

Cluster initiatives in Germany – common activities, organisational and financing models

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Berlin/Minsk, May 2020

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1. Introduction

Building upon previous trainings and support measures within the EU-Belarus Private Sector Development Programme, the Development Bank of the Republic of Belarus – in close cooperation with further stakeholders – is assessing options for leveraging the cluster approach to strengthen the innovation ecosystem

- To support this process, this Policy Briefing **reviews relevant experience** in the area of cluster development in **Germany as well as further EU member states**
- Around the globe, clusters are regarded as an important driver for innovation and entrepreneurship, industrial development and investment attraction
- Clusters are geographical concentrations of interconnected companies and institutions focusing on related value chains
- The **main focus** of this briefing is **on cluster management organisations** that facilitate collaborative innovation-oriented activities at the cluster level and play a critical role for the success of development programmes
- To illustrate the options for designing their portfolio of activities, organisational and financing models, **good-practice examples** are provided in the annex

2. Cluster landscape in Germany

Germany belongs to the countries that pioneered cluster policy and introduced the first cluster development programmes approximately 25 years ago

- Since the mid-1990s, a broad range of funding schemes – often based on competitions – has been initiated (e.g. Bio Regio Competition in 1995, Leading-Edge Cluster Competition in 2007 and Go-Cluster Initiative in 2012)
- In addition, dedicated information platforms and complementary innovation-related support programmes were introduced
- According to the “Clusterplattform Deutschland”, **435 cluster initiatives are active** in Germany covering **37 technology / application areas** with a particular focus on:

- Production technology
- Clean technologies
- Automotive
- Health care / life sciences
- ICT / digital integration
- Transport technology / logistics

Clusterplattform Deutschland

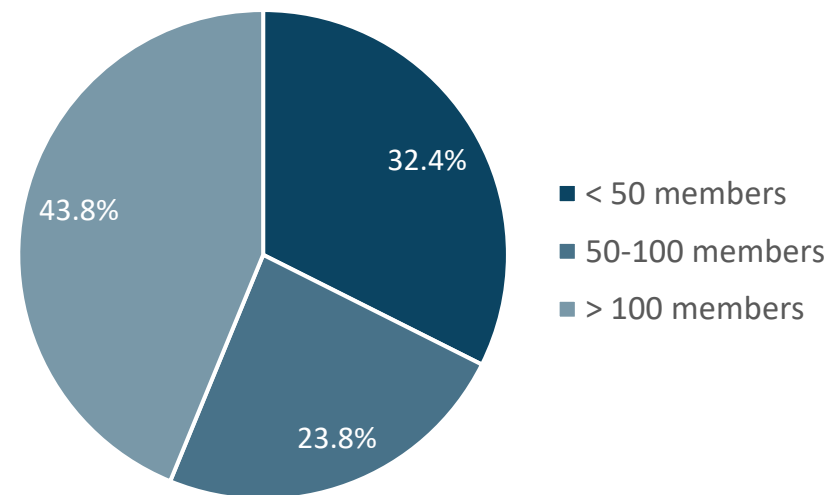


Cluster landscape in Germany

The size of clusters in Germany varies between different industries and regions

- On average, cluster initiatives in Germany **comprise 125 members**. However, about a third of German cluster initiatives has less than 50 members
 - In knowledge-intensive areas (such as bio- or nanotechnology), clusters tend to be smaller, as the specific expertise of the businesses and institutes play a major role
 - Clusters in “traditional” manufacturing industries tend to be larger (e.g. automotive or food industry)
- Experience shows, that a cluster initiative needs to attract **at least 25 members** in order to be viable
- Most cluster initiatives cover a **geographic radius of 150 km** around their nucleus / cluster management
- This corresponds to a **two hours driving distance**

