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**Pairity**

Evidence-Based, Community-Driven



**salam lab**

# Re:Match – Relocation via Matching

An algorithm-based & equitable  
solution for refugees  
and welcoming municipalities

**Pilot Project  
Interim Evaluation**

January 2024

**This report was produced  
by Pairity in collaboration with  
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**BERLIN GOVERNANCE PLATFORM** is an independent think tank based in Berlin that develops, promotes and tests transparency-oriented and participatory governance in order to develop sustainable and human rights-based solutions to societal challenges. In the field of migration policy, the BGP develops new policy concepts for safe migration to and within the European Union. ↗ [www.governance-platform.org](http://www.governance-platform.org)

**PAIRITY** is a Canadian-based organization that applies data and technology driven interventions to facilitate refugee resettlement and community sponsorship, and measure outcomes around integration and social cohesion. ↗ [www.pairity.ca](http://www.pairity.ca)

**SALAM LAB** (Peacebuilding Laboratory) is a well-known Polish association committed to promoting civil society and human rights. For years Salam Lab has been working with the most vulnerable communities and educating on equality and inclusion. ↗ [www.salamlab.pl/en/](http://www.salamlab.pl/en/)

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# Executive Summary

This report provides an interim evaluation of the *Re:Match* programme – a collaboration between the Berlin Governance Platform, Pairity, and Salam Lab – which employed a data and preference-driven system to relocate 78 displaced Ukrainians from Poland to six German municipalities from April through September 2023. The participating municipalities were: Kiel (Schleswig-Holstein), Braunschweig, Salzgitter (Lower Saxony), Düsseldorf, Troisdorf (Northrhine-Westphalia), Rottenburg am Neckar (Baden-Württemberg).

*Re:Match* offers managed relocation, illustrating how city-level governments can provide sustainable pathways for solidarity in Germany and Europe more broadly. Municipalities participated in programme co-design, motivated by the desire for a system that considers dynamic service availability and complementarity with refugees' needs, backgrounds, and preferences. They were eager to pilot a system to improve allocations and outcomes.

Matching occurred over three cohorts, the size and composition of which were determined by municipal refugee accommodation availability. Matching procedure began with data from municipalities and Ukrainian programme participants. Municipality data included available accommodations, housing markets, educational, employment, and training opportunities; cultural services; and capacity to support vulnerable persons.

Participant data included several dozen data points around needs and preferences. Participant agency via weighted preferences is the core of the matching algorithm, allowing for democratic and personalized matching. Multi-dimensional matching incorporated cultural and social factors critical for overall welfare and integration, in addition to factors determining economic integration.

The Pairity algorithm maximizes collective welfare by assigning best possible matches given attributes and preferences, and municipality services and capacities. The process finds optimal allocations of scarce resources across cohorts. It achieved considerable success. Of sixteen weighted variables, four were met 100% of the time, six were met at least 75% of the time, and all priorities were satisfied at least 50% of the time.

Participants were offered one week to accept matches, and relocation occurred within a few weeks thereafter. Relocation and reception were arranged by Poland- and Germany-based staff. Participants received bespoke city information before relocation, outlining procedures, local contacts, immediate needs around public transit and schools; and first steps for registration with local authorities.

High match score and direct support resulted in strong programme satisfaction from municipalities and participants. Participants reported high satisfaction with services, reception, accommodations, and preference matching, and a high likelihood to remain in receiving communities. Participant and matching data provided to cities meant staff were able to allocate resources to reception. Participants showed a higher readiness than broader refugee populations to settle in new communities. Cohort matching ensured accommodations were utilized; and centring refugee agency meant participants felt an early sense of belonging.

The report concludes with insights for scaling and advocacy. The participatory approach based on granular data and preferences offers a high degree of agency, improves placement quality, and sets a strong footing for integration. Matching criteria can be iterated and weighted given longitudinal integration data, and scaled to a broader coalition of cities. Digital tools developed during the pilot can streamline data sharing and reduce barriers to entry for new cities. More cities will also mean better options for including other refugee populations.

Most broadly, scaling *Re:Match* can bolster European solidarity. Municipal champions across Germany and throughout Europe can use *Re:Match* to address challenges of timely and equitable relocation from frontline states to other regions seeking tailored and sustainable relocation with improved integration outcomes.



The background features a large, dark teal circle on the right and a smaller, light green circle on the left. Overlapping these is a large, light green circle at the bottom left. In the upper left quadrant, there are several white, leaf-like or petal-like shapes arranged in a cluster. The number '01' is prominently displayed in white on the right side.

# 01

**Introduction and  
Context**

This report offers an interim evaluation of the *Re:Match* programme – a partnership between the Berlin Governance Platform (BGP), Pairity, and Salam Lab. *Re:Match* relocated 78 displaced Ukrainians from Poland to six German municipalities from April through September 2023. Destinations were determined by Pairity’s matching algorithm, which accounts for participants’ needs and preferences in relation to city services, characteristics, and municipal accommodation availability. Findings are based on data from programme participants and cities collected through surveys, interviews, and feedback sessions. A full programme evaluation will be published in the first half of 2024.

*Re:Match* brings together unique partner capacities. BGP developed the idea, conceptualised the project and was responsible for overall programme management, recruiting and liaising with municipalities, coordinating travel and conducted programme evaluation with the municipalities. Krakow-based Salam Lab disseminated project information, recruited participants, administered pre-relocation surveys, and validated travel documents. Pairity developed and trained Salam Lab staff to administer surveys, developed city data input tools, administered data architecture and its matching algorithm, and conducted programme evaluations.

*Re:Match* offers managed relocation with a long-term goal of illustrating how a coalition of city-level governments can provide sustainable pathways for responsibility-sharing in Germany and Europe more broadly. The programme aims to demonstrate that matching and relocation tools can provide an efficient, scalable, and rights-based solution for solidarity with states at the EU’s external borders which receive the largest number of asylum seekers and refugees.

As of the end of October 2023, over 6.2 million Ukrainians were displaced globally, with 5.89 million throughout Europe. Frontline states host a disproportionate share. 1.64 million Ukrainians registered in Poland since Russia’s invasion, and the country currently hosts just under 1 million.<sup>1</sup> Tight housing and labour markets, cutbacks to social services and financial support, and the prospect of enduring

conflict meant greater interest among Ukrainians for options to relocate throughout Europe. Displacement from Ukraine and the impacts on frontline states is but the most recent example of a decades-long trend of increased numbers of people seeking protection in Europe,<sup>2</sup> and unequal responsibilities among EU states.

The EU’s Temporary Protection Directive (TPD), enacted in March of 2022 for the first time since its 2001 adoption, lowers barriers to protection and allows for immediate residency, labour, education, and social welfare rights for Ukrainians. While relocation by NGOs is not an established pathway, the TPD opened a window of opportunity to pilot a relocation programme which differs from the rarely available, politicized, and ineffective national and EU-level relocation schemes. Whereas German and EU-level relocation schemes are based on state or country-level factors like GDP and population, *Re:Match* incorporates up-to-date municipal accommodation capacities and more granular data about local services, labour markets, educational opportunities, medical services, and diaspora populations.

*Re:Match* likewise collected detailed data from potential participants, including biographical information, specific vulnerabilities and needs, and a range of ranked personal preferences including city size, services, and accommodation types. Data were coded and inputted into the Pairity algorithm, which suggested matches. Participants were offered up to one week to either accept or reject a match.

Algorithmic matching serves several important functions: it centres beneficiary preferences, capacities, and needs, prevents bias in matching, allows for analysis of large datasets, and makes the best possible matches for all participants given accommodation availability in participating municipalities. Verified data also serves the important function of baseline metrics for analysing relationships between quality of matches, programme satisfaction, and beneficiary integration outcomes.



<sup>1</sup> ↗ United Nations High Commissioner for Refugees. 14 November 2023. Ukraine Refugee Situation.

<sup>2</sup> ↗ See: Norwegian Refugee Council. February 2023. Hidden Hardship: 1 Year Living in Forced Displacement for Refugees from Ukraine; ↗ EUFRA. 28 February, 2023. Fleeing Ukraine: Displaced People’s Experiences in the EU.

The background features a light teal gradient. In the upper left, there is a cluster of white, horizontally-oriented oval shapes of varying sizes, arranged in a pattern that suggests movement or data points. Two large, overlapping circles dominate the lower half of the image. The circle on the left is a dark teal color, while the circle on the right is a lighter, lime-green color. The number '02' is printed in a large, white, sans-serif font, centered over the intersection of these two circles.

# 02

**Methods and  
Data**



Participants were recruited through a multilingual project website, personal contact and flyers at Salam Lab's Help Desk, targeted outreach to potential candidates in Salam Lab's client database, and existing Telegram groups and Instagram. Interested participants were screened against eligibility criteria and genuine interest in and availability for relocation to Germany.<sup>3</sup> General interest in the project and the matching approach was high. Personal circumstances conflicting with project timelines excluded some participants from enrolment.<sup>4</sup> Screened participants were invited to in-person and virtual information sessions to gain detailed insights into project processes, including answers to a range of FAQs and individual questions. Participants then proceeded to data collection and to schedule their matching interview.

