

Renewable Energy Advisory Service

Climate & Innovation Agency Vienna

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Klima- & Innovationsagentur Wien
ein Unternehmen der **wienholding**

Webinar LIFE LOOP – Local Ownership Of Power

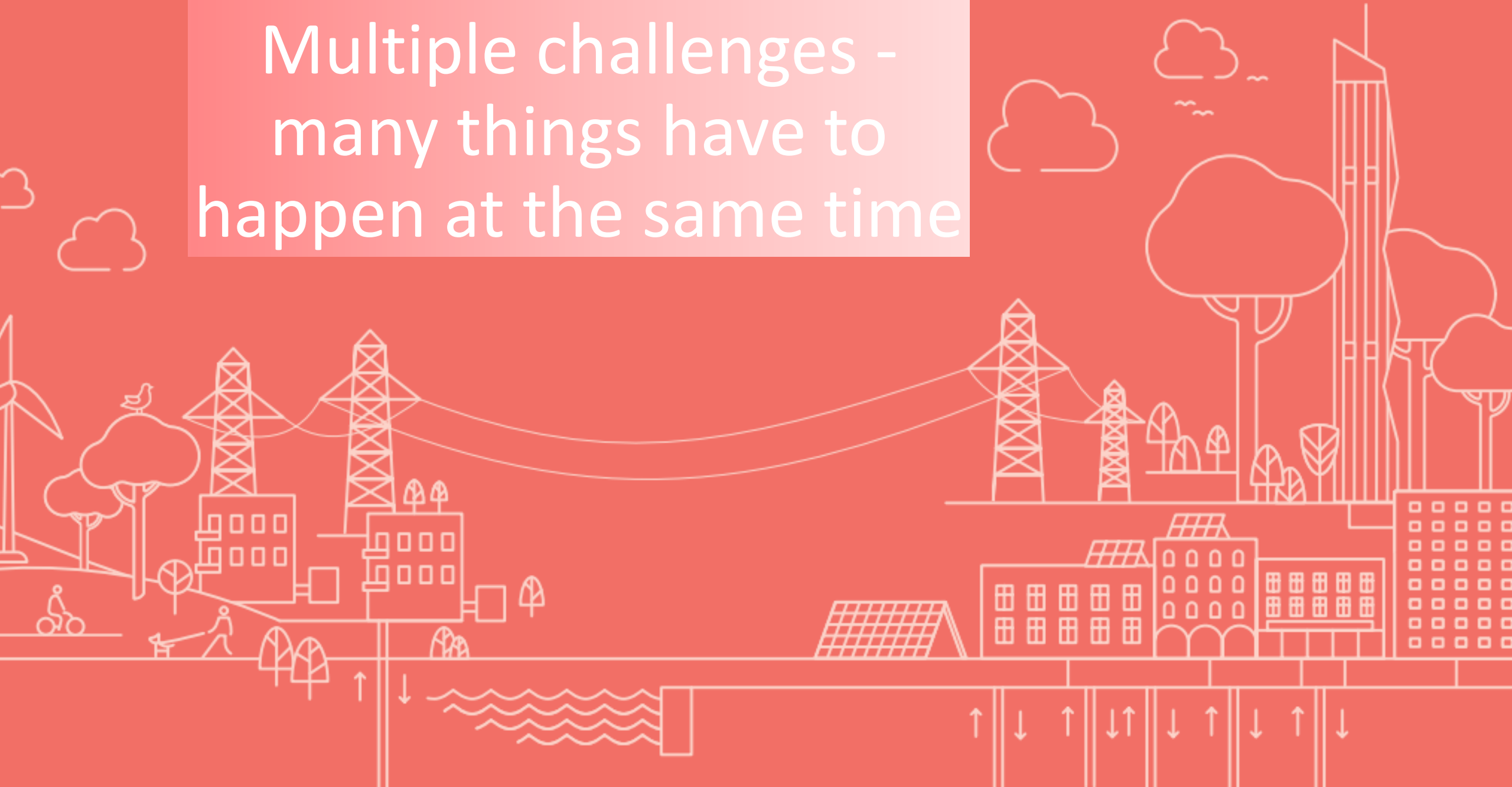
04.06.2024

Agenda

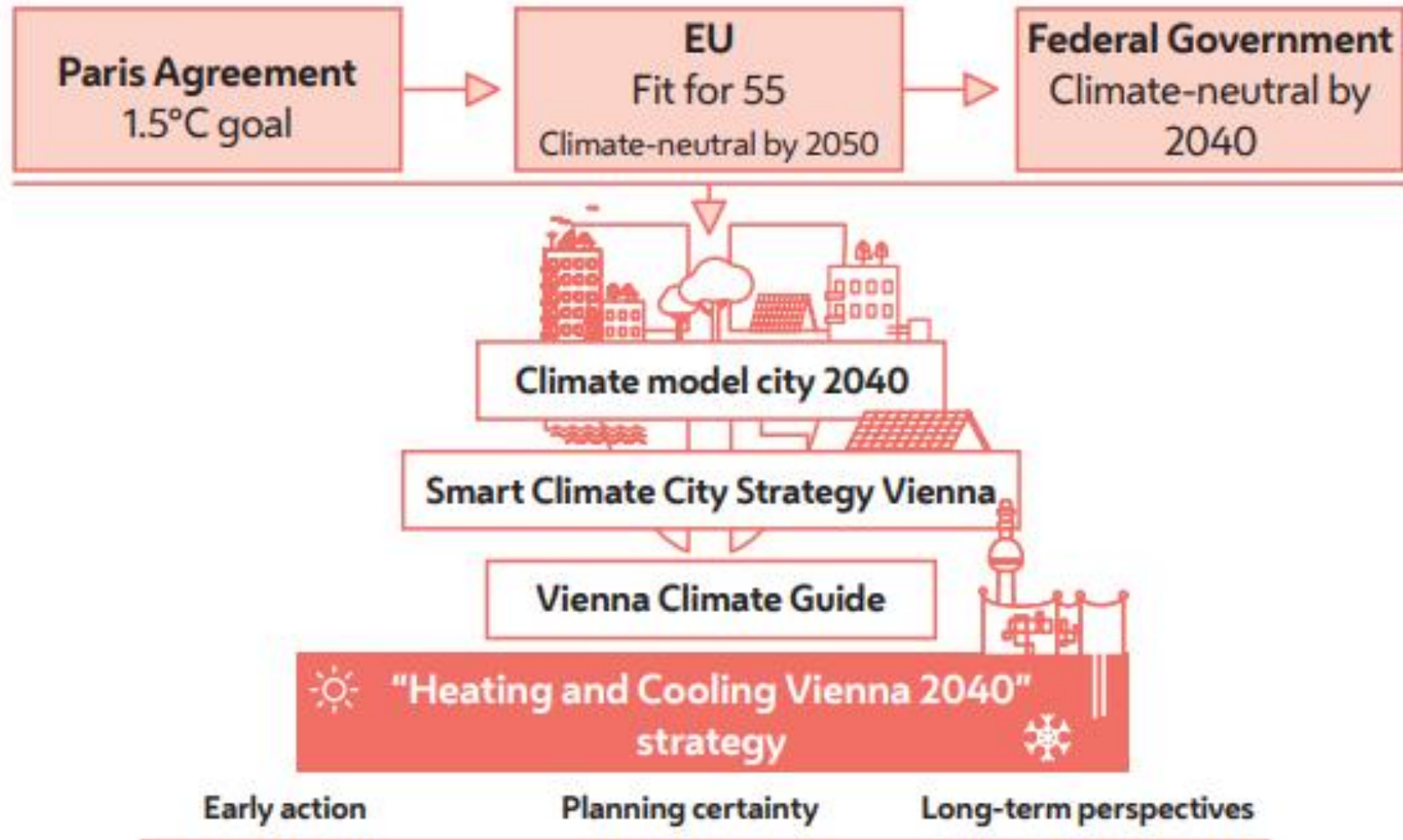
- **Context: Energy Transition in Vienna**
- **Renewable Energy Advisory Services**
 - Conception and Design
 - Operation since July 2022
 - Development Scenario - Outlook 2028
 - Resource Requirements
 - Conclusion
- **Questions and Answers**



Multiple challenges -
many things have to
happen at the same time

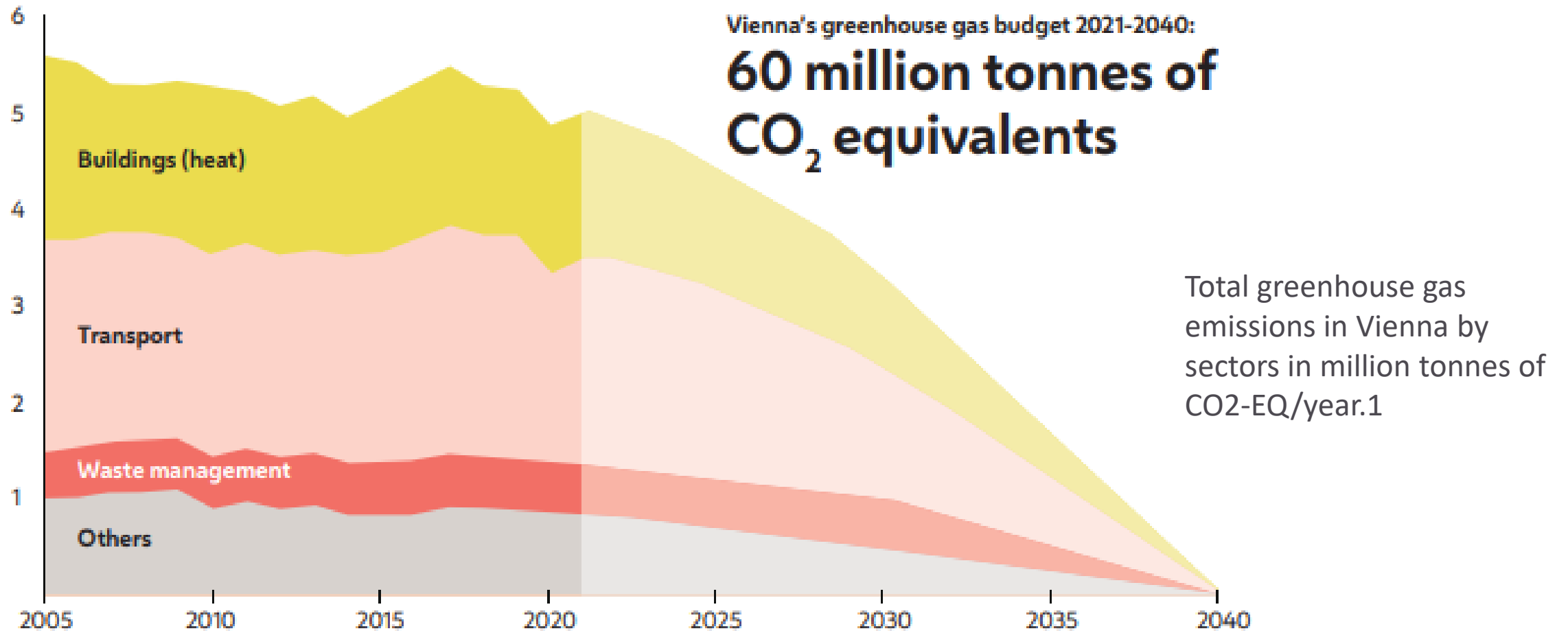


Long-term goals for systematic action



[Phasing Out Gas - Heating and Cooling Vienna 2040 \(wien.gv.at\)](https://wien.gv.at)

Phasing Out Oil and Gas



[Phasing Out Gas - Heating and Cooling Vienna 2040 \(wien.gv.at\)](https://www.wien.gv.at)



Composition of the building sector in Vienna

Number of units in use by used energy source, building type and building renovation status

- Gas dominates as a heating source for residential buildings.
- The majority of residential buildings supplied with gas have a decentralized heating system.
- 90% of Vienna's CO₂ emissions in the building sector are caused by gas heating systems.



Distribution of “decarbonization types” in Vienna by number of units in use.