Number of members in German cluster initiatives



Source: Institut für Innovation und Technik

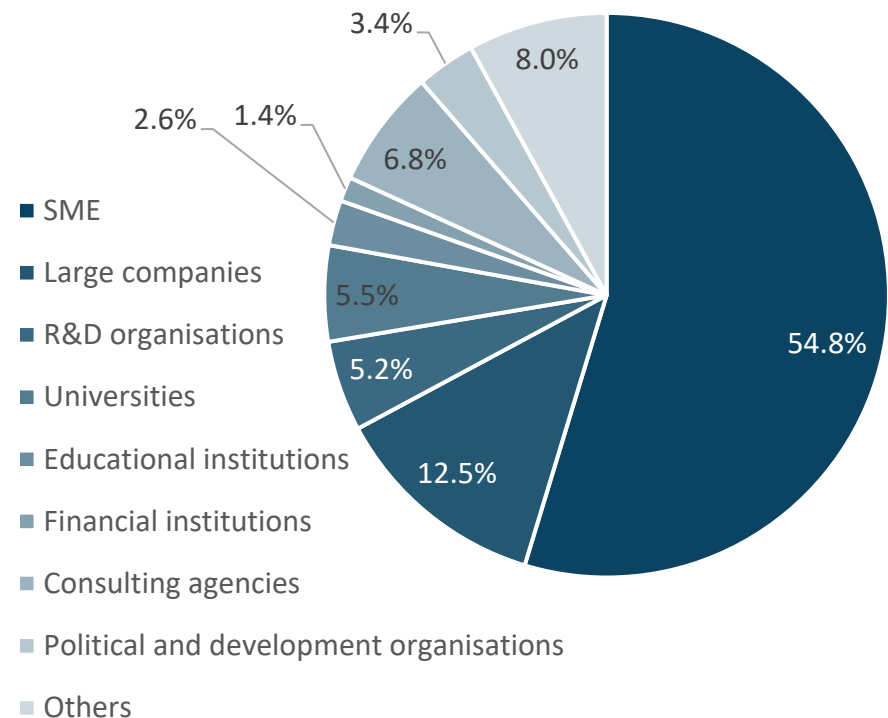
Cluster landscape in Germany

Small- and medium-sized enterprises play an important role in cluster initiatives in Germany making an important contribution to innovation dynamics

- On average, **SMEs account for 55 % of cluster members**
- Within the cluster landscape, the share of SMEs varies between 12 % and 92 %
- Experience shows that a ...
 - **balanced mix of SMEs and large anchor companies**
 - **complemented by specialised service and training providers**
 - **as well as academic and research institutions**

provides a sound basis for cluster development efforts

Composition of members in cluster initiatives in Germany



Source: Institut für Innovation und Technik

3. Main activities of cluster management organisations

At the regional level, cluster development is typically driven by cluster management organisations facilitating cooperation-based innovation processes through a needs-oriented portfolio of activities and services

The portfolio of activities and services of German cluster management organisations comprises, amongst others:

Information and cooperation platforms

Networking events, dissemination of technology-/ market-related information, newsletters etc.

Innovation and start-up support

Initiating collaborative innovation projects, laboratory and testing services, accelerator programmes etc.

Business development

Trade fair visits, matchmaking, twinning with clusters abroad, supplier development programmes etc.

Specialised infrastructure projects

Initiating incubators, science parks, test and training centres, IT / logistics infrastructure etc.

Skills development

Tailored training and talent retention programmes, job fairs, joint development of study courses etc.

Cluster marketing

Publications, online and event marketing to raise awareness of the cluster and its members etc.

Main activities of cluster management organisations

Cluster management organisations design the portfolio of activities and services based on stakeholder consultations reflecting the specific industry context

- Initiatives in **technology-oriented areas** tend to place strong emphasis on **innovation and start-up support** – as shown in the example on the right
- In “**traditional**” industries, such as food, a **broader focus** prevails comprising more general matchmaking, business and skills development services

Services of Odense Robotics (Denmark)

Start-up support

- Odense Robotics Start-up Hub (incubator with testing facilities and mentoring)

Innovation support

- Industry 4.0 readiness mapping for SME
- Co-funding for innovation projects
- Digitalisation support programme
- Matchmaking services

Business development

- Support for supply chain management (e.g. supplier directory, seminars, upgrading)

