EUROPEAN

UKRAINIAN

Initiative for

Integrated Veteran Rehabilitation & Psychosocial Care

MENTAL HEALTH PROJECT PROPOSAL

Stakeholder review version · Prepared for the Coordination Centre for Mental Health, Ukraine

CHTI
CZECH HEALTH
TECHNOLOGY INSTITUTE

IMPACT OF THE WAR ON MENTAL HEALTH

15M

Ukrainians may be affected by mental-health issues and require psychosocial support.

4M+

veterans and their family members will require specialised physical and mental-health services in the coming years.

WHY NOW

Ukraine requires the application of rapidly implementable and scalable solutions that can also be provided by properly trained non-specialists in primary care settings… The Commission recommends using a stepped-care approach.

Source: Lancet Psychiatry Commission, 2024

KEY SYSTEM CHALLENGES

CAPACITY CRISIS

- Long-term **shortage** of psychiatrists, psychologists and nurses
- Centres operate **below capacity** due to staff and equipment gaps
- Inpatient rehabilitation capacity does not meet demand
- **Regional disparities** in access to mental-health care

STIGMA & SOCIAL ADAPTATION

- **Stigma** remains a significant **barrier** to early help-seeking
- Veterans often **feel excluded** from public life and lack access to appropriate mental health services
- Risk of large-scale crisis in the **socialisation** and **employment** of veterans

STRUCTURAL GAPS

- **Training** is often short-term, **lacking follow-up and supervision**
- **Difficulty integrating** lower-skilled personnel into therapeutic roles
- **Fragmentation** and lack of systemic coordination
- Lack of modern, evidence-based **interventions** for military trauma

THE STAKES

What happens *after the war*

CORE RISKS

- High prevalence of war trauma, PTSD, anxiety and depression
- Elevated rates of suicidal tendencies
- Veterans struggle to readapt to public life and employment
- Rising family conflict, divorce and family breakdown
- Chronic alcohol and drug misuse from maladaptive coping
- Lack of early intervention chronifies PTSD for years

Quality, timely rehabilitation is the cornerstone of successful reintegration.

MENTAL HEALTH TRANSFORMATION

As recently as 2020, nearly 90% of mental-health funding in Ukraine went to inpatient institutions, while outpatient and community-based services remained structurally underfunded. This bias has fuelled distrust and stigma — veterans often perceive psychiatric facilities as restrictive environments rather than places of recovery.

An effective response therefore requires a systemic shift toward a modern, outpatient-focused, community-based model — the balanced care model — combining accessibility, clinical quality and scalability.

> *Ukraine requires rapidly implementable and scalable solutions that can be provided by properly trained non-specialists in primary care settings — accessible to all Ukrainians.*
>
> **The Lancet Psychiatry Commission**
>
> *on mental health in Ukraine, 2024*

PROJECT VISION

We aim to build a **modern outpatient clinic** that blends **advanced technologies** and **community-based support** in a **scalable model**.

It is designed as a clinical **extension of existing hospitals**. Combination of this intervention stack and application of **multidisciplinary teams expands the capacity** while keeping **specialists focused** on screening, indication and crisis care.

Accessibility

Care available in local communities to lower help-seeking barriers.

Peer support

Veterans as facilitators support reintegration, increase capacity, build trust and improve adherence.

Capacity & sustainability

Centres increase access while optimising cost per treatment and budget needs.

RESILIENCE CENTRES

Proven concept

- 326 Resilience Centres operating across Ukraine
- Staffed by healthcare workers, social workers and peer supporters
- Serving veterans, families of service members, IDPs and affected communities

OUR SOLUTION

The key value of our proposal lies in interventions that **naturally enable multidisciplinary, non-specialist teams** to deliver effective outpatient mental health care.

Specialists focus on screening, clinical decision-making and oversight, while trained **mid-level providers** (nurses and other upskilled staff) **deliver** structured interventions alongside peer workers, **significantly increasing capacity.**

The clinic **integrates unique mental-health know-how from leading European providers**, ensuring high clinical quality and rapid skill transfer.

Designed as an extension of existing hospitals and mental-health centres. **Quick to deploy and easy to replicate across regions.**

Veteran-focused, but not veteran-exclusive. Designed for broader mental-health needs.

HOW CARE IS DELIVERED

Specialists (e.g. psychiatrists) focus on what cannot be delegated: screening, **clinical decision-making**, supervision, and crisis escalation.

