

Promotion Instruments for Startups and Startup Energy Program Bavaria

Webinar **“Emprendimiento en Energía”**, 28.09.2021

Maximilian Irlbeck


Head of „Digital Transformation in the energy sector“

Center for digital transformation Bavaria






Bayern Innovativ GmbH



About me



Maximilian Irlbeck

-  **Birth / Home**
Munich, 1982
38 years old
-  **Education**
Computer Science (Diploma)
Technical University Munich
-  **Job**
Head of „*Digital transformation in the energy sector*“
at Center for Digital Transformation Bavaria
-  **Founder & deputy chairman**
Blockchain Bayern e.V.
-  **Experience in energy**
since 2010

About Munich, capital of Bavaria, my hometown

Munich is:

- Known for beer gardens, Oktoberfest, FC Bayern München, Marienplatz, Frauenkirche, Olympic center, Bavarian tradition, Bavarian beer, Brezn, Weißwurst ...
- #1 Hub in Europe for **digital transformation**
- One of the **best locations for startups** in Europe
- Location for Europe's leading founders festival **Bits & Pretzels**



Image source: N-TV

Impression from **Munich**: Surfers at *Eisbachwelle*



Impressions from Munich



Marienplatz with Frauenkirche



Oktoberfest

Agenda

- **5 big challenges** for startups in the energy sector
- **Our services at Bayern Innovativ** for startups
- **Energy Start-up Bavaria**
Our international startup competition in Germany, Austria and Switzerland
- **About** Bayern Innovativ and The Center for Digital Transformation Bavaria





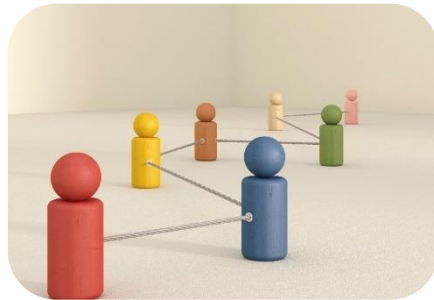
5 big challenges

for startups in the energy sector

5 big challenges for startups in the energy sector



Funding



Market access



**Strategic
Partnerships**



**Regulatory
framework**

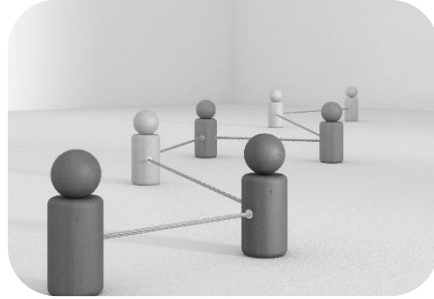


Mindset

5 big challenges for startups in the energy sector



Funding



Market access



Strategic Partnerships



Regulatory framework



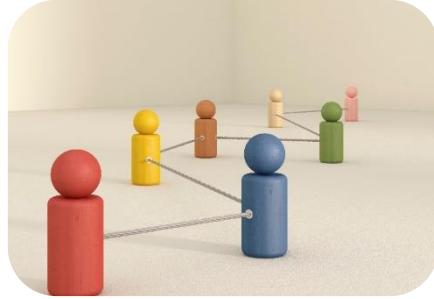
Mindset

- Startups often need **huge investments over a long period of time** – energy is a *capital-intensive* business
- (Regulatory) differences between power systems worldwide make **scale-up of business models** difficult
- **ROI often less attractive** than in other markets
- **Lack of investors** specialized in the energy sector
- Risk aversion in investments in many countries, the **Silicon Valley** is often **the only place** to find investors
- **Energy startups are not valued enough by most investors and experience growth problems**

5 big challenges for startups in the energy sector



Funding



Market access



Strategic Partnerships



Regulatory framework



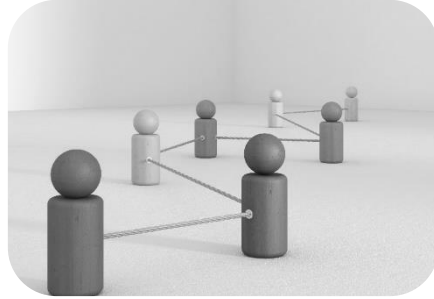
Mindset

- Energy sector is dominated by a **small number of huge, often conservative players**
- Existing market offers only a **limited number of docking points**
- Many innovative **business models aren't working** in the existing (more centralized) system
- Extended **legal and market expertise** necessary compared to other markets
- **The energy sector is complicated and difficult to enter**

5 big challenges for startups in the energy sector



Funding



Market access



Strategic Partnerships



Regulatory framework



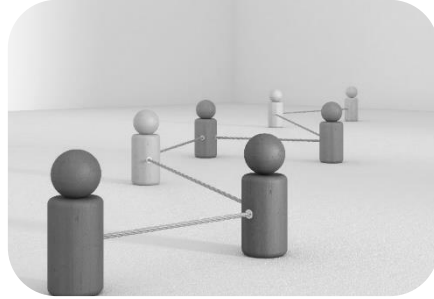
Mindset

- The energy system is complex – **strategical partnerships** are often **the only way to success** for startups
- Existing players often **lack a standardized contact point** for startups
- **Cooperation** with startups are often **out-of-focus**
- **Inefficient misunderstandings** and **time-intensive research** arise for start-ups while searching for strategic partnerships – **frustration** is often a result
- **Collaboration with energy startups is not part of the daily business**

5 big challenges for startups in the energy sector



Funding



Market access



Strategic
Partnerships



Regulatory
framework



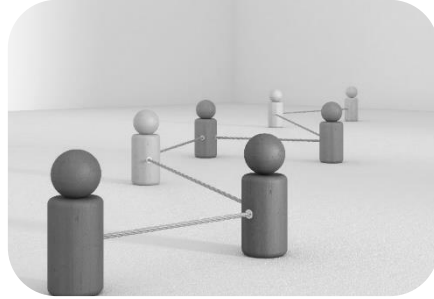
Mindset

- Existing regulatory framework is largely focused on a **centralized energy system** and **existing players**
- **Existing markets roles** do often not meet the requirements of new business models
- **Lack of long-term legal security** make investments in new technologies difficult
- Energy startups don't have a **lobby**
- **Political discussion** is often far away from the **actual needs** of energy startups
- **The needs of new business models are not recognized by the regulatory framework**

5 big challenges for startups in the energy sector



Funding



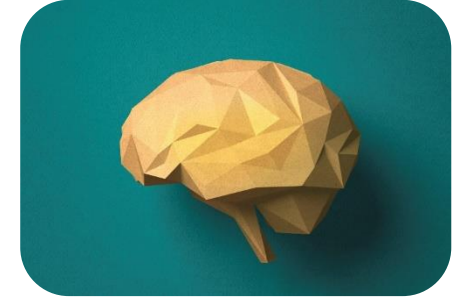
Market access



Strategic Partnerships



Regulatory framework



Mindset

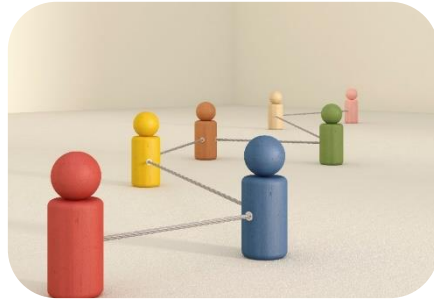
- Energy companies are often **less dynamic** and **more bureaucratic** than startups
- Energy system is dominated by **long amortization periods**
- The typical mindset often is **risk averse, self-related** and **long-term focused**
- Startups clash with the traditional industry with their culture of a **lean, dynamic and agile mindset**
- **There is a huge mindset gap between the energy sector and energy start-ups**

5 big challenges for energy startups



Funding

Not valued
enough by most
investors



Market access

The energy
sector is difficult
to enter



Strategic Partnerships

Not part of daily
business



Regulatory framework

New business
models are not
recognized



Mindset

Huge gap
between energy
startups and
energy sector

Energy startups often need *more support* to be successful.



Our services at Bayern Innovativ for startups

The concept: **Start-up guide Bavaria**

On behalf of the Bavarian State Ministry for Economic Affairs, state development and energy / Gründerland Bayern.

Mission:

We inform entrepreneurs of all industries and in every start-up phase about suitable offers in Bavaria, Germany and at EU level.

Actions:

- Hotline for startups for consulting and guidance
- Team of 5 Bayern Innovativ employees as leaders
- Connection to all services offered in Bavaria
- Connection to all industries in Bavaria
- Connection to all entrepreneurship centers in Bavaria



Services at Start-up guide Bavaria

(free of charge)

Funding

Business angels
Investor networks
Loans from LfA, KfW, ...

Pre-founding coaching
Coaching at Bayern Innovativ

Coaching

Promotion

Advice on funding programs
State, federal and EU level

Access to networks funded by the
Free State of Bavaria (e.g. Bayern
Innovativ, Invest in Bavaria)

Networking

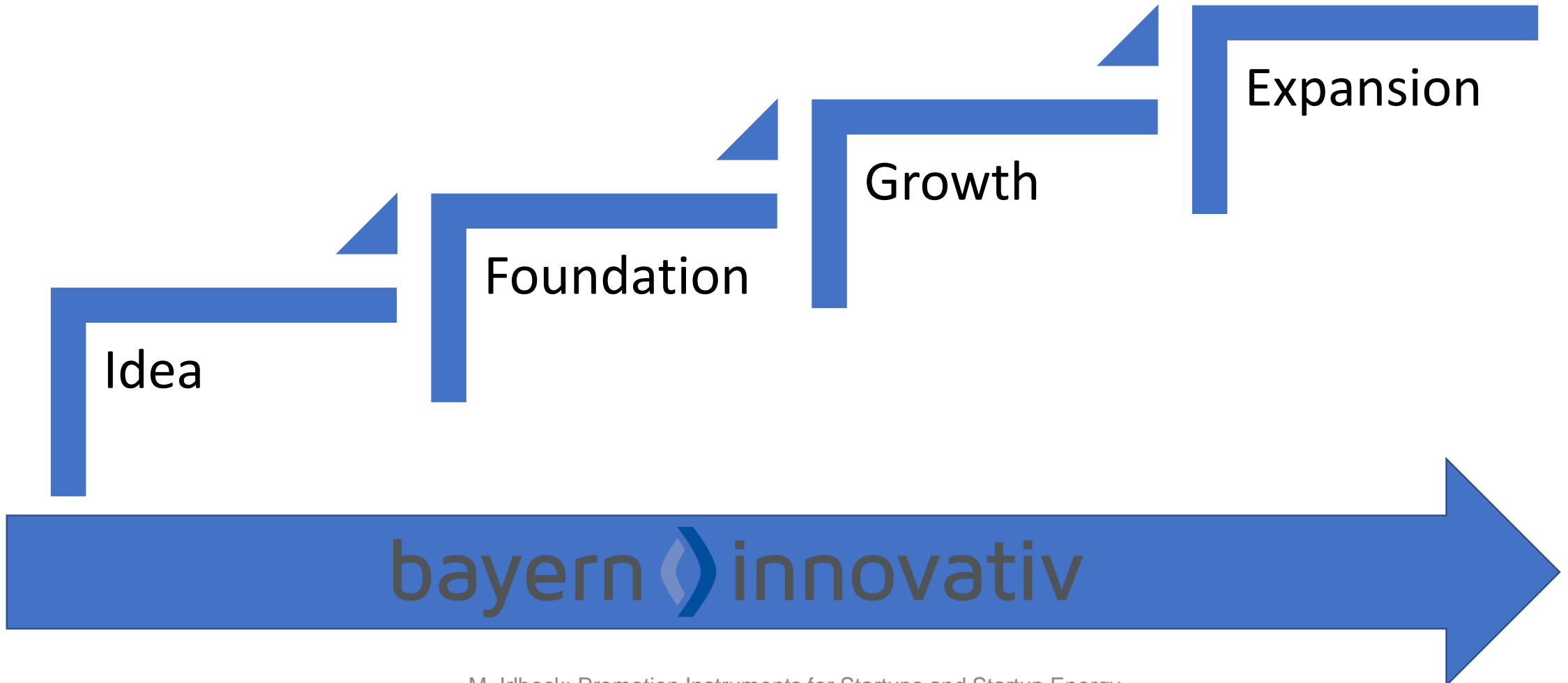
Consulting

Entrepreneurship Centers at
Universities,
IHK, HWK, BayStartUp

Incubators
Business promoters
Regional institutions

Infrastructure

Process for startups with Bayern Innovativ



Additional services for startups at Bayern Innovativ

Coaching

Innovation Coaching

Roadmapping, foresighting,
scouting, radars, studies

Trends

Events

Forums, workshops, congresses,
expert groups, company missions,
seminars, ...