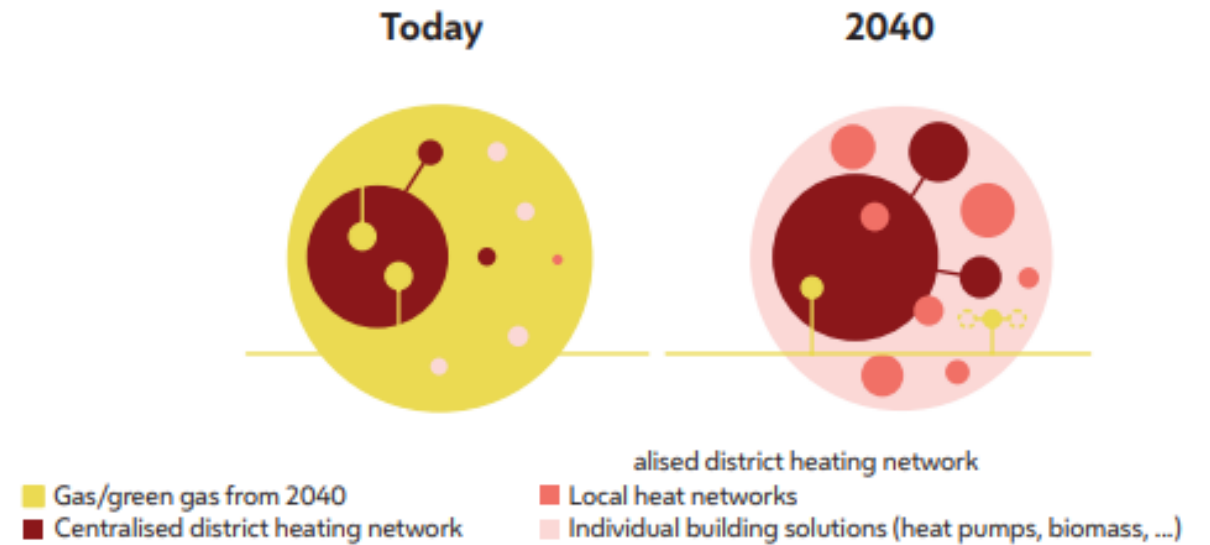
[Phasing Out Gas - Heating and Cooling Vienna 2040 \(wien.gv.at\)](https://www.wien.gv.at/energy/energy_efficiency/energy_efficiency_en.htm)



Phasing out Gas

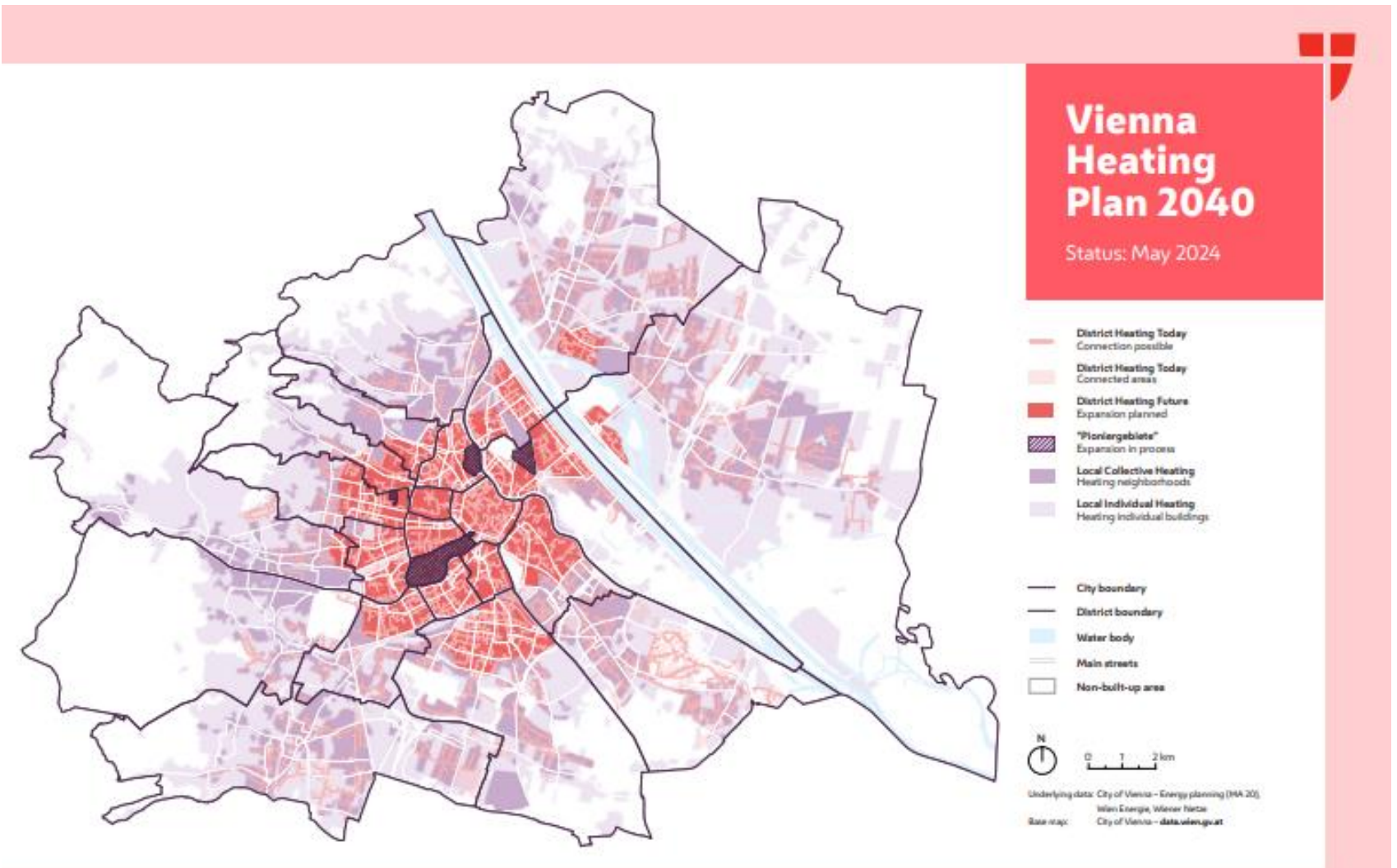
Heating and Cooling Vienna 2040

- By 2040, all buildings in Vienna will be heated and, where necessary, cooled in a climate-neutral, emission-free and renewable way.
- Densely built-up areas will be supplied by centralized district heating. Central district heating will be decarbonized by 2040 and will be supplied from renewable sources or waste heat.
- In less densely built areas, decentralized renewable heating networks and renewable building solutions will be used.



[Phasing Out Gas - Heating and Cooling Vienna 2040 \(wien.gv.at\)](https://www.wien.gv.at)

Orientation on the way to a climate-neutral heat supply in Vienna by 2040





Vienna Photovoltaic Program 2021-2030

- Vienna increases its power generation by expanding its photovoltaics production within the city boundaries from **50 MWp** (2021) to **250 MWp by 2025** and to **800 MWp by 2030**
- **City of Vienna as a role model** (50 MWp by 2025)
- The Vienna Photovoltaic Program is a **long-term** and **widespread implementation program** involving all city departments

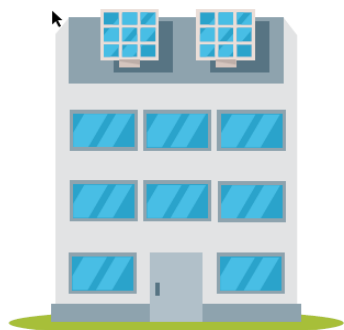
Energy Community models in Austria

From consumer to prosumer



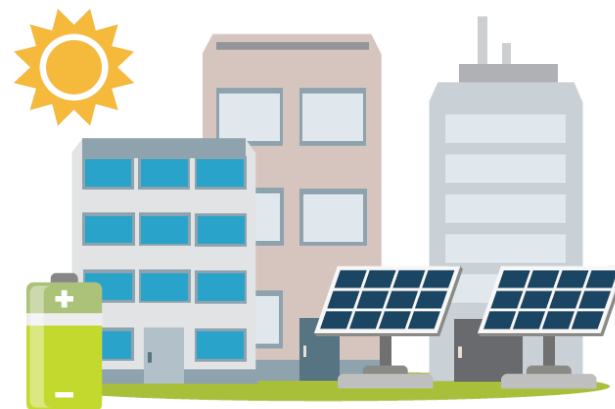
until 2017:

Direct consumption only
by one consumer
(e.g. single family house or
company)



since 2017:

Direct consumption by
several consumers within
one property
(§16 a EIWOG,
„Gemeinschaftliche
Erzeugungsanlage“)



since 2021:

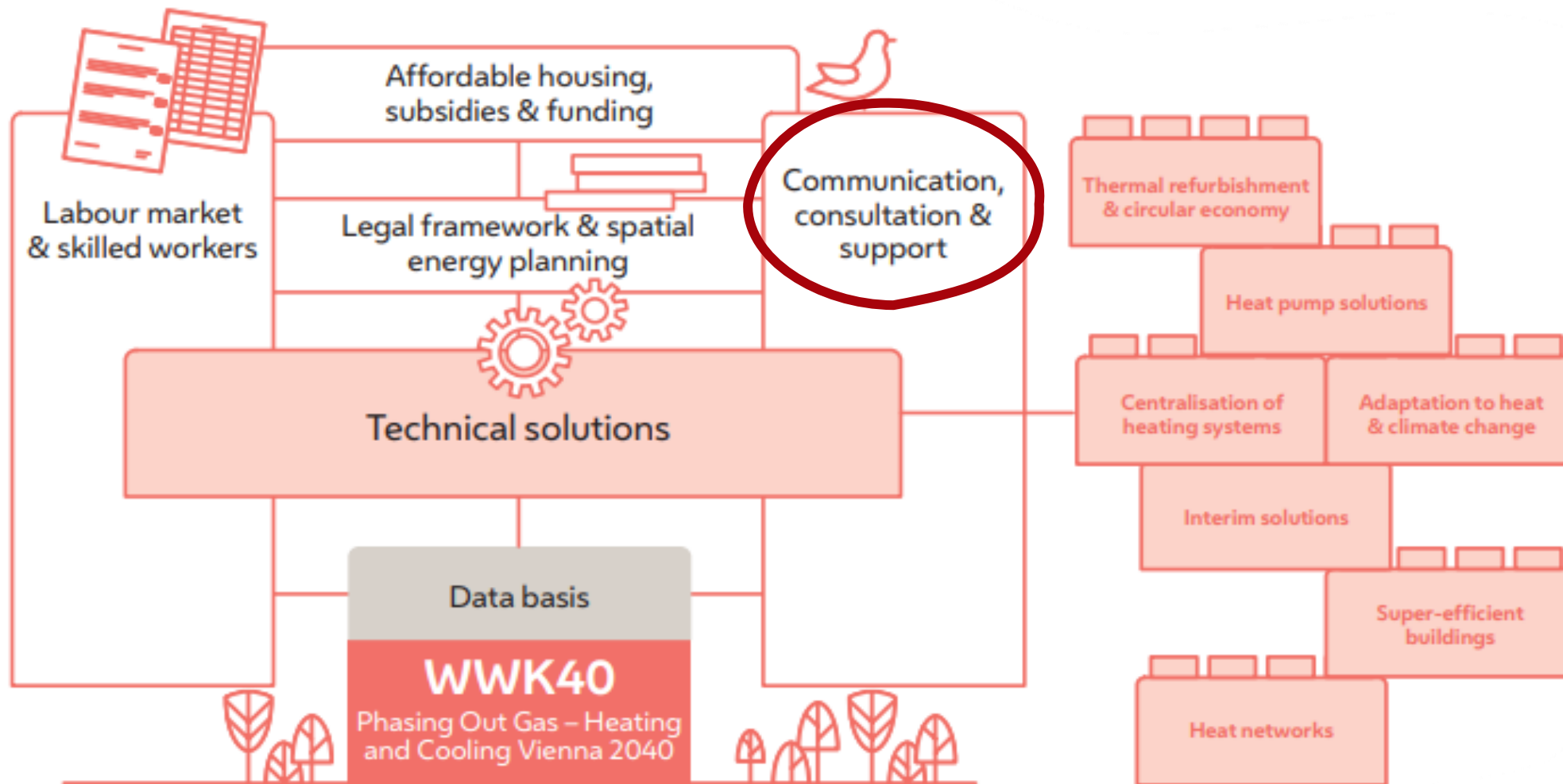
**Local and regional renewable
energy communities** for
production and self-consumption
even across properties. (§79
Erneuerbaren-Ausbau-Gesetz
(EAG))