Methods for data collection and matching are based on scholarly research principles for engaging with vulnerable populations. Data collection with participants was preceded by an informed consent process, including how data and preferences would inform matching. All data collection, storage, and sharing meet or exceed the EU's General Data Protection Regulation (GDPR) requirements.

*Re:Match* collected information from potential participants through Pairity's biographical and preference-ranking surveys, which were tailored for the pilot in collaboration with BGP. Not only does preference-ranking offer a unique degree of agency in relocation options, but also ensures variation among participant households – which is crucial for ensuring high-quality matches across cohorts. Surveys also provided baseline evaluation data. Participants received post-arrival surveys one month after arrival in Germany (n = 43 adults), and a sample from varied household compositions, cohorts, and destination cities participated in in-depth interviews (n = 5 adults).

A unique municipality data tool allowed city staff to directly input relevant information, and then to specifically update information for each cohort. Accommodation capacity proved to be the most important but also most challenging aspect of city data entry since cities were simultaneously accepting broader

groups of regular refugees alongside *Re:Match* cohorts (as detailed in the following section). Municipality staff inputted availability of total accommodation units, types, and min. / max. occupant capacity. This either entailed essentially reserving units to ensure data was accurate when matched newcomers arrived, or inputting a more general capacity and potentially arranging accommodations *ad hoc*. Representatives from municipalities participated in programme design workshops in the months leading up to participant recruitment and after the final cohorts were relocated.

*Re:Match* matched and relocated a total of 34 households, comprising 78 people. They were matched and relocated in three cohorts, corresponding to the total number of available accommodations across six receiving communities and the number of participating municipalities per cohort. [→ [Table 1](#)]

Lessons from the first two cohorts led to the decision for a pause between Cohort 2 and Cohort 3 to assess programme implementation and adapt the final cohort to maximize use of accommodation spaces. Based on early learnings around programme withdrawals in the one-week match acceptance window (e.g., due to participants' unforeseeable medical needs or family emergencies), we separated Cohort 3 into two matching rounds. We matched Cohort 3.1 to all available accommodations, assessed acceptance rates, interviewed additional participants on waitlists per remaining available spaces, and matched Cohort 3.2. This adaptation maximized scarce resource allocations in response to participants' personal situations. The double cohort exceeded total household and individual relocations in Cohorts 1 and 2.

Given military mobilisation in Ukraine, the majority of programme participants were women and children, meaning an age and gender profile roughly equivalent to the broader Ukrainian refugee population in Europe. The majority of adult men were either retired or had health issues precluding military service. [→ [Figure 1](#)]



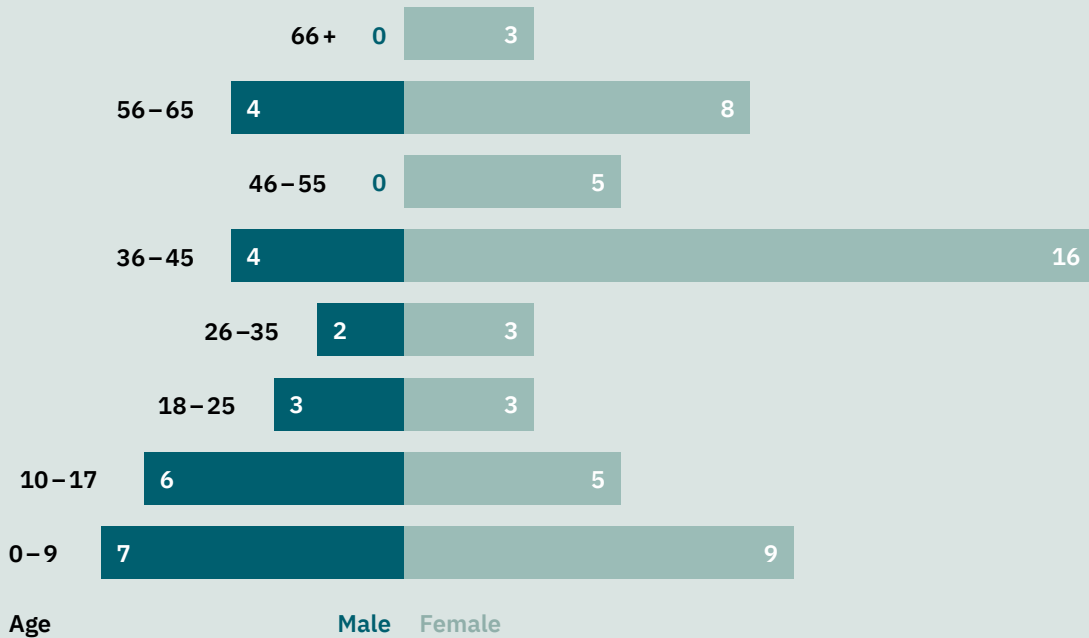
<sup>3</sup> Eligibility criteria: Fleeing the Russian war of aggression in Ukraine; possession of a valid passport or I.D. card (2015 model); residence in Ukraine before February 24, 2022; not having previously applied for / received a temporary residence permit in Germany; willing to participate without pets.

<sup>4</sup> Notably ongoing medical treatment in Poland or Ukraine, family emergencies, personal situations requiring a short return to Ukraine, or considerations relating to children's enrolment in the Polish school year.

**Table 1 → MATCHING COHORTS**

Cohort	Municipalities	Match Date	Travel Date(s)	Households	Individuals
1	Braunschweig Düsseldorf Rottenburg a.N. Troisdorf	16 Apr	8–9 May	9	20
2	Braunschweig Düsseldorf Kiel Rottenburg a.N. Salzgitter	2 Jun	25–28 Jun	11	26
3.1	Braunschweig Düsseldorf Kiel Rottenburg a.N.	11 Aug	17–20 Sep	8	20
3.2	Kiel Rottenburg a.N. Salzgitter	22 Aug	17–20 Sep	6	12
				<b>34</b>	<b>78</b>

**Figure 1 → PARTICIPANT AGE AND GENDER**

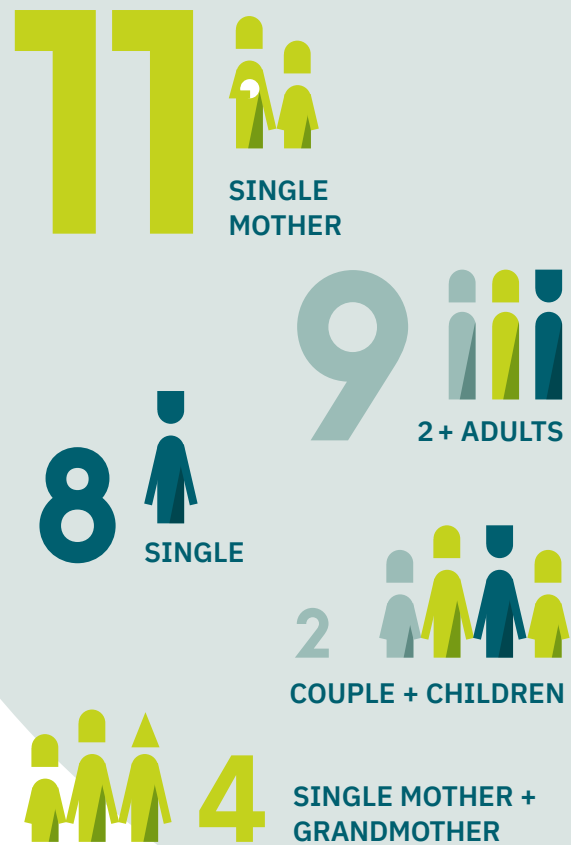


Household structures varied, with the most common being single mothers with children. Half of households were adults – Nine of two or more adults and eight were single adults. Half of households included children – the majority were single mothers, with a few intergenerational households with children, mother, and grandmother, and two couples with children. [→ Figure 2]

