Partnerships, synergies and efficient implementation
- Need to be able to **demonstrate** and **communicate** the impact
- **Key Impact Pathways** are a novel framework to think about the impact of the Framework Programme. They are a starting point to develop the monitoring for Horizon Europe
- Need to **reconcile** policy needs with methodological challenges

2. POLICY CYCLE

Impact



3. TRACKING IMPACT – ‘PATHS’ PRINCIPLES

- **Proximity** - Knowing who the individual researchers and companies are, for example through unique identifiers such as VAT numbers, researchers IDs, funder ID
- **Attribution** – Microdata collection supporting the identification of control groups for counterfactual analysis
- **Traceability** – Minimised burden on beneficiaries through automatic data harvesting from existing databases; use of additional primary (including qualitative) data sources such as project evaluators and reviewers
- **Holism** - Telling the story of the progress of the Programme as a whole according to the objectives, at any moment in time
- **Stability** - Building on the current systems, piloting evolutions in Horizon 2020

4. TRACKING IMPACT IN HORIZON EUROPE

THREE TYPES OF IMPACT BASED ON OBJECTIVES



Scientific impact

Promote scientific excellence, support the creation and diffusion of high-quality new fundamental and applied knowledge, skills, training and mobility of researchers, attract talent at all levels, and contribute to full engagement of Union's talent pool in actions supported under the Programme.



Societal impact

Generate knowledge, strengthen the impact of R&I in developing, supporting and implementing Union policies, and support the uptake of innovative solutions in industry, notably in SMEs, and society to address global challenges, inter alia the SDGs



Economic impact

Foster all forms of innovation, facilitate technological development, demonstration and knowledge transfer, and strengthen deployment of innovative solutions

5. TRACKING IMPACT IN HORIZON EUROPE

NINE KEY IMPACT PATHWAYS TO TRACK PROGRESS

1. Creating high-quality new knowledge
2. Strengthening human capital in R&I
3. Fostering diffusion of knowledge and Open Science

**Scientific
Impact**



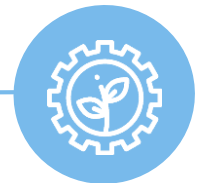
4. Addressing EU policy priorities & global challenges through R&I
5. Delivering benefits & impact via R&I missions
6. Strengthening the uptake of R&I in society

**Societal
Impact**



7. Generating innovation-based growth
8. Creating more and better jobs
9. Leveraging investments in R&I

**Economic/
Technological
Impact**

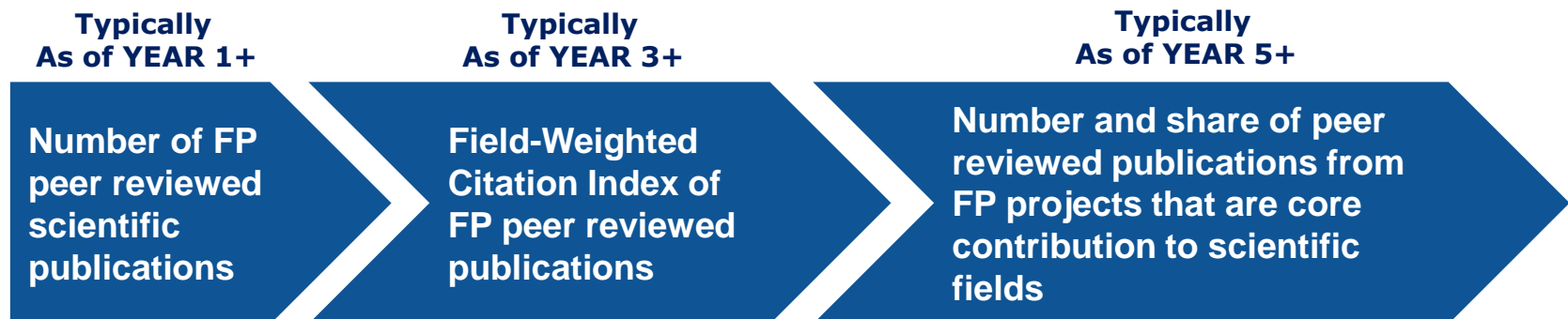


Pathway 1. Creating high quality new knowledge



STORY LINE: The FP creates and diffuses high quality new knowledge, as shown by the high-quality publications that become influential in their field and worldwide.

