

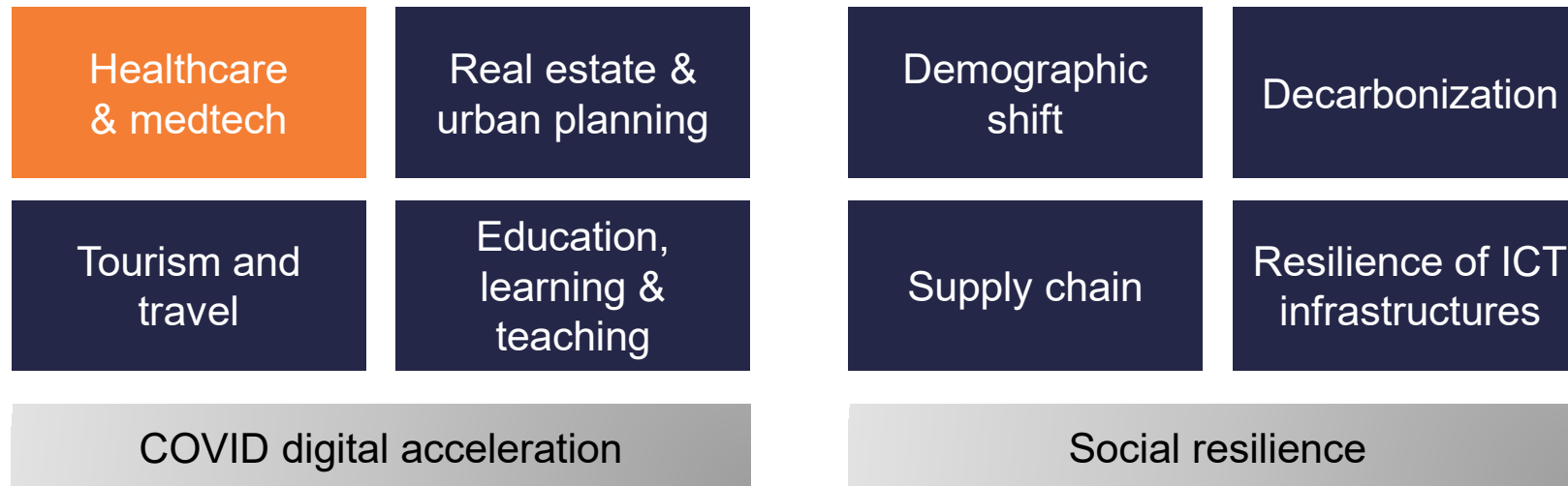
SWISS NEUROREHAB

A Swiss Continuum-of-Care Model for Neuro and Telerehabilitation

Innosuisse Flagship program

Innosuisse Flagship Initiative (FI) snapshot

To stimulate *collaborative* innovation in areas relevant to a large part of the economy or society – offering solutions to current or future challenges - ultimately strengthening the Swiss competitiveness.



The problem

An **ageing society**, with increasing **acquired neurological disease**.

Neurorehabilitation is suboptimal: patients return home with cognitive/motor impairments **affecting independence and quality of life**.

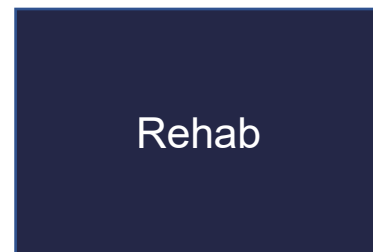
The current care model is **insufficient**, and **segregated phases of treatment**, with limited home-treatment to maintain the rehabilitation benefit.



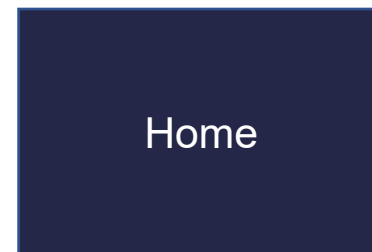
No rehab



Some rehab



“Intense”
3 - 3.5 h/d



Out-patient clinic
1 h/w?



The opportunity

- Evidence-based medicine in neurorehab: **high dose** treatment is effective (Ward et al., 2019) and can be achieved with new technology (Krakauer et al., 2019)
- **Digital therapies: evidence-based therapeutic interventions** that are driven by high quality software programs to prevent, manage, or treat a medical disorder or disease.
- **Telerehabilitation** (Cramer et al., 2019)



The solution

A novel model of Neurorehab, based on digital therapeutics:

SWISS+NEUROREHAB A Swiss Continuum-of-Care Model for Neuro and Telerehabilitation

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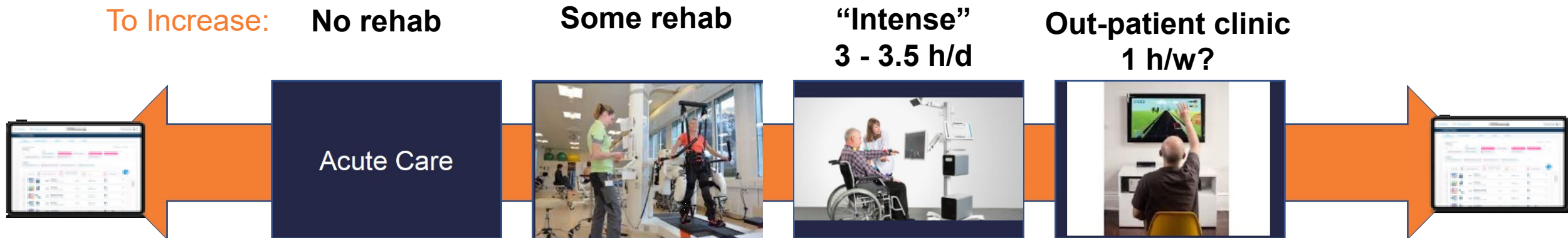
A novel model of Neurorehab, based on digital therapeutics, able to:
Build a model of Continuum of Care (CoC) (from hospital to home)



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Perform monitoring, which allows personalization and assessment of cost/
effectiveness



The solution

A novel model of Neurorehab, based on digital therapeutics, able to:

Build a model of Continuum of Care (CoC) (from hospital to home)

Thus Increasing dose, and then potentially effectiveness

Perform monitoring, which allows personalization and assessment of cost/
effectiveness

Offer approved and economically efficient solutions



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Département fédéral de l'intérieur DFI
Office fédéral de la santé publique OFSP



Mandate:

