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# MUNICH NET ZERO DIALOGUE

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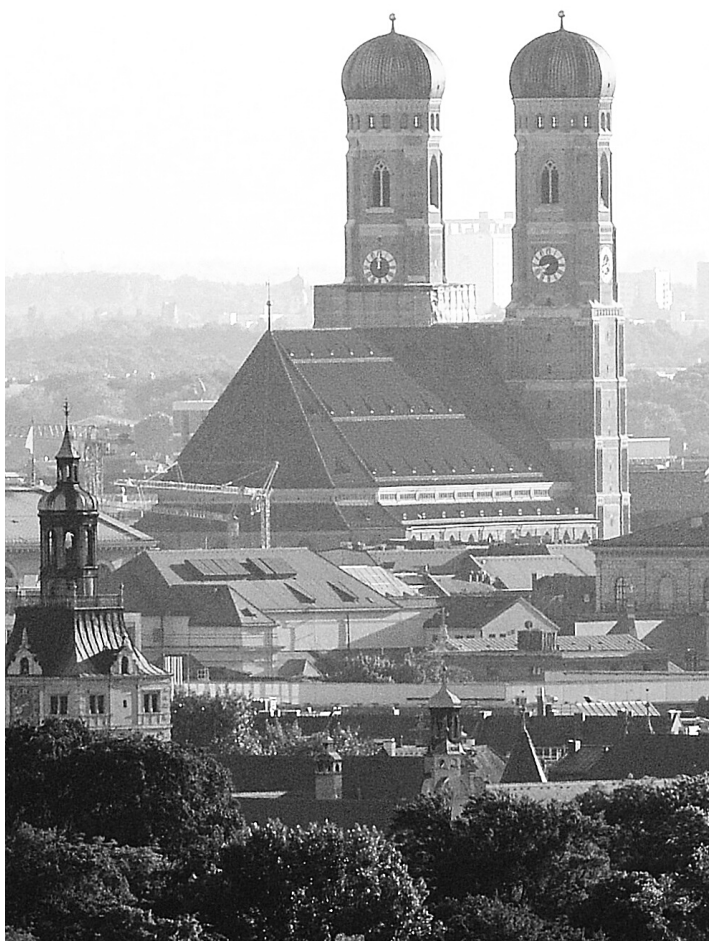


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Net Zero by 2035

# MUNICH TARGETS



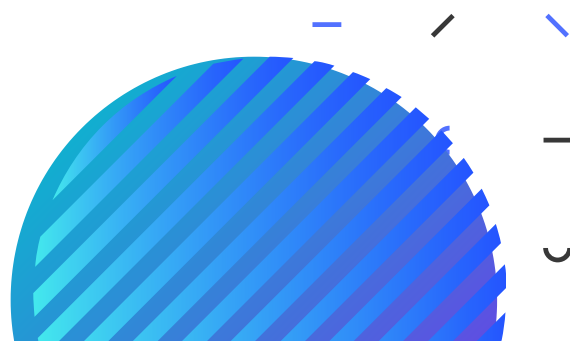
In December 2019, the Munich city council declared a Climate Emergency and set up a plan to become net-zero (Klimaneutral) by 2035. With this, the city wants to achieve climate neutrality 10 years before the German state, and be a pioneer in climate action in Europe. Since 2010, the Integrated Climate Protection Action Program in Munich - IHKM - has already developed and implemented a large number of climate protection measures focusing on buildings and energy usage. But net-zero cannot be achieved through greenhouse gas reductions alone. Innovation is needed.

With emissions stagnating around around 6 tons CO<sub>2</sub> per capita for the last 15 years, achieving the IPCC 2-degree target of 1.5 tons per capital will be a challenge.

The Davos Lab: Building Our Future is a Global Shapers Community initiative to mobilize interested citizens and stakeholders in more than 150 countries to shape a youth-driven recovery plan to address the world's converging crises. Youth recovery plan to be launched at the World Economic Forum's Special Annual Meeting 2021. The Lab advances a mature model of youth activism that focuses on intergenerational allyship, systems leadership, and an awareness of self and place.

## DAVOS LAB

Building our Future



## Prompt 1

# MOBILITY

What is needed to reduce emissions from individual transport? How has the pandemic influenced people's behavior? Is public transport always the low-carbon option?

### Existing Initiatives:

Munich has a well functioning public transport system, but a large part of the city's emissions come from transport and especially cars. 80% of public transport in Munich is already electric and the city aims to reach 100% within the next years in its IHFEM (Integrated Action Programme for the Promotion of Electric Mobility) and in December 2020, MVV (Munich Transport and Tariff Association) introduced its first electric bus.