Trained mid-level providers (nurses, upskilled technicians) **deliver structured, technology-enabled interventions** alongside **peer workers**, significantly increasing accesibility while maintaining clinical quality.

This role separation allows:

- Higher patient throughput
- Better use of specialist time
- Sustainable workforce scaling
- Integration of veteran population as caregivers

· Higher patient throughput · better use of specialist time · · sustainable workforce scaling · veterans as caregivers ·

CORE CONCEPT

The proposal integrates **proven health-tech** and **community-based interventions** that directly **address the most prevalent mental health** and functional challenges in war-affected populations, including trauma related disorders, depression, anxiety, chronic stress, social withdrawal, and functional impairment.

By **combining** validated **technologies** with established **patient workflows**, the model enables rapid skill transfer, consistent quality, and predictable outcomes, while remaining **deployable at scale**.

Each intervention independently increases capacity and reduces treatment costs. Together, they form a **coherent, scalable outpatient care model** covering the full spectrum of post-war mental health needs.

THERAPEUTIC

Technology-enabled clinical interventions

- rTMS neuromodulation
- EMDR VR protocol
- Music therapy / art rehabilitation
- Digital CBT psychotherapy

COMMUNITY

Peer- and family-based support

- Veteran peer-support facilitators
- Family engagement, counselling and groups
- Work reintegration; training veterans into care roles

REHABILITATION

Combined physical & psychological recovery

- VR rehabilitation protocols
- Combines physical and psychological recovery
- Suits orthopaedic and neurological injuries with co-occurring trauma

PATIENT PATHWAY

Specialists indicate and oversee while the multidisciplinary team delivers.

01

Entry / Referral

Self-referral, primary care, resilience centres, peer networks

02

Screening

Specialist assessment: diagnosis (PTSD, depression, anxiety, comorbidities)