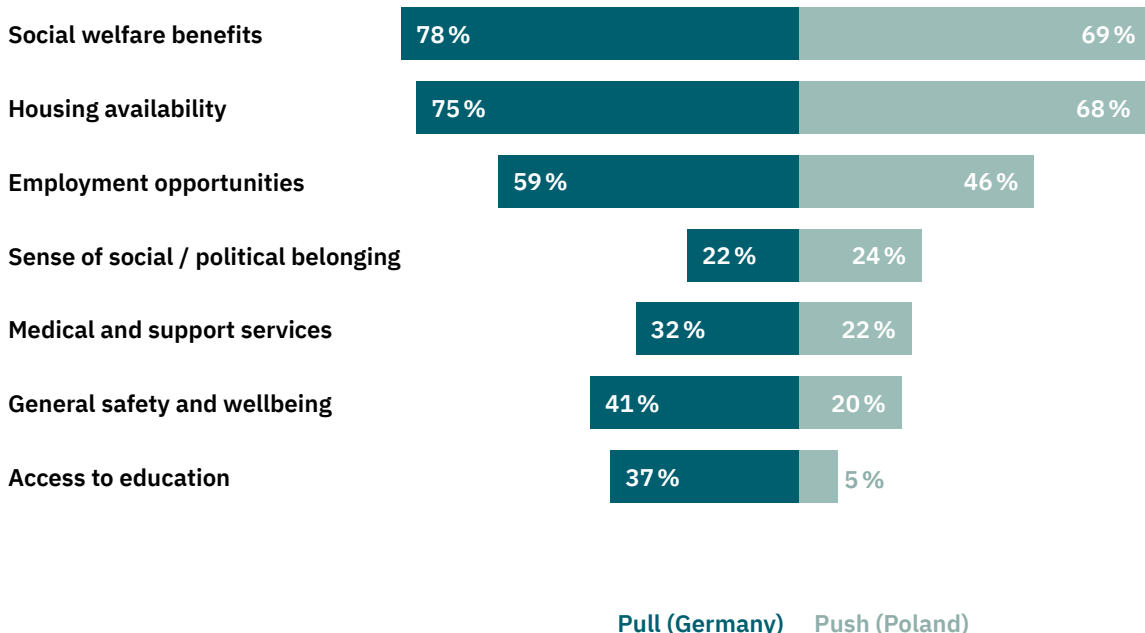
Participants were asked about motivations based on “push” factors from Poland and “pull” factors to Germany. The most common included the relative availability of social welfare benefits and housing, followed by job opportunities. The perception of better opportunities in Germany had a stronger influence on programme enrolment than the absence of options in Poland. [→ Figure 3]

Participants were likewise asked about the relative importance of post-relocation goals; finding permanent housing, learning German and other languages, making social connections, and training for new careers ranked as the most important. [→ Figure 4]

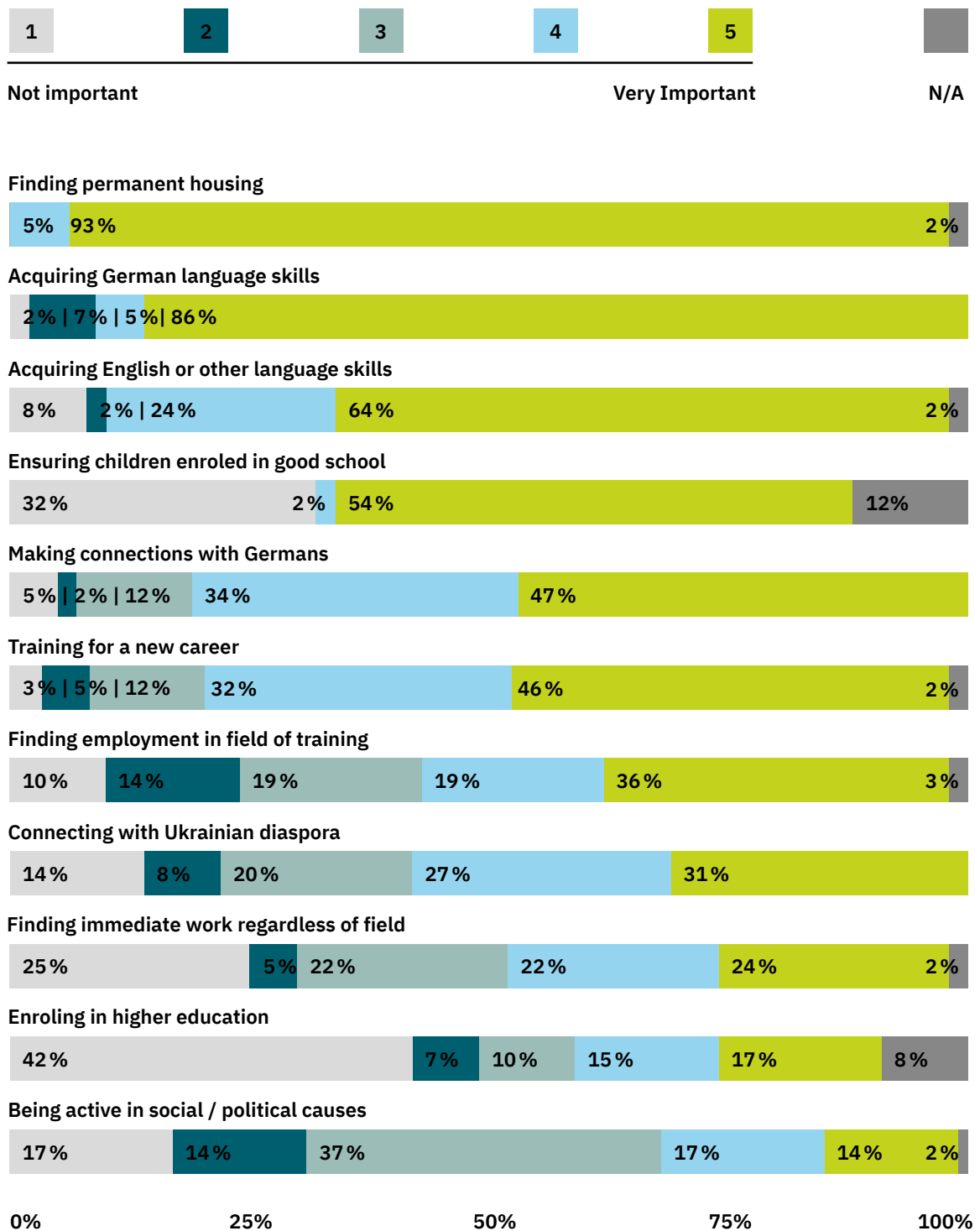
**Figure 2 → HOUSEHOLD COMPOSITIONS**



**Figure 3 → MOBILITY DRIVERS**



## Figure 4 → GOALS IN GERMANY



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**03**

**The Role of German  
Municipalities**

Germany's well-developed social welfare system and generally high quality of life make it a desirable destination, and it receives the most long-term immigration in the EU in absolute terms.<sup>5</sup> German municipalities are largely responsible for refugee accommodations and face significant systemic challenges. Demand for accommodation and provision of services puts states (*Bundesländer*) and receiving municipalities under considerable pressure. Municipalities and states have been sounding alarm bells for several years. Twice in 2023<sup>6</sup> the federal government and the heads of state met to discuss reforms in so-called refugee summits (*Flüchtlingsgipfel*). The highly publicised (and heated) debates offered local authorities a venue to demand increased federal support for accommodation, care, and integration of asylum seekers and refugees. Financial burdens on local administrations contribute to a sense of being overwhelmed.

The distribution of newcomers throughout Germany is organised in an automated quota system called *Erstverteilung der Asylsuchenden* (EASY) or Initial Distribution of Asylum Seekers.<sup>7</sup> States are financially responsible once asylum seekers and refugees are referred to a reception facility. This allocation works anonymously and considers limited factors relating to the admission obligation of the receiving state, country of origin, and family composition.<sup>8</sup> Municipalities are eager to improve existing reception and distribution procedures, and their ground-level experience makes them well-suited to offer effective, progressive, and creative solutions. *Re:Match* offers municipalities an opportunity to meaningfully participate and inform the design of localized relocation and reception policies.

Participating municipalities expressed the desire for a distribution system that considers dynamic local availability of services and labour market needs, as well as refugee needs, backgrounds, and preferences. They were eager to pilot a matching system to improve allocations and outcomes. Municipalities across four states offered input into matching criteria, data collection tools, reception procedures, and programme evaluations.

The collaboration with the municipalities throughout the programme was excellent. Data collection and relocation were organised in three consecutive cohorts, to allow for continuous algorithm and process adaptation. Civil servants responsible for the data collection reported collaboration with different local stakeholders to collect accurate data points like available services, accommodation capacities, or labour market needs.

Municipalities confirmed their satisfaction with the process and matching results in an end-line survey and evaluation workshop. All participating municipalities highlighted that their ability to indicate needs and availability increased their sense of involvement in successfully managing admission of Ukrainian participants.

While the long-term suitability of matches is challenging to gauge for municipalities, they noted that in cases where the work experience of newcomers matched their labour market needs that they were able to support newcomers in accessing the labour market in a more targeted manner.

*Re:Match* recognizes that effective municipal reception and integration measures also require financial support. Hence, the programme offered a flexible and optional one-time programme payment of up to €4,500 to offset additional costs and effort. Those municipalities that accessed financial support indicated it was very helpful for programme implementation, but not instrumental in decisions to participate in the pilot. Uses varied from providing arriving newcomers with an integration guide (*Integration-slotse*), budget for involved municipal staff, or co-financing a new integration programme.



<sup>5</sup> ↗ Federal Office for Migration and Refugees. December 2022. ↗ Migrationsbericht 2021: Zentrale Ergebnisse.

<sup>6</sup> On May 10<sup>th</sup> and on November 6<sup>th</sup>, 2023.

<sup>7</sup> ↗ Federal Office for Migration and Refugees. 02 February 2022. ↗ Erstverteilung der Asylsuchenden (EASY).

<sup>8</sup> The admission obligation is calculated on the basis of a quota according to the Königstein Key (criteria: two thirds tax revenue and one third population of the state) and the country of origin-responsibility of the states.