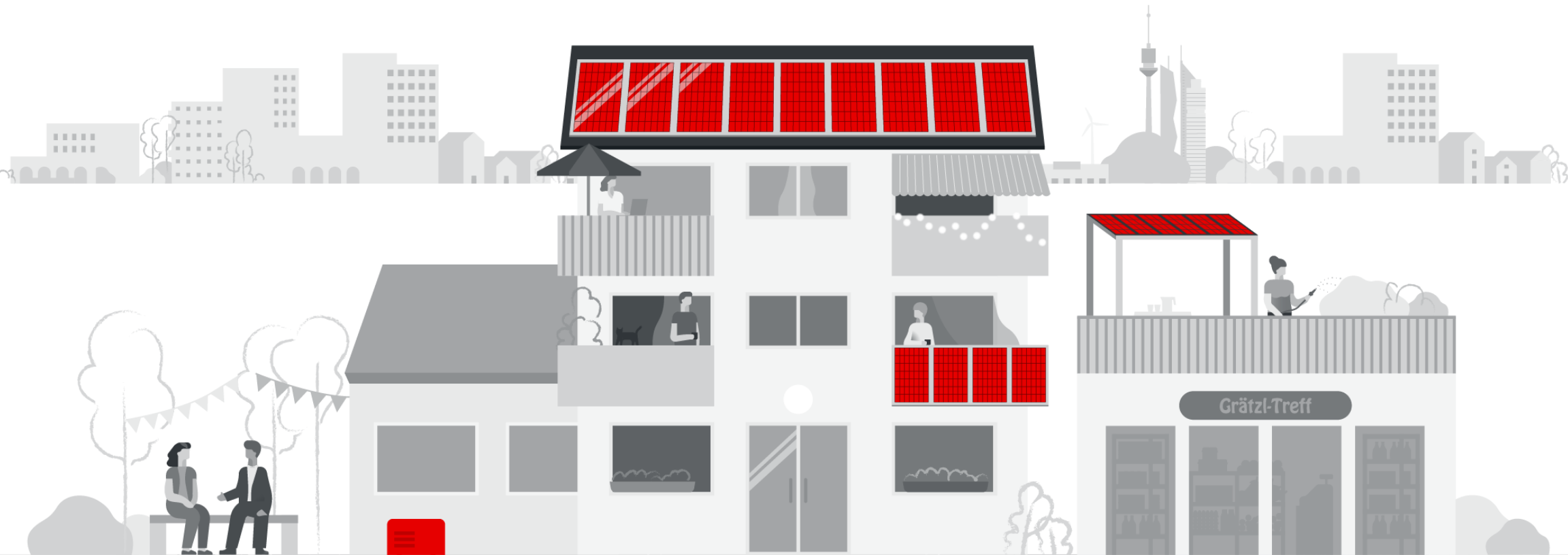
since 2022:

Citizen energy community
even across different grid
concession areas since fall
2023
(§16b EIWOG)

From Theory to Practice



[Phasing Out Gas - Heating and Cooling Vienna 2040 \(wien.gv.at\)](http://wien.gv.at)



Renewable Energy Advisory Service Conception and Design

EU Directive 2018/2001

on the promotion of the use of energy from renewable sources

Article 16

Organization and duration of the permit-granting process

Member States shall set up or designate one or more contact points. Those contact points shall, upon request by the applicant, guide through and facilitate the entire administrative permit application and granting process [...]

Timeline (Q3 2021 – Today)

From concept to operation

Conception

Q3 - Q4 2021

Analysis of stakeholders and “ecosystem”, needs assessment, defining content, resource requirements, external presence

Development

Q1-Q2 2022

Website establishment, prototyping advisory services, staff onboarding

Pilotphase

Q3 2022 – Q4 2023

Launching website and service offers, adjustments, standardization and development of new offers

Regular Operation

Since January 2024:
Establishment of own premises, development of new offers, technology integration, joining forces to prepare for scale

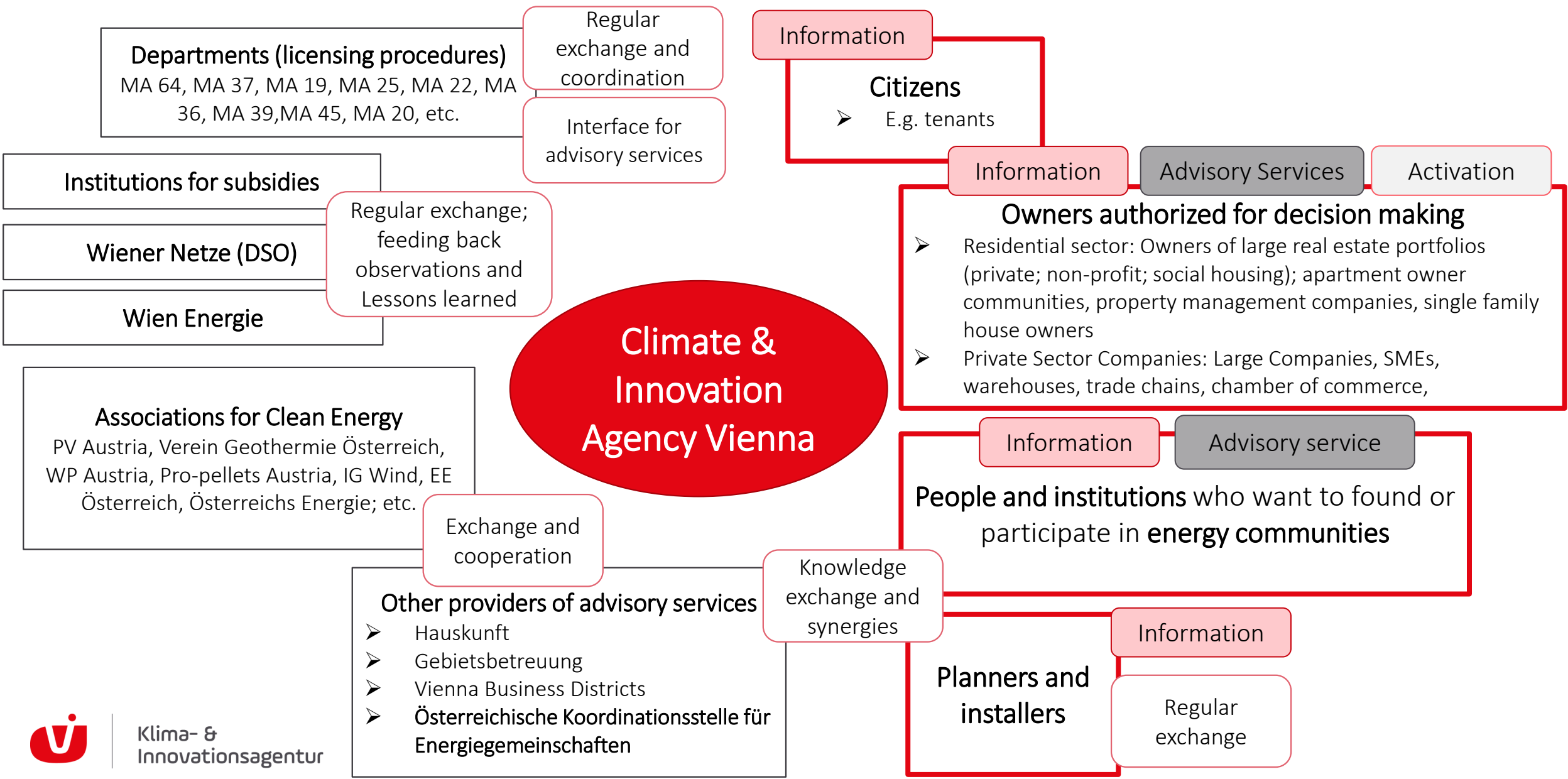


Conception | Analysis of stakeholders

Mapping & first overview

Relevant Departments and Institutions (related to licensing and subsidies)	MA 64, MA 37, MA 19, MA 25, MA 22, MA 36, MA 39, MA 20, MA 45, MA 50, MD-BD; KPC;
(Partner-) Institutions related to advisory services	Hauskunft, Gebietsbetreuung, Vienna Business Districts, Österreichische Koordinationsstelle für Energiegemeinschaften;
Energy Supply	Wien Energie, Wiener Netze, Ökostrom AG, Energie Allianz, Verbund, ...;
Start-ups und young service providers	Nobile, e-friends, OurPower.coop, Energie Zukunft Niederösterreich GmbH, ...;
Associations of clean energy companies and service providers	PV Austria, Verein Geothermie Österreich, WP Austria, Pro-pellets Austria, IG Wind, EE Österreich, Österreichs Energie;
Representation of the private sector; real estate owners and property management companies	Österreichischer Verband gemeinnütziger Bauvereinigungen (gbv Wien), Wirtschaftskammer Wien, Wirtschaftsagentur Wien;
Science and technology	Geologische Bundesanstalt, Technologie Plattform PV;

Conception | Mapping relationships in the “ecosystem”



Needs assessment - Customer Journey (for PV)

	Raising awareness	Decision making	Planning & Project-implementation	Operation
Situation	<p>I have money to invest and would like to generate my own electricity, how can I do this?</p> <p>I heard of the Vienna's photovoltaic campaign, how can I participate?</p>	<p>Is my roof big enough for setting up PV?</p> <p>What are my revenues and expenses?</p> <p>Where do I find an reliable installer?</p>	<p>I received quotes from installers, are they good quality?</p> <p>Licensing is getting delayed – what is the reason?</p>	<p>I have built PV on my roof and would like to participate in an energy community</p>
Information - website and advisory services	<ul style="list-style-type: none"> ✓ Introducing Vienna's PV campaign ✓ Providing an overview to the pathway to PV (Licensing, Subsidies, finding the right installer) ✓ Online Tool, e.g. for assessing rentability ✓ Showcasing best practice ✓ Link to platforms of high quality installers ✓ Link to advisory services for further support and information 	<ul style="list-style-type: none"> ✓ Advisory on feasibility and rentability ✓ Information on the steps for founding of or participating in an energy community project ✓ Reference to information on the website ✓ Reference to platforms of high quality installers 	<ul style="list-style-type: none"> ✓ Rough assessment of quotes ✓ Advisory on licensing procedures ✓ Documenting and analyzing enquiries and feedback to City programs (phasing out gas; PV) for regular adjustments and improvements 	<ul style="list-style-type: none"> ✓ Information on the steps for founding of or participating in an energy community project ✓ Documenting project as best practice

Needs assessment - Customer Journey (for Energy Communities)

	Raising awareness	Decision making	Planning & Project-implementation	Operation
Situation	<p>I have surplus electricity and don't want to sell it on the market at low prices. Can I also share the electricity with my neighbor?</p> <p>I heard of energy communities, how can I participate?</p>	<p>What steps are required to set up an energy community?</p> <p>What are my revenues and expenses?</p> <p>Where do I find an reliable service provider?</p>	<p>I have received offers from service providers. Is the offer good?</p> <p>Registration with the network provider is delayed - what is the reason for this?</p>	<p>The data quality is not sufficient for billing. What can I do?</p>
Information - website and advisory services	<ul style="list-style-type: none"> ✓ Introducing energy community models ✓ Providing an overview to the pathway to energy communities ✓ Showcasing best practice ✓ Link to further information 	<ul style="list-style-type: none"> ✓ Step-by-step scheme with details about setting up an energy community ✓ Information such white label material e.g. contracts ✓ Reference to platforms of high quality service providers 	<ul style="list-style-type: none"> ✓ Rough assessment of quotes ✓ Support with the registration process ✓ Documenting and analyzing enquiries and feedback for regular adjustments and improvements 	<ul style="list-style-type: none"> ✓ Consultation with Austria-wide platform and feedback to grid operators ✓ Feedback on recurring problems at city and national level ✓ Documenting project as best practice