03

Indication & plan

Specialist matches the patient to the intervention stack

04

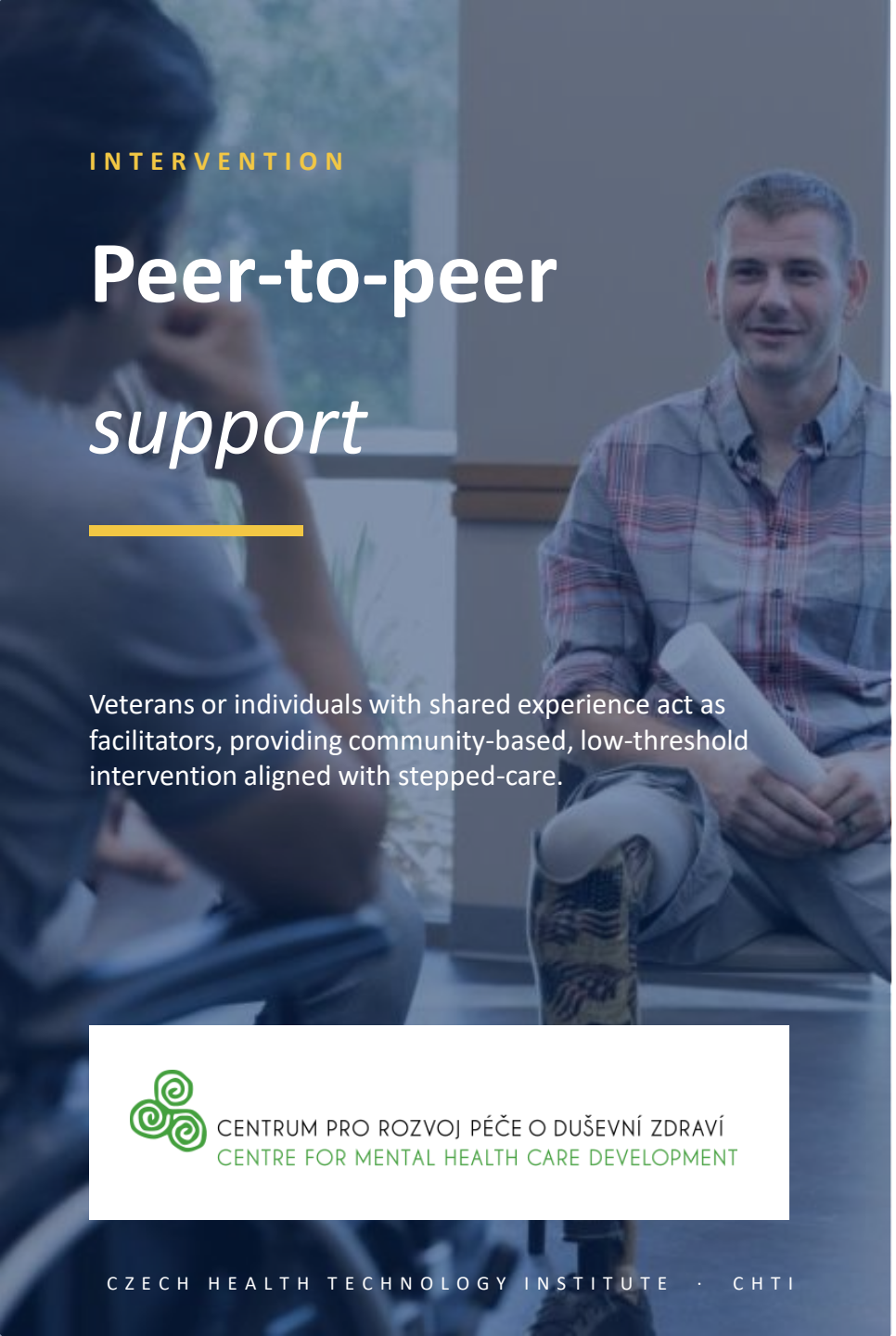
Stepped interventions

Therapeutic + community + rehabilitation layers delivered together

05

Follow-up

Monitoring, peer-led groups, community handoff



INTERVENTION

Peer-to-peer *support*

Veterans or individuals with shared experience act as facilitators, providing community-based, low-threshold intervention aligned with stepped-care.

CENTRUM PRO ROZVOJ PÉČE O DUŠEVNÍ ZDRAVÍ
CENTRE FOR MENTAL HEALTH CARE DEVELOPMENT

HOW IT WORKS

- Trained peer facilitators with lived experience lead weekly group and individual sessions
- Group size 6–12; one facilitator runs multiple groups in parallel
- Clinical supervision by the centre's psychiatrist or psychotherapist
- Targets veterans, families of veterans and fallen defenders, IDPs, returnees from captivity

MECHANISM OF ACTION

- Lived experience builds trust faster than clinical contact, lowering help-seeking barriers
- Reduces stigma and strengthens belonging. Protective factors against PTSD and depression
- Bridges informal community support to formal mental-health pathways (early referral function)

EVIDENCE & OPERATIONS

EVIDENCE

- WHO recognises peer support as a core component of recovery-oriented mental-health systems
- Established evidence base (US VA, EU programmes): improved engagement, reduced re-hospitalisation, reduced stigma
- CARe Model validated and widely applied across European mental-health services

OPERATIONS BENEFIT

- 13-day (104h) CARe-adapted training plus 50h on-the-job supervision over 16 months
- Curriculum co-developed by IPSI Khmelnytskyi and CMHCD Prague (certified CARe trainers, incl. USAF veteran psychotherapist)
- Clinical oversight by the centre's psychiatrist or psychotherapist
- One facilitator covers multiple groups → high community-level capacity at low marginal cost

VR EMDR · PSYLARIS

Autonomous VR sessions using clinically validated Eye Movement Desensitisation and Reprocessing methodology.

HOW IT WORKS

- Self-guided VR EMDR on a standard headset
- Typical course: 8 sessions over 3 weeks
- Delivered individually or in small supervised groups
- EMDR-trained therapist provides indication, between-session review and clinical decisions

MECHANISM OF ACTION

- EMDR is WHO-recommended frontline psychotherapy for trauma
- Bilateral stimulation during recall reduces emotional charge of traumatic memories
- VR automates bilateral stimulation, freeing therapist from in-room delivery

EVIDENCE & OPERATIONS

EVIDENCE

- EMDR included in WHO Guidelines for management of conditions related to stress
- Strong meta-analytic evidence for EMDR in PTSD symptom reduction
- Psylaris VR EMDR clinically validated in Dutch settings vs. in-person EMDR

OPERATIONS BENEFIT

- Indication by psychiatrist or EMDR-trained psychotherapist
- Sessions can be initiated and supervised by trained nurses or therapy technicians
- EMDR therapist caseload reduction up to ~50%
- Each VR station can serve 5+ patients per day

RTMS · BTL EXOMIND

Innovative non-invasive, drug-free neuromodulation stimulating the dorsolateral prefrontal cortex.

