Winterisation 2023/24

“Cold Spots” Identification & Collective Sites Winterisation Needs

Findings from REACH assessments

REACH Informing more effective humanitarian action

Context & rationale

- Extensive damage to residential infrastructure.
- Cumulative damage to power generation and heating infrastructure.
- High levels of humanitarian needs and socio-economic vulnerabilities.
- Unpredictable and rapidly-evolving context.

Aim: Provide a data-driven approach to support the allocation of resources and geographical prioritisation of winterisation activities.

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“Cold spots” for winter 2023/24

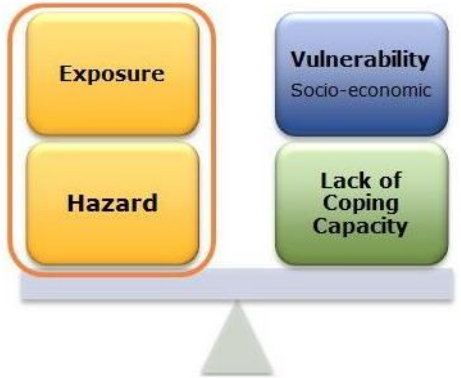
"Cold Spots"

- **Climatological** --> Winter-related hazards
- **Human** --> Exposure (of people)
- **Social** --> Susceptibility (of people)
- **Institutional / Infrastructural** --> Lack of coping capacity (LOCC)
- **Complex** --> the combination of all these four "dimensions" allow the estimation of compounding impacts of winter-related hazards and vulnerabilities on people.

Methodology

- Geographical scope: **109 raions** partly or fully under control of the GoU as of July 2023.
- **Four groups** of indicators: hazard, exposure, susceptibility, and lack of coping capacity (LOCC)
- Indicators' values were assigned into **five classes**: from 'Very Low' to 'Very High'
- **Different weights** were assigned for each group of indicators.
- **Cold Spot Index (CSI)** used for identification of complex "Cold Spots" amongst the raions of Ukraine using the following formula:

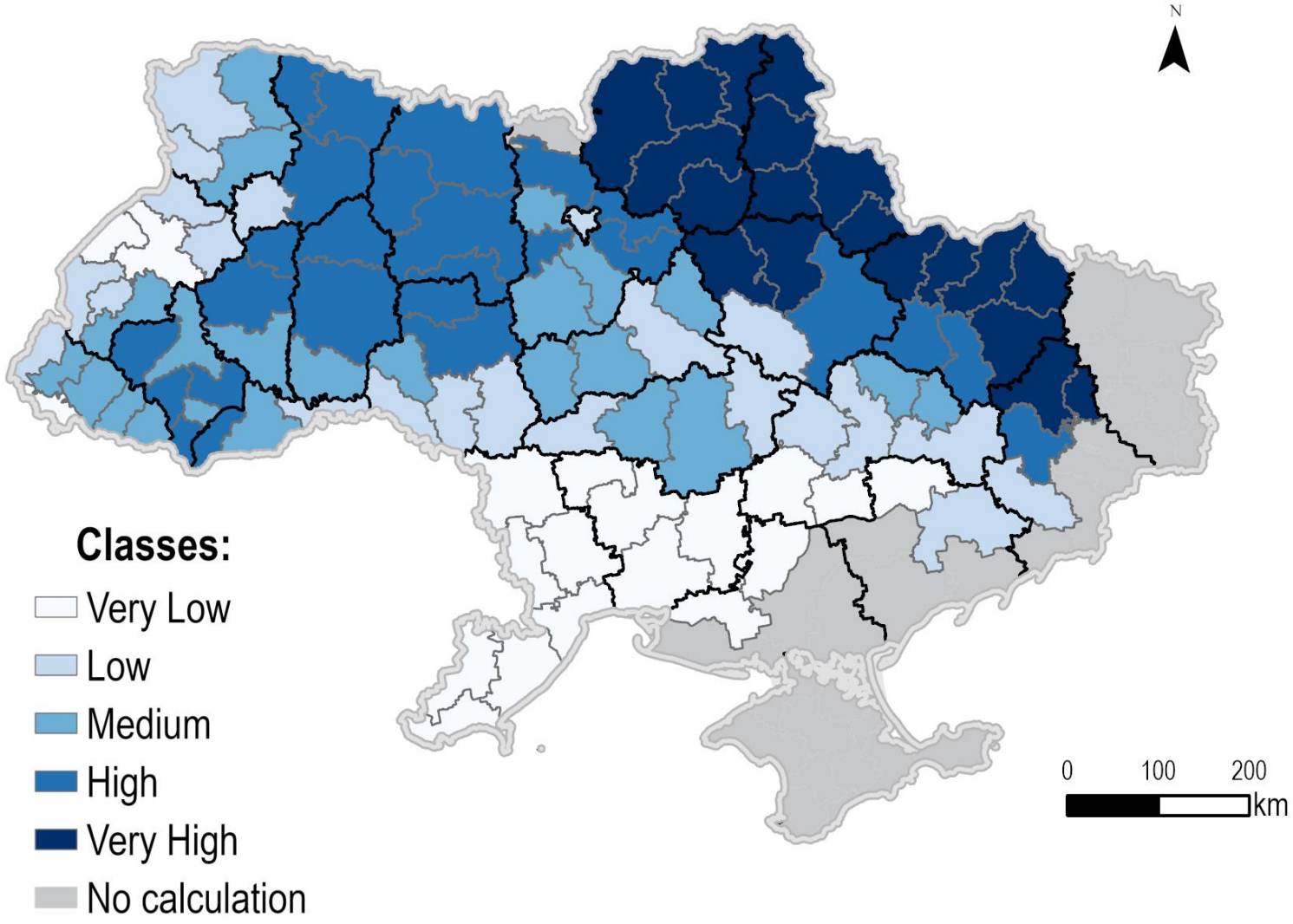
CSI = **Hazard Class** * 0.35 + **Exposure Class** * 0.25 +
Vulnerability ((**Susceptibilities Class** + **LOCC Class**) / 2) * 0.4



Hazard classes

Indicators and sources used:

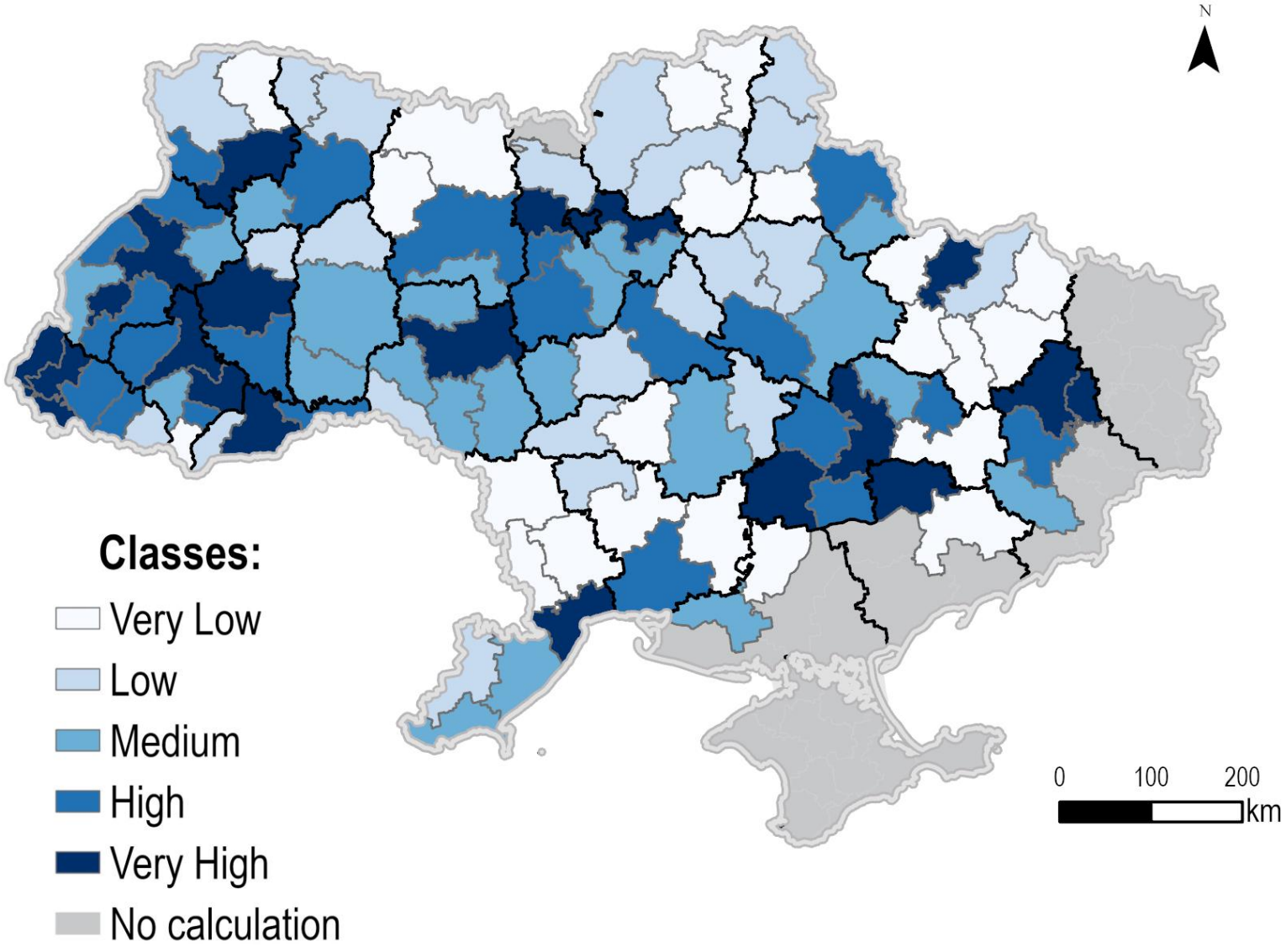
- Average number of **frost days**, i.e. with minimal temperature below 0°C, in the five past winter seasons (2018-2022). Source: **ERA5-Land Daily Aggregated** (ECMWF / Copernicus Climate Change Service).
- Frequency of **cold waves** (days with land surface temperatures below -15°C) over the winter seasons 2000-2023. Source: **MODIS Land Surface Temperature and Emissivity Data** (MOD11).



Exposure classes

Indicators and sources used:

- Mean **population density** per raion as of 30 Apr 2023. Source: **Leasure DR, Dooley CA. 2023.** *Contemporary sub-national population estimates for Ukraine by age and sex estimated using social media activity and geolocated conflict events. Leverhulme Centre for Demographic Science, University of Oxford and London School of Hygiene and Tropical Medicine.*

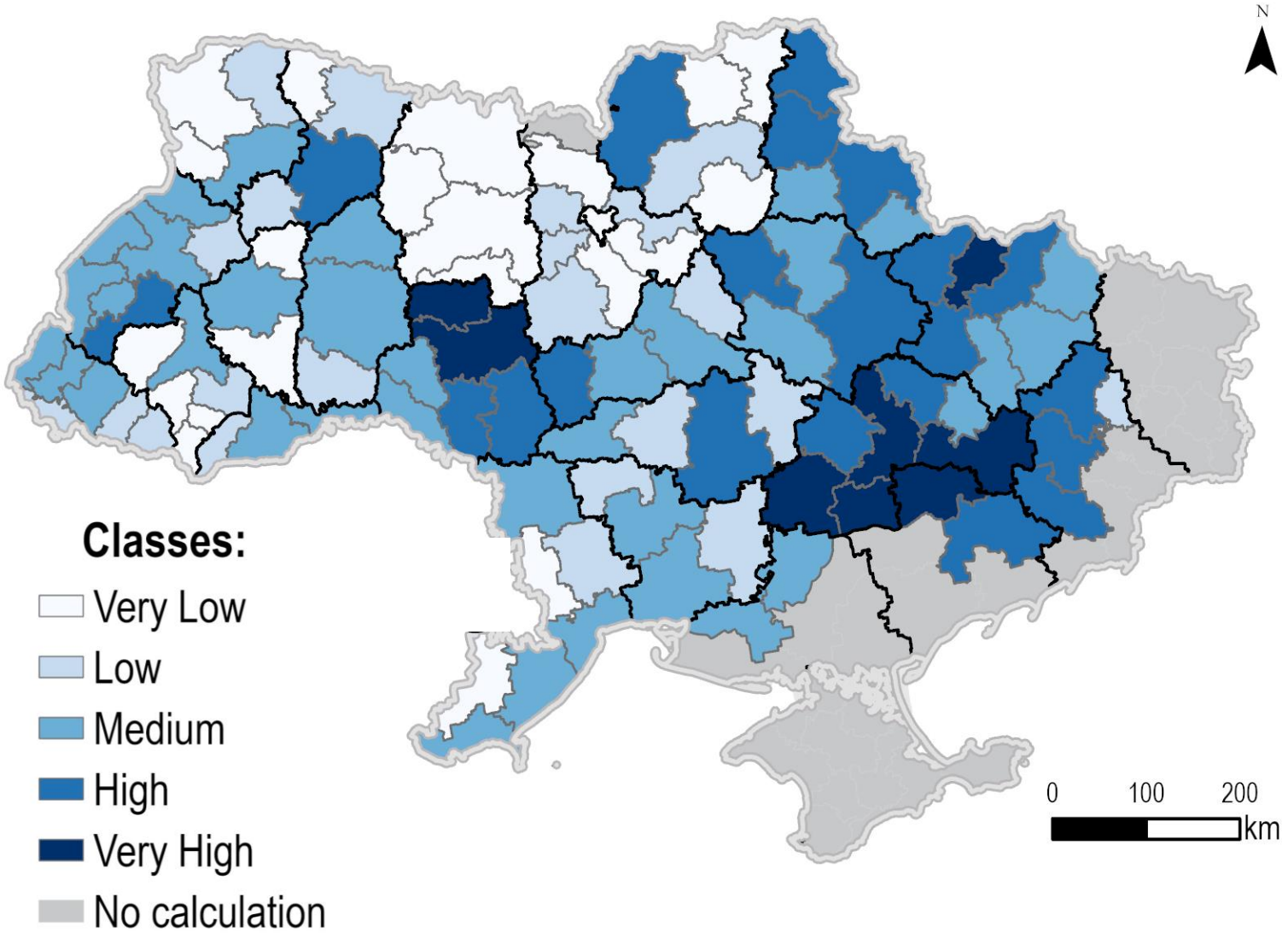


Preliminary results

Susceptibility classes

Indicators and sources used:

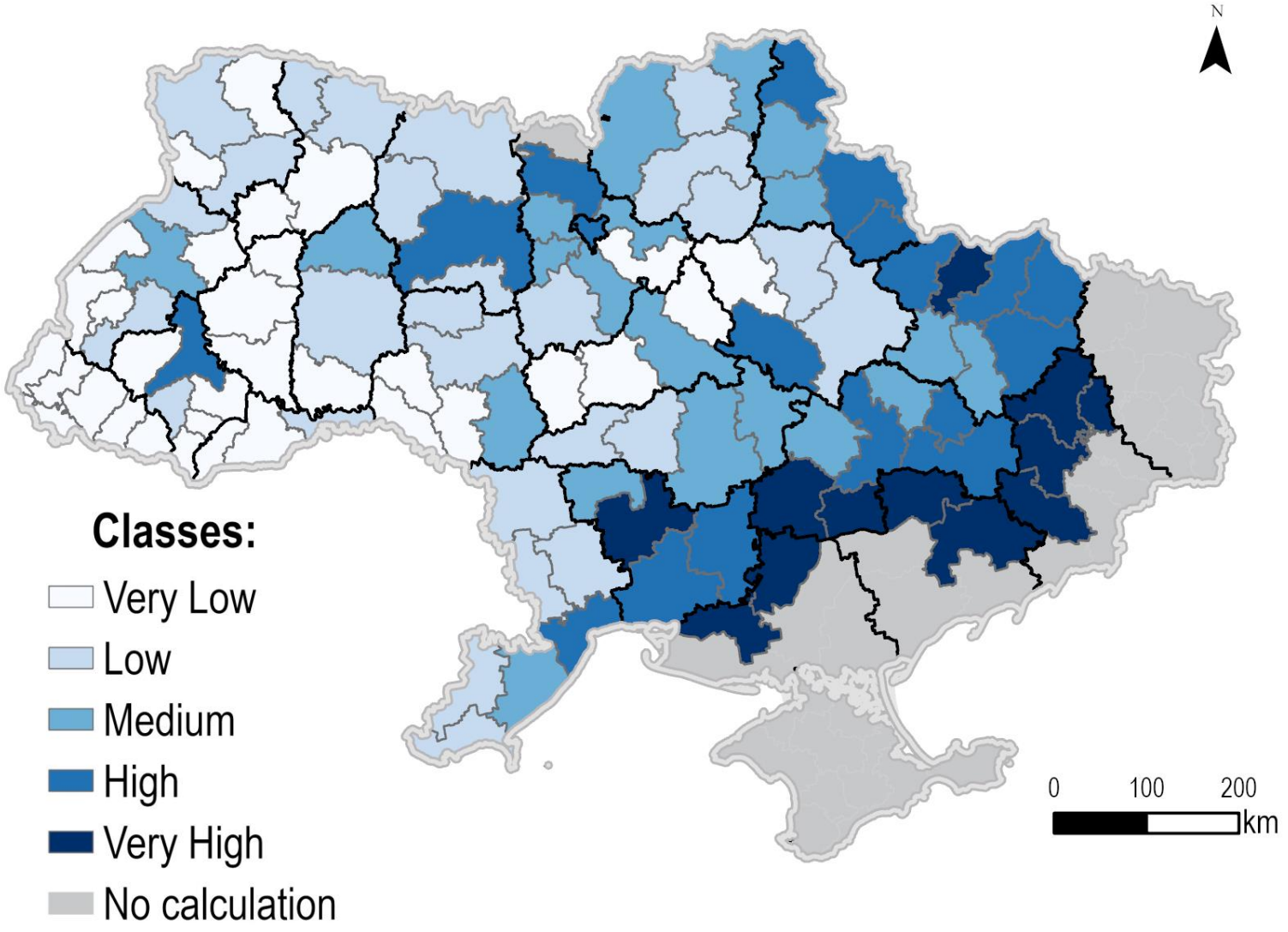
- Proportion of **older persons** (>65 years) per raion. Source: **Leasure DR, Dooley CA. 2023**
- **Consumer price index** (change in the prices of consumers' basket in June 2023 as compared to June 2022). Source: **State Statistics Service of Ukraine**, 2023.
- Number of **IDPs** per raion as of June 2023. Source: **International Organization for Migration**.
- Share of **collective sites** with **no back up source of power** disaggregated from oblast level. Source: REACH, CSM Round 9, July 2023.



LOCC classes

Indicators and sources used:

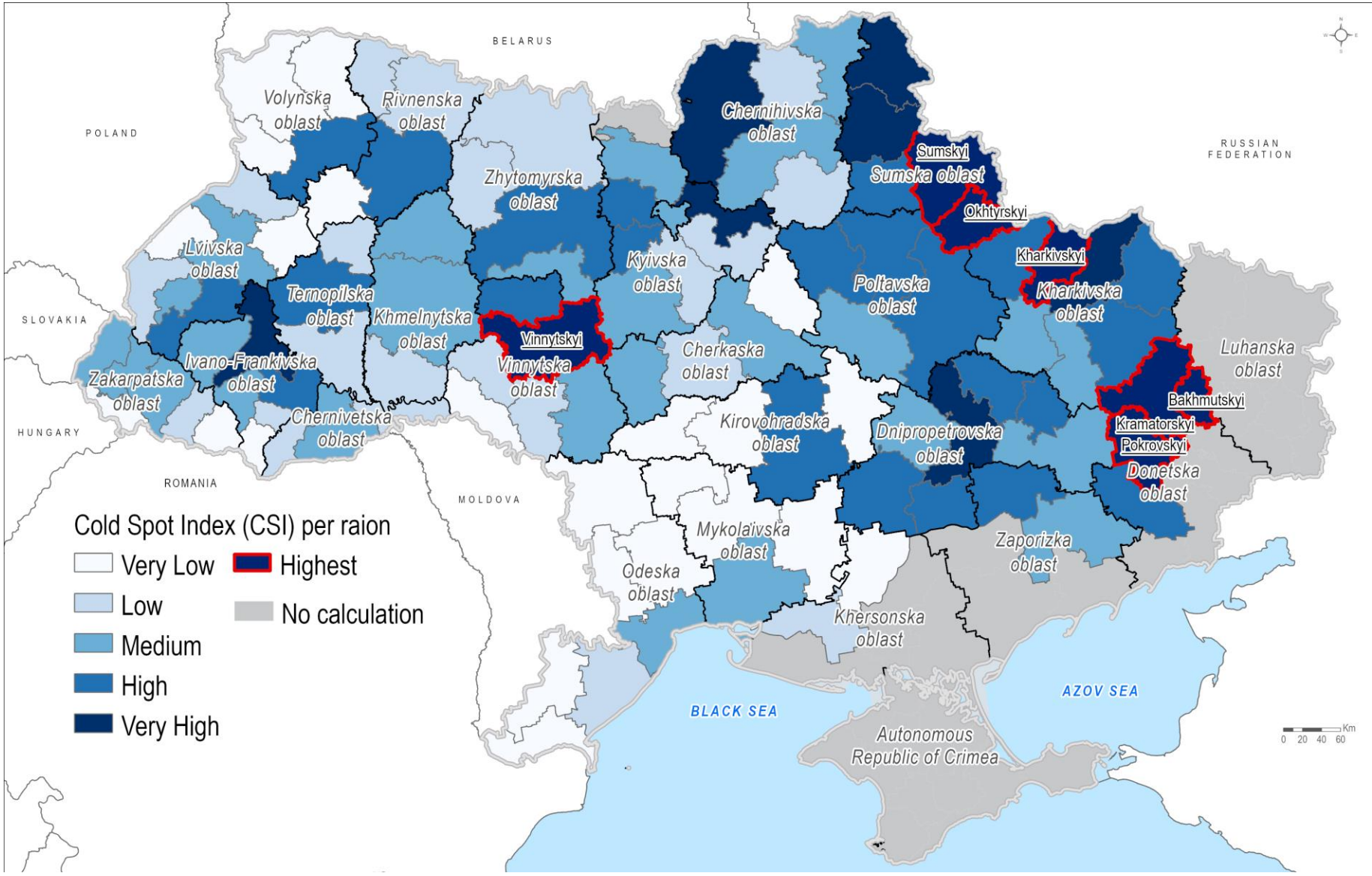
- **War-related incidents density** per 100 sq km of raion's area recorded from Feb 2022 to July 2023. Source: **ACLED**
- Weighted number of war-related **incidents to energy infrastructure** recorded in Feb 2022 - Jun 2023. Source: **Zoi Environment Network, Ecodozor**.
- **Reduction of electricity consumption** in April 2023 in comparison to April 2021 disaggregated at oblast level. Source: **UNDP**, Towards a green transition of the energy sector in Ukraine, June 2023.