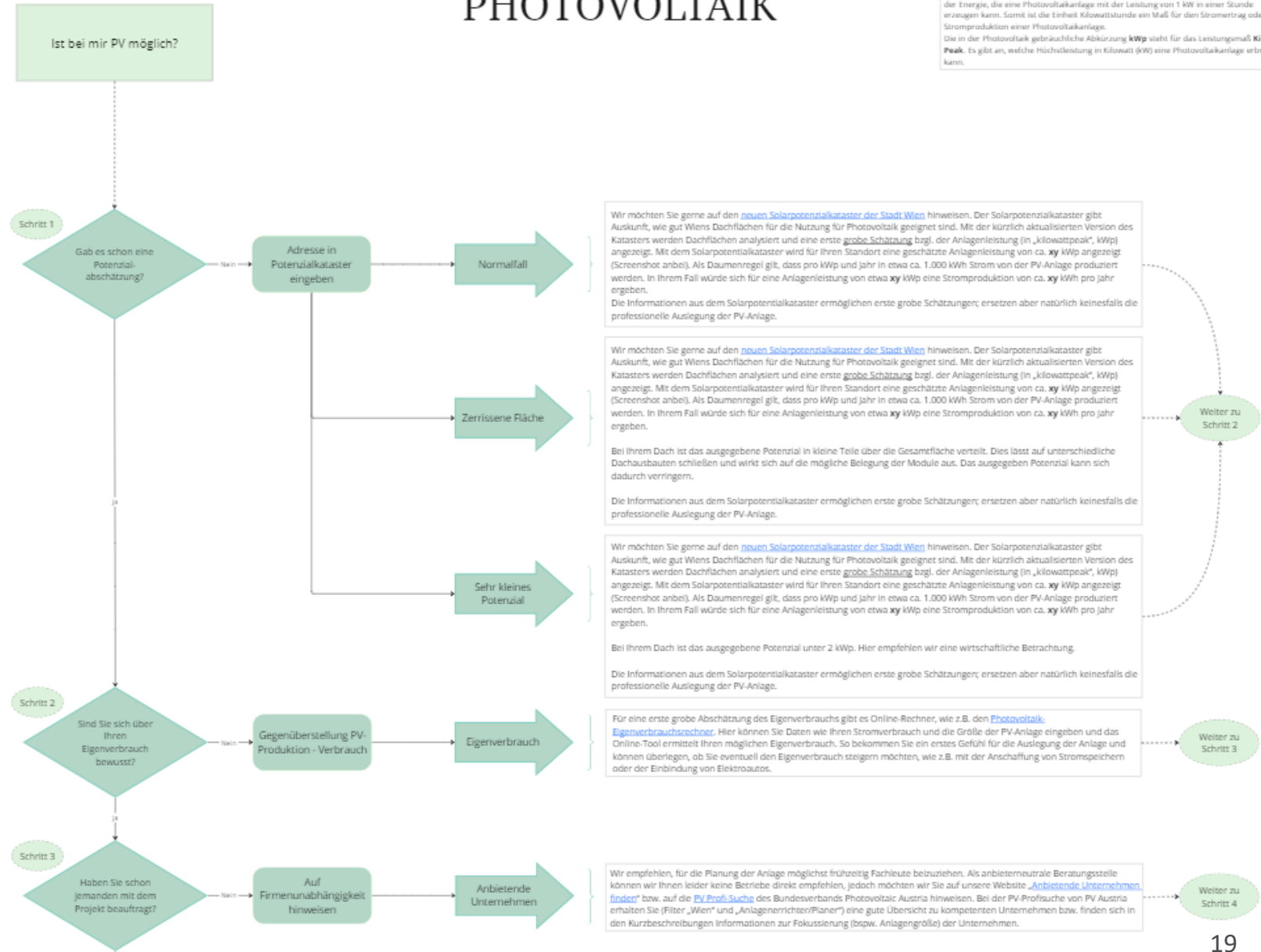
Customer Journey | regular refinement

Preparing to scale-up

Refining Customer Journeys for increased standardization and automatization (e.g. chat-bots) as well as design of tailored comprehensive services

PHOTOVOLTAIK

Kilowattstunden (kWh) sind eine Maßeinheit für Energie. Eine Kilowattstunde entspricht der Energie, die eine Photovoltaikanlage mit der Leistung von 1 kW in einer Stunde erzeugen kann. Somit ist die Einheit Kilowattstunde ein Maß für den Stromertrag oder die Stromproduktion einer Photovoltaikanlage.
Die in der Photovoltaik gebräuchliche Abkürzung kWp steht für das Leistungsmaß **Kilowatt-Peak**. Es gibt an, welche Höchstleistung in Kilowatt (kW) eine Photovoltaikanlage erbringen kann.





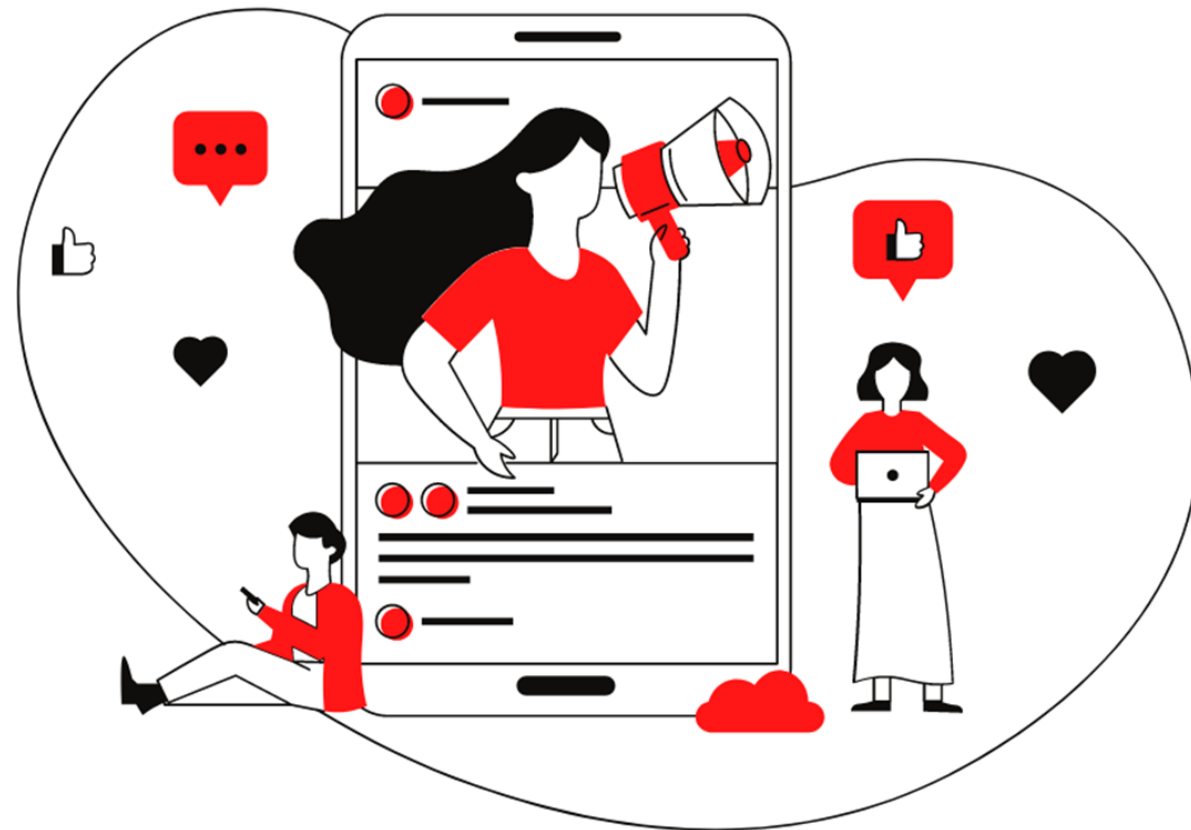
Set-Up since July 2022

Strategic Approach

Focus on leverage activities / "activation" of businesses, property managers, property owners and multipliers with large potential and "snowball effects"

Effective and efficient information and advice for residents and businesses of Vienna to simplify the transition to renewable energy systems and set-up of energy communities

Comprehensive public communication with tailored information for various target groups e.g. step-by-step guides for setting up an energy community



Based on EU Directive | 3 core tasks at the beginning

Central contact point for information and guidance for future operators of renewable energy systems; in particular on **permit application and granting processes** (in accordance with EU Directive 2018/2001 and Vienna Provincial Laws, WERUG)

One-stop shop for **energy communities**

Targeted measures to **activate** companies, property managers and developers in support of the “Vienna photovoltaic program” and the „Phasing-out gas“- program.



Funding & KPIs

Client: City of Vienna, Department Energy Planning

Funding through different Assignments

Main Source

- Assignment on “establishment and operation of a central contact point for energy generation plants based on renewable energy sources”

Supplementary sources

- Vienna Photovoltaic Program
- Phasing-out-gas Program
- ...

KPIs

- # of client contacts
- # of advisory services
- # number of events organized
- # number of expert lectures

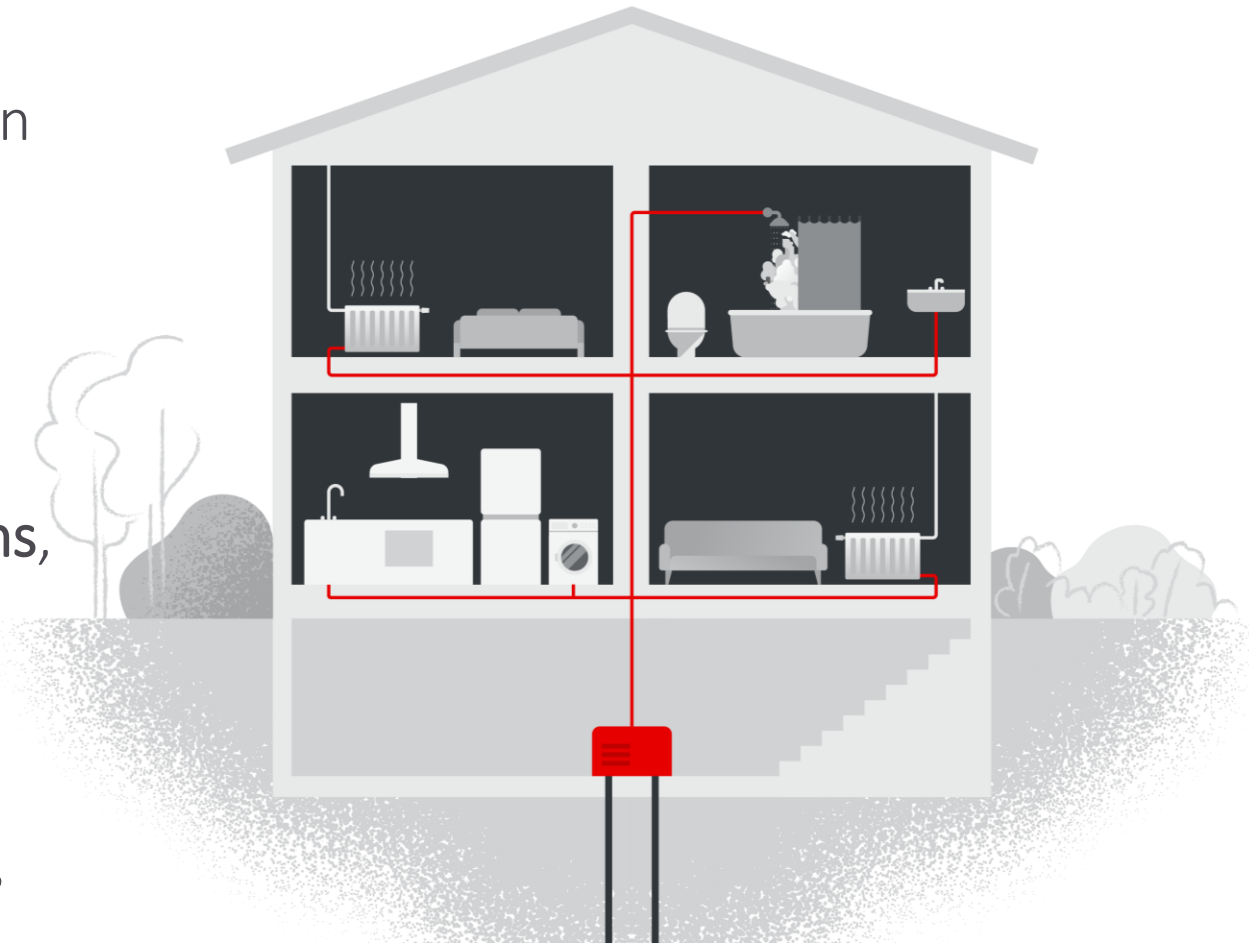


Principles

The Climate and Innovation Agency Vienna

- provides **free** and **provider-neutral** information and consulting.
- works in **close coordination** with relevant **municipal departments** of the City of Vienna, **“Wiener Netze”** (DSO), **“Wien Energie”** ...
- works closely with **other advisory organizations**, in particular „Hauskunft“, „Vienna Business Districts“, „OekoBusiness Wien“, „Wirtschaftsagentur Wien“, etc.