HOW IT WORKS

- 24.5-minute sessions; 4–6 per treatment cycle; 1–2 per week (2–10 days apart)
- Walk-in / walk-out, no preparation, anaesthesia or hospitalisation
- Compatible alongside psychotherapy, pharmacotherapy and trauma-focused care

MECHANISM OF ACTION

- Electromagnetic pulses target the left DLPFC. Hypoactive in chronic stress and PTSD
- Re-engages neural pathways and strengthens synaptic connections via neuroplasticity
- Restores top-down regulation of the amygdala and hippocampus

EVIDENCE & OPERATIONS

EVIDENCE

- Meta-analysis of rTMS for PTSD (13 studies, 359 patients): significant pre–post reductions in PTSD, anxiety and depression
- 40+ years of TMS clinical use; >17,000 published TMS articles; millions of treatments worldwide
- BTL Exomind: 1,400+ installations across Europe, Middle East, Asia and the Americas
- Patient self-report at 3M: 88% improved wellbeing, 72% better sleep, 66% less depressed/anxious

OPERATIONS BENEFIT

- Indication and motor-threshold calibration by physician (psychiatrist, neurologist)
- Routine sessions delivered by trained nurses or therapy technicians under oversight
- Hands-free design enables high throughput on a single device
- Operator training covers safety, screening, coil positioning and patient monitoring

MUSIC THERAPY · PETROF + PALACKÝ UNIVERSITY

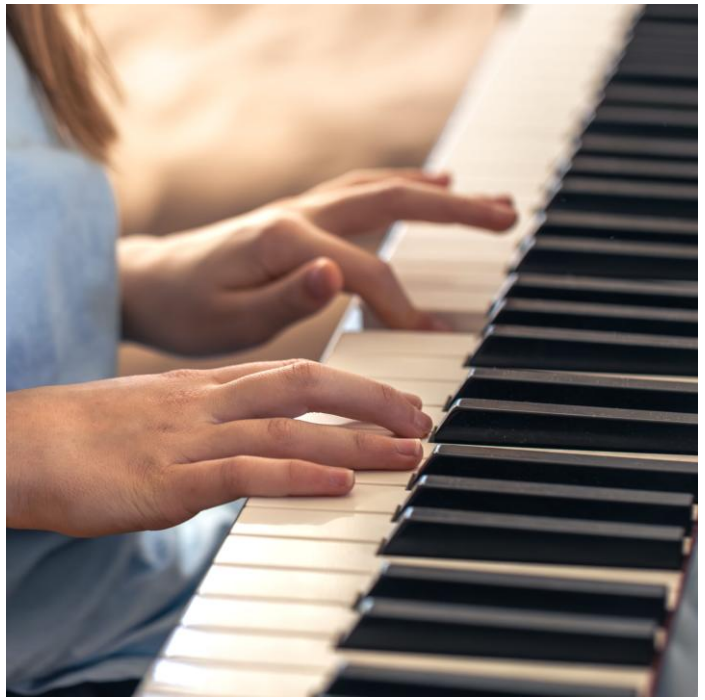
Holistic intervention targeting PTSD, anxiety, depression, burnout and chronic stress.

PETROF PIANOS SINCE 1864

Palacký University Olomouc

HOW IT WORKS

- Weekly group sessions, 8–12 participants
- Combines active methods (piano-based music-making) with receptive methods (guided listening, relaxation)
- Open to veterans, civilians and families together — strengthens shared experience
- Designed to support clinical improvement within months of regular sessions



MECHANISM OF ACTION

- Largely non-verbal, engages perception (similar to mindfulness)
- Regulates autonomic nervous system, cortisol, blood pressure, heart rate
- Supports emotion regulation and reduces stress and pain perception
- Promotes positive social interaction and adaptive coping

BACKGROUND & OPERATIONS

PROFESSIONAL BACKGROUND

- Recognised healthcare profession in psychiatry, neurology, oncology, and geriatrics
- Modern music therapy emerged from post-WWII veteran rehabilitation programmes
- JBI Center of Evidence-Based Education and Arts Therapies at Palacký University is the leading research institute in Central Europe
- Both active and receptive methods documented to build resilience and reduce trauma impact

OPERATIONS BENEFIT

- Certified music therapists from the Palacký University Master's programme (Olomouc, Czech Republic)
- Suitable trainees include veteran musicians, unemployed musicians, and nurses with musical ability — leverages an underused cultural workforce
- 10-day adapted certified training pathway available; remote training option
- Group format and assistant model: one therapist can reach ~15 clients per session

VR MEDICAL

Medical-grade VR for combined physical and psychological rehabilitation.