Indicator (short, medium, long-term)



Data needs: Identification of publications co-funded by the FP through the insertion of a specific funding source ID when publishing, allowing follow-up tracking of the perceived quality and influence through publication databases and topic mapping.

Pathway 4. Addressing EU priorities through R&I



STORY LINE: The FP helps addressing EU policy priorities (including meeting the SDGs) through research and innovation, as shown by the portfolios of projects generating outputs contributing to tackling global challenges.

Indicator (short, medium, long-term)

Typically
As of YEAR 1+

Number and share of outputs aimed at addressing specific EU policy priorities (including SDGs)

Typically
As of YEAR 3+

Number and share of innovations and scientific results addressing specific EU policy priorities (including SDGs)

Typically
As of YEAR 5+

Aggregated estimated effects from use of FP-funded scientific results and innovations on tackling specific EU policy priorities including contribution to the policy and law-making cycle (including SDGs)

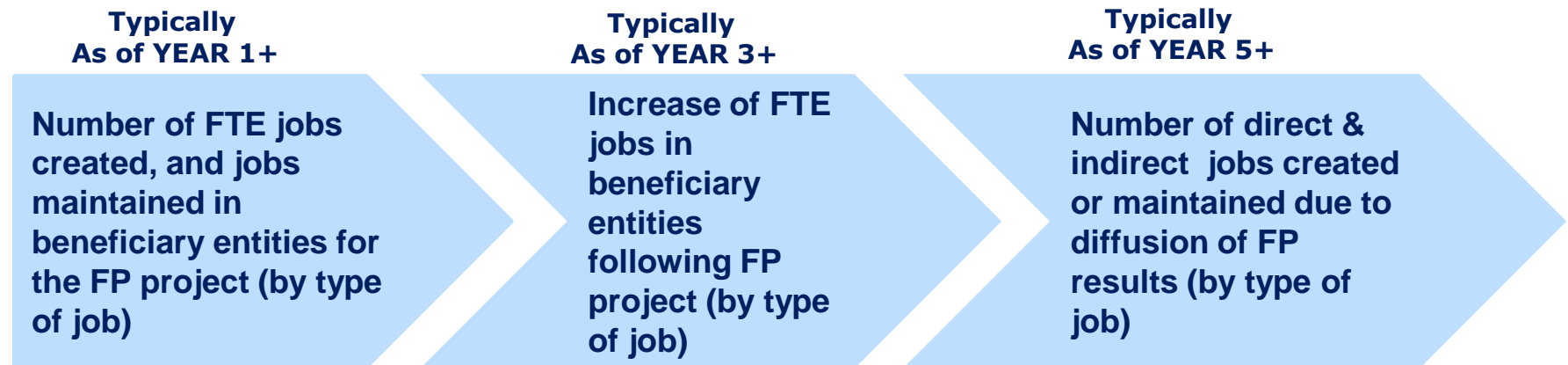
Data needs: Projects classified according to specific EU policy priorities pursued (including SDGs) and follow-up tracking of their outputs, results & impacts. Portfolio analysis on effects from scientific results & innovations in specific EU policy priority/SDGs areas, text mining.

Pathway 7. Creating more & better jobs



STORY LINE: The FP generates more and better jobs, initially in the projects, and then through the exploitation of the results and their diffusion in the economy.

Indicator (short, medium, long-term)



Data needs: Collection of information on individuals involved in FP projects, including their workload (Full Time Equivalent) and job profile allowing follow-up tracking of employment in beneficiary organisations. Longer-term indicator to be estimated based on dedicated study.

