

# Nanotechnologies, advanced materials, advanced manufacturing and processing

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- [http://ec.europa.eu/research/participants/portal4/desktop/en/funding/reference\\_docs.html#h2020-work-programmes-2018-20](http://ec.europa.eu/research/participants/portal4/desktop/en/funding/reference_docs.html#h2020-work-programmes-2018-20)
  - siehe „5. Introduction to....“ (**LESEN!!!** Pkt. 3, 6 – business case & exploitation)
  - siehe „5.ii. Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing“
- **Call - FOUNDATIONS FOR TOMORROW'S INDUSTRY** - ca. 149 Mio. EUR
  - 23 Jan 2018 (1st stage), 28 Jun 2018 (2nd stage)
- **Call - TRANSFORMING EUROPEAN INDUSTRY** - ca. 162 Mio. EUR
  - 23 Jan 2018 (1st stage), 28 Jun 2018 (2nd stage)
  - 22 Feb 2018, 25 Apr 2018
- **Call - INDUSTRIAL SUSTAINABILITY** - ca. 211,5 Mio. EUR
  - 23 Jan 2018 (1st stage), 28 Jun 2018 (2nd stage)
  - 22 Feb 2018

## 5. Leadership in enabling and industrial technologies – Introduction

### “6. Business cases and exploitation strategies for industrialisation (LEIT-NMBP)”



- The **business case** should demonstrate the **expected impact** of the proposal in terms of **enhanced market opportunities** for European enterprises and innovators and enhanced manufacturing capacities in Europe, and thus **growth and jobs in Europe**, in the short to medium term. It should describe the **targeted market(s)**; estimated market size in Europe and **globally**; user and customer needs; and demonstrate that the solutions will match the market and user needs in a cost-effective manner; and describe the expected **market position and competitive advantage**.
- The **exploitation strategy** should be realistic and identify **obstacles**, requirements and **necessary actions** involved in reaching higher TRLs, such as
  - 1. Improved material/product robustness and reliability;
  - 2. Matching European value chains;
  - 3. Securing an industrial integrator to adapt the new technologies to industrial scale;
  - 4. Availability of large-scale testing, pilot and manufacturing facilities;
  - 5. Standardisation;
  - 6. IPR and technology transfer;
  - 7. Product approval by regulatory and/or relevant international bodies;
  - 8. User acceptance and the needs of industrial users, including SMEs;
  - 9. Sustainability of financing (after the EU funding).

## LESSONS LEARNED FROM INTERIM EVALUATION

- **project results**
  - 75% of the projects intending to develop a new product;
  - 60% a new process;
  - 24% a new service;
  - 4% an organisational or business model innovation.
- **underfunding**
  - In response to this problem, the number of topics in this Work Programme has been significantly reduced compared to previous work programmes (**by more than 40%**), with a corresponding increase in the average funding per topic.

## PILOTING 50% FUNDING

some topics provide for funding at 50% for profit-making entities (instead of the standard 70% rate for Innovation Actions).

# OPEN INNOVATION TEST BEDS 1/2



**Bedarf:** Industrie (inkl. KMUs) brauchen geeignete Einrichtungen (Test Beds), um innovative Ideen zu testen bzw. weiterzuentwickeln

Test Beds bieten **Kompetenzen & Infrastrukturen** an für z.B.:  
Entwicklung, Up-Scaling, Testing, Characterisation, Modelling, Safety,

## **Anforderungen** der Test Beds

- möglichst breiter Industrie-Zugang (inkl. KMU)
- “business case & exploitation strategy”
- bis 5 Jahre nach Förderende soll der Umsatz 4 mal höher sein als die Förderung, d.h. Test Beds sollen langfristig förderunabhängig sein

In 6 Technologiebereichen werden ca. **neue 20 Test Beds** geschaffen

Ziel: Entwicklung **von TRL 4 auf TRL 7**  
3 Topics – ca. 97 Mio EUR

Appropriate disciplines of Social Sciences and Humanities should be included from the outset, **including broader forms of expertise at early stages** of the innovation process, to consider relevant socio-economic, ethical and environmental considerations in the relevant research decisions.

The Open Innovation Test Beds will **help users** including SMEs to:

- **Minimise costs** and **lower technological risks** when adopting new materials and new technologies;
- Tap into relevant competencies and services:
  - like computational modelling;
  - characterisation;
  - risk-benefit assessment to ensure regulatory compliance;
  - and the implementation of standardisation efforts early in the technology development process;
- Gain **access to services** driven by their business needs, such as mentoring, IPR and market analysis.