HOW IT WORKS

- Sessions ≤20 minutes; first onboarding by a physiotherapist
- Group sessions led by nurses, social workers or peer workers (4–5 patients per supervisor)
- 60+ application portfolio: physiotherapy, occupational therapy, cognitive training, pain management
- Minimal infrastructure required, a 1×1 m quiet area per station

MECHANISM OF ACTION

- Applies motor-learning and neuroplasticity principles through high-repetition, intensive practice
- Real-time visual feedback strengthens motor and cognitive re-learning
- Immersive engagement reduces pain perception during exercise
- Bridges physical and psychological rehabilitation on a single platform

EVIDENCE & OPERATIONS

EVIDENCE

- Reduced pain perception of up to 48% during exercise
- Suitable for orthopaedic, neurological, and mental-health indications
- Already deployed at 7 active sites in Ukraine. Proven operational footprint in-country

OPERATIONS BENEFIT

- Physiotherapist indicates and onboards each patient
- Group sessions delivered by nurses, social workers, or trained peer workers
- One specialist can comfortably supervise multiple patients simultaneously
- Particularly suitable for mixed-need cohorts (physical and mental health together)

DIGITAL CBT · MINDWELL

Therapist-supported digital platform delivering structured, evidence-based CBT programmes.

HOW IT WORKS

- 7–11 structured CBT modules per programme; ~1.5h of patient work per module
- Therapist feedback ~25 minutes per care unit
- Asynchronous and fully remote delivery
- Targets adults with mild-to-moderate depression, anxiety, chronic stress, PTSD

MECHANISM OF ACTION

- CBT is the golden standard of psychotherapy for common mental disorders
- Patients progress through structured modules at their own pace; therapist provides personalised feedback
- Asynchronous hybrid model removes geographical and capacity barriers to CBT
- Standardised content protects clinical quality as the model scales

EVIDENCE & OPERATIONS

EVIDENCE

- High clinical efficacy demonstrated for depression and generalised anxiety disorder
- Additional programmes in development (incl. PTSD, chronic stress)
- Digital CBT broadly endorsed in international guidelines (NICE, WHO) for mild-to-moderate cases

OPERATIONS BENEFIT

- CBT-trained therapist provides feedback; therapists can support multiple centres remotely
- Mid-level providers can host on-site sessions and patient triage
- Increases psychotherapist capacity >3× while maintaining clinical efficacy
- Country-wide therapist pool can serve any local centre — removes local capacity bottlenecks

EVIDENCE & OPERATIONS

EVIDENCE

- Cohen's d > 0.8 demonstrated for depression and generalised anxiety programmes (large clinical effect)
- Registered as a Class I medical device (EU MDR).
- Reimbursed from public health insurance in Czech Republic
- Continuous symptom monitoring through standardised instruments (PHQ-9, GAD-7) across the patient journey
- Digital CBT broadly endorsed in international guidelines (NICE, WHO) for mild-to-moderate cases; PTSD and chronic-stress programmes in development

OPERATIONS BENEFIT

- CBT-trained therapist provides feedback; therapists can support multiple centres remotely
- Increases psychotherapist capacity >3× while maintaining clinical efficacy
- Mid-level providers can be trained to provide care to lower intensity patients as platform follows defined CBT structure
- Country-wide therapist pool can serve any local centre, removes local capacity bottlenecks

INTERVENTION STACK AT A GLANCE

Six interventions delivered by a multidisciplinary team, supervised by specialists.