Cold Spot Index

Raions with **highest CSI values** are:

- **Bakhmutskyi, Kramatorskyi and Pokrovskyi** (Donetska oblast)
- **Okhtyrskyi and Sumskyi** (Sumska oblast)
- **Kharkivskyi** (Kharkivska oblast)
- **Vinnytskyi** (Vinnytska oblasts)



Raions of Ukraine classified with Cold Spot Index (CSI)

Cold Spot Index raions' ranking

Raion	Oblast	CSI class
Kharkivskyi	Kharkivska	Highest
Kramatorskyi	Donetska	Highest
Bakhmutskyi	Donetska	Highest
Sumskyi	Sumska	Highest
Pokrovskyi	Donetska	Highest
Vinnytskyi	Vinnytska	Highest
Okhtyrskyi	Sumska	Highest
Chuhuivskyi	Kharkivska	Very High
Shostkynskyi	Sumska	Very High
Dniprovskyi	Dnipropetrovska	Very High
Ivano-Frankivskyi	Ivano-Frankivska	Very High
Brovarskyi	Kyivska	Very High
Chernihivskyi	Chernihivska	Very High
Konotopskyi	Sumska	Very High
Bohodukhivskyi	Kharkivska	High
Kryvorizkyi	Dnipropetrovska	High
Zaporizkyi	Zaporizka	High
Khmilnytskyi	Vinnytska	High
Pavlohradskyi	Dnipropetrovska	High
Ternopilskyi	Ternopilska	High
Fastivskyi	Kyivska	High
Iziumskyi	Kharkivska	High
Kupianskyi	Kharkivska	High
Rivnenskyi	Rivnenska	High
Zhytomyrskyi	Zhytomyrska	High
Nikopolskyi	Dnipropetrovska	High
Poltavskyi	Poltavska	High
Buchanskyi	Kyivska	High
Lutskyi	Volynska	High
Kolomyiskyi	Ivano-Frankivska	High
Lubenskyi	Poltavska	High
Myrhorodskyi	Poltavska	High
Stryiskyi	Lvivska	High
Volnovaskyi	Donetska	High
Kropyvnytskyi	Kirovohradska	High
Novomoskovskyi	Dnipropetrovska	High
Romenskyi	Sumska	High
Khmelnytskyi	Khmelnytska	Medium
Cnernivetskyi	Chernivetska	Medium
Kamianskyi	Dnipropetrovska	Medium
Kremenchutskyi	Poltavska	Medium
Mukachivskyi	Zakarpatska	Medium
Shepetivskyi	Khmelnytska	Medium
Krasnohradskyi	Kharkivska	Medium
Nizhynskyi	Chernihivska	Medium
Odeskyi	Odeska	Medium
Kyivska	Kyivska	Medium
Cherkaskyi	Cherkaska	Medium
Vyshhorodskyi	Kyivska	Medium
Bilotserkivskyi	Kyivska	Medium
Haisynskyi	Vinnytska	Medium
Khustskyi	Zakarpatska	Medium
Lozivskyi	Kharkivska	Medium
Kaluskyi	Ivano-Frankivska	Medium
Lvivskyi	Lvivska	Medium
Novhorod-Siverskyi	Chernihivska	Medium
Umanskyi	Cherkaska	Medium
Berdychivskyi	Zhytomyrska	Medium
Drohobytskyi	Lvivska	Medium
Mykolaivskyi	Mykolaivska	Medium
Nadvirnianskyi	Ivano-Frankivska	Medium
Polohivskyi	Zaporizka	Medium
Synelnykivskyi	Dnipropetrovska	Medium
Uzhhorodskyi	Zakarpatska	Medium

Interpretation & limitations

Rapidly-evolving / unpredictable situation

- Potential further damage to power generation, heating and residential infrastructure;
- Continued population displacement, etc.

CSI index do not consider local response capacities

- REACH is currently conducting key informant interviews in the seven most vulnerable raions to shed light on lessons learned from last winter's response and the expected challenges for this winter.

Coordination between winterisation actors and ongoing engagement with representatives of local authorities and communities is crucial to ensure that winterisation programming addresses the specific needs and challenges of war-impact populations across the whole of Ukraine during the winter 2023/24.

02

Collective Sites Winterisation Needs

Round 9 (July Data Collection)

CSM Round 9 – Methodology

With the support of

Омбудсман України
Ombudsman of Ukraine

- Collective Site Monitoring is a bi-monthly research cycle aimed at obtaining the latest data on the situation in collective sites to inform the humanitarian response.
- Data collection method: key informant interviews (KIIs) with collective site managers.
- Round 9: 03 – 21 July 2023.
- 1,063 collective sites surveyed, of which 91% were hosting IDPs at the time of interview.
- 56,720 people were staying in the collective sites surveyed in Round 9.