Extent: all renewable energy technologies, focus on photovoltaics and heat pumps and energy communities



Working in Partnership

Austrian Coordination Office for Energy Communities

Exchange platform of the energy agencies of the federal states:

- Development of documents
- Consulting and support
- Coordinated exchange with stakeholders
- Support of pilot-projects

Platform partner and one-stop shop in Vienna
operated by UIV Urban Innovation Vienna



Working in Partnership

Hauskunft – Defining the Roles



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Renewable energy systems & energy communities

Topics:

Steps to renewable energy systems and energy communities; official procedures, subsidies, contact point for “Vienna photovoltaic program”, “100 projects phasing-out gas”

Target Groups:

Future owners of renewable energy systems and initiators of energy communities (including companies, property developers, private individuals), real estate management companies, associations and other multipliers



Renovation of residential buildings

Topics:

Renovation consulting for buildings, in particular optimization of the thermal quality of the building shell and climate-friendly energy supply

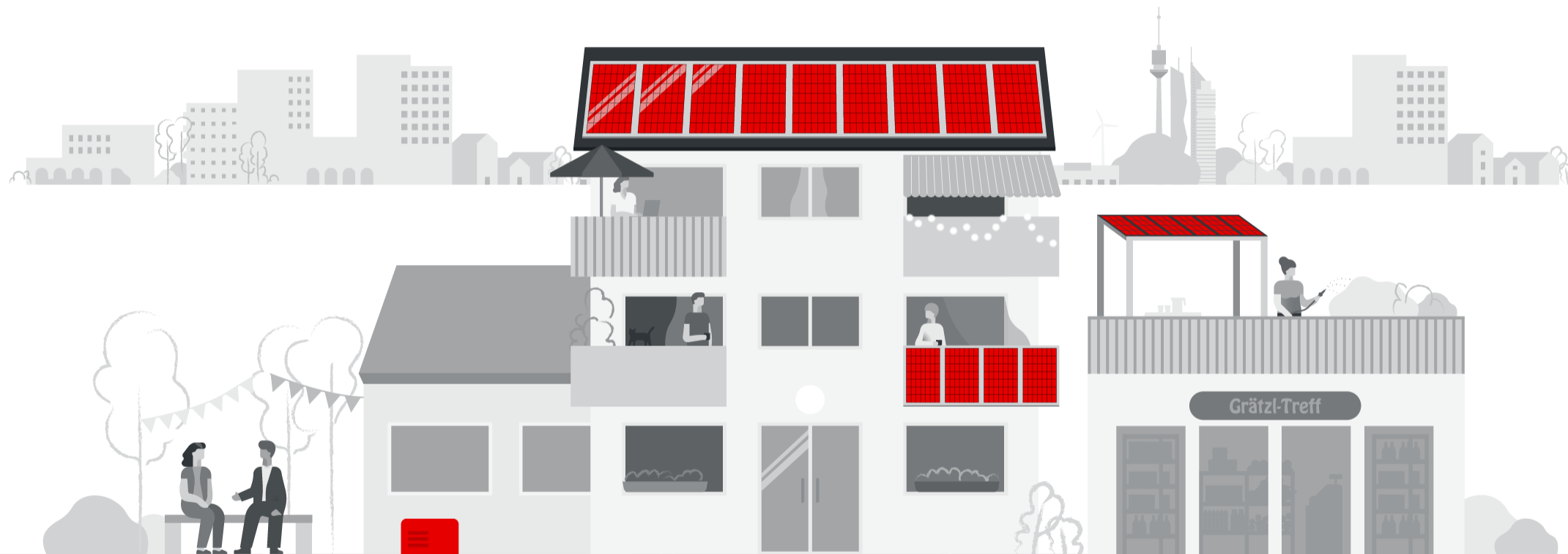
Target groups:

Private owners of homes, apartment buildings and apartments, architects, planners and property managers



Defining Non-targets

- No detailed planning and engineering (dimensioning PV plants, ...)
- No supervision of standard project implementation
- No conciliation body for complaints
- No processing of standard subsidy programs
- No legal advice
- No granting of permits



Operation
since July 2022

Leverage activities | "activation"

Support for the "Vienna photovoltaic program"

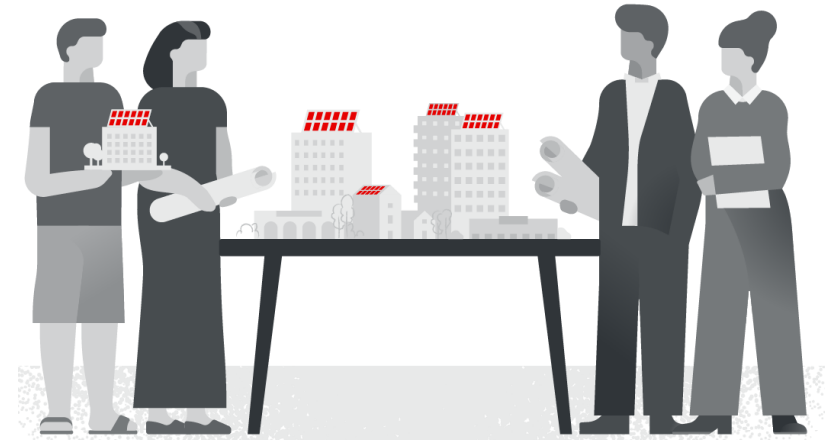
Support and networking of companies with great potential for photovoltaic systems and energy communities - e.g. "Solar Talk"

- Cooperation with "Vienna Business Districts", "Wirtschaftsagentur Wien", Vienna Chamber of Commerce

Support for the "Phasing-out Gas" implementation program

Support for property developers and property management companies

- Advice formats in cooperation with "Hauskunft"
- Event formats - e.g. „Marketplace for heat pump solutions in multi-storey residential buildings"



Leverage activities: Assessing rooftops with large potential for PV

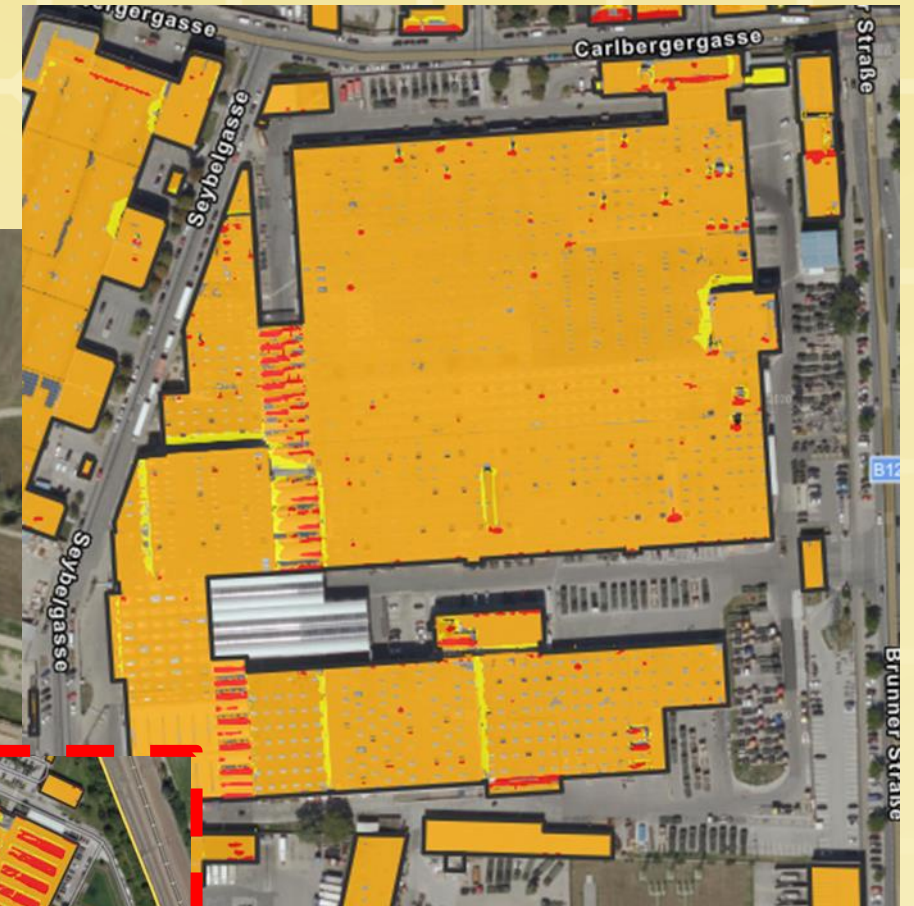


Dieses Gebäude hat folgendes Potential:

- Mittlere Eignung (600-900 kWh/m² a): 4.815 m²
- Gute Eignung (900-1250 kWh/m² a): 126.904 m²
- Sehr gute Eignung (>1250 kWh /m² a): 4.698 m²
- Geschätzte Anlageleistung: 6073,91 kWp
- Schlechte Eignung (<600 kWh/m² a): 2.212 m²

Dieses Gebäude hat folgendes Potential:

- Mittlere Eignung (600-900 kWh/m² a): 3.885 m²
- Gute Eignung (900-1250 kWh/m² a): 33.490 m²
- Sehr gute Eignung (>1250 kWh /m² a): 9.568 m²
- Geschätzte Anlageleistung: 1987,32 kWp
- Schlechte Eignung (<600 kWh/m² a): 2.846 m²



Dieses Gebäude hat folgendes Potential:

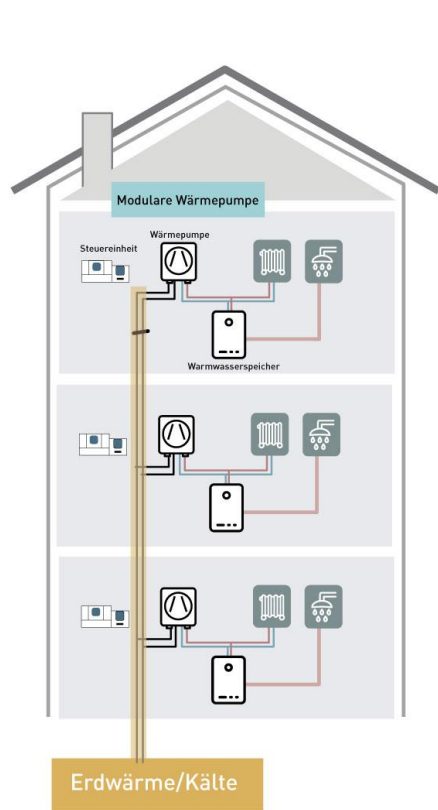
- Mittlere Eignung (600-900 kWh/m² a): 1.334 m²
- Gute Eignung (900-1250 kWh/m² a): 45.532 m²
- Sehr gute Eignung (>1250 kWh /m² a): 715 m²
- Geschätzte Anlageleistung: 2134,47 kWp
- Schlechte Eignung (<600 kWh/m² a): 494 m²

Solar potential map: [Wien Umweltgut](#)

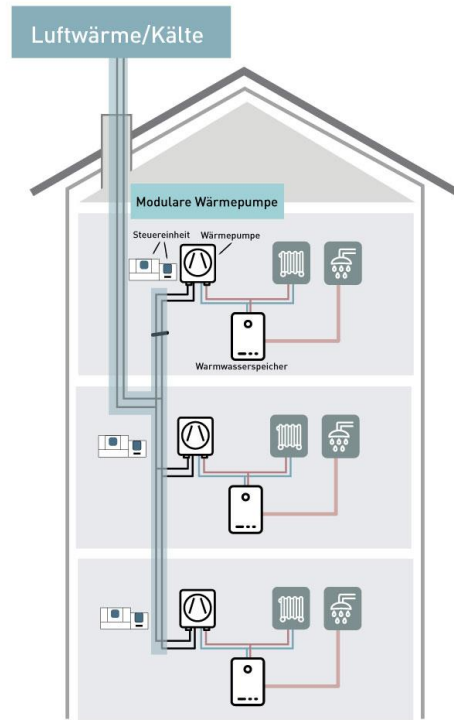
Leverage activities

Marketplace for heat pump solutions in multistorey residential buildings

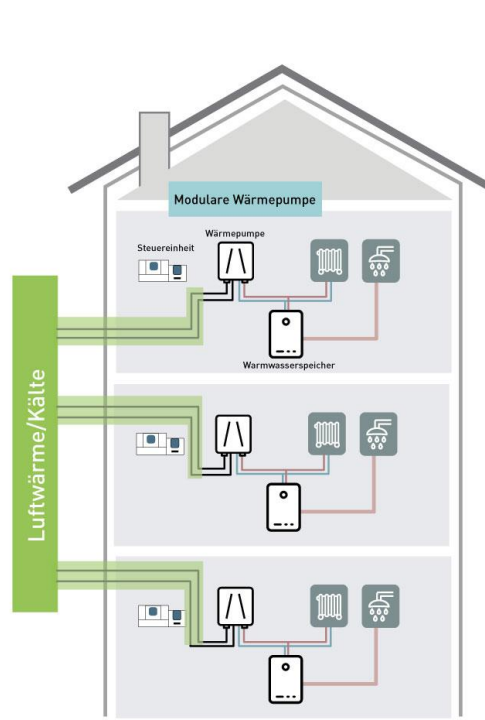
Quellenanbindung über Erdreich



Quellenanbindung über ungenutzten Kamin



Quellenanbindung über Fassade



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On-demand Consulting | Contact

We are happy to support you!