Intervention	Primary indication	Who delivers	Capacity / format	Evidence
Peer support (CMHCD / CARe)	Stigma reduction, reintegration; veterans, families, IDPs	Trained peer facilitators; clinical supervision	Weekly groups, 6–12 ppl; 1 facilitator runs multiple groups	WHO-recognised; CARe validated in EU
VR EMDR (Psylaris)	PTSD, trauma-related disorders	EMDR-trained therapist; nurses can initiate sessions	8 sessions / 3 weeks; 5+ patients per day per station	EMDR in WHO trauma guidelines; Psylaris Dutch trials
rTMS (BTL Exomind)	Depression, anxiety, chronic stress, PTSD comorbidity	Physician indicates; nurses/technicians deliver	~25 min, 4–6 sessions; walk-in/out	40+ yrs TMS; rTMS-for-PTSD meta-analysis; 1,400+ installs
Music therapy (PETROF + UPOL)	Supporting treatment for PTSD, anxiety, depression, burnout, chronic stress	Certified music therapists (Palacký University 10-day training)	Weekly groups, 8–12 ppl; ~15 clients per session	Recognised profession; JBI Centre evidence base
VR rehab (VR Medical)	Combined physical + psychological rehabilitation	Ergotherapist onboards; nurses/peers run groups	≤20 min, 4–5/supervisor; minimal footprint	pain –48%; 7 active UA sites
Digital CBT (Mindwell)	Mild-to-moderate depression, anxiety, chronic stress, PTSD, grief-management	CBT-trained therapist (remote); mid-level for lower intensity / prevention	7–11 modules; >3× therapist capacity	Demonstrated high clinical efficacy, digital CBT endorsed by NICE / WHO

EXPECTED IMPACTS

Each centre can fully treat 3,000+ unique patients annually with minimal specialist utilisation.

CLINICAL IMPACT

Earlier intervention, reduced PTSD chronicity, fewer relapses, improved symptom reduction across depression, anxiety and PTSD.

ECONOMIC IMPACT

Faster return to work, reduced long-term disability burden, improved participation in reconstruction. A more economically sustainable care model vs. TAU.

SOCIAL IMPACT

Lower stigma through peer models, stronger community belonging, reduced loneliness and isolation.

SYSTEM IMPACT

High-capacity stepped-care model relieving pressure on specialists, creating a replicable outpatient framework for national scale-up.

EXPECTED IMPACTS · PROJECT

Meaningful impact on population mental health can only be achieved at scale.

SCALE

Designed to be **replicable across 50+ centres,** creating the capacity required to respond to the mental-health burden resulting from the war.

REACH

At national scale, the network enables care for **more than 100,000** patients annually through low-threshold community support, technology-enabled outpatient care, and specialist oversight.

INTEGRATION

Integration with MoH/MVA systems and full compatibility with national eHealth infrastructure. Ready to plug into the existing service architecture.

SUSTAINABILITY

Cost-effective framework for regional replication, supported by a sustainably developed mid-level provider and peer workforce.

RISKS OF NON-ADOPTION

Without a transition toward stepped-care and outpatient mental-health models, Ukraine faces systemic risks affecting recovery, resilience and long-term stability.

Economic resilience

Productivity losses estimated at >$1B/year in Ukraine. Premature death, absenteeism and presenteeism from untreated PTSD, depression and anxiety.

Human capital & education

Ukrainian PISA scores fell from 481 (2018) to ~451 (2022); estimated >10%/year earnings loss per student in the current cohort. Untreated distress prolongs this gap.

Health system sustainability

~6.4M Ukrainians live with severe chronic PTSD. 89% of MH funding goes to inpatient care reaching only 8% of the population; the Lancet recommends raising MH spend from ~3% to 4.5% of the health budget.

Social cohesion & reintegration

Ukraine needs ~8.6M additional workers by 2032 to meet GDP recovery targets (ILO). Untreated MH conditions among veterans, IDPs and affected communities directly constrain workforce participation and family stability.

COLLABORATION PROPOSAL

A non-binding Declaration of Cooperation

between CHTI and the Coordination Centre for Mental Health, Ukraine.

EUROPEAN PARTNERS

Provide technologies, training, clinical know-how and evaluation support.

UKRAINIAN PARTNERS

Provide clinical settings, staff, system integration and regulatory alignment.

JOINT GOVERNANCE

UA–CZ steering group overseeing pilot setup, evaluation and scaling.

IMPLEMENTATION PHASES

1. **Concept design & validation (pre-feasibility)**
2. **Securing funding**
3. **Pilot deployment**
4. **Scaling & standardisation**

PROPOSED NEXT STEP

We propose a non-binding Declaration of Cooperation between CHTI and the Coordination Centre for Mental Health — the framework for joint pre-feasibility and the pilot phase.

THE DECLARATION FORMALISES

- Mutual recognition as primary working partners
- A joint UA–CZ steering group and governance structure
- Czech contribution: technologies, training, clinical know-how, evaluation support
- Ukrainian contribution: clinical settings, staff, system integration, regulatory alignment

WHAT IT IS NOT

- No financial obligations on either side
- Non-exclusive, additional partners (EU, donors) welcome
- Subject to mutual review at each phase