6. CONCLUSIONS



Key Impact Pathways novel, ambitious yet pragmatic approach



To better communicate the progress of Horizon Europe towards its objectives



To better capture the progress made on the go, while supporting simplification and data quality



A key element for improving the quality of programme evaluations, and their usefulness for policy learning and policy design



Thank you!

#HorizonEU

<http://ec.europa.eu/horizon-europe>

ANALYSING ON THE GO - MONITORING FLASHES FROM HORIZON 2020 TO HORIZON EUROPE

Monitoring flash reports “From Horizon 2020 to Horizon Europe” are available here:

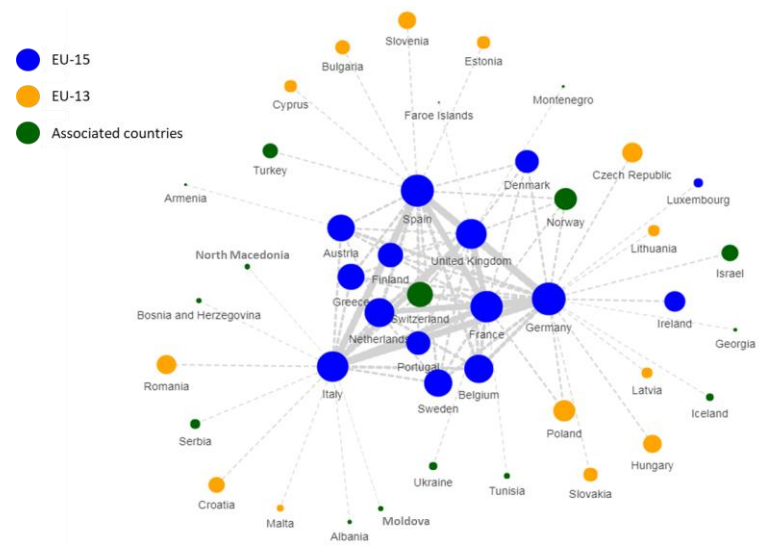
https://ec.europa.eu/info/publications/horizon-2020-monitoring-flash_en

#1 Country Participation

#2 Dynamic Network Analysis

#3 International Cooperation

... To continue



FROM HORIZON 2020 TO HORIZON EUROPE MONITORING FLASH #1.2 COUNTRY PARTICIPATION August 2018

This Monitoring Flash is based on monitoring data of Horizon 2020 – the European Framework Programme for Research and Innovation 2014-2020 – and its predecessor, the Seventh Framework Programme (FP7). Widening participation is monitored regularly as a cross-cutting issue across Horizon 2020. This analysis covers the applications and participations from entities located in the different participating countries for the first 4 years of Horizon 2020 implementation. However, most Horizon 2020 projects are implemented by consortia of partners from different countries, and they generate a European added value that goes beyond each country. This European added value is not captured by looking specifically at the country of origin of the applicants and participants.

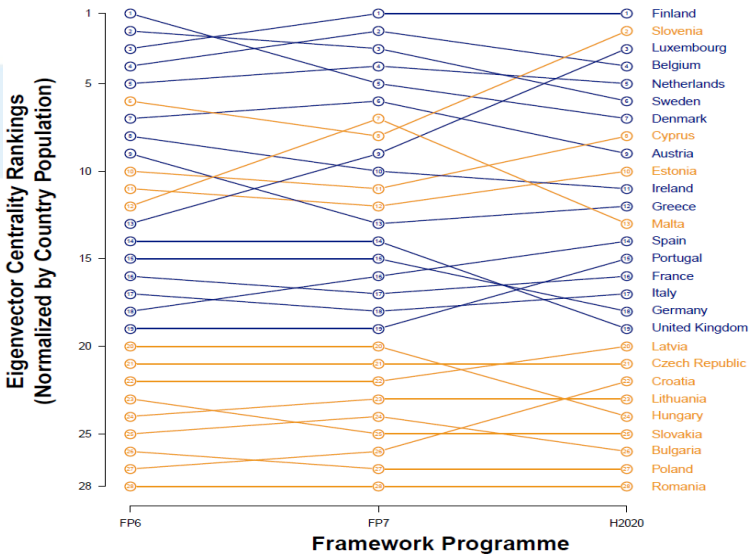
HORIZON 2020 - 4.5 YEARS OF IMPLEMENTATION
Key overview data