Skills development and recruiting

- Training programmes
- Recruitment database and services

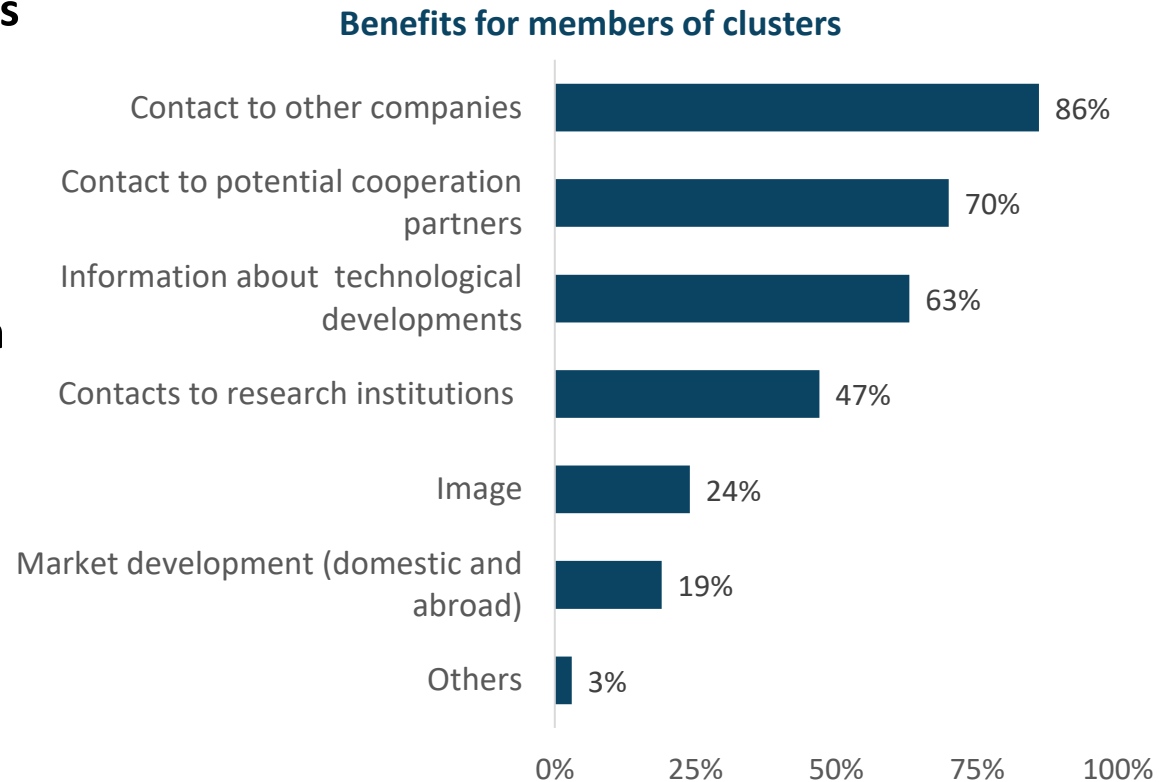
Information and cooperation platforms

- Networking groups
- Events

Main activities of cluster management organisations

Clusters are based on the principle of **coopetition**. They are driven by the **co-existence of cooperation and competition between members**

- As confirmed by surveys, defining characteristics of clusters include **shared interests and a willingness to cooperate** between members
- **Access to contact networks and relevant information** constitute key benefits
- More recently, clusters are playing an important role in **internationalisation processes**
- Furthermore, they provide a platform **facilitating cooperation between start-ups and established companies**



Source: IHK-Survey 2015 „Technologiepolitik in Baden-Württemberg“

4. Organisational and financing models

Typically, cluster initiatives are organised in the form of an association. Often, the cluster management is hosted by an existing organisation

- The **legal form reflects the strategic focus** of a cluster initiative, e.g. the role of commercial activities and the openness to new members
- In most cases, the form of an **association** is selected which is flexible regarding the integration of new members
- **Private limited companies** are used as an alternative – in particular when commercial activities play a strong role and the membership is rather fixed
- Some clusters – in particular large structures – use **hybrid models** combining private limited companies and associations (e.g. it's OWL – as shown in the annex)
- It is **common practice that existing organisations** – such as development agencies – **host the cluster management** (e.g. Odense Robotics – as shown in the annex)
- This way, synergies can be generated and the cluster management has access to the expertise and contact networks of the host organisation

Organisational and financing models

In addition to membership-based models, open – often top-down – approaches which offer services to all local companies in a specific industry are also used

- For example, the “Cluster Metal” is one of the defined clusters in the innovation strategy of the Federal State of Brandenburg (see annex for further information)
- The **development agency** of the Federal State has taken over the management of the “Cluster Metal” as well as of further defined clusters
- Metal companies can benefit from **free cluster services without a formal membership**
- This model allows a consistent approach generating **synergies at the interface between different clusters** (cross-clustering)
- However, this model comes with **the risk of a lack of motivation and cooperation dynamics** when cluster development is not driven (bottom-up) by the members