Our team is available to provide you with information and consultation via e-mail, telephone, video call or in person.

- By telephone on **+43 14000 84287**, daily from 9:00 to 12:00. In person at the UIV office by appointment.
- E-mail: **erneuerbare-energie@urbaninnovation.at**

Information

- Making contact (30 min.)
- Answering inquiries (primarily e-mails, 30 min.)

Consultations

- Brief consultations (online appointment, 60 min.)
- Orientation consultations (personal appointment, 90 min.)



New facilities in the UIV office

- Individual on-site consultation for a personal, welcoming and professional appearance
- Giving the one-stop shop a place it is associated with
- 3 desks and 1 meeting box for individual on-site consulting
- Information material to give away
- A collaborative conception of the space with employees is a plus

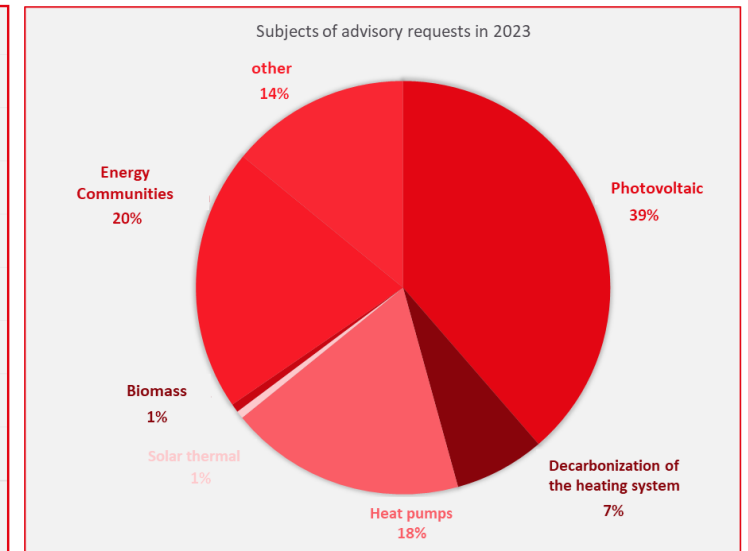
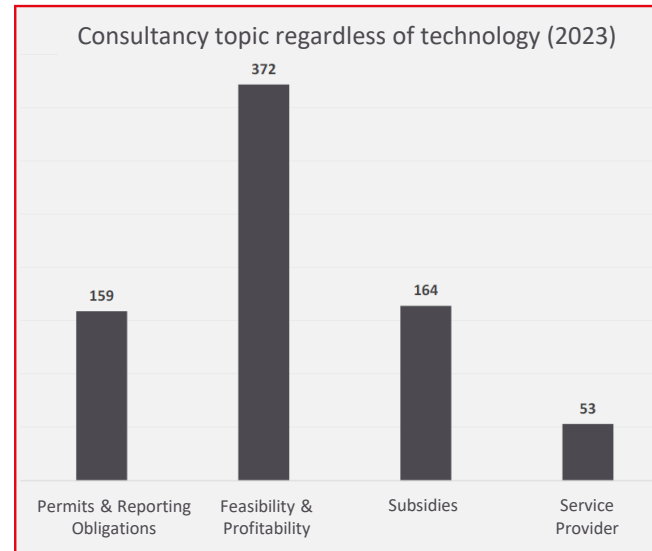


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On-demand consulting | Monitoring

- Launch on July 9, 2022 with the WERUG amendment coming into force
- Soft launch - since then approx. 1.700 contacts, approx. 80 contacts per month (50 % email, 50 % by phone or online); documented via CRM System
- Phone call + email often sufficient. Around 500 detailed consultations
- Inquiries from owners of single-family houses, apartment buildings, apartments and businesses
- Approx. 1/3 each of the inquiries about photovoltaics, sustainable heating and energy communities
- Main topic: feasibility



The screenshot shows the 'EBS Manager' web application interface. The main heading is 'Neue Beratung anlegen'. Below the heading are tabs for 'Ansprechpartner', 'Objekt', and 'Datenschutzerklärung'. The 'Ansprechpartner' tab is active, displaying a form with the following fields:

- Firma:
- UID:
- Anrede: Keine Angabe Herr Frau Firma Familie
- Titel:
- Vorname:
- Nachname:
- Land:
- PLZ, Ort:
- Straße:
- Hausnummer, Stiege, Tür/Top:
- AGWR:
- Ortschaft:
- Gemeinde:
- Katastralgemeinde:
- Bezirk:

On-demand consulting | Monitoring customer satisfaction

Feedback forms on consultations since July 2022 (as of March 2024)

570 questionnaires sent out via e-mail (CRM) after consultations or responses to inquiries

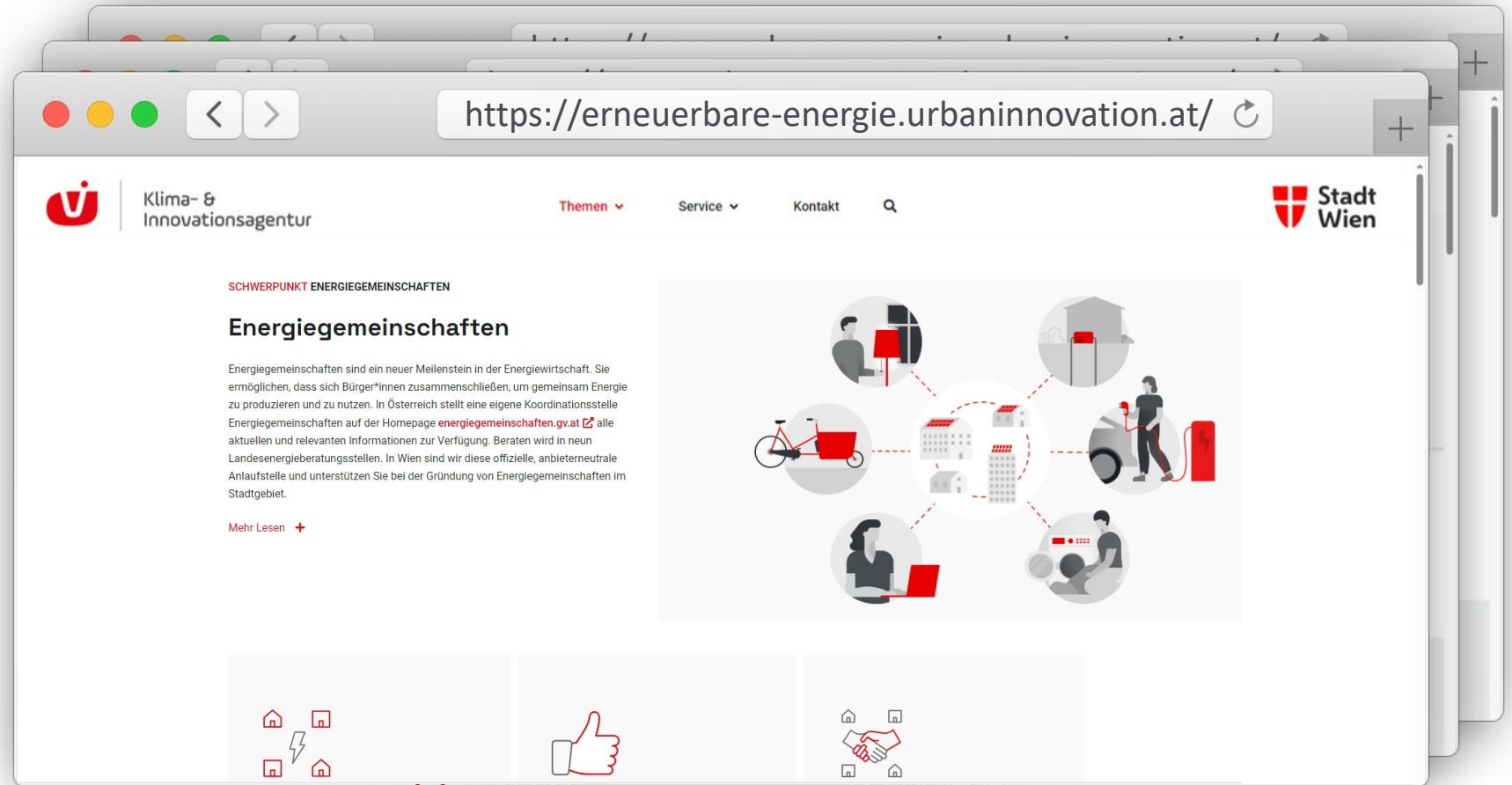
139 completed questionnaires received (24%)

- 92 % (very) satisfied with information and advice from the Climate and Innovation Agency
- 94% would recommend the Climate and Innovation Agency's advisory service to others
- 90 % would contact the Climate and Innovation Agency again if they would have further questions



Website

- Around **23.390 visits** (mainly "direct access", or via wien.gv.at);
60.790 page views.
- Increase in visits by approx. 20 % during the campaign of the “Vienna photovoltaic program” (Matomo Analytics; March 2024)
- A good link to the website of the city/municipality is a “Plus”
- Make sure that you can adapt the website yourself



Communication Materials

UIV



In collaboration:



Klima- & Innovationsagentur

Communication Materials

Handbook on permit application and granting procedures – mandatory by EU law

Target groups: Owners of residential and commercial buildings and their representatives who want to learn about the legal requirements

Goal: More applications, fewer incomplete applications, satisfied applicants

Structure of the manuals:

- structured by technology (photovoltaics, heat pumps, biomass and wind power)
- compact structure and short texts
- compilation of existing information from official help pages and information sheets