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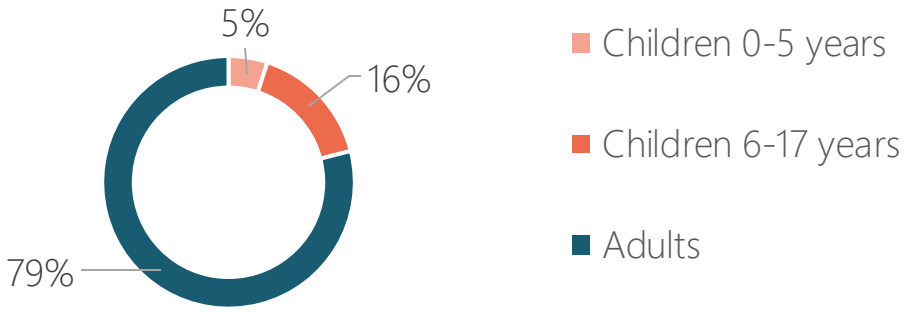
CSM Round 9 – Demographics

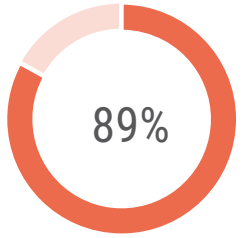
Age breakdown of IDPs in surveyed collective sites



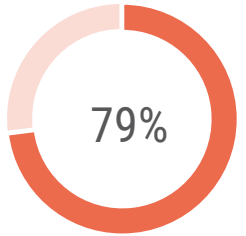
25% Proportion of IDPs in collective sites above 60 years old

7% Proportion of people with disabilities in collective sites

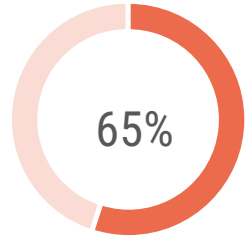
% of the CSs hosting at least one person with the following vulnerability:



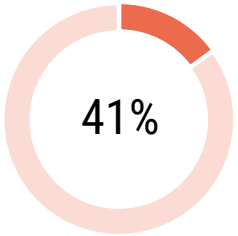
Older women



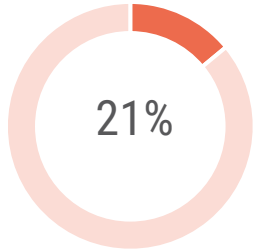
Older men



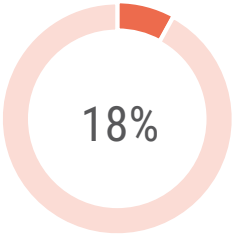
People with disability



Female-headed households



Large households (> 3 children)

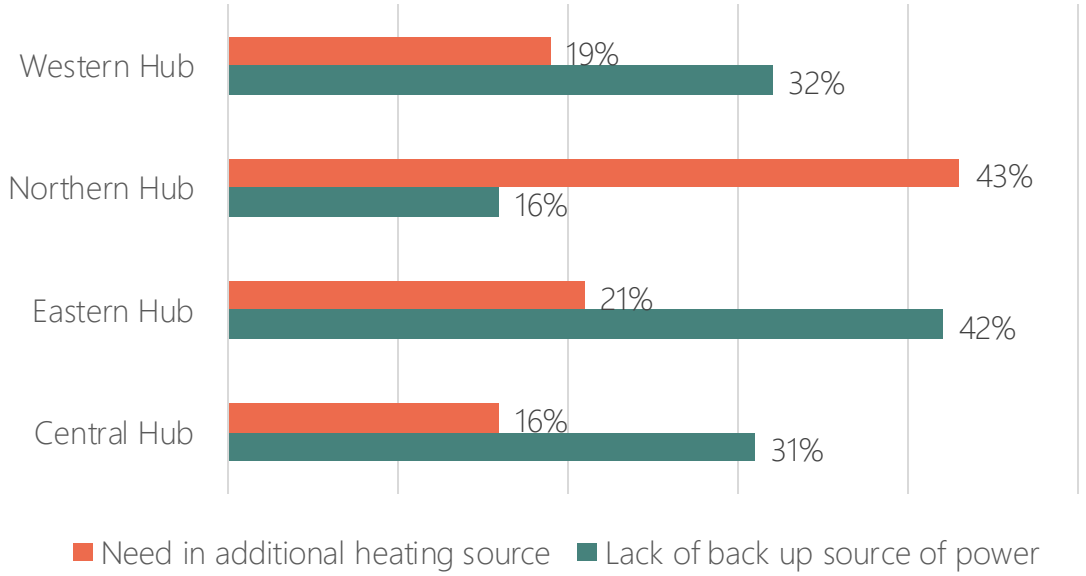


People with chronic illnesses including mental health issues

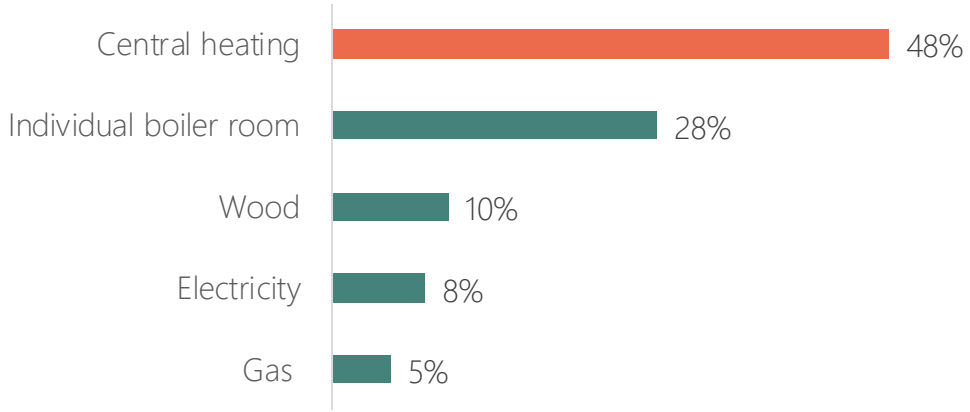
CSM Round 9 – Emergency Power and Heating

35% of the CSs reportedly do not have back up source of power, especially in the Eastern Hub (42%).

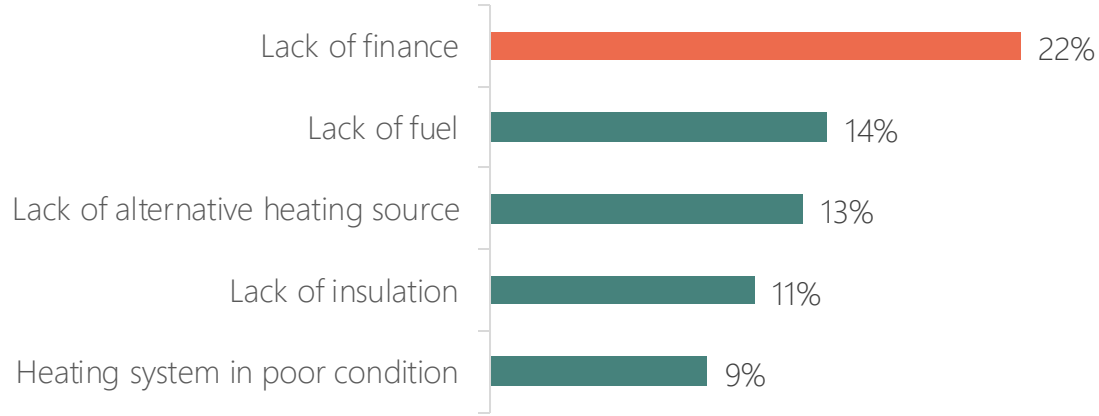
20% of the site managers reported needing an additional heating source, mostly in the Northern Hub (43%).