**The state capital Düsseldorf is happy to participate in *Re:Match* because we are convinced of the idea and see the opportunity for integration and participation. Although the funding provided by the project was not a decisive incentive for us, it did enable us to support an important project: our cooperation partner “Hispi – Hilfe bei der sprachlichen Integration” [*Language integration assistance*] was able to implement an integration course in the form of the “Hispi4U” project for those seeking protection in Düsseldorf via *Re:Match* and other people, which was very well received and strongly supported integration.**

Miriam Koch, Deputy for Culture and Integration of the state capital Düsseldorf

Overall, municipalities stated that implementation of a new model is sometimes complicated, particularly when implemented alongside existing systems. However, they noted the positive effects of a reformed approach from an organisational behaviour perspective particularly in terms of driving collaboration between relevant actors at the municipal level to allow functioning within the current admission system.

**The *Re:Match* process has made us more aware locally of what is important for people seeking protection – and of who all needs to be brought to the table to make reception and integration a success.**

Rabeja Walte, Social Services and Senior Citizens, Team Leader for Refugee Social Work / Account Coordination, Salzgitter





# 04

## Matching Procedures



The Pairity algorithm optimises the collective welfare of programme participants by assigning best possible matches given their attributes and preferences, and the services and capacities of participating municipalities. The matching process finds the optimal allocation of scarce resources across a given cohort of participants.

In-person participant surveys gather several dozen data points including background characteristics (e.g., education, employment history, household composition, medical conditions), services and opportunities they wish to access, and the relative importance of each. These include professional services (e.g., higher education institutions, employment / training opportunities in their area of expertise, credentialing), housing accessibility (e.g., rapid access to private housing, type of accommodation, desired city size), cultural support (e.g., presence of diaspora community, closeness to friends or family in Germany, availability of religious and special interest organizations), and family / medical support services (e.g., childcare, medical support for disabilities and mental health).

This systematic data collection is a major and unique aspect of Pairity's approach, which is grounded in several years of experience with, and input from, displaced people. It builds on lessons learned from previous relocation programmes and state-of-the-art academic research. First, it expands the set of factors considered in the matching process beyond those only relevant to labour market integration, which is a typical focus for policymakers and politicians. Instead, the *Re:Match* multi-dimensional matching procedure systematically incorporates cultural and social factors critical for participants' overall welfare and integration, in addition to factors determining economic integration. Second, it avoids group-level assumptions and biases about what newcomers need, since individuals with similar characteristics hold different priorities and aspirations. Instead, it weights variables exclusively from participants' preferences about receiving communities. Participant agency is the core of the matching algorithm, allowing for democratic and personalized matching procedures.

Municipality data includes the number and types of accommodations in municipal facilities, housing markets, educational, employment, and training opportunities, available cultural services, and capacity to support medical vulnerabilities. Municipalities updated information before each cohort was recruited and surveyed by Salam Lab, which dictated maximum cohort size.

The algorithm first determines a set of feasible relocation options for each participant individual or household. Feasibility is determined such that reception capacities must equal the number of individuals in a household, their household composition (e.g., children), and medical vulnerabilities.

The algorithm then ranks the quality of feasible options for each participant. Each option receives a multi-dimensional score determined by participant ranking of different characteristics and services available. The system allocates each participant a ranked list of feasible options, which captures the relative quality of the potential match. For example, Participant A might rank work opportunities in their sector of training as a top preference, but cares less about cultural organizations. If Participant B has the reverse of A's priorities, then each would receive an inverted list of feasible options. Possible permutations change dynamically with the number of preferences variables, cohort size, and accommodation types.

The algorithm's overarching rule is to pair each participant with their best possible match. Multiple participants could share the same best possible match, but resource constraints (e.g., municipal accommodation availabilities) mean that they cannot all be assigned that option. Practically, the algorithm simulates all potential assignments to identify the scenario achieving the highest overall quality of matches for an entire cohort. Computationally, a group of ten participant households or individuals requires simulating approximately seven million match scenarios. This procedure ensures fairness without prioritizing a certain participant's preferences ahead of the overall group welfare, while maximizing the returns from scarce municipality resources.



# 05

Matching  
Outcomes

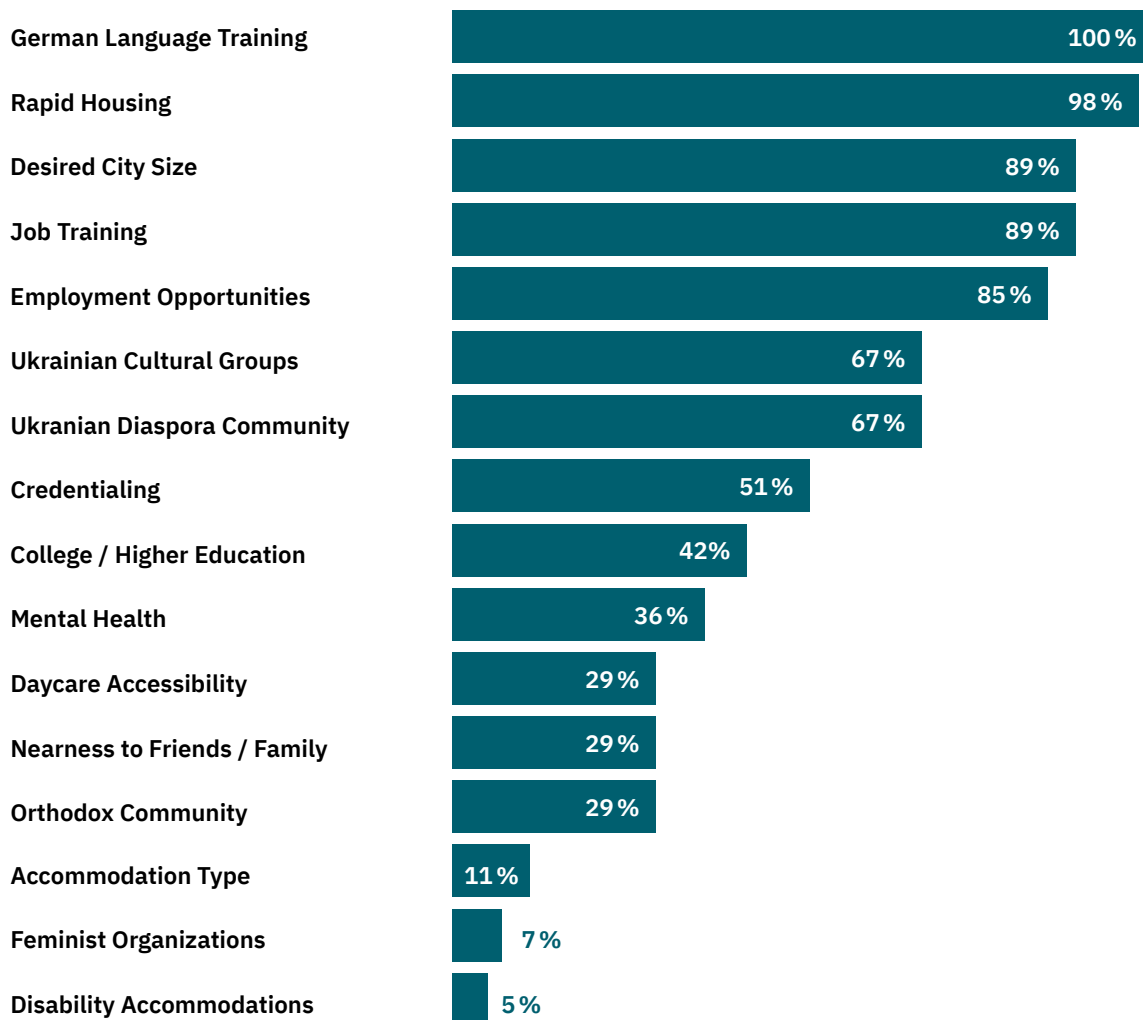
Participants ranked 16 services and characteristics in terms of their preference to be matched with a city that provided those services. The term top-ranked preferences refers to the services that received the three highest scores, ranked by each participant (See Figure 5 for these 16 services). Top-ranked preferences were consistent across cohorts: German language training (100%), access to rapid private housing (98%), a desirable city size to participants' preferences (89%), availability of job training

(89%), and employment opportunities in their area of expertise (85%). [\[→ Figure 5\]](#)

While Figure 5 shows how participants ranked their preferences, Figure 6 shows which of these top-ranked preferences were “matched” by the algorithm, e.g., matching participants to a city that could provide the desired service.<sup>9</sup> The Pairity algorithm achieved considerable success in matching participants to cities that met their top-ranked preferences.