Innovation Strategy of the Federal State of Brandenburg



innoBB 2025 plus

Regionale Innovationsstrategie
des Landes Brandenburg

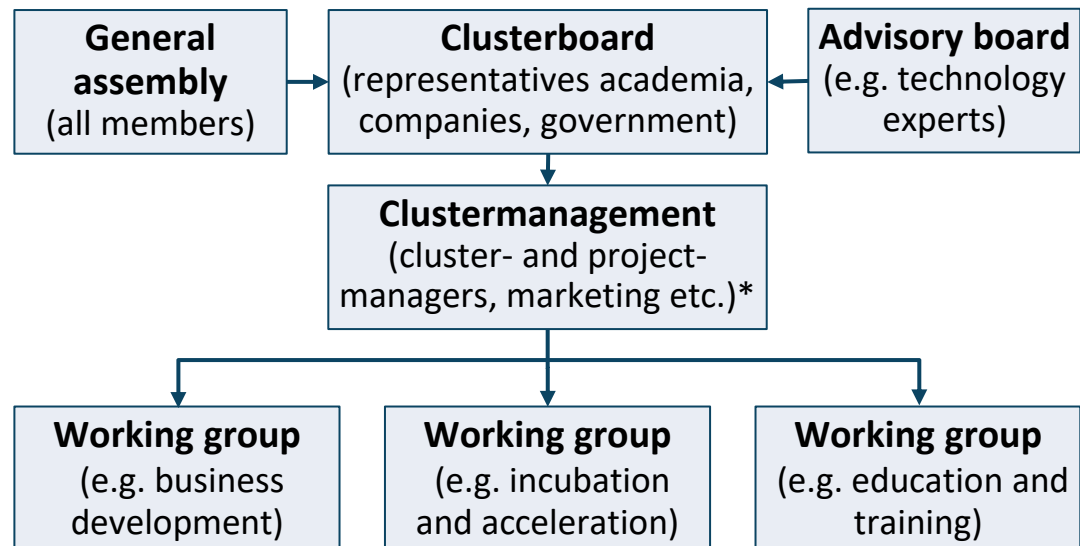
mwe.brandenburg.de

Organisational and financing models

Regional cluster management organisations integrate key stakeholders and their competencies

- The **operative cluster management** is often complemented by a **clusterboard** with representatives from business, government, research and education
- Depending upon the strategic focus, some models also comprise **advisory boards with technology experts**
- **Working groups** are considered to be an important tool to...
 - involve members
 - stimulate cooperation
 - **initiate concrete projects and activities**

Typical structure of cluster management organisations in Germany



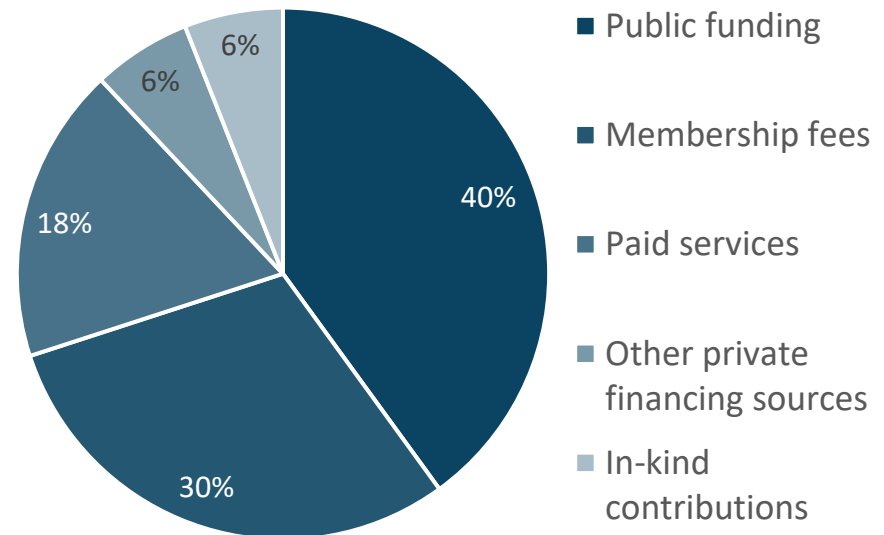
* On average, cluster management organisations in Germany have 4 full-time employees (1 FTE / 22 cluster members)

Organisational and financing models

Financing models of German cluster initiatives usually combine different funding sources. In particular public funding and membership fees play an important role

- **Public funding** is provided at **the federal and state level** in Germany. In addition, funding from **EU programmes and projects** is often integrated
- In many cases, **the initial cluster development phase is mostly financed by public funding**, while later on, income can be increasingly generated from membership fees and paid services
- In the eastern part of Germany, cluster initiatives rely more strongly on public funding
- In the western part, financing models place more emphasis on membership fees and paid services, e.g. ...
 - training / recruitment services
 - trade fair visits
 - e-commerce platforms