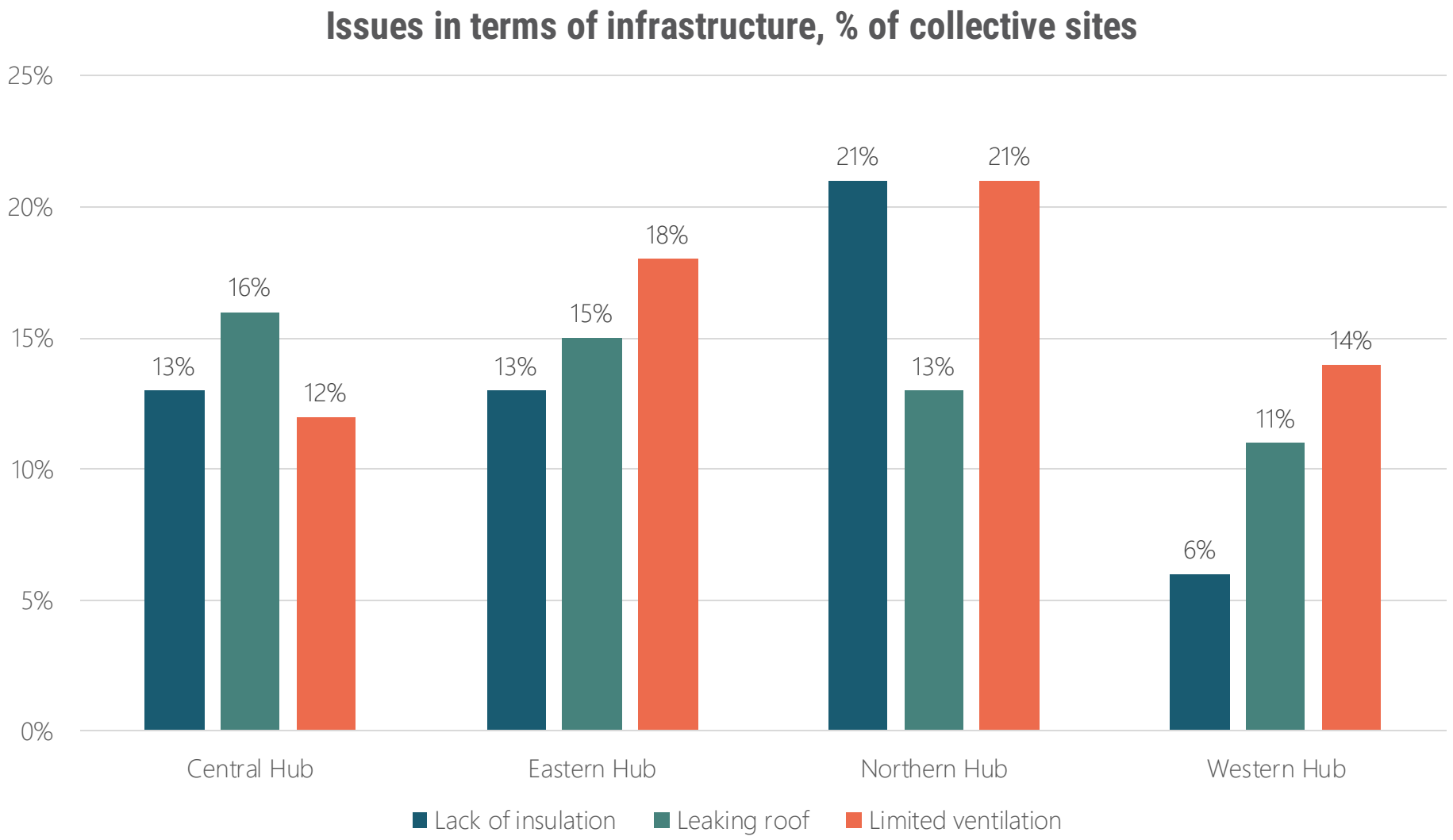
Main type of heating source



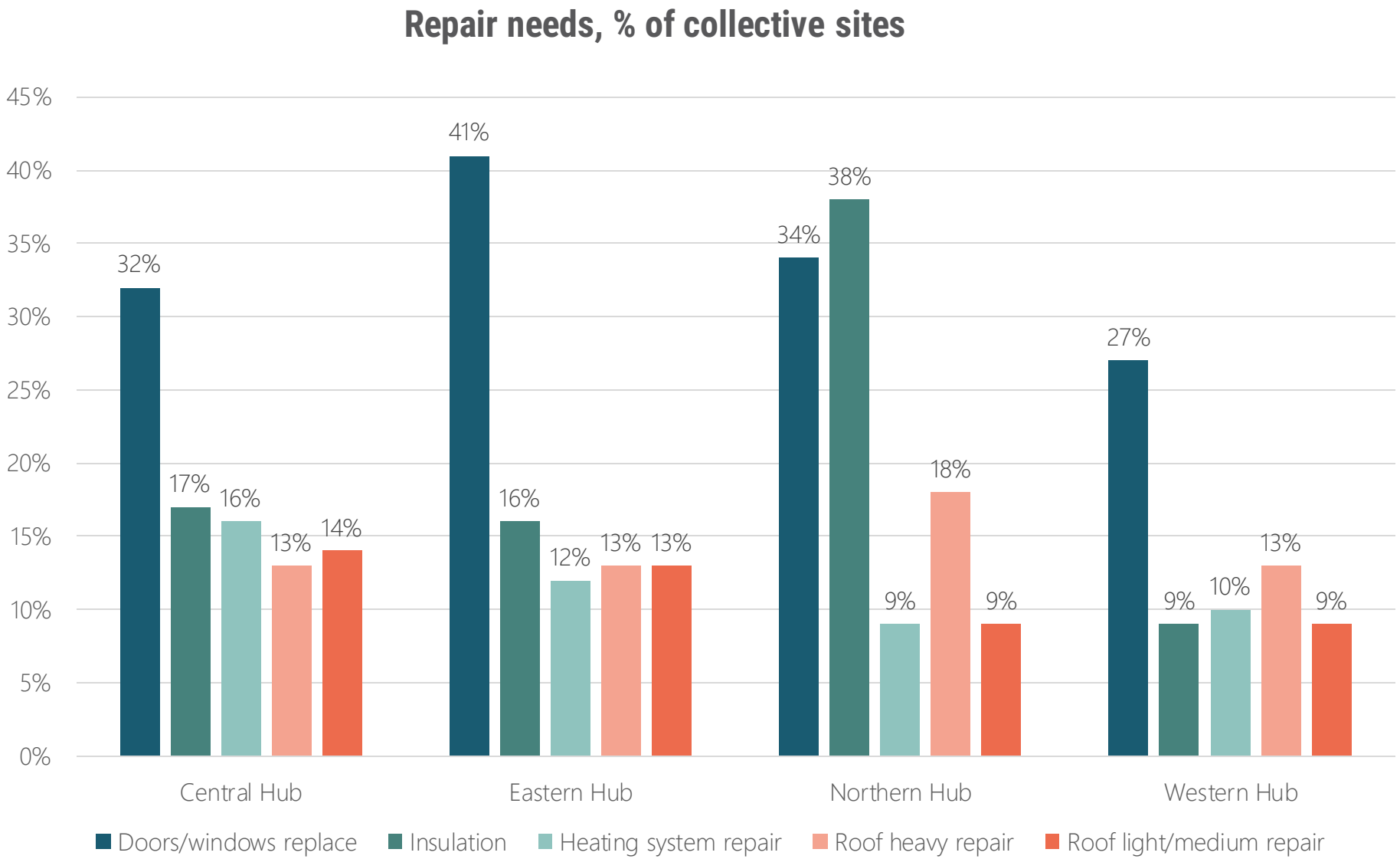
Most frequently anticipated heating issues