## Figure 5 → BENEFICIARY TOP-RANKED PREFERENCES

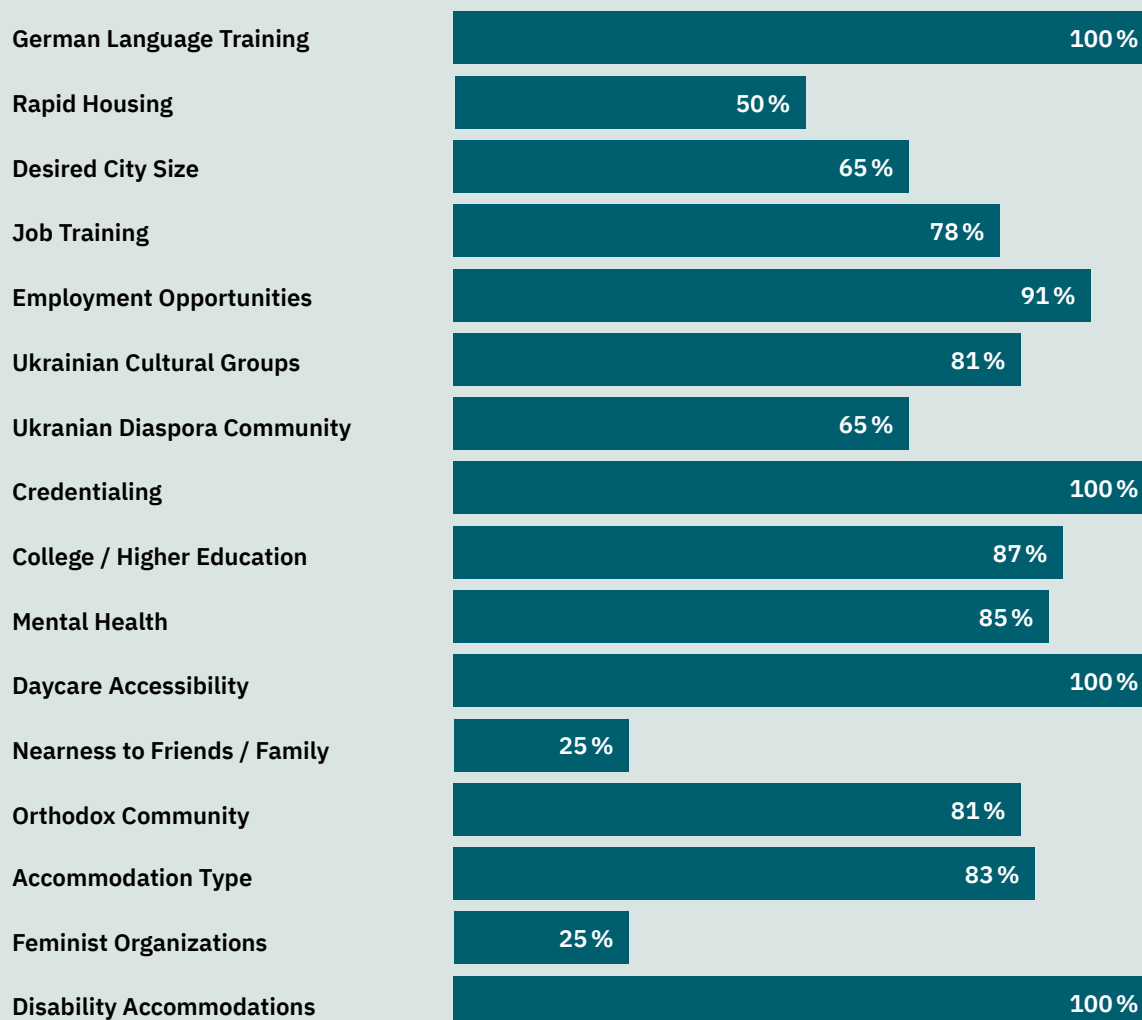
**Note:** Percentage of participants who provided a top-ranking score (e.g., a participants' three highest scores) to each of the 16 services



<sup>9</sup> For example, Figure 6 shows that 91% of participants who top-ranked the preference for a city with employment opportunities were matched by the algorithm to a city that had employment opportunities in their given field.

## Figure 6 → TOP-RANKED PREFERENCES MATCHED BY ALGORITHM

Note: Percentage of participants whose top-ranked preferences were met by the matching-algorithm.



Out of the sixteen services, four (German language training, credentialing, accessibility to daycare, and accommodations for disabilities) were met 100% of the time, seven others were met more than 75% of the time: employment opportunities (91%), higher education (87%), mental health supports (85%), accommodation type (83%), cultural supports (81%), Orthodox community (81%), job training (78%).

[→ Figure 6]

Regarding German language training, it is important to note that while 100% of participants were matched to a city that offered German language training at the level they required, this does not reflect available spaces in such language courses. In some cases, municipalities were unable to provide exact availability of spaces, thus participants could not be matched on these criteria. Municipalities were only able to rate the general availability of the



<sup>10</sup> (Good: within 1 month of arrival; Moderate: up to 3 months; Poor: up to 6 months).

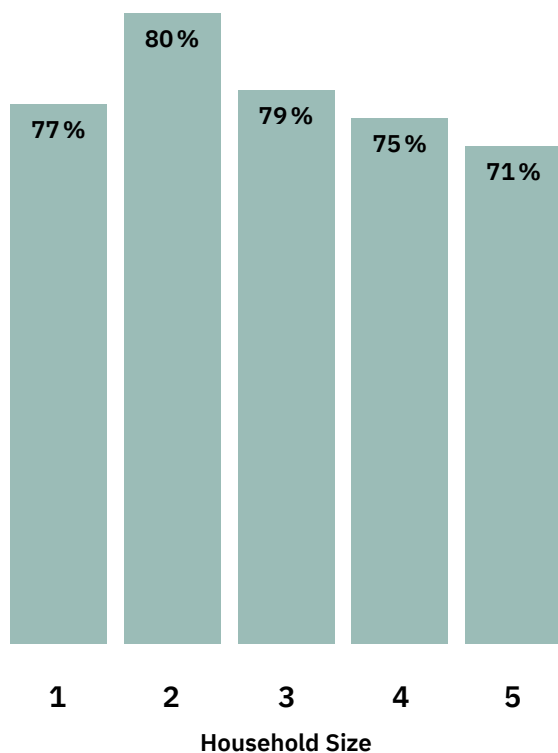
given German language classes, and this information was provided to participants when matched. Future iterations might be improved if municipalities had sufficient time and resources to provide up-to-date information on available language training spaces.

There were only minor differences in the success rate for matching participant top-ranked preferences by different household sizes. On average, two-member households had 80% of their top-ranked preferences matched. Larger households of four or five had lower average rates at 71% and 75% respectively due to accommodation constraints. [[→ Figure 7](#)]

*Re:Match* experienced programme withdrawals in the one-week match acceptance window. We investigated the withdrawal rate to identify any systematic or programmatic improvements. While we

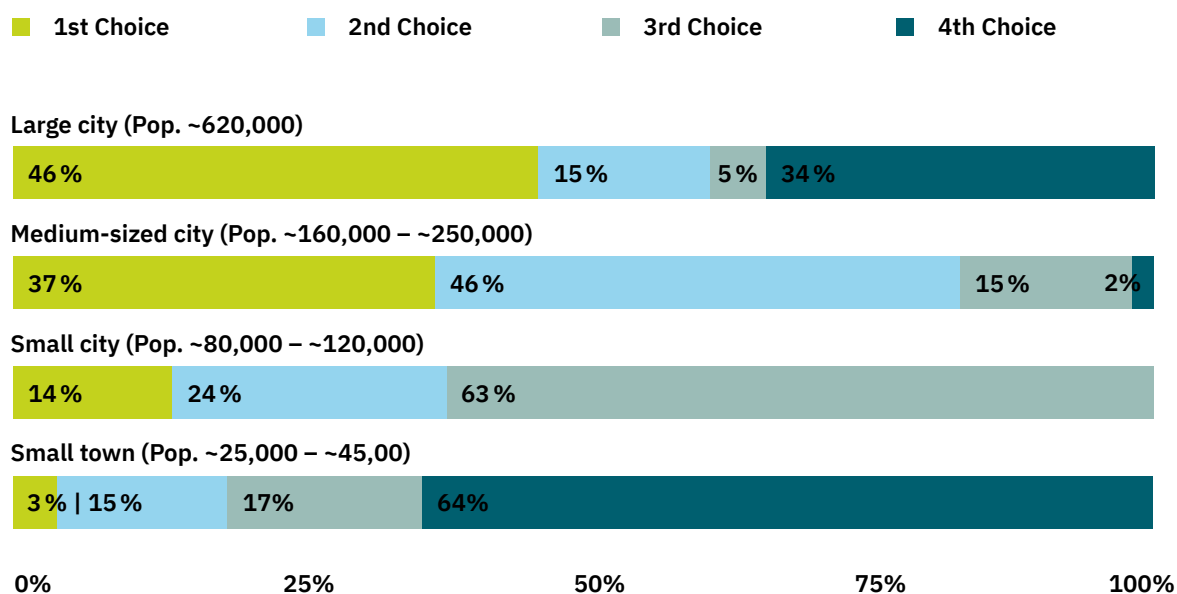
found that the relatively high withdrawal rate of 42% of those who were offered a match, decisions were unrelated to match quality or city size. Larger households had a higher withdrawal rate (60% for households of four or more, compared to 38% for single households). Regardless of size, most households (60%) cited the cause of withdrawal as an unrelated emergency (i.e., a medical or personal concern). Moreover, withdrawal must be understood within the context of the recruited pilot population, comprised of Ukrainian refugees who were already settled in a safe neighbouring country. As such, this population was relatively privileged in the choice to move or stay in a safe place where some had already found housing and jobs. Matching programmes targeting other populations, particularly those in precarious situations (e.g., refugees in camps or reception centres) would likely see a much lower withdrawal rate.

