

# Promoting innovations for excellent VET - InnoVET programmes

**POLICY DEVELOPMENT****PRACTICAL MEASURE/INITIATIVE** GERMANY

## Timeline

**2019 Implementation****2020 Implementation****2021 Implementation****2022 Implementation****2023 Implementation****2024 Implementation****ID number 28127**

## Background

The effects of digitalisation, decarbonisation and demographic development can be felt in all areas of society. In order to make the labour and training market fit for the future and to maintain Germany's economic competitiveness, transformation processes are also required in vocational education and training (VET) to ensure the qualification of excellent skilled workers.

Companies should be enabled to cover their demand for skilled workers with adequate offers and be given the opportunity to recruit highly qualified employees through the promotion of excellence within the framework of higher-qualification VET. Trainees, skilled workers, companies as well as other places of learning and their training staff should be strengthened to shape technological and ecological change and to make even better use of their potential.

## Objectives

The goals of InnoVET are to increase the attractiveness, quality and equivalence of VET as well as to initiate new learning location collaborations.

## Description

In January 2019, the Federal Ministry of Education and Research (BMBF) launched the project Shaping the future - innovations for excellent vocational training (InnoVET) and ran the first call. It invited projects targeted at increasing the attractiveness, quality and equivalence of VET through innovation and excellence, with a focus on higher VET.

Proposals were expected to put emphasis on:

- (a) innovative training, especially above DQR level 5, geared to the needs of companies and providing incentives for young people to enter vocational training;
- (b) cooperation on the transfer of knowledge and innovation from universities and research institutions to company practice, especially SMEs, via VET and 'innovation clusters';
- (c) early adoption of innovations (such as artificial intelligence) and development of

corresponding qualification concepts in VET.

The programme monitoring committee involves social partners, Federal State representatives and scientific experts. BIBB is implementing the InnoVET programmes on behalf of the BMBF.

### **2019 Implementation**

Following the first call in January 2019, a jury of 10 experts from schools, universities, vocational training centres and companies selected 30 projects out of 176 applications that, for 6 months starting August 2019, were to prepare their ideas for a comprehensive funding application and submit it. The jury will then select the most convincing concepts to be implemented and tested from 2020 to 2024. The BMBF is providing a total of EUR 82 million for the projects.

### **2020 Implementation**

In spring 2020, 17 collaborative projects (with a total of 89 partners) were selected for the testing and implementation phase. The projects started from autumn 2020 and have a maximum duration of 48 months. At the end of the funding period, the project results should be able to be mainstreamed in the VET system. The transfer of knowledge and results is of particular importance.

The spectrum of ideas in the collaborative projects ranges from new educational concepts to Industry 4.0, electro-mobility, smart home systems and new micro-technologies. Projects selected include:

- (a) the BM=x<sup>3</sup> project plans to develop and test a decentralised supra-regional vocational training academy for the high-technology sector with micro- and nanotechnology (MNT) occupations;
- (b) the Excellence skilled crafts project pursues the goal of a new flexible and hybrid education model to interlink vocational and academic education and training with the topics of energy, electronics, IT and the current developments around smart living and smart home;
- (c) the tQM project Quality assurance of hybrid training programmes focuses on the implementation of study-integrated training.

### **2021 Implementation**

In 2021, the 17 selected projects continued their work. Two examples are:

- (a) the SiA-NRW project, which is testing the study-integrated training model for the first time at three locations in North Rhine-Westphalia in the 2021/22 training year. In a basic stage of up to 18 months, the apprentices go through essential parts of dual training, and in addition they are taught subject-related study content at a university. They gain experience in both areas - accompanied by vocational and career coaching - and check their interests and aptitudes to see which education and career path is right for them. After the basic level, the trainees decide either to complete the dual vocational training or a degree (Bachelor) or the double degree.
- (b) the Zert-Ex degrees project aims to strengthen a key skill of future managers: their courage to innovate. The project wants to inspire this courage to innovate in digitalisation in as many junior managers in SMEs as possible. The first Zert-Ex courses have been running at some chambers since October 2021.

### **2022 Implementation**

In 2022 all the projects continued their work. Two examples:

- (a) the overall goal of the project ProNet Handwerk is to increase professionalisation and networking in the skilled crafts sector. One activity is to digitalise

examinations. The project wants to streamline, make more efficient and simplify the examination process nationwide and offers all skilled crafts the opportunity to gradually switch to digital examination. Examiners and examinees alike are to benefit from this. In June and July 2022, ProNet Handwerk successfully tested the software at the Düsseldorf and Dortmund Chambers of Skilled Crafts in written and oral-practical test examinations. The tools for tablet-based examinations are expected to be available to the members of the ZWH and thus to all chambers of skilled crafts in Germany as well as other interested skilled crafts organisations from the end of 2023;

(b) young people need to try out occupations practically, touch them, experience them, to discover them for themselves. This is what the ABBO (Alliance for VET - *Allianz für berufliche Bildung*) project makes possible with 'early education' as an intensified form of career orientation. It interlinks vocational orientation and vocational training in the region of Eastern Bavaria with the aim of transferring the results to the whole of Germany.

Over the course of the entire school year 2022/23, it offers participants from secondary schools, intermediate schools and grammar schools insights into metal and electrical professions ranging from product design to 3D printing, laser technology or water jet cutting to process technology. Through this, the ABBO team shows young people why dual training can be a strong alternative to university studies, highlights the attractiveness of apprenticeships and further develops career guidance with the practice-oriented, long-term format.