Financing models in Germany



Source: Institut für Innovation und Technik

Organisational and financing models

As shown in the example below, membership fees usually reflect the size and type of an organisation joining the cluster initiative

Membership fees of the cluster “it’s OWL” in Germany

	Category	Annual fee (in €)
Core companies	Turnover < € 25 million	9,375
	Turnover < € 250 million	14,062
	Turnover > € 250 million	18,750
Universities and research institutes	Universities	30,000
	Technical colleges	9,375
	Research institutes	4,687
Chambers and business associations	Chambers of commerce and industry	10,000
	Other business associations and organisations	2,500
Supporting members and sponsors	Companies outside the region	2,500
	Further supporters / sponsors	5,000

Source: it’s OWL

5. Lessons learned

International experience shows that the cluster approach can make an important contribution towards strengthening competitiveness. However, certain preconditions have to be met

- As confirmed by international experience, **clusters cannot be created from scratch** and **not every concentration can be developed into a cluster**
- Certain preconditions have to be met which relate in particular to the structural characteristics of the specific (emerging) clusters as well as to the general framework conditions for cluster development in a country or region
- With respect to **cluster-specific preconditions**, (emerging) clusters need a...
 - significant **innovation, internationalisation and employment creation potential**
 - **critical mass and sufficient concentration** of players with related activities and interests to generate synergies and spill-over effects
 - **balanced mix** of SMEs and large anchor companies complemented by specialised service and training providers as well as academic and research institutions

Lessons learned

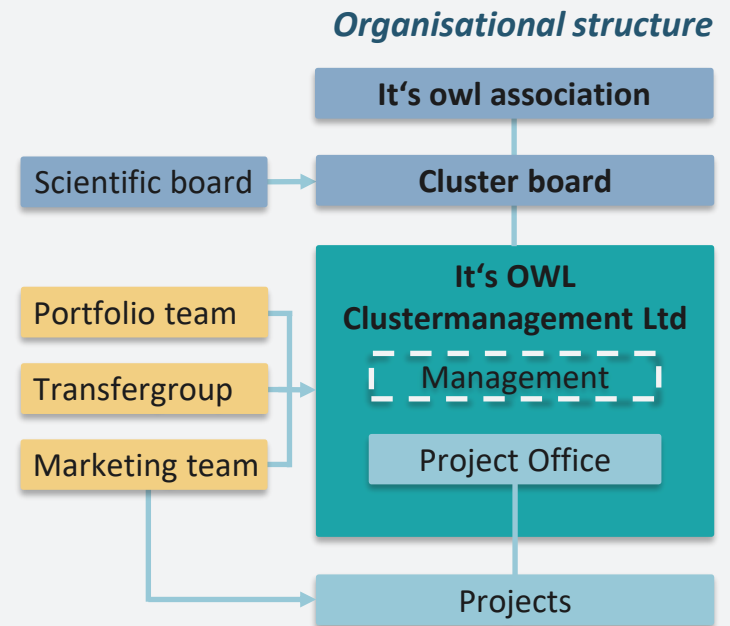
However, certain preconditions have to be met (cont.)

- Furthermore, a number of **general framework conditions** play a critical role for the success of cluster development programmes:
 - Cluster development requires an **integrated approach** aligning related policies and programmes and ensuring effective intragovernmental coordination
 - **Strong linkages** between the government, academia and businesses represent another key success factor. Trust needs to be built between those partners
 - It is also important that all players have a sufficient **understanding of the rationale of the cluster approach** and the underlying division of roles
- Against this backdrop, a **phased approach has proven successful**, comprising e.g.:
 - **Pre-cluster phase** focusing on establishing the analytical base for policy decisions and improving the environment for cluster development
 - **Pilot-cluster phase** focusing on testing the cluster approach by setting up and supporting a limited number of regional cluster management organisations
 - **Roll-out phase** launching a comprehensive cluster development programme and fully integrating cluster development into the policy framework

Annex: it's OWL (Germany)

The cluster “it's OWL” constitutes an example of a hybrid organisational model combining an association and a private limited company