CSM Round 9 - Infrastructure

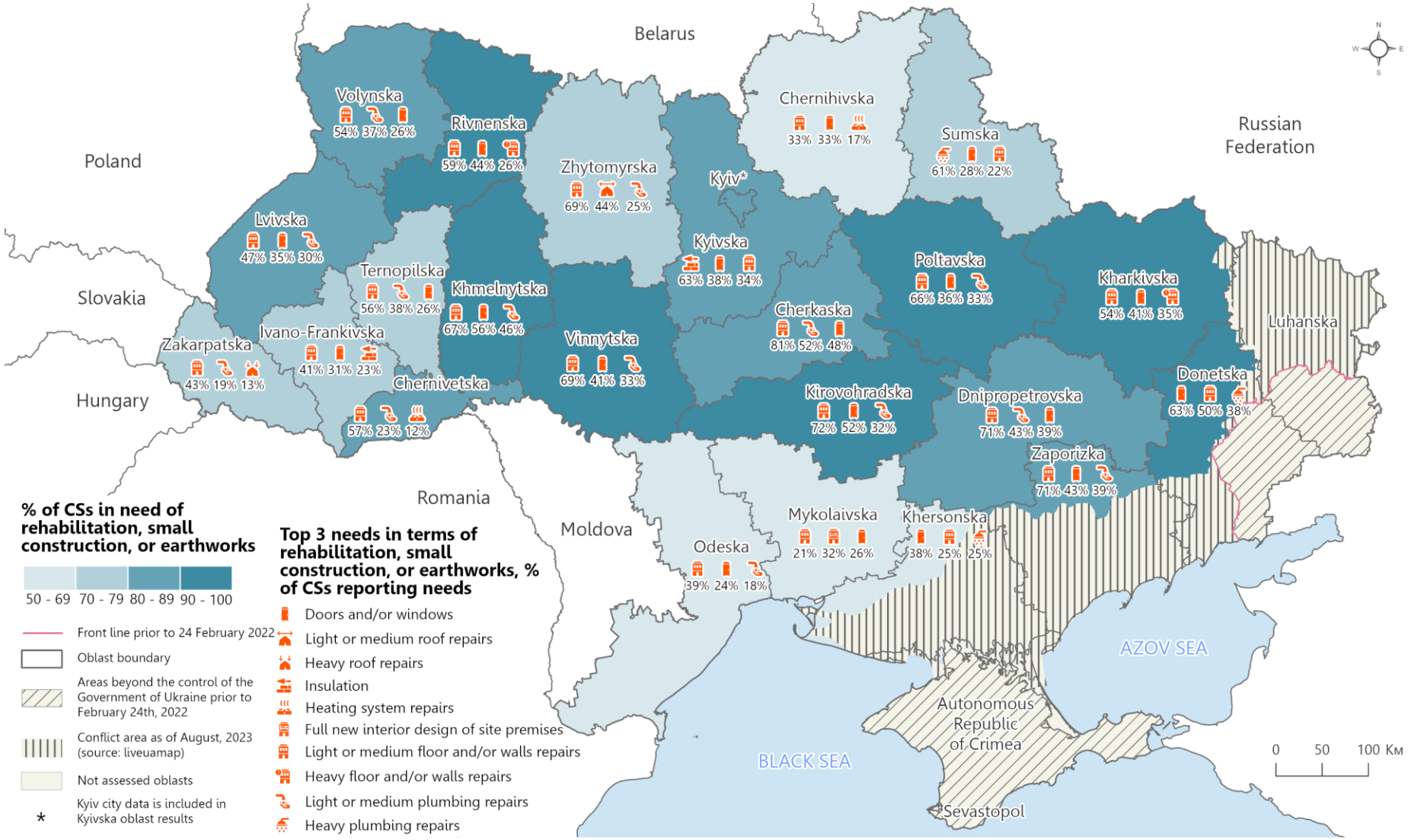


CSM Round 9 - Repairs



CSM Round 9 – Repairs

Oblasts	*% CSs with repair needs in Round 9*
Donetska	100%
Rivnenska	95%
Vinnytska	92%
Khmelnytska	92%
Kharkivska	91%
Poltavska	91%