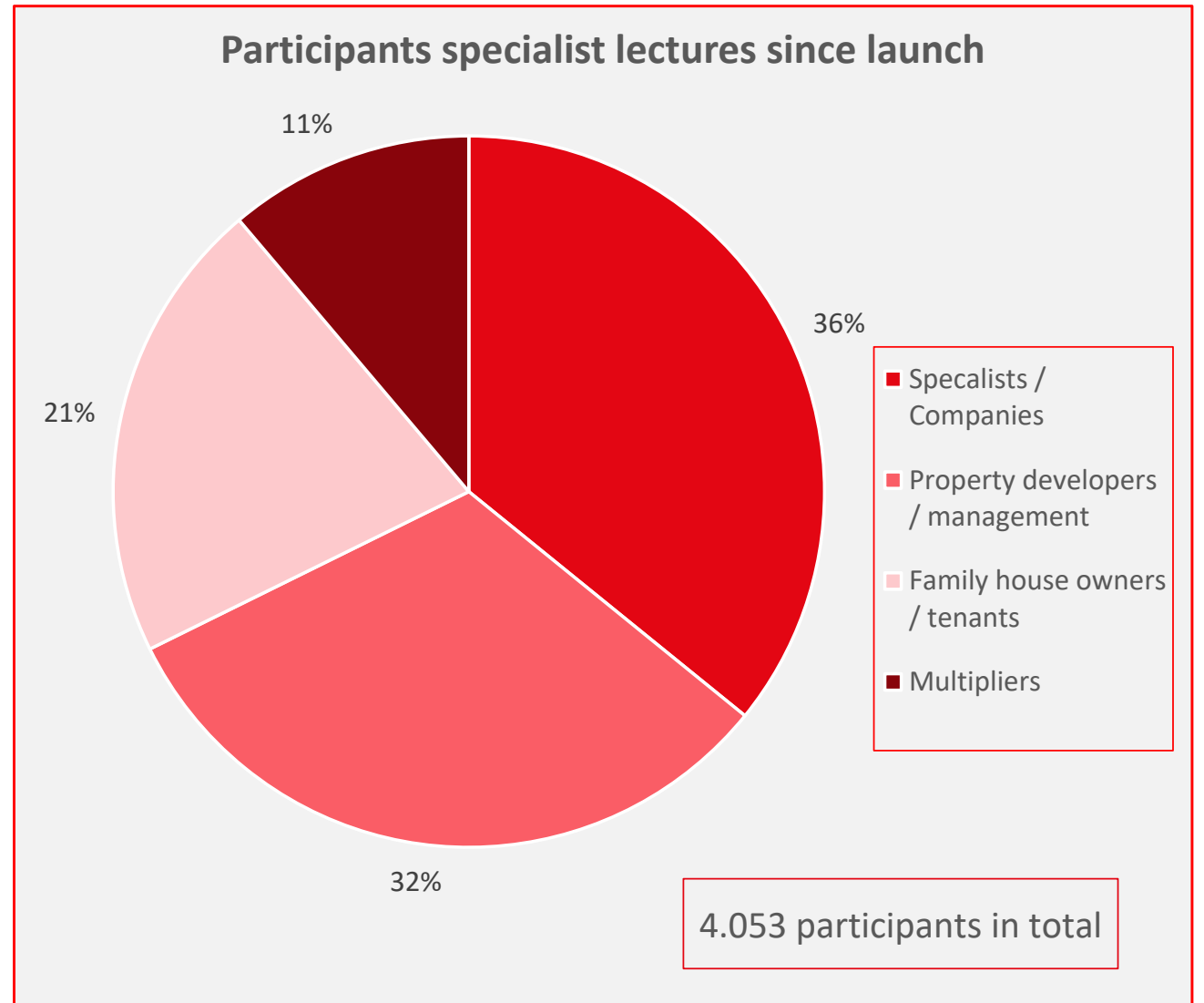
VERFAHRENSHANDBUCH

Anzeige- & Genehmigungspflichten sowie weitere Anforderungen für Photovoltaik-Anlagen und Strom- speicher



Events

More than 88
specialist lectures
Around 4.053
participants



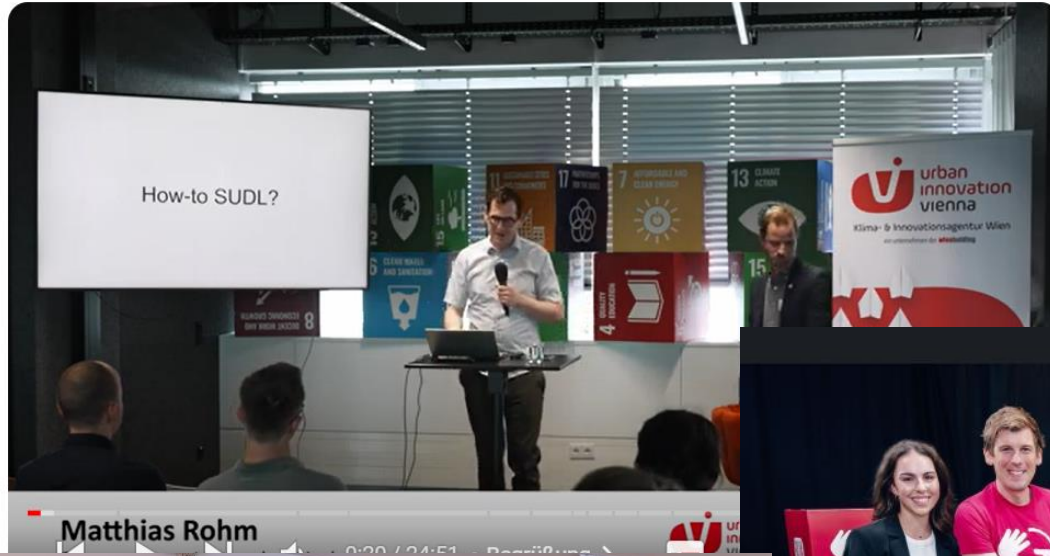
March 2024

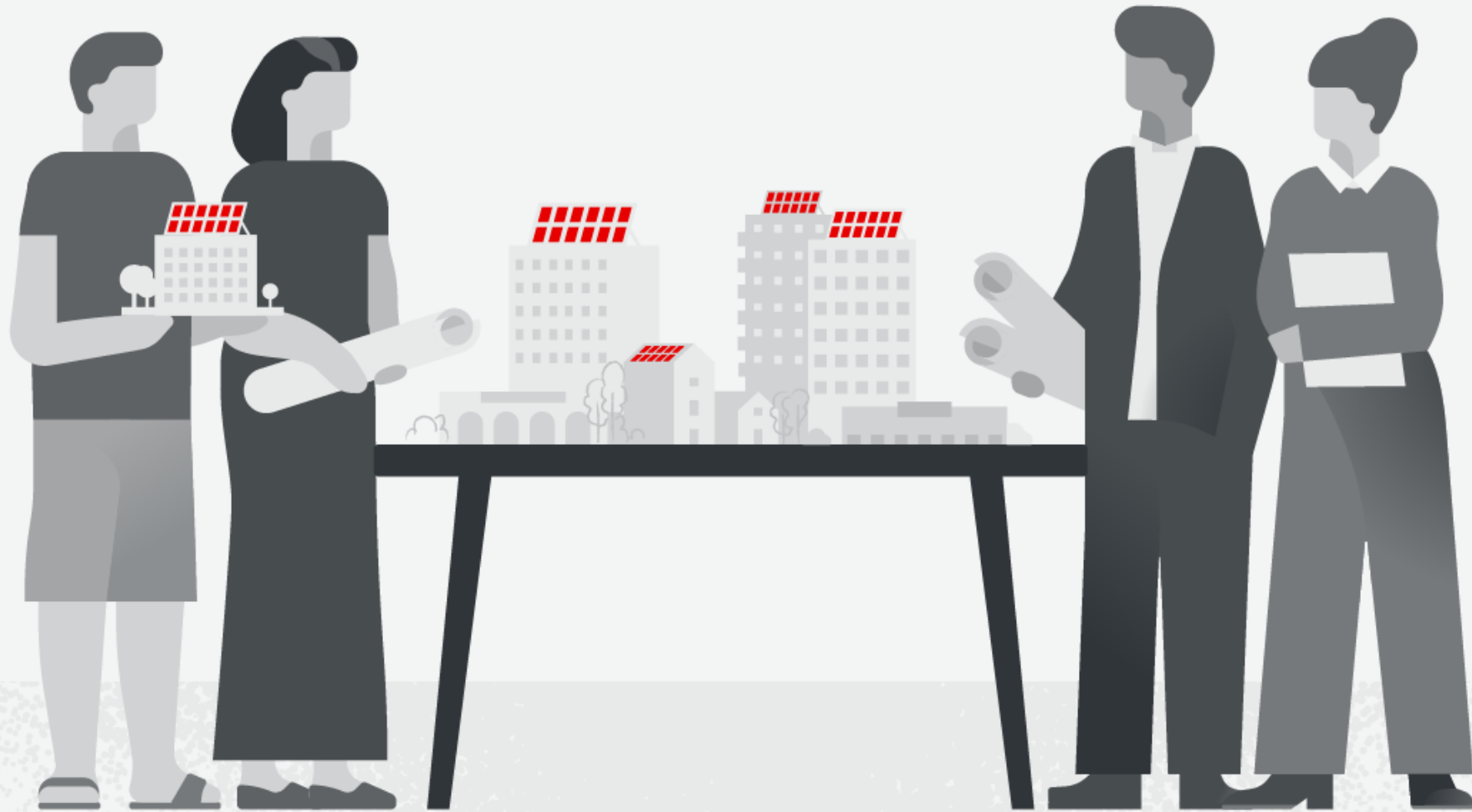
Events

18 events on energy communities in 2023, some of which were organised by the UIV.

+

Many other events related to the energy communities as part of the overall subject of the energy transition.



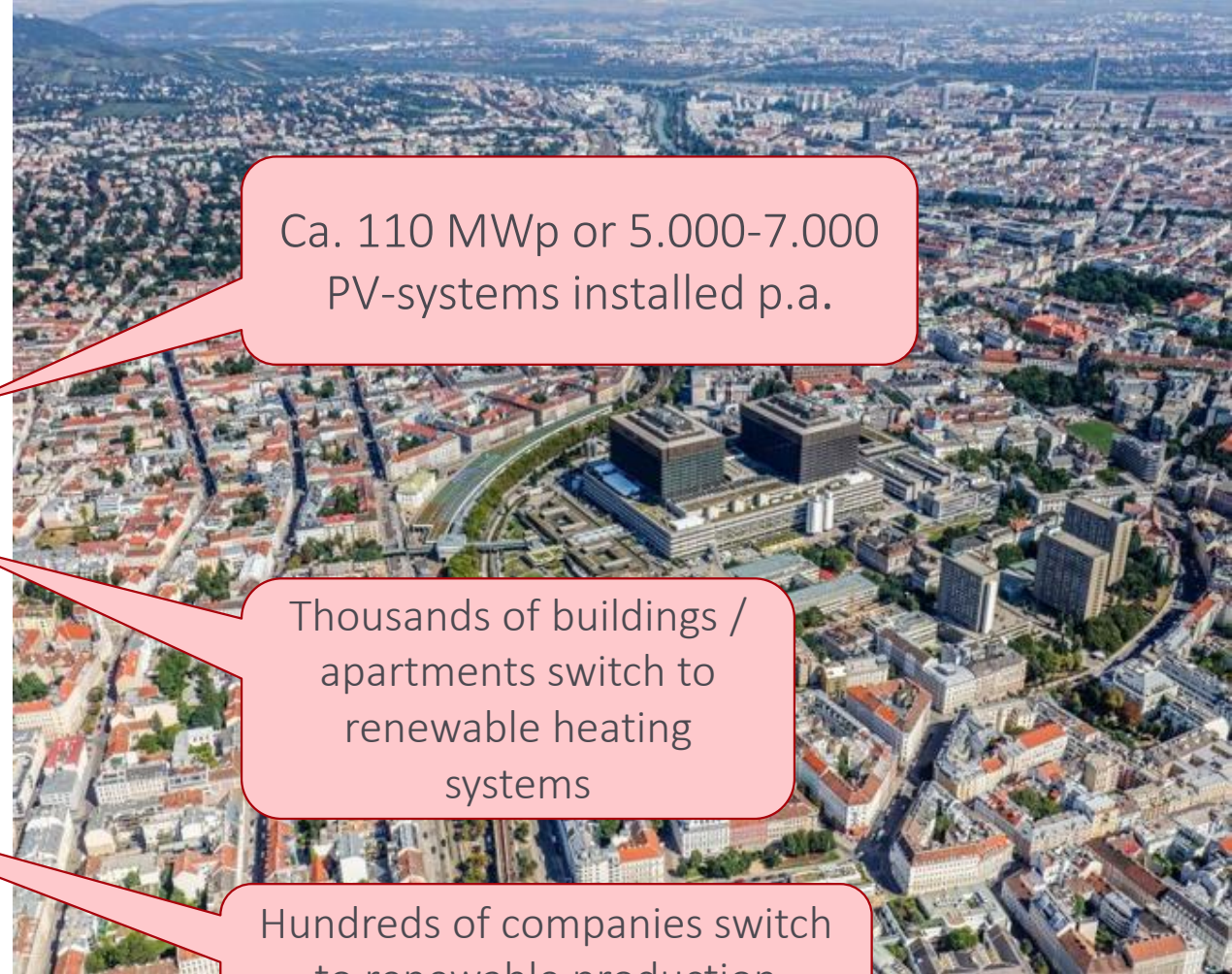


Development Scenario Outlook 2028

Scenario 2028

Assumptions

- *Licensing processes optimized, automated, and digitalized*
- *Vienna's PV campaign is achieving its goals*
- *“Vienna heating plan 2040” legally binding; „Phasing-out gas“- program up and running*
- *Technical options for the decarbonization of the most important industrial production processes in Vienna clarified*
- *Energy communities are well known and easily implemented*



Ca. 110 MWp or 5.000-7.000 PV-systems installed p.a.