### Figure 7 → AVERAGE OF MATCHED PREFERENCES BY HOUSEHOLD SIZE



Note: Percentage of participants whose top-ranked preferences were met by the matching-algorithm, averaged by household size.

## Figure 8 → CITY SIZE PREFERENCES



### PREPARING PARTICIPANTS FOR MATCHING PREFERENCES

The four services ranked highest among participants were also the scarcest: access to German language training, rapid access to housing, employment opportunities, and preference for a large city size. Of these, city size was found to be particularly complicated in terms of participant expectations. Most participants came to the programme with the desire to live in a large city and ranked a small town as their lowest preference. [→ Figure 8]

However, when asked to elaborate about large city preferences during intake interviews, many conveyed assumptions that small towns in Germany would not have required services, and participants were unaware of efficient railway systems connecting smaller destinations to nearby larger cities, or that smaller locations could facilitate quicker access to permanent housing. This form of participant observation allowed for revisions to interview protocols to provide context and ensure preferences were well informed in relation to stated goals. For example, staff explained how preferences for a large city might actually undermine an underlying preference (e.g., to find rapid housing). Additional effort was made to provide detailed information on matched cities, regardless of whether assignments matched top choices. Participating municipalities noted that revised protocols meant participants whose first choice was a large city but who were matched with smaller destinations were better prepared on arrival.

**In more rural towns like ours, it sometimes happens that buses arrive with people seeking protection and they almost want to turn around because they don't know the town and think there are few opportunities here. That didn't happen with Re:Match because they already knew what to expect. There is a clearer idea of our city and people know that they will also find a good infrastructure here and that they can quickly get their own apartment, for example. It is also very important that the people seeking protection were involved themselves, were asked and made a conscious decision to do so – that is a completely different attitude.**

Christiane Johner, Head of Department, Immigration Office / Accommodation, Rottenburg am Neckar



06

**Relocation and  
Arrival Dynamics**

Preparing participants for relocation and municipalities for arrivals was a dynamic and at times labour-intensive process since these tasks were carried out under the conditions of a pilot project. It was necessary to respond immediately to participants' diverse questions, prepare and provide match information and arrival data to municipalities, and arrange and book travel and arrival.

Salam Lab handled personal contact with participants in close collaboration with programme staff in Germany. Besides providing an on-site Ukrainian contact person in Poland, German staff also prepared Arrival Guides, which were developed collaboratively with municipalities. Arrival Guides were provided before relocation and support pre-integration. The documents outlined procedures, contact addresses, useful information for immediate settlement needs

around local infrastructure like public transit and schools, and information about first steps for registration procedures at local authorities. They also provided contact details for social service providers, volunteer organizations, and cultural engagements. Evaluations confirmed the value of Arrival Guides.

Preparing and transmitting participant data and match rationales to municipalities was a crucial part of arrival dynamics. As soon as participants confirmed their match, municipalities received a dataset for each arriving beneficiary unit (*Bedarfsgemeinschaft*) comprised of.



#### DATASET COMPRISED OF:

- 01 **Biodata**  
(Names, Birthdates, scans of passports / ID cards)
- 02 **Family relations**
- 03 **Language levels of English and German**
- 04 **Phone numbers and e-mail addresses**  
(if available)
- 05 **Information about health conditions<sup>11</sup> and / or special vulnerabilities**  
(especially if relating to needing mobility impaired housing)
- 06 **A list of matching rationale<sup>12</sup>**



<sup>11</sup> Only if the condition was ranked medium or high in severity during the interview, and if it was relevant for the municipality in terms of requiring medical support after arrival. In certain cases, information was supplemented by supporting medical documents.

<sup>12</sup> A list of the newcomer preferences that matched with the information provided by the municipality, ranked by importance to participants. See "Matching Procedures" for details on the possible match criteria.



Municipalities received this information 2–3 weeks before arrival. The relatively short timelines were crucial since longer lead times made it more difficult for municipalities to plan or even hold accommodations. The schedule also had to account for enough time for participants to prepare for relocation, and for *Re:Match* staff to arrange travel.

The arrival phase tested match quality and resulting local capacity to prepare for arrivals. During the evaluation, municipalities concluded that comprehensive data and documents allowed them to take action pre-arrival. Registration processes and initial care for participants with special care needs could thus be prepared more seamlessly and precisely, compared to the existing system of arrivals in Germany. Municipalities also noted that data on German or English language levels was crucial in preparing for arrivals.

**Everything was very fast and almost without any problems with the documents and paperwork. I mean, I was told where I need to go today and tomorrow. Everything was quickly arranged. As I hear from other people here, they suffered so much with the documents and the [enrolment to integration] courses.**

Participant matched with Braunschweig, Cohort 2

Relocations were rather straightforward. Most participants travelled together by private bus and / or train to their respective matched municipalities.<sup>13</sup> Booking and payment was handled by German programme staff. An important factor for special consideration is relocating (severely) mobility-impaired participants or those with other special needs and vulnerabilities.<sup>14</sup> Three people with mobility impairments were successfully relocated.

Municipalities were informed of arrival times, locations, and special considerations (e.g., immediately needed assistance, or separate arrivals by car). On-site reception was handled by municipalities depending on local context. In one city, participants were collected at the main train station and accompanied to accommodations by a local Ukrainian volunteer. In other cities, participants arrived directly at accommodation sites. Whereas in another, they arrived at the town hall for registration procedures and then taken to accommodations.



<sup>13</sup> Two households chose to travel via private car.

<sup>14</sup> Single parents with multiple children, pregnant persons, elderly persons traveling alone.



# 07

**Outcomes  
and Programme  
Satisfaction**

Participants received an online survey one month to six weeks after relocation to gauge programme satisfaction, match satisfaction, and initial integration outcomes. Detailed analysis of integration outcomes will be explored in the *Re:Match* final report, including data from endline surveys and interviews conducted six to nine months after relocation.

## PROGRAMME SATISFACTION

Overall, the majority of participants agreed or strongly agreed that they were satisfied with the programme, stating that the programme was reliable (79%), trustworthy (77%), and a good decision (74%) [→ **Figure 9**]. One participant explained that as a single mother, her relocation would not have been possible without *Re:Match*.

**There is an 80 percent chance that I would not have gone on my own through a camp to a country where I don't speak the local language. I'm with a small child and three suitcases. [...] The project helped me a lot to realise certain desires in my child's education and provided opportunities for further career development. I would not have made it here on my own.**

Participant matched to Rottenburg am Neckar, Cohort 1

Most participants reported that personal contact with Salam Lab staff helped inform their enrolment decision (70%). Participants were highly satisfied with the general requirements (88%), the initial matching interview (88%), information about the relocation process (81%), overall communication (70%), and accuracy of information (63%) [→ **Figure 10**]. It is likely that participant satisfaction around communication was due to the decision to have a Ukrainian speaking contact on site for clear interpretation, instructions, and to act as the main point of contact for participants.

In their initial interviews, many participants preferred a large city (46% ranked it as their first choice, 15% as second choice), assuming that only a large city could meet their needs. After living in their matched city for over a month, most reported that they would not have preferred to be matched elsewhere [→ **Figure 11**], though those who did mostly preferred a larger city. However, even those who initially preferred large cities were satisfied with their placement. For example, one household initially preferred a large city but was ultimately satisfied in the programme's smallest city, noting that German infrastructure made nearby larger cities accessible.

**Rottenburg and Tübingen have everything we need. We lived in Kyiv and when we didn't have what we needed in our neighbourhood, we took the subway to the next one. It's the same here. We went around the whole of Tübingen and went to Reutlingen. We found additional German courses for the child there. On vacation, we went to Stuttgart to the zoo. Everything is pretty close here. There is a very good transport interchange. In Kyiv, we have the subway, but here we have a train station instead...Even a small city can meet my needs and I recommend people to go and not be afraid. It (Rottenburg a.N.) is innovative. It is modern. It is touristy.**

Participant matched to Rottenburg am Neckar, Cohort 1

When asked about satisfaction with the relocation process, the majority of participants were satisfied across a range of measures, including the reception in Germany (74%) and the *Re:Match* Arrival Guides (72%) [→ **Figure 12**]. Most were satisfied with the information provided about cities (74%) and the explanation of why they were matched (63%). A non-trivial number of participants were dissatisfied and would have preferred further clarification or explanation around matching rationale (26%). While considerable time and effort was devoted to explanations around matching and the limitations of scarce resources (i.e., limited accommodations, language classes) participant endline surveys and interviews will collect data on how to improve information on the matching process.