## 2023 Implementation

The 17 InnoVET joint projects (period 2019-24; funding: EUR 70.8 million) continued to develop and test new qualification concepts, new forms of cooperation between learning venues and new digital implementation concepts in 2023. The spectrum ranges from areas of application in Industry 4.0, electromobility and microelectronics to the introduction of study-integrated training programmes. Two examples:

1. BexElektro - Vocational training excellence in electromobility: A modular training concept with qualification programmes at DQR levels 3 to 7 provides electrical engineering specialists with up-to-date learning content on the topic of electromobility.
2. BBChemie - Needs-orientated educational pathways in chemistry: New educational pathways are opened up for both low-achieving and high-achieving applicants, and training specialists learn how to deal with different types of learners.

In accordance with the coalition agreement between the governing parties for the 20th legislative period, the InnoVET PLUS federal competition was published in 2023 as part of the Excellence of VET Initiative. By 31 August 2023, 128 funding concepts had been submitted. The new competition addresses the ever-shorter development cycles and the associated skills and qualification requirements in the areas of digitalisation, ecological and technological transformation. The aim is to expand the excellent level of vocational training and ensure its integration capability.

## 2024 Implementation

With the InnoVET PLUS innovation competition, the BMBF is providing funding for the development and testing of concepts for excellent vocational training (period 2024-28; funding: up to EUR 80 million). InnoVET PLUS aims to increase the attractiveness and quality of VET, create career paths for young people with different educational backgrounds and contribute to securing skilled labour.

The new projects of the InnoVET PLUS federal competition started in July and August 2024 and will be presented at the InnoVET conference on 6 November 2024 in Berlin. Two examples:

1. H2K - Hydrogen Competence Centre Bruchsal - A laboratory-scale hydrogen power plant with a digital twin and an innovative learning concept make apprentices and trainees fit for the future technology of hydrogen;

2. HeldenEn - Heroes of the energy transition - The climate protection trades in the Osnabrück region attract, qualify and retain skilled workers with a holistic approach: from career guidance to further training and advice for companies.

## Bodies responsible

- Federal Ministry of Education and Research (BMBF)
- Federal Institute for Vocational Education and Training (BIBB)

## Target group

### Learners

Learners in upper secondary, including apprentices  
Adult learners

### Entities providing VET

Companies  
Small and medium-sized enterprises (SMEs)  
VET providers (all kinds)

## Thematic categories

### Governance of VET and lifelong learning

Coordinating VET and other policies  
Further developing national quality assurance systems

### Modernising VET offer and delivery

Expanding VET programmes to EQF levels 5-8  
Integrating green transition and sustainability in VET curricula and programmes  
Integrating digital skills and competences in VET curricula and programmes  
Reinforcing work-based learning, including apprenticeships

### Supporting lifelong learning culture and increasing participation

Promotion strategies and campaigns for VET and lifelong learning

## European priorities in VET

### VET Recommendation

VET agile in adapting to labour market challenges

VET as a driver for innovation and growth preparing for digital and green transitions and occupations in high demand

VET as an attractive choice based on modern and digitalised provision of training and skills

VET underpinned by a culture of quality assurance

## Osnabrück Declaration

Resilience and excellence through quality, inclusive and flexible VET

## Subsystem

IVET CVET

## Further reading

[InnoVET website \(BMBF\)](#)

[Information on InnoVET \(BIBB website\)](#)

[BM=x<sup>3</sup> - Attractive vocational training in micro- and nanotechnology through excellent professions, learning locations and cooperation&Irm; \(in German only\)](#)

[Excellence Craft - Innovative Excellence Qualification Craft DQR 4-7 \[Exzellenz Handwerk - Innovative Exzellenzqualifikation Handwerk DQR 4-7&Irm;\] \(in German only&Irm;\)](#)

[tQM project Quality assurance of hybrid training programmes \[tQM - Qualitätssicherung hybrider Ausbildungsangebote\] \(in German only\)](#)

[The ProNet Handwerk \(2022\)](#)

[The project ABBO \(2022\)](#)

[List of InnoVET PLUS projects \(2024\)](#)

## Related policy developments

### 2024 Implementation

#### The Excellence Initiative for VET

With the Excellence Initiative for VET policy projects are combined into an overarching agenda. Individual activities will be launched successively during 2022 to 2026. Over EUR 750 million have been earmarked for this purpose.



#### Type of development

Strategy/Action plan

#### Subsystem

IVET CVET

### 2024 Completed

#### Digital media and innovative technology in VET

The web portal, Digital media in VET, has provided information since 2015 on the use of

digital media in VET and selected project findings.

**Type of development**

Practical  
measure/Initiative

**Subsystem**

IVET CVET

**2024 Implementation****Alliance for initial and further training**

The 2015-18 Alliance for initial and further training was agreed between the Federal Government, Federal States, business and industry, the unions and the Federal Employment Agency at the end of 2014.

**Type of development**

Strategy/Action  
plan

**Subsystem**

IVET CVET

**2024 Implementation****National Skills Strategy**

In November 2018, the Federal Ministry of Labour and Social Affairs (BMAS) and the Federal Ministry of Education and Research (BMBF) launched a committee to develop a National continuing education strategy (*Nationale Weiterbildungsstrategie*).

**Type of development**

Strategy/Action  
plan

**Subsystem**

CVET

**2021 Completed****Pact for vocational training**

The Pact for VET (*Der Berufsbildungspakt*) includes the following measures, partly addressing work-based learning:



**Type of development**

Strategy/Action  
plan

**Subsystem**

IVET CVET

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**“ ... ” Cite as**

Cedefop, & ReferNet. (2025). Promoting innovations for excellent VET - InnoVET programmes: Germany. In Cedefop, & ReferNet. (2025). *Timeline of VET policies in Europe* (2024 update) [Online tool].

<https://www.cedefop.europa.eu/en/tools/timeline-vet-policies-europe/search/28127>