Thousands of buildings / apartments switch to renewable heating systems

Hundreds of companies switch to renewable production systems

Expected Key Topics 2028

Tentative list

- *Guidance and orientation required for timely decision making (owners of large building stock, single family houses, companies, ...) for phasing out fossil fuels*
- *Seismograph – for innovative technical, financial and social solutions; hurdles, successful frontrunner, good stories, ...*
- *Quality Control and complaint management*
- *Comprehensive Communication and information for citizens in Vienna*



Framework of Goals

to which the Climate & Innovation Agency could be contributing



- 80% of suitable roofs in Vienna's Business Districts have PV
- 80% of owners of large real estate portfolios install PV
- 45% of single family houses have PV
- 300 Flying roofs with PV in Vienna



- 50% of production companies and gastronomy switched to clean energy solutions
- 80% of large real estate owners have a plan in place for switching to clean energy
- 40% of single family houses switched to heatpumps



- 10% of citizens in Vienna benefit from energy communities
- Dozens of energy communities founded p.a. (in different set ups and size)

Strategic Vision 2028

Appearance and visibility

„**Change Agent**“ – promoting changes and innovation

Strong Partner for major campaigns in Vienna
(photovoltaic, phasing-out gas, ...)

Key contact for all questions regarding clean energy and energy communities

USP for companies, owners of large building stock, multipliers, energy communities

High visibility thanks to **strong branding, attractive website** and own **facilities** for advisory services, **events...**



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Scaling advisory services for the residential sector

Aligning forces with other public service providers

Key Target Groups

- Owners of large real estate portfolios (commercial; non-profit; social housing)
- Apartment owner communities
- Property management companies
- Owners of single-family houses

Developing a “Theory of Change”

(causal analysis based on available evidence)

Starting point

- Where does the first idea come from?
- What information is required?
- Where does information come from?

Contacting advisory services

Planning und assessing resource requirements

- Creating basis for decision making
- Mapping licensing procedures
- Assessing finance and subsidies

Decision making; consent, approval

Finding the right company and service provider

Implementation (obtaining required licensing, finance and subsidies)

Commissioning, starting operation



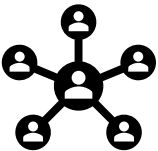
Setting up new strategic services



Renowned Point of Contact + temporary on-site presence in specific local areas



Extension of “leverage activities”
Agile and pro-active support for campaigns in Vienna (PV and phasing out gas) targeting companies, real estate owners, multipliers



Networking Platforms
Peer to peer exchange for companies, real estate owners, manufacturers, service providers, multipliers, ...



Online Academy
Webinars on current topics for specific target groups in cooperation with departments in Vienna



Innovation Radar
for relevant new technology trends and market developments; exchange with public and private sector to facilitate testing and implementation



New online services
Further development of online services such as matchmaking platform, chat-bot or address-based online information



Resource
Requirements

Staffing, Material Costs & Operating Expenses

Services	Number of staff	FTE 2024
Hotline	3	0,8
Advisers (Clean Energy Technologies, Energy Communities, Licensing Procedures)	5	
Activation	3	0,6
Public relations (Website, Media, events, ...)	5	1
Stakeholder Platforms	2	0,2
Innovation Radar	3	0,2
Online Academy	2	0,2
Management / stakeholder interface	3	0,5

Development of FTEs

FTE 2022: 2

FTE 2024: approx. 3

Expert pool

Total number of staff contributing: 18
(of which 3 experts on energy communities)

Development of operating expenses

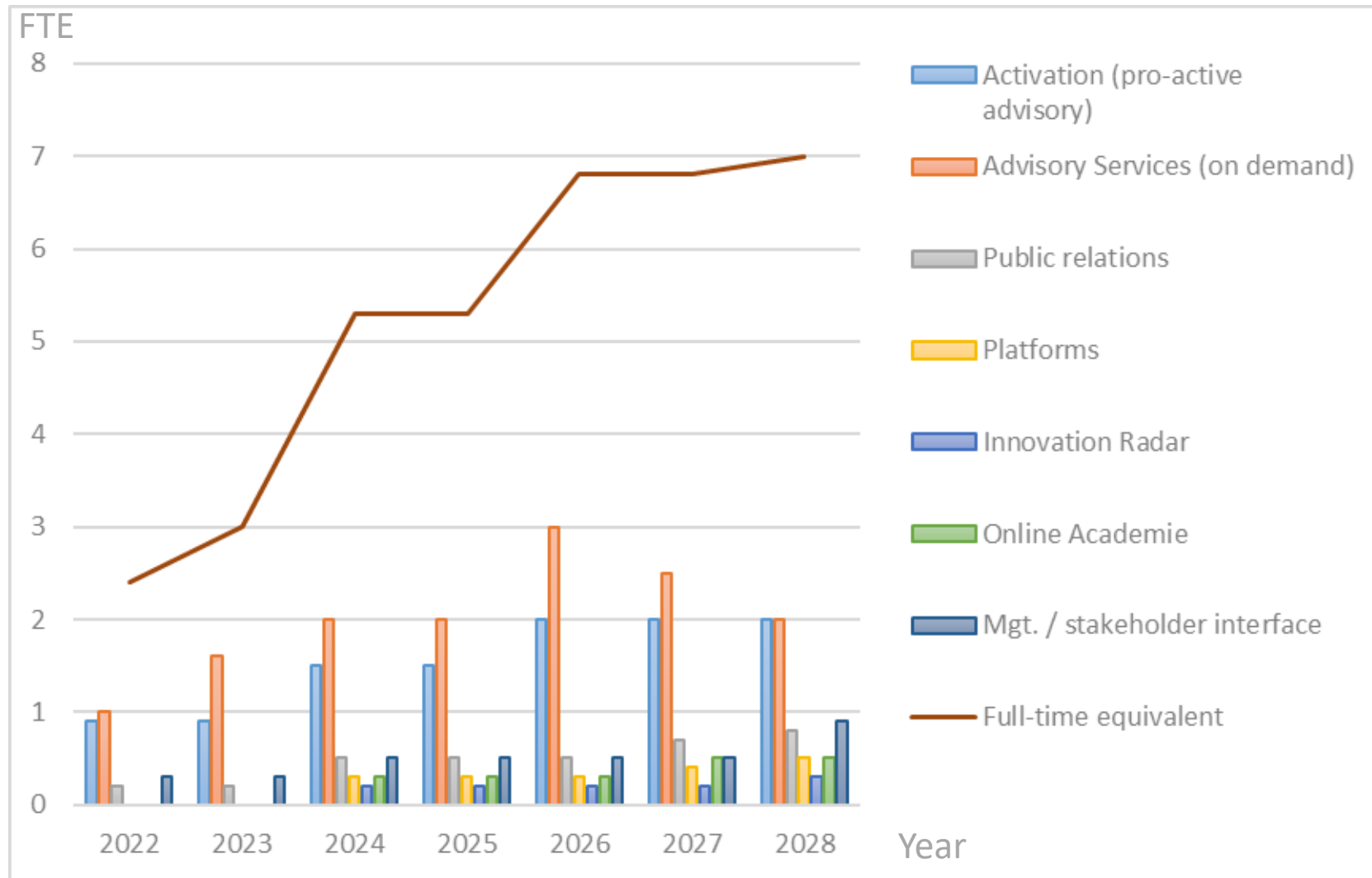
2023: 10% of total budget

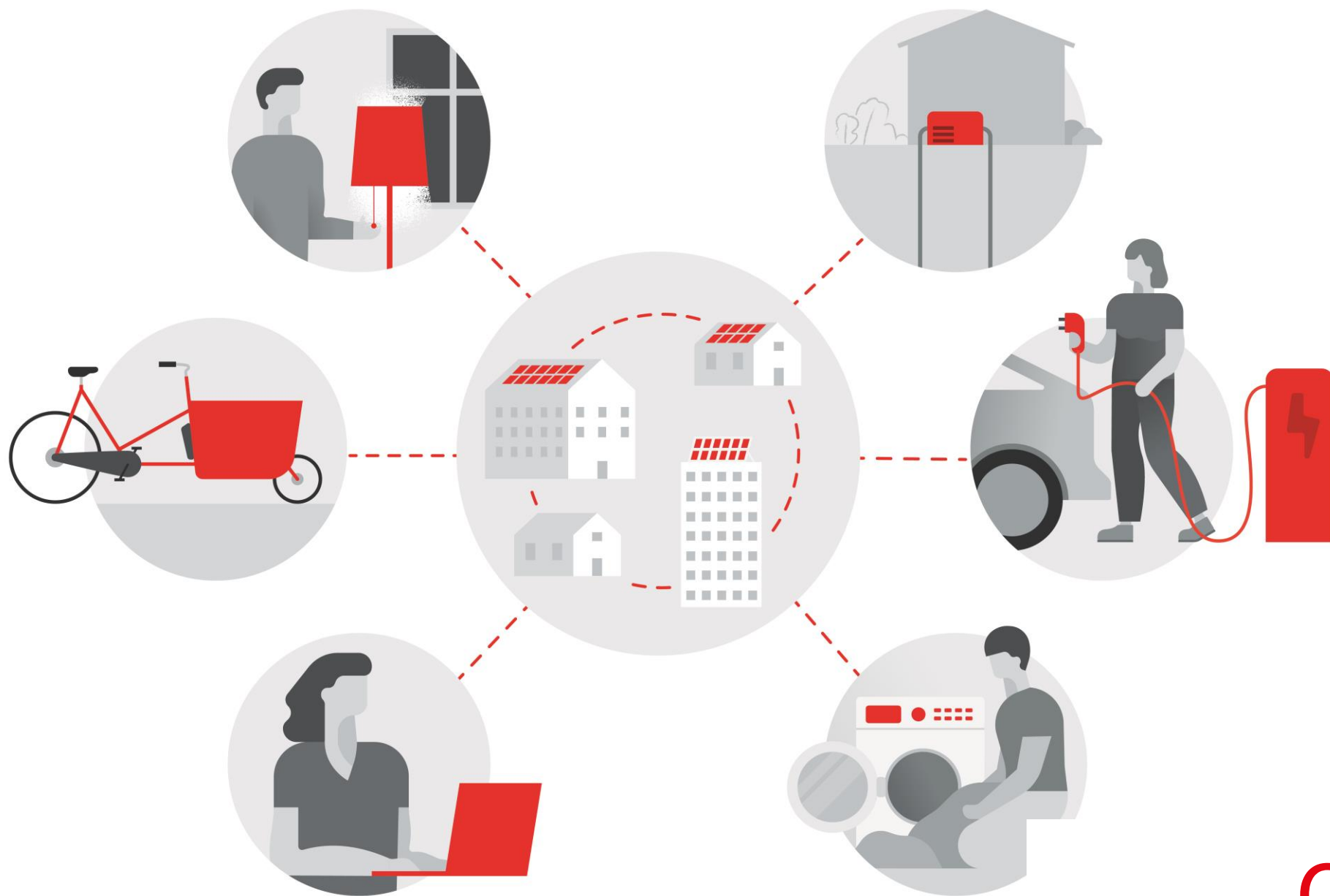
2024: 18% of total budget (incl. one-time costs like furnishing)



Service development und resource requirements

Scenario 2023 - 2028





Conclusion

Conclusions

- Focus, focus, focus!
- A thorough stakeholder analysis pays off: defining your main target group, finding levers and strong partners, ... → increasing effectiveness and efficiency
- Staying flexible is important – observe market response and developments
- Working in partnership is an advantage, but can also be challenging. A clear definition of the roles of partners is important!
- Building structures step by step helps to minimize risks (avoiding unsustainable overhead)
- Shift from in-person consultations towards online consultations seems to be a post-COVID trend
- To gain visibility on the internet, it is essential to optimize the website for search engines. This involves providing new, informative and accessible content on a weekly basis and building backlinks to other reputable websites.



Thank you for
your attention!