€33.1b	19 292	11.9%	88 374	27 355
of EU contributions allocated to signed grants	grants signed from 100 148 proposals	of proposals are successfully	participations in signed grants	distinct participants from 148 countries

COUNTRY PARTICIPATION IN HORIZON 2020
Evolving heterogeneity

- Compared to the previous Framework Programme (FP7) the share of EU funding going to 'EU13' countries has slowly increased from 4.2% to 4.8% in Horizon 2020. This is proportionate to their share in the EU wide investments in research and development (RD) (4.4%). The share of applications from EU13 entities has also slightly increased from 3.6% in FP7 to 3.9% in Horizon 2020 but this remains relatively low compared to their share of the EU's scientists and engineers (17%). There are also indications that an increasing share of Horizon 2020 multi-beneficiary projects are involving at least one EU15 participant, reversing a downward trend observed in FP7.
- Different country groupings conceal noticeable performance differences among Member States and across Horizon 2020 programme parts. Some EU13 countries perform better than some EU15 countries in the 2018 European Innovation Scoreboard, and/or have a relatively high number of applications compared to their population of scientists and engineers. At the same time, some EU15 countries score poorly in the Scoreboard and/or have a relatively low participation in Horizon 2020. Data overall still shows that the more a country invests nationally in its RD capacity, the more funding from the Programme it receives.

EU15 Member States are marked as Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, and Slovenia, whereas EU13 countries are the other 10 Member States of the European Union.



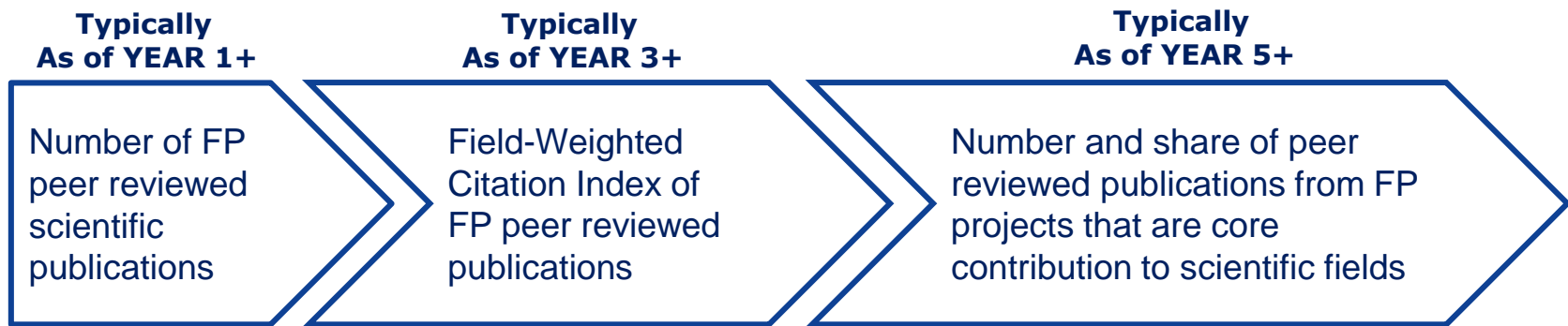
ANNEX

Pathway 1. Creating high quality new knowledge



STORY LINE: The FP creates and diffuses high quality new knowledge, as shown by the high-quality publications that become influential in their field and worldwide

Indicator (short, medium, long-term)