## 2018 Topics 1/2



- DT-NMBP-01-2018: Open Innovation Test Beds for Lightweight, nano-enabled multifunctional composite materials and components (IA)
- DT-NMBP-02-2018: Open Innovation Test Beds for Safety Testing of Medical Technologies for Health (IA)
- DT-NMBP-07-2018: Open Innovation Test Beds for Characterisation (IA)
- DT-NMBP-09-2018: Accelerating the uptake of materials modelling software (IA)
- NMBP-13-2018: Risk Governance of nanotechnology (RIA)
- NMBP-14-2018: Nanoinformatics: from materials models to predictive toxicology and ecotoxicology (RIA)
- DT-FOF-01-2018: Skills needed for new Manufacturing jobs (CSA)
- DT-FOF-02-2018: Effective Industrial Human-Robot Collaboration (RIA)
- DT-FOF-03-2018: Innovative manufacturing of opto-electrical parts (RIA)
- DT-FOF-04-2018: Pilot lines for metal Additive Manufacturing (IA 50%)
- DT-NMBP-20-2018: A digital 'plug and produce' online equipment platform for manufacturing (IA)
- BIOTEC-01-2018: Standardisation in Synthetic Biology (CSA)
- BIOTEC-03-2018: Synthetic biology to expand diversity of nature's chemical production (RIA)
- CE-BIOTEC-04-2018: New biotechnologies for environmental remediation (RIA)

## 2018 Topics 2/2



- NMBP-22-2018: Osteoarticular tissues regeneration (RIA)
- CE-SPIRE-02-2018: Processing of material feedstock using non-conventional energy sources (IA)
- CE-SPIRE-03-2018: Energy and resource flexibility in highly energy intensive industries (IA 50%)
- CE-SPIRE-10-2018: Efficient recycling processes for plastic containing materials (IA)
- CE-NMBP-24-2018: Catalytic transformation of hydrocarbons (RIA)
- CE-NMBP-26-2018: Smart plastic materials with intrinsic recycling properties by design (RIA)
- LC-NMBP-30-2018: Materials for future highly performant electrified vehicle batteries (RIA)
- NMBP-33-2018: Innovative and affordable solutions for the preventive conservation of cultural heritage (IA)
- LC-EEB-02-2018: Building information modelling adapted to efficient renovation (RIA)
- LC-EEB-06-2018-20: ICT enabled, sustainable and affordable residential building construction, design to end of life (IA 50%)



# Nanotechnologien, Werkstoffe und Produktion / NMP Österreichische Erfolge in weiten Bereichen



FFG

|                                                            | FÖRDERUNG             |                    |                                   |
|------------------------------------------------------------|-----------------------|--------------------|-----------------------------------|
|                                                            | ALLE STAATEN          | ÖSTERREICH         | ANTEIL ÖSTERREICH AN ALLE STAATEN |
| <b>H2020</b>                                               | <b>25.457.896.352</b> | <b>718.174.841</b> | <b>2,8%</b>                       |
| <b>Excellent Science</b>                                   | <b>9.321.964.067</b>  | <b>249.635.170</b> | <b>2,7%</b>                       |
| <b>Industrial Leadership</b>                               | <b>5.331.148.066</b>  | <b>166.527.647</b> | <b>3,1%</b>                       |
| Leadership in enabling and industrial technologies (LEIT)  | 5.218.819.868         | 164.724.345        | 3,2%                              |
| <i>Information and Communication Technologies</i>          | 3.175.560.298         | 104.489.797        | 3,3%                              |
| <i>Nanotechnologies, Advanced Materials and Production</i> | 391.290.611           | 15.207.473         | 3,9%                              |
| <i>Advanced materials</i>                                  | 344.338.653           | 10.120.169         | 2,9%                              |
| <i>Biotechnology</i>                                       | 127.431.891           | 3.656.311          | 2,9%                              |
| <i>Advanced manufacturing and processing</i>               | 834.173.559           | 24.084.748         | 2,9%                              |
| <i>Space</i>                                               | 346.024.854           | 7.165.848          | 2,1%                              |
| Access to risk finance                                     | 8.551.174             | 0                  | 0,0%                              |
| Innovation in SMEs                                         | 103.777.024           | 1.803.302          | 1,7%                              |
| Industrial Leadership - Cross-theme                        | 0                     | 0                  | -                                 |
| <b>Societal Challenges</b>                                 | <b>9.502.008.549</b>  | <b>280.942.288</b> | <b>3,0%</b>                       |
| <b>Spreading excellence and widening participation</b>     | <b>314.188.248</b>    | <b>4.095.442</b>   | <b>1,3%</b>                       |
| <b>Science with and for Society</b>                        | <b>150.637.837</b>    | <b>10.386.427</b>  | <b>6,9%</b>                       |