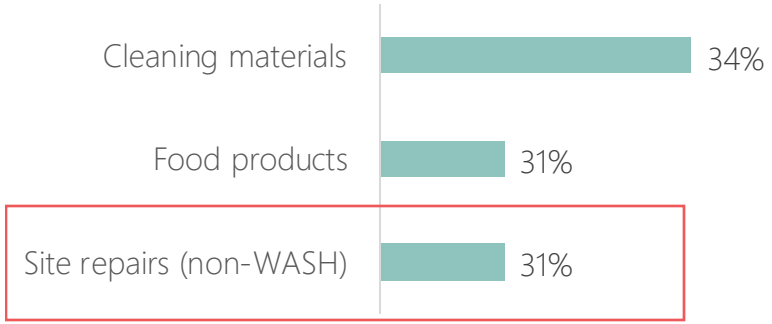


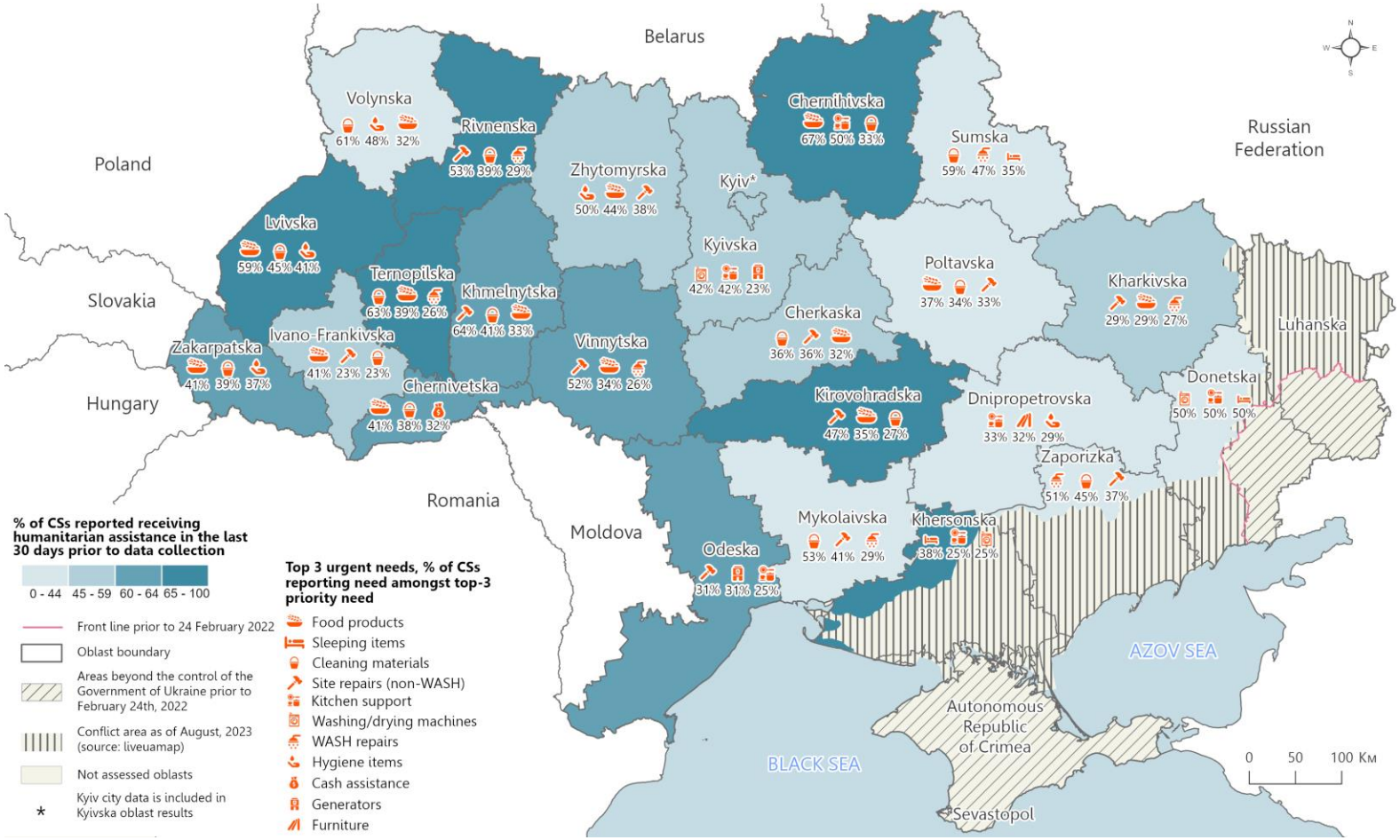
CSM Round 9 – Humanitarian Assistance and Needs

32% of the CSs reported the need in washing/drying machines, more often in the Northern Hub (48%)

17% of the CSs reportedly needed generators as an additional heating source, most frequently in the Northern Hub (32%)

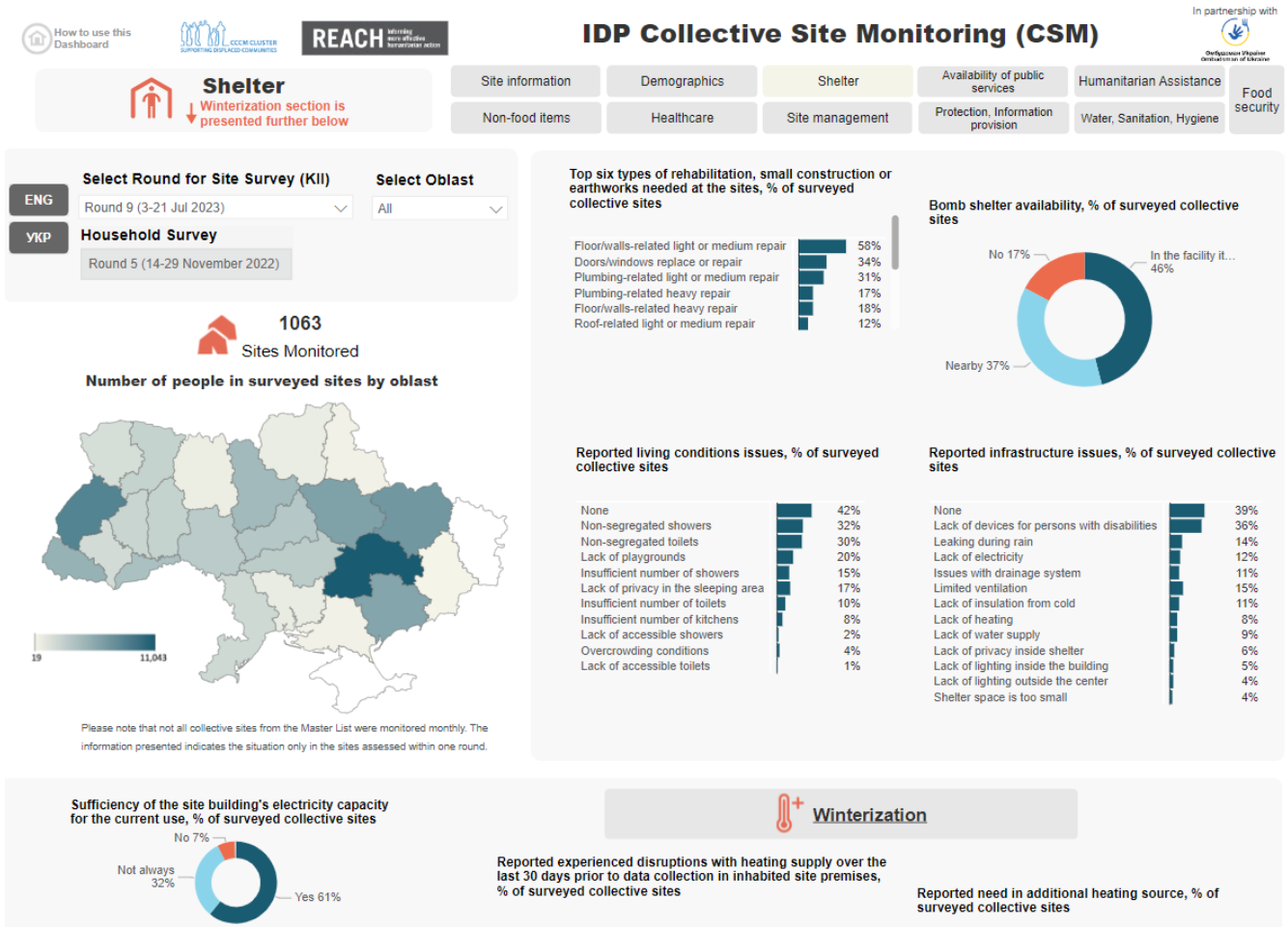
Top three needs, % of the CSs





CSM Data: Dashboard and Requests

- National, Macro-Regional, and Oblast-level data (July): interactive Dashboard
- 200+ indicators
- CS-level data upon request (oblast, raion, hromada, settlement, ad-hoc list) and site prioritisation support through the CCCM (subnational) Cluster
- Building Type analysis available soon
- MSNA in collective sites: household-level forthcoming in September



03

Discussion

Thank you for your attention

HIDU – Antoine Chandonnet: antoine.chandonnet@impact-initiatives.org
CSM – Miguel Iglesias Lopez: miguel.iglesias-lopez@impact-initiatives.org

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