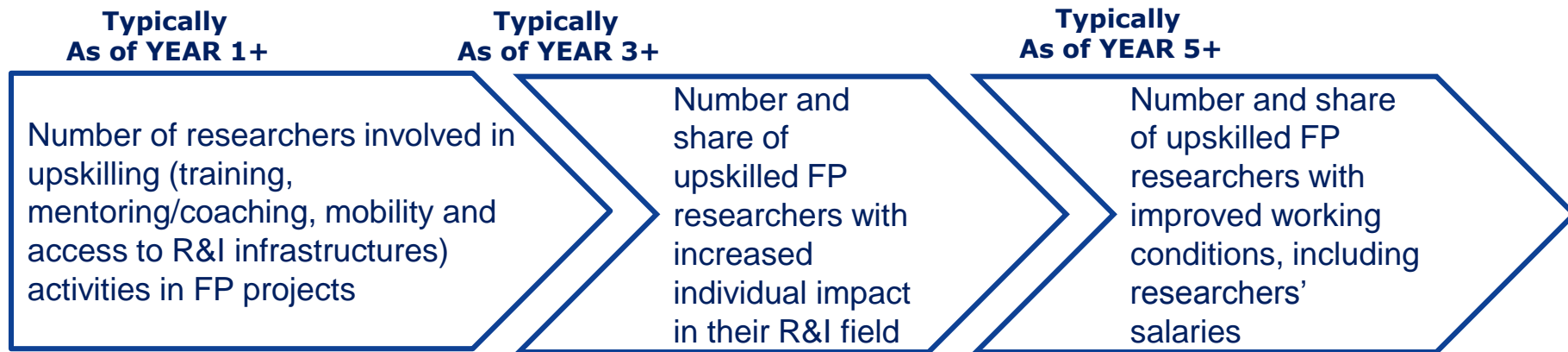
Data needs: identification of publications co-funded by the FP through the insertion of a specific funding source ID when publishing, allowing follow-up tracking of the perceived quality and influence through publication databases and topic mapping.

Pathway 2. Strengthening human capital in R&I



STORY LINE: The FP strengthens human capital, as shown by the improvement in skills, reputation and working conditions of participants

Indicator (short, medium, long-term)



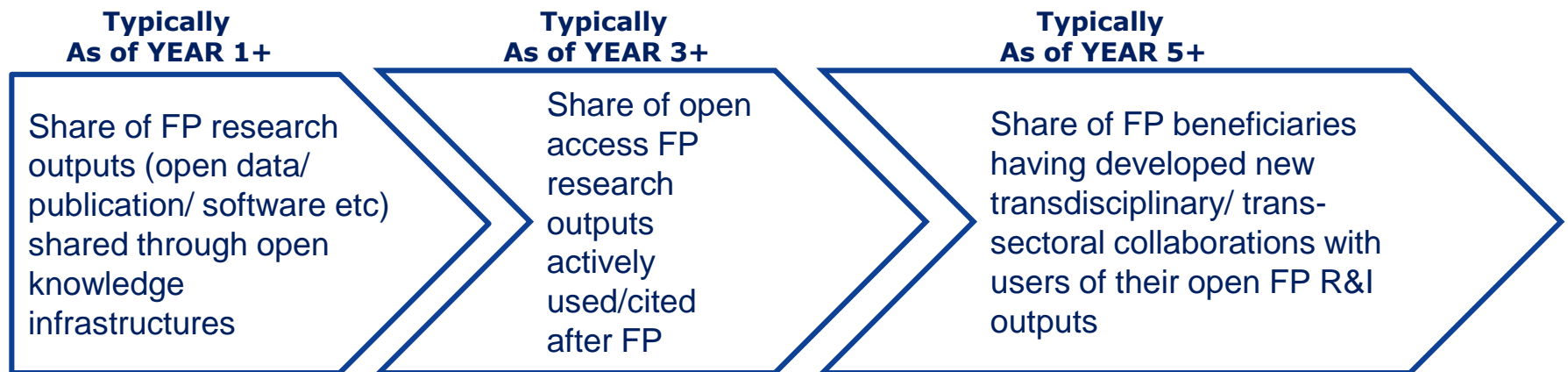
Data needs: collection of unique identifiers of individual applicants to the FP, allowing follow-up tracking of their influence in their field through publication and patent databases, awards and prizes, as well as evolution of working conditions through salary levels and benefits

Pathway 3. Fostering diffusion of knowledge and Open Science



STORY LINE: The FP opens up science, as shown by research outputs shared openly, re-used and at the origin of new transdisciplinary/trans-sectoral collaborations

Indicator (short, medium, long-term)



Data needs: Identification of research outputs (esp. publications & research data) co-funded by the FP through the insertion of a unique identifier for FP funding when publishing or sharing openly (e.g. OA journals/platforms (publications) and open FAIR repositories (data)), allowing follow-up tracking of open access performance in terms of active use/citations and collaborations.