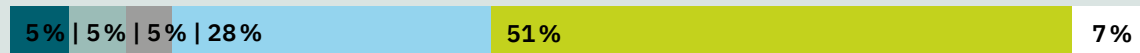
Overall, the majority of participants were satisfied with cities and available services across a range of measures, including general safety and wellbeing (72%), social welfare benefits (70%) and housing availability (56%) [→ **Figure 13**]. Nearly a third of participants were dissatisfied with their proximity to family or friends, which was one of the most challenging match criteria to meet given the relatively small number of pilot municipalities and geographic distribution of existing social ties in Germany.

## Figure 9 → GENERAL PROGRAMME SATISFACTION

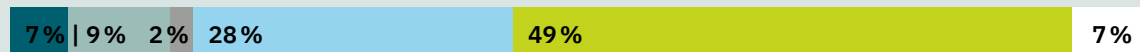
**Question** → Based on my experience, overall, I would describe the *Re:Match* programme as...

■ Strongly disagree    ■ Somewhat disagree    ■ Neither satisfied nor dissatisfied  
■ Somewhat agree    ■ Strongly agree    ■ No answer

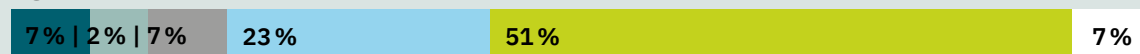
Reliable



Trustworthy



A good decision for me and my family



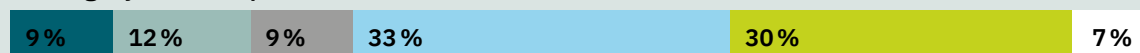
Transparent in terms of the overall process



Well-organized



Meeting my overall expectations



## Figure 10 → ENROLMENT PROCESS SATISFACTION

**Question** → Please rate your satisfaction on the following aspects of the enrolment process

■ Very dissatisfied    ■ Somewhat dissatisfied    ■ Neither satisfied nor dissatisfied  
■ Moderately satisfied    ■ Very satisfied    ■ No answer

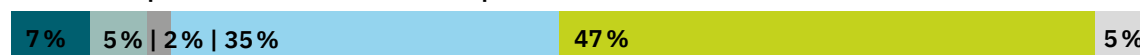
Information about general requirements for participation (e.g., valid passport)



Initial interview / matching survey with Salam Lab staff



Information provided about the relocation process



Overall communication from *Re:Match* staff



Accuracy of information provided about the programme



0 %

25 %

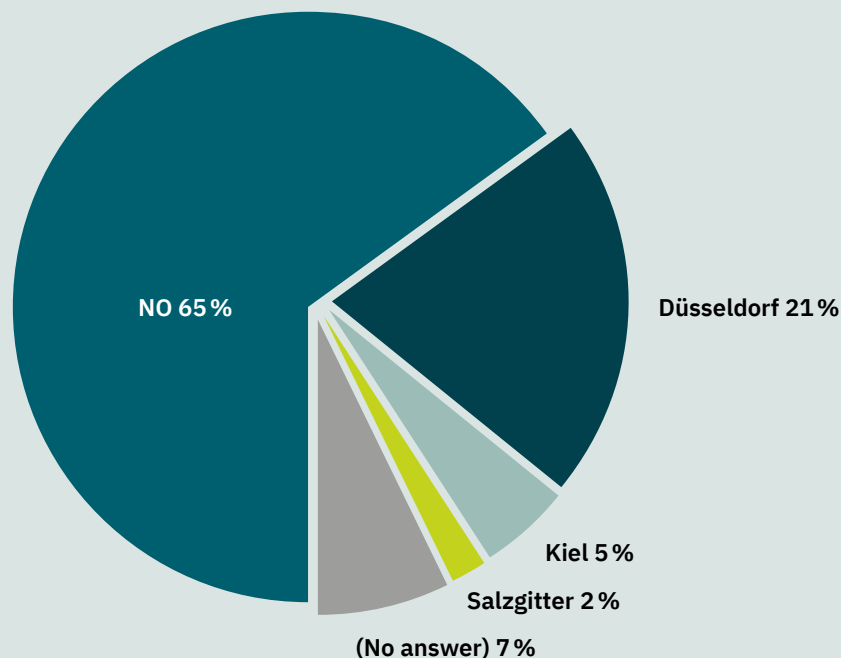
50 %

75 %

100 %

## Figure 11 → MATCH SATISFACTION: CITY SIZE

Question → Would you have preferred to have been matched to a different city?



### INTEGRATION OUTCOMES

While integration is a longer-term process, interim data demonstrate that immediate needs were met within the first month of arrival for many participants, such as enrolling in German language courses (45%) and accessing medical services (49%). Lower outcomes for tasks such as finding permanent housing (19%) or employment (none) is unsurprising at this stage. However, participants already agreed that they felt a sense of belonging in their new city, feeling safe and happy (63%), seeing a future in the community (56%), and felt that the city's services met their needs (53%) [→ Figure 14]. For instance, one participant explained:

**I can't [yet] tell you about the *Re:Match* programme in terms of full integration. At the stage I'm at now, I'm very satisfied with everything [...]  
I definitely would participate in *Re:Match* again.  
I ended up in the city I wanted. [...] I know where to go, with whom to communicate, and I am given clear instructions on how and what to do.**

Participant matched to Salzgitter, Cohort 3

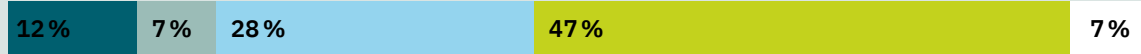
When asked about future mobility plans, the majority were undecided as to whether they would remain in Germany or return to Ukraine when it was safe to do so, though a large number (40%) said they would probably remain in Germany. The majority of participants would not move to another country either within or outside of Europe. [→ Figure 15]

### Figure 12 → MATCH SATISFACTION: RELOCATION PROCESS

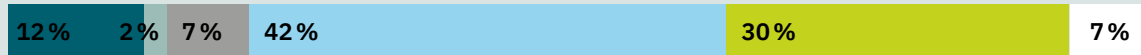
Question → Please rate your satisfaction on the following aspects of the relocation process

- Very dissatisfied
- Somewhat dissatisfied
- Neither satisfied nor dissatisfied
- Moderately satisfied
- Very satisfied
- No answer

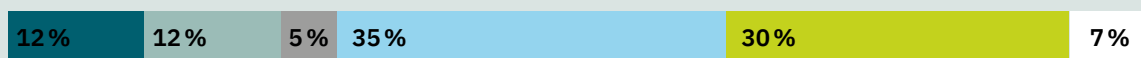
Reception in Germany at the accommodation facility



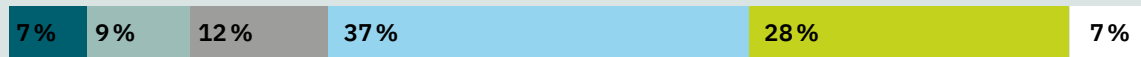
Arrival Guide provided during arrival in the new city



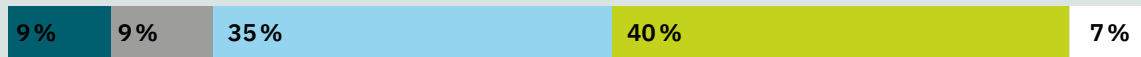
Ease of communication and access to city officials / social workers



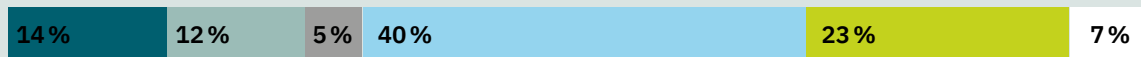
The quality of accommodations in Germany



Information provided about the city you matched with



Information provided about why you were matched with this city



### Figure 13 → MATCH SATISFACTION: TOP FIVE CITY SERVICES

Question → Please rate your satisfaction on the following aspects of the city you matched with

- Very dissatisfied
- Somewhat dissatisfied
- Neither satisfied nor dissatisfied
- Moderately satisfied
- Very satisfied
- N/A
- No answer

General safety and wellbeing



Social welfare benefits



Availability of independent housing



Medical services



Sense of social / political belonging



0% 25% 50% 75% 100%

## Figure 14 → INTEGRATION OUTCOMES: SENSE OF BELONGING

**Question** → Please rate your agreement with the following statements about your sense of belonging in this new city. I (my family)...