During the pandemic, with the decreased car commutes, the city transferred a high number of streets to bike roads in the inner city. Electric car-sharing offers, such as Cabify, have taken a hit but are expected to increase with the reopening of the city. The environmental organization Green City aims to reduce the dominance of cars in Munich. There are local initiatives to promote sustainable mobility like Radentscheid (Bürgerentscheide in general).

### Desired Action:

There is high demand for cheaper public transport in Munich and better infrastructure for pedestrians and biking.

Tax refunds or subventions programs similar to Belgium's Long-Term Care can be used to incentivize green mobility behavior from citizens, supported by technical solutions for tracking and rewarding.

There is the aim for more car-sharing options both public and B2B (e.g. RideBee), more home and fast-charging EV stations, more car-free road space (e.g. Sommerstraßen, or increased parking costs), not only by the citizens but also the city administration. However, more awareness and brave political action is needed.

### Challenges:

Transport being the highest emission source in Germany is increasing and will demand massive investments to change the trend. To rebuild the city's infrastructure and adapt to a change in mobility pattern is structurally difficult.

Due to the regional car manufacturers constituting a large part of the GDP, there is a strong automotive lobby. The automotive manufacturers are facing a massive transition that will affect the economy of the state. Additionally, Germans are proud of their cars and have previously resisted sustainable measurements such as setting a speed limit on the Autobahn.



## Prompt 2

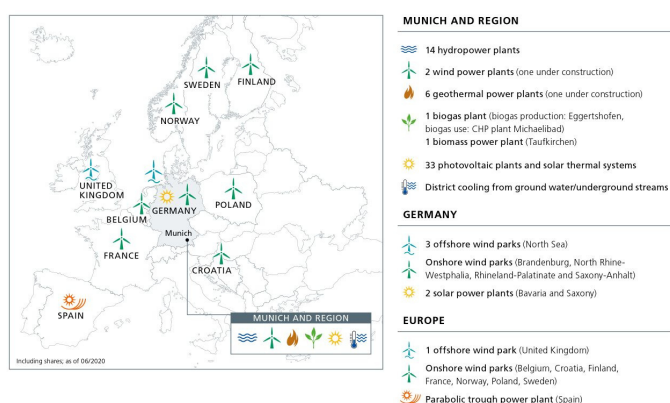
# ENERGY

Evidence suggests that renewable energy and energy efficiency tend to produce more jobs than fossil fuel energy, per dollar spent. What is the potential for renewable jobs in your community?

### Munich at a glance:

An interesting [short reportage](#) by CNBC about how renewable energy production started in Munich.

The city of Munich, consisting of about 800,000 households, industrial firms, streetcars, and subways together consume 7.5 billion kWh of electricity every year. Through [SWM \(Stadtwerke München\)](#), the city announced two ambitious targets: by 2025 Munich plans to cover its entire electricity needs by using renewable power – from its own systems (as of April 2020 current systems as seen in SWM's picture below have the capabilities to produce 6.0 kWh), and by 2040 it plans to achieve CO2 neutral coverage of its city district heating (mainly from geothermal energy).



Munich by 2025 plans to invest EUR 700 mil. for expansion and modernization of the grid infrastructure, EUR 650 mil. for renewable energy expansion campaign, EUR 400 mil. for expansion and maintenance of conventional plants, EUR 200 mil. for geothermal energy.

### Existing Initiatives:

Different governmental subsidies and incentives are in place: [Bürgerenergie-genossenschaft](#), [Landlord to tenant electricity](#), a [plan](#) about FITs and PPAs is set in motion. A referendum about the closure of the coal-fired power plant [HKW Nord](#) passed to expedite the phase-out.

Companies such as [Systemiq](#) and [ClimatePartner](#) are trying to help stakeholders create a long-lasting effect. [Max Planck Institute](#) - leading research centers for Plasma Physics. Interesting innovations in this sector coming from companies like [Sonnen](#), [Tado](#), [Polarstern](#), [Marvel Fusion](#), [Sono Motors](#), etc.

### Desired Action:

Stricter regulations are needed for buildings and renovations to increase the percentage of renewable energy ( i.e. [France](#)). More lobbying is needed for politicians to drop their opposition to renewables (i.e. [windmill](#) or [self-consumption](#)). The external CO2 costs should be internalized and incentive schemes for people to change to renewable energy contracts, and to work in low carbon industries (i.e. [Greencity for efficiency](#)) supported. It would be ideal if Munich had a battery factory in its vicinity, or if the city opens up more nuclear power plants.