Pathway 4. Addressing EU priorities & global challenges through R&I



STORY LINE: The FP helps addressing EU policy priorities (including meeting the SDGs) through research and innovation, as shown by the portfolios of projects generating outputs contributing to tackling global challenges

Indicator (short, medium, long-term)

Multidimensional:
for each identified
EU priority

Typically
As of YEAR 1+

Number and share of outputs aimed at addressing specific EU policy priorities & global challenges (including SDGs)

Typically
As of YEAR 3+

Number and share of innovations and scientific results addressing specific EU policy priorities & global challenges (including SDGs)

Typically
As of YEAR 5+

Aggregated estimated effects from use of FP-funded results on tackling specific EU policy priorities & global challenges (including SDGs) including contribution to the policy and law-making cycle (such as norms and standards)

Data needs: Projects classified according to specific EU policy priorities pursued (including SDGs) and follow-up tracking of their outputs, results & impacts. Portfolio analysis on effects from scientific results & innovations in specific EU policy priority/SDGs areas, text mining.

Pathway 5. Delivering benefits and impacts through R&I missions



STORY LINE: The FP produces knowledge and innovation that contribute to achieving missions of EU interest.

Multidimensional:
for each identified
mission

▪ Indicator (short, medium, long-term)



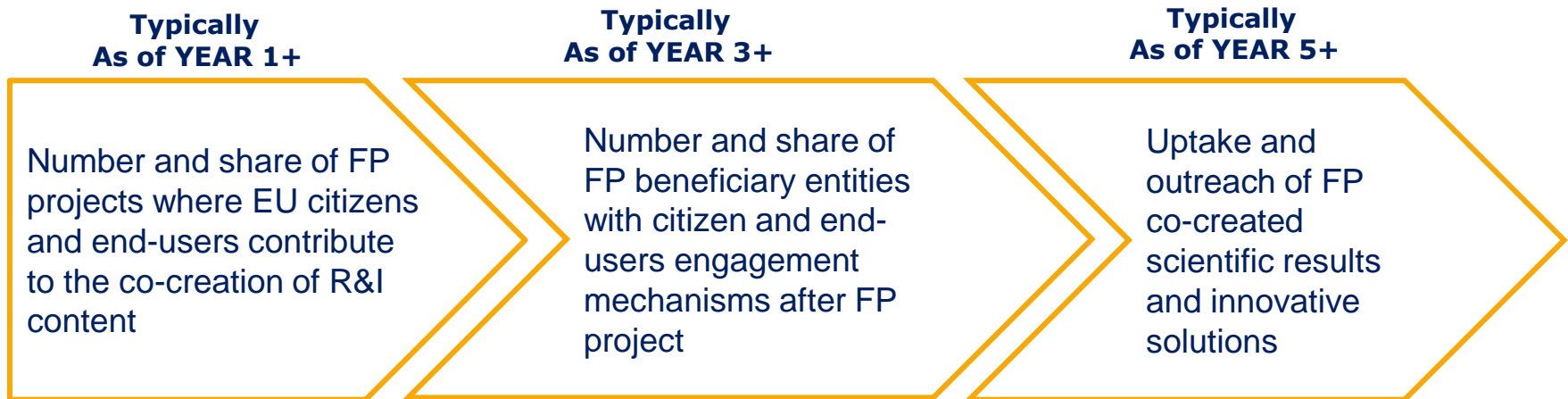
Data needs: Projects classified according to the missions pursued and follow-up tracking of their outputs, results and impacts according to the target set. Portfolio analysis on effects from scientific results & innovations in mission areas.