- The it's OWL association has approximately **200 members in the area of intelligent technical systems** (e.g. AI applications, industry 4.0) in the East Westphalia Lippe Region
- Cluster-related activities comprise innovation transfer services, technology consulting and industry 4.0 assessments, demonstration centres, events and internationalisation services
- A special **technology transfer voucher scheme for SMEs** has been developed covering up to 80 % of the expenditure for innovation projects in cooperation with local research institutes
- **The association is the only shareholder of the cluster management (private limited) company** with approximately 15 employees
- Members are actively involved in the implementation of cluster activities through a portfolio team, a transfer group and a marketing team
- Funding sources comprise **membership fees and programmes at the state and federal level**

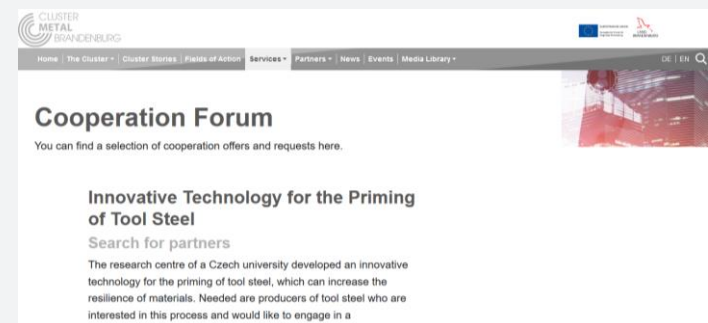


Annex: Cluster Metal Brandenburg (Germany)

The Cluster Metal in the Federal State of Brandenburg represents an example of a top-down cluster approach fully financed by public funding

- Approximately **2,500 regional companies and 90 universities and research institutes** in the areas automation, mechanical engineering, metal products and new materials **can benefit from the services and activities of the cluster management without a formal membership**
- In close collaboration with the stakeholders, a **masterplan has been developed** comprising **three priority areas**: (1) developing joint R&D and innovation projects, (2) building cooperation networks and (3) supporting skills development
- Cluster structures comprise a cluster speaker, a **cluster management with three employees hosted by the development agency** of the Federal State of Brandenburg and an advisory board
- The organisational model **allows to generate synergies at the interface with other clusters** that are managed by the same agency
- Funding of approximately EUR 300,000 p.a. is provided by a **special innovation support scheme of the federal state** which is co-financed at a rate of 80 % by the European Regional Development Fund (ERDF)

Online Cooperation Forum



Home | The Cluster | Cluster Stories | Fields of Action | Services | Partners | News | Events | Media Library | DE | EN | Q

Cooperation Forum

You can find a selection of cooperation offers and requests here.

Innovative Technology for the Priming of Tool Steel

Search for partners

The research centre of a Czech university developed an innovative technology for the priming of tool steel, which can increase the resilience of materials. Needed are producers of tool steel who are interested in this process and would like to engage in a

Annex: Odense Robotics (Denmark)

Odense Robotics is one of the world's leading robotics cluster – with a strong focus on strengthening the start-up ecosystem

- Odense Robotics integrates more than **130 companies** in the areas automation and robotics (e.g. Universal Robots, OnRobot) and 10 specialised educational and research institutions
- The service portfolio of the cluster management which is hosted by the regional development agency places strong **emphasis on start-up and innovation support**
- **Since 2010, more than 60 start-ups** have been founded benefitting from an advanced ecosystem
 - **The Odense Robotics Start-up Hub** – an incubator at the Danish Technological Institute – combines an industry-specific technical infrastructure (e.g. testing facilities, 3D printing) with comprehensive training and mentoring programmes
 - **Strong linkages between start-ups and established companies** play a critical role for the success of the cluster
 - Successful entrepreneurs often **provide equity finance, advice and access to their contact networks**
- Membership fees amount to DKK 7,500 (about EUR 1,000) p.a. Start-ups pay a reduced rate of DKK 2,500 (about EUR 350) p.a.
- The membership offers a range of benefits, including access to specialised networking groups and reduced fees for events

Odense Robotics Startup Hub



About the German Economic Team



The German Economic Team (GET) advises the governments of Ukraine, Belarus, Moldova, Georgia and Uzbekistan regarding the design of economic policy reform processes and a sustainable development of the economic framework. As part of the project we also work in other countries on selected topics.

In a continuous dialogue with high-level decision makers of the project countries, we identify current problems in economic policy and then provide concrete policy recommendations based on independent analysis.

In addition, GET supports German institutions in the political, administrative and business sectors with its know-how and detailed knowledge of the region's economies.

The German Economic Team is financed by the Federal Ministry of Economics and Energy. The consulting firm Berlin Economics has been commissioned with the implementation of the project.

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