■ Strongly disagree   
 ■ Somewhat disagree   
 ■ Neither agree nor disagree  
■ Somewhat agree   
 ■ Strongly agree   
 ■ No answer

Feel that social services and other benefits adequately meet our needs



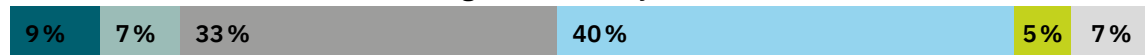
Feel happy and safe in the community



See a future in the community



Have made close friends with other immigrant community members



Have made close friends with members of the Ukrainian community



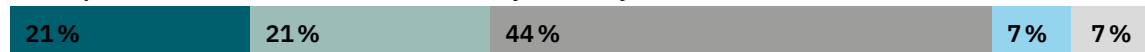
Have made close friends with local Germans



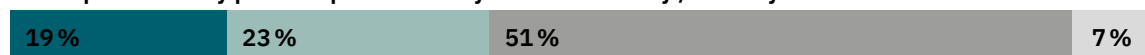
Feel like members of the community



Feel represented in the news media in this city / country



Feel represented by political parties and systems in this city / country



0%

25%

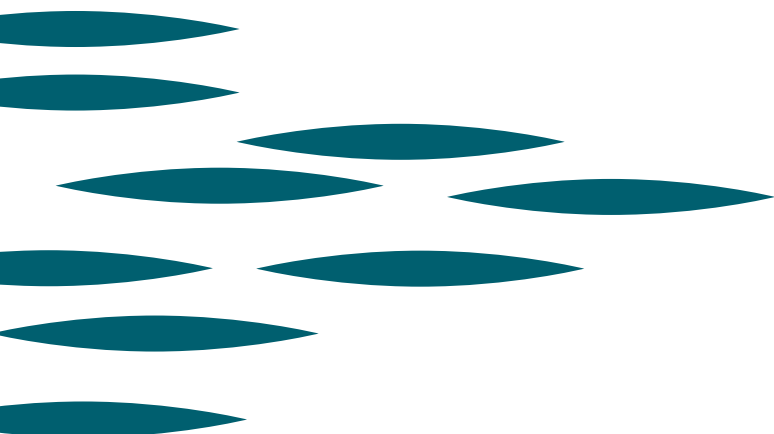
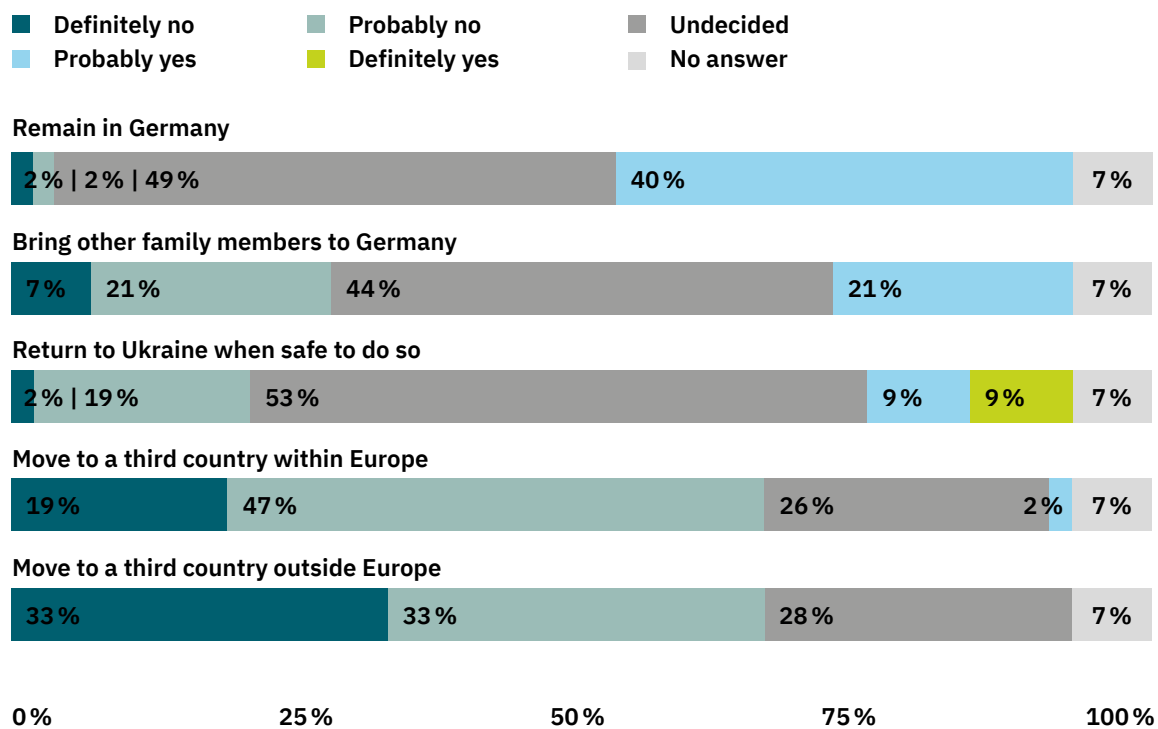
50%

75%

100%

## Figure 15 → INTEGRATION OUTCOMES: FUTURE MOBILITY

**Question** → Tell us about your future plans for mobility after relocation to Germany.  
I (my family) plan to...





# Reflections on Programme Design and Implications for Advocacy and Scaling

As described in the Introduction, this report is based on baseline and interim data collected from Ukrainian participants and municipalities shortly after relocation. A final report will draw on more longitudinal data, and focus on relationships between matching characteristics and integration outcomes. However, the data offer insights from key aspects of programme design and implementation.

Most broadly, while a small pilot allowed for a more careful and tailored context for initial testing, many initial challenges would be addressed by scaling to include a larger number of municipalities and thus more and different accommodation spaces and a broader variation in services, city sizes, labour markets, and proximity to existing social ties in Germany.

## **MATCHING CRITERIA**

- While the algorithm accounts for several dozen data points and weights them by participant preferences, future iterations may adjust weights based on objective integration outcome data. For instance, labour market complementarity or existing family ties may predict more rapid or higher aggregate integration outcomes and programme satisfaction.
- Likewise, expanding to a larger number of participating municipalities may depend on a more tailored approach to meet specific labour market, educational, or training programmes, which could readily be accounted for by sub-matching in the algorithm and depending on participant informed consent.
- While existing data collection and matching models balance efficiency with participant preferences, more tailored matching criteria may depend on specific needs, interests, or protection pathways for participant cohorts. For example, expanding beyond Ukrainians to other asylum seeker or refugee populations may involve new phases of participant and municipality co-design.

## **MATCH COMMUNICATION**

- While substantial time and effort were devoted to explaining the matching process, and most participants were satisfied with the information provided, future programme development may investigate ways to improve communication around matching outcomes to both newcomers and municipalities.
- The process of preparing and transmitting participant datasets can be significantly streamlined by providing biographical, needs-based, and matching score data via a digital tool or platform, which would also facilitate scaling.
- Matching timelines inherently depend on the availability of accommodation spaces in participating municipalities, which are determined in large part by broader numbers of asylum claims, federal distribution schemes, and relocation timelines. However, more leeway will be available with a broader number of participating municipalities.

### **THE IMPACTS OF PARTICIPANT PREFERENCES AND AGENCY**

- Initial data demonstrate newcomer and municipality satisfaction, including an increased preparedness for, and fit with, local circumstances. The participatory approach based on granular municipality data and participant pre-arrival preferences offers a high degree of agency, improves the quality of relocation, and sets a strong footing for integration outcomes.
- The per cohort matching approach ensures available accommodation spaces are utilized; and offering a high degree of agency means participants feel a relatively early sense of belonging. Reported intentions to remain and invest in a future in receiving communities is significant in terms of municipality resource investments and limiting secondary migration in Germany or elsewhere in Europe. These lessons are crucial in terms of advocating for scaling.

### **MUNICIPALITY CHAMPIONS**

- Programme implementation requires flexible and adaptive cooperation, as local requirements are diverse and dynamic, and exist in parallel with existing relocation schemes. A high-level champion at the municipal level is vital, in charge of cooperating on matching procedures and reception alongside current arrivals.
- Municipal champions across Germany and throughout Europe can make use of existing venues like the European Committee of the Regions' Cities and Regions for Integration of Migrants initiative.

### **MAXIMIZING MUNICIPAL RESOURCES**

- Matching makes crucial human resource allocation more plannable and allows municipalities to focus on welcoming participants. Now established processes from the pilot phase mean lower barriers to project entry for new municipalities, and minimal upkeep from participating municipalities.
- A more streamlined and accessible online dashboard for municipalities will allow for efficiently updating available services and accommodations and could be expanded to include anonymized outcome data for participants.

### **SCALING TO SUPPORT EUROPEAN SOLIDARITY**

- *Re:Match* demonstrates that relocation through a matching algorithm can better allocate scarce municipal resources, like accommodations and services, and ensures relocation meets the needs and preferences of displaced populations.
- Core programme principles can be applied to the broader EU context and provide a venue in pursuit of solidarity and responsibility-sharing as envisaged in the EU's Voluntary Solidarity Mechanism.
- Collaboration with Berlin Governance Platform to scale *Re:Match* can address challenges of timely and equitable relocation from a range of frontline states to other regions and municipalities looking for more tailored relocation mechanisms. Other contexts will have differing reception regulations and governance frameworks, which may also reduce barriers to scaling in that they offer more flexibility and variation in programme design.

**These implications for advocacy and scaling have been processed into concrete take-aways and recommendations, advocating for Relocation via Matching. This second report is available for free download here:**

“*Re:Match* as an innovative tool for the relocation of protection seekers. Insights and recommendations for a participatory distribution and reception in European municipalities utilising algorithm-based matching.”



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