Pathway 6. Strengthening the uptake of innovation in society



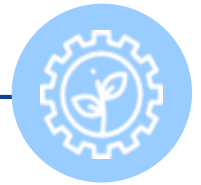
STORY LINE: The FP strengthens the uptake of innovation in society, as shown by the engagement of citizen in the projects and beyond the projects by improved uptake of scientific results and innovative solutions

Indicator (short, medium, long-term)



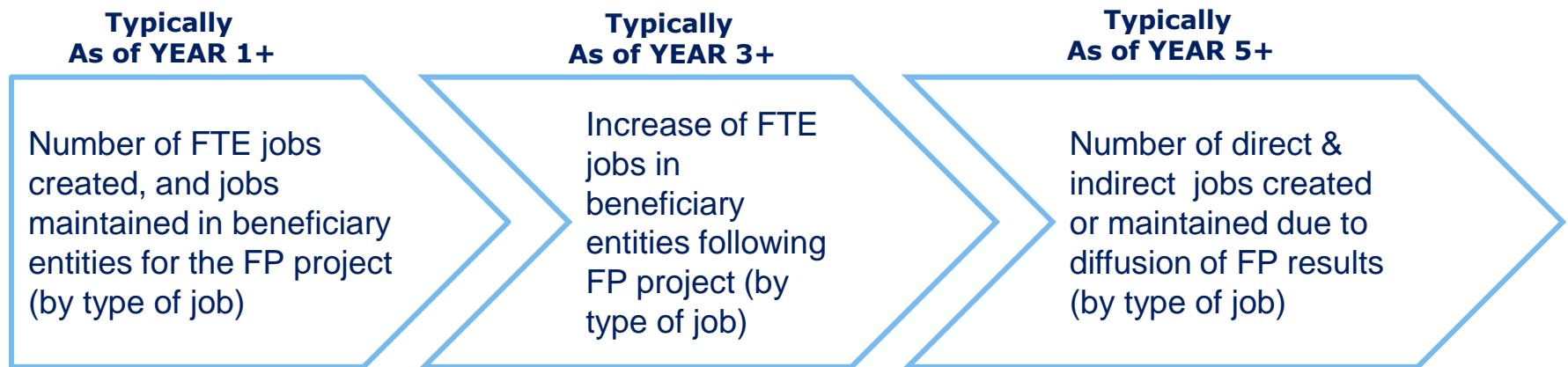
Data needs: Collection of data at proposal stage on the roles of partners (incl. citizen) in the projects, structured survey of beneficiary entities and tracking of uptake and outreach through patents and trademarks and media analysis.

Pathway 7. Creating more & better jobs



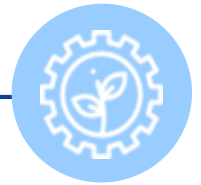
STORY LINE: The FP generates more and better jobs, initially in the projects, and then through the exploitation of the results and their diffusion in the economy

Indicator (short, medium, long-term)



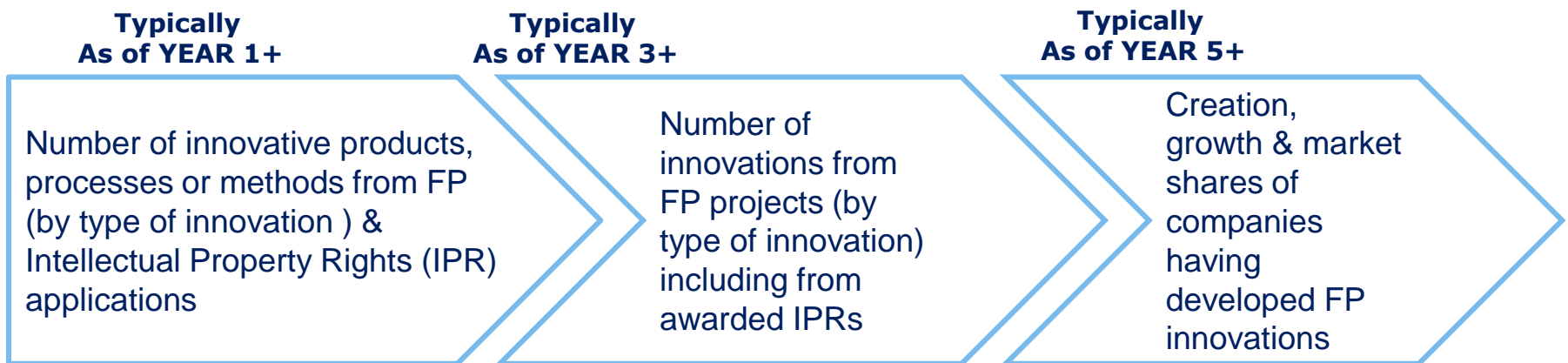
Data needs: Collection of information on individuals involved in FP projects, including their workload (Full Time Equivalent) and job profile allowing follow-up tracking of employment in beneficiary organisations. Longer-term indicator to be estimated based on dedicated study.

Pathway 8. Generating innovation-based growth



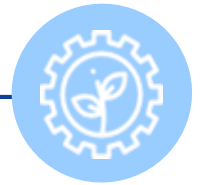
STORY LINE: The FP is a source of economic growth, as shown by the patents and innovations that are launched on the market and generate added value for businesses

Indicator (short, medium, long-term)



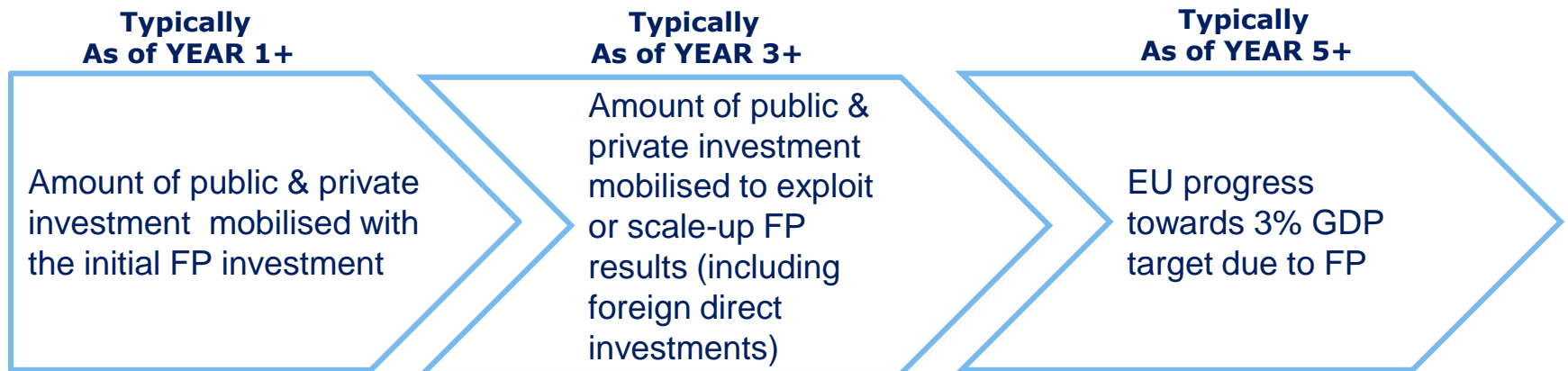
Data needs: Reporting of beneficiaries on innovative products, processes or methods from FP and their practical use, and insertion of a specific funding source ID when filling IPR applications, allowing follow-up tracking of the patents through patent databases & trademarks.

Pathway 9. Leveraging investment in R&I



STORY LINE: The FP is leveraging investments for research and innovation in Europe, initially in the projects, and then to exploit or scale-up their results

▪ Indicator (short, medium, long-term)



Data needs: Data on co-funding in FP projects by source of funds including other EU funds, collection of unique identifiers of applicants to the FP (e.g. VAT), allowing follow-up tracking of their capital. Longer-term indicator to be estimated based on dedicated study.