Patent research, patent monitoring,
patent evaluation, patent analysis

Patents

Exhibitions

Bavarian booths at exhibitions

Mediation of start-ups with business
and science institutions in the BI
strategy fields

Networking

Consulting

Funding, Technology and innovation
advice

Knowledge transfer / communication
(reports, magazines), social media

Marketing

Energy Start-up Bavaria

Our international startup competition in
Germany, Austria and Switzerland



energie 2021

START-UP BAYERN

AN DER UNIVERSITÄT DUISBURG ESSEN

About Energy Start-up Bavaria

Who can apply?

- Companies from Germany, Austria and Switzerland
- Founded in the last 4 years or in the founding process
- Motivation for and relation to Bavaria's energy future needed as part of the application

Why apply?

- Award money: 30.000 Euro
- Direct access into the energy sector
- Contact to investors, mentors, funds and startup centers
- Networking and matchmaking actions
- Promotion of the **TOP 10** to more than 10.000 contacts in Bavaria and presentation in a prestigious event
- The **TOP 3** can call themselves „Energy Start-up Bavaria“ and have the chance to meet & discuss their issues directly with the **Bavarian Minister for Economy**

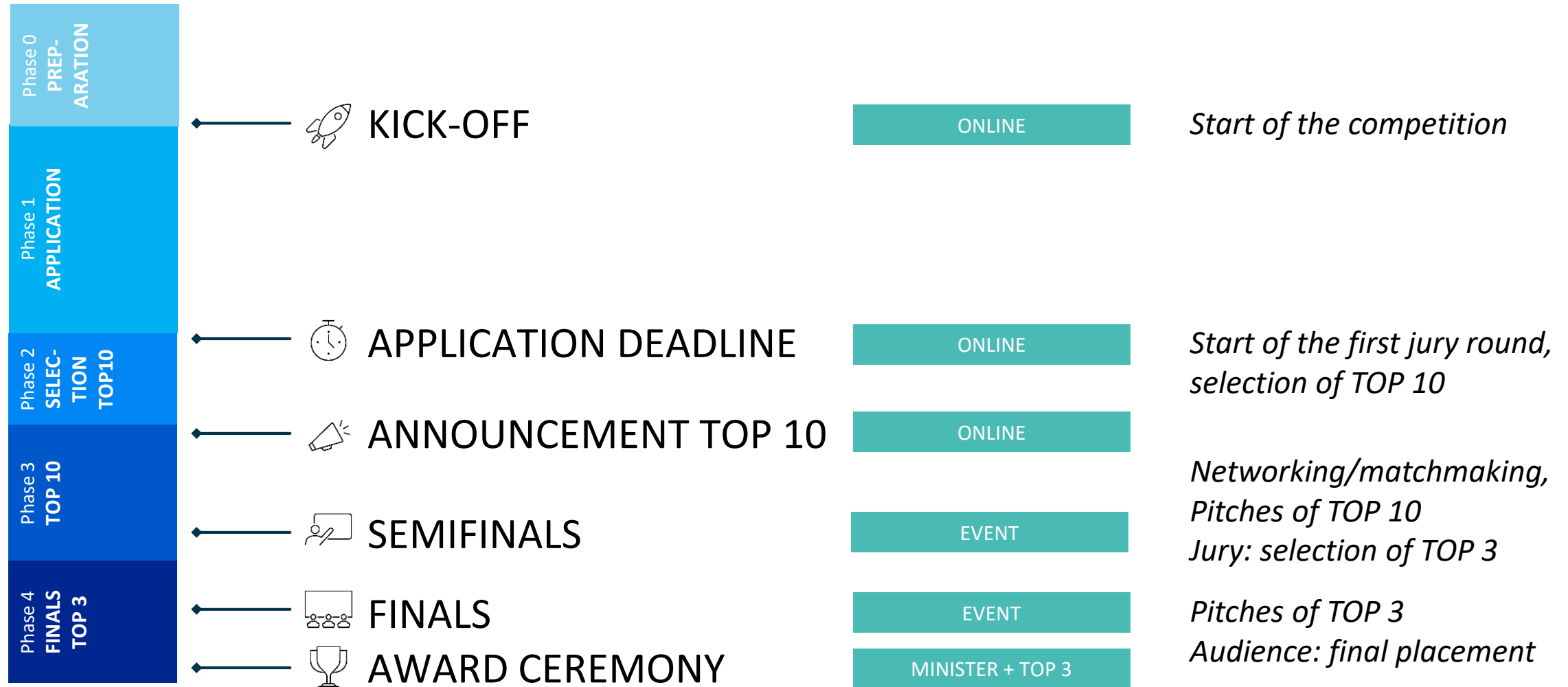


Bavaria's energy future.

Connect. Found. Start.

www.energie-startup.bayern (German)

Application process



History: 2016 - 2022

- Initial idea (2016):
 - Dr. Franz Zöchbauer, Verbund AG
 - Maximilian Irlbeck, ZD.B
- Organizing institutions:
 - **Bayern Innovativ GmbH**
 - **Center for Digital Transformation Bavaria**
 - **Bavarian Ministry for Economy**
 - **BayStartUP** – Bavarian startup agency
 - **VBEW** – Association of the Bavarian Energy and Water Industries
 - **Bayernwerk AG** – Biggest Bavarian distribution system operator (DSO)
 - **Verbund AG** – Biggest Austrian energy supplier, biggest Bavarian hydro power supplier



2016
• First edition, ~25 applications



2018
• 2nd edition, ~30 applications



2020
• 3rd edition, ~80 applications



2022
• 4th edition, start: next year

All Award winners so far

2016

1. **Sono Motors** – First mass producer of solar electric cars
2. **Invenox** – Modular connection systems for batteries
3. **SAMAwing** – Smart air guiding for dry cooling towers

2018

1. **Turbonik** - Self-generated electricity by a micro steam turbine
2. **ChargeX** – Multiple sockets for charging stations
3. **ENER-IQ** – Software for intelligent heating boilers

2020 (Three equal winners)

- **Enmacc** - Independent and innovative trading platform
- **gridX** – Platform to connect all decentralized energy resources
- **VoltStorage** – First mass redox-flow battery for household



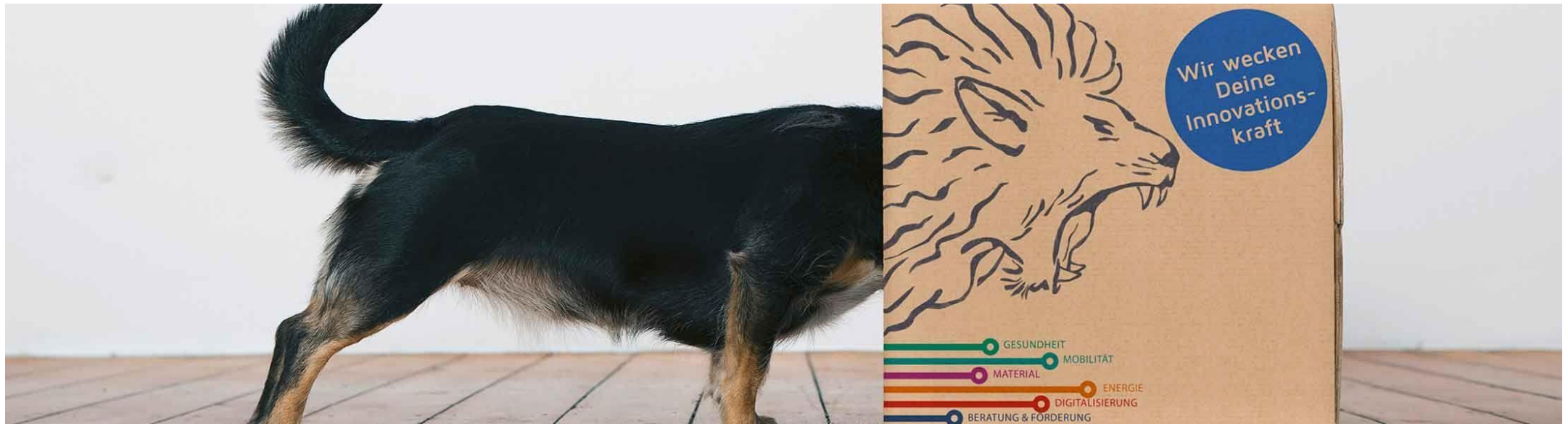
About us

Bayern Innovativ
ZD.B – Center for digital transformation

About Bayern Innovativ



- **Innovation Agency** of the Free State of Bavaria
- Bayern Innovativ stands for knowledge management, as well as acceleration of innovations and gives the right impulses.
- Our vision is a Bavaria in which **every viable idea and technology becomes an innovation.**
- **Founded** in 1995 by Bavarian politics, economy and science
- Approximately **270 employees** in Nuremberg, Garching (near Munich) and Augsburg



About ZD.B - Center for Digital Transformation Bavaria

<p>ZD.B ZENTRUM DIGITALISIERUNG. BAYERN</p> <p>Center for Digital Transformation</p>	<p>KNeDL</p> <p>Agriculture</p>	<p>Q TECH</p> <p>Quantum Computing</p>	<p>ZD.B SMART CITIES</p> <p>Smart City</p>	<p>ZD.B THINKNET 6G</p> <p>6G Communications</p>	<p>ZD.B DIGITALISIERUNG IM ENERGIEBEREICH</p> <p>Energy</p>	<p>ZD.B PRODUCTION & ENGINEERING</p> <p>Production & Engineering</p>
<p>ZD.B VERNETZTE MOBILITÄT</p> <p>Connected Mobility</p>	<p>ZD.B DIGITALE GESUNDHEIT/ MEDIZIN</p> <p>Health & Medicine</p>	<p>ZD.B CYBER- SECURITY</p> <p>Cybersecurity</p>	<p>ZD.B DIGITALES PLANEN UND BAUEN</p> <p>Design & Construction</p>	<p>ZD.B ARBEITSWELT 4.0</p> <p>Work 4.0</p>	<p>ZD.B VERBRAUCHER- BELANGE</p> <p>Consumer concerns</p>	

Part of
bayern innovativ

An Initiative of

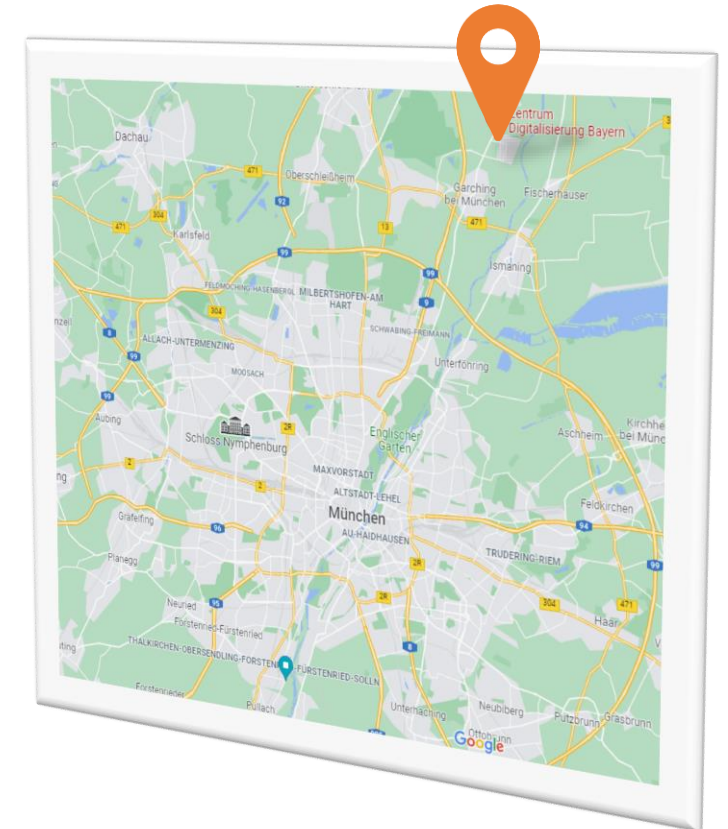


My team

Platform „Digital transformation in the energy sector“



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MEMAP
Lea Schumacher



Projectmanager
EASY-RES
Andrea Deisenrieder



Scientific
Speaker
**Prof. Dr.-Ing.
Joachim Schenk**



Economic
Speaker
**Dr.-Ing.
Roland Hofer**



Living the energy transition *digitally*.

Contact

- energie.digital@bayern-innovativ.de

Additional information (German!)

- www.bayern-innovativ.de/netzwerke-und-thinknet/uebersicht-energie/digitalisierung-im-energiebereich
- www.memap-projekt.de
- www.easyres-project.eu
- www.energieistdigital.de
- www.energie-startup.bayern

Newsletter (German!)

- www.bayern-innovativ.de/seite/anmeldung-zdb-themenplattform-newsletter



Thank you!

Image/video sources:

- *Unsplash*: nagarjun-kogaravalli, radowan-nakif-rehan, mathieu-stern, matthias-schroder, jef-willemyns, mario-dobelmann, daniel-sessler, philipp-schneidenbach
- *Pexels*: manuel-joseph, christopher-schultz