### Challenges:

No concrete action towards closing the coal plant and stopping promoting of fossil fuels. The real cost for emissions is not accounted for as electricity in Munich is treated as renewable due to virtual contracts. From a technical perspective storage capacities are not yet efficient enough, the energy grid is not yet ready for 100% renewables, on top of that the grid is detached from Northern wind power. There is also a lack of awareness on topics such as how consumers can efficiently switch to renewable sources, the safety of nuclear plants, etc...



## Prompt 3

# YOUTH

How can young people work alongside mayors, organizers, asset managers and other allies to help cities and institutions champion green investments and drive urgent climate action?

### Existing Initiatives:

Munich is a lively student city with more than 100.000 students and heavily relies on student-led and university-associated initiatives. The Ludwig-Maximilians-University (LMU), Technical University of Munich (TUM), Hochschule München, Bundeswehr University, etc. This environment actively supports social and environmental initiatives, such as [CDTM's Climate Club](#), a student-founded consultancy focused on non-profit [180degrees](#).

The city of Munich and its council understand the needs and endeavor to actively support the public interest in sustainability and social impact. One such initiative that is done alongside UnternehmerTUM (entrepreneurship center) is the new Innovation and Business Creation center for Smart City Solutions - [Munich Urban Colab](#).

On the other hand, initiatives like Fridays for Future and grassroots groups (e.g. [Klimaherbst](#)) also pop up across the city independently and push for faster action.

### Desired Action:

The youth would benefit from more interaction with the city council - through city debates, volunteering, or more open hearings. One hotly discussed idea is supplementing the social service year after high school with an ecological year, as already developed in the state of Baden-Württemberg.

More interaction is desired in early education, through higher standards of political and ecological education. Focus groups highlighted that sustainability can be further supported by involving start-ups in government activity. Some focus groups suggested a pilot to the lowering of the voting age in face of the increased political interest among youth.

### Challenges:

Data and its availability are limited, as well as lack of coordination between various live initiatives and the government's willingness to coordinate these. Existing legal and bureaucratic structures are also seen as limiting. In general opinion, Bayern is stereotypically considered conservative, with a resistance to change. As a result, while many activities already exist, it is a slow process. Some focus groups also highlighted that international inhabitants face many challenges when trying to contribute to local politics, blocking possibilities for launching new projects.





## Prompt 4

# FOOD

How do we fairly reduce emissions from livestock? Should farms, particularly in rich countries, be required to reduce their emissions in line with climate targets? What other regulations?

### Existing Initiatives:

Most major supermarkets have sustainability sections with local, bio, and vegan alternatives. Recently, the EU approved the sale of insect flour, and new companies such as [Innocent meat](#), [Rügenwalder Mühle](#), and [Greenforce](#) offer innovative protein sources. [Infarm](#), [Plantura](#), and other urban- and vertical farming startups are benefiting from the increased awareness of local and homegrown food, and are growing in adoption also internationally. For Bavarian farmers, there are initiatives for installing solar panels on barn rooftops, banning pesticides, reducing the use of fertilizers, and implementing higher levels of digitalization (e.g. online agri-supermarket [Agrando](#)) supporting sustainable agriculture. Additionally, with the EU's Green Deal, Farm to Fork, and Biodiversity strategies, more funding is available for a fair revamp of the sector to meet future needs of food security, biodiversity, climate, water, and soil management.

### Desired Action:

Vegan and vegetarian offerings should be more available at companies, events (e.g. Oktoberfest), in restaurants, public cafeterias, etc. This can be achieved through carbon pricing, more transparency, or certifications. Urban farming should be supported and green areas made available for citizens. As farmers face high pressure from more extreme weather, policies, and financial viability, initiatives to support them in climate mitigation and adaptation are needed to secure healthy, sustainable local food production.

### Challenges:

German food culture is heavily meat-based, and an essential part of tourism and traditional events, such as the Oktoberfest. In the German discount market, the price point for food is low creating a small profit margin for local farmers, and hard for newer industrialized food alternatives to enter the market. In December 2020, the EU Commission released a report identifying glaring structural problems in German agriculture that go far beyond issues of climate protection and calling for a paradigm shift of the sector. The German Common Agriculture Plan (CAP) Strategy 2023-27, published earlier this year, has been criticized for not being enough to meet climate targets and adapt to future extreme weather and sea-level rise.