## Erfahrungen - lessons learnt

- Als **Partner**
  - Hinterfragen Sie die Kompetenz des Koordinator (welche Ressourcen stehen zur Verfügung, Erfahrung, etc.)
- Als **Koordinator**
  - frühzeitiges Trennen von Partnern die keinen oder zu wenig Input liefern
  - Impact schon im wesentlichen durch Projektidee festgelegt = gleich zu Beginn der Projektausarbeitung
- Impact oft nicht mehr Problem, aber **Implementation**
- keine „me too“ Forschung, wirklich „zündende Projektideen“
- **Ziele des Programmes** verstanden? ZB. Säule 2 NMP – Stärkung der Wettbewerbsfähigkeit der Industrie, Jobs, ...=> muss sich auch im Projekt widerspiegeln
- Kommen Sie **JETZT** zur **Beratung** – Diskussion der Projektidee am Anfang kann sehr hilfreich sein

# BEWERBEN SIE SICH ALS EVALUATOR/IN



<http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>

## Vorteile:

- bestes Training wie erfolgreiche Proposals gestaltet sein müssen
- frühzeitige Beobachtung von Sektoren-Entwicklungen
- Mitwirkung am zukünftigen F&E Projektportfolie der Kommission

A screenshot of a web browser showing the 'Experts' page of the European Commission's Research &amp; Innovation Participant Portal. The browser's address bar shows the URL 'ec.europa.eu/research/participants/portal/desktop/en/experts/index.html'. The page features the European Commission logo and the text 'RESEARCH &amp; INNOVATION Participant Portal'. A navigation menu includes 'HOME', 'FUNDING OPPORTUNITIES', 'HOW TO PARTICIPATE', 'EXPERTS' (highlighted with a red circle), and 'SUPPORT'. Below the navigation, there is a 'News' section with a headline about an H2020 call for experts. To the right, there is a 'Experts' section with a 'H2020 ONLINE MANUAL' button and a description of the expert database. Further down, there are sections for 'New experts', 'Who can be an expert?', and 'What do expert assignments involve?'. A 'REGISTER AS EXPERT' button is visible at the bottom of the page. The browser's taskbar shows several open tabs, including 'Die Österreichische Forsch...', 'Horizon 2020: Das EU-Pro...', 'Experts - Research Part...', and 'Calls For Proposals'.

## Wichtige „www-Links“

### **Participant Portal**

<http://ec.europa.eu/research/participants/portal>

### **Experts / EvaluatorInnen**

<http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>

### **Österreichische Ergebnisse im H2020**

<https://eupm-portal.ffg.at/ui/login/>

### **FFG H2020 Website**

<https://www.ffg.at/Europa/Horizon2020>

### **RP7, H2020 geförderte Projekte**

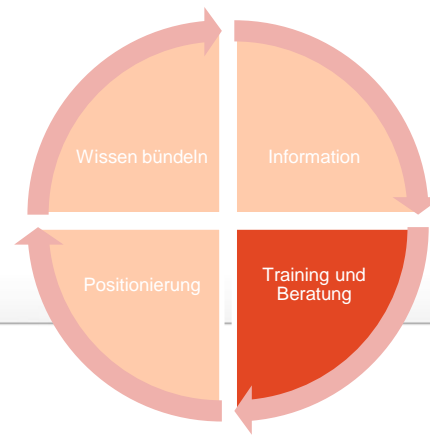
[http://cordis.europa.eu/projects/home\\_en.html](http://cordis.europa.eu/projects/home_en.html)

mit Stichwortsuche

### **ERA Portal Austria**

<http://www.era.gv.at/>

# TRAINING UND BERATUNG



## Unser Angebot

- Einstiegscheck für Projektideen
- individuelle Beratungen
- Proposalcheck (Fokus KoordinatorInnen)
- Trainings und Webinare der FFG-Akademie



## Praxisnahe Trainings

### Antragstellung

- **Kollaborative Projekte:** => 2018
- Eureka/Eurostars: => 2018
- MSCA: Fellowships und Innovative Training Networks (ITN) => 2018
- ERC Starting und Advanced Grants =>2018
- KMU Instrument => 2018

**Projektmanagement:** => 2018

## kompakte Webinare

### Aufgezeichnete Webinare zum Nachhören ! – z.B.

- Kommunikation und Verbreitung
- Ethische Aspekte im Antrag
- Standardisierung in H2020-Projekten
- Kurzantrag 1. Stufe
- Gender
- .....

<https://www.ffg.at/services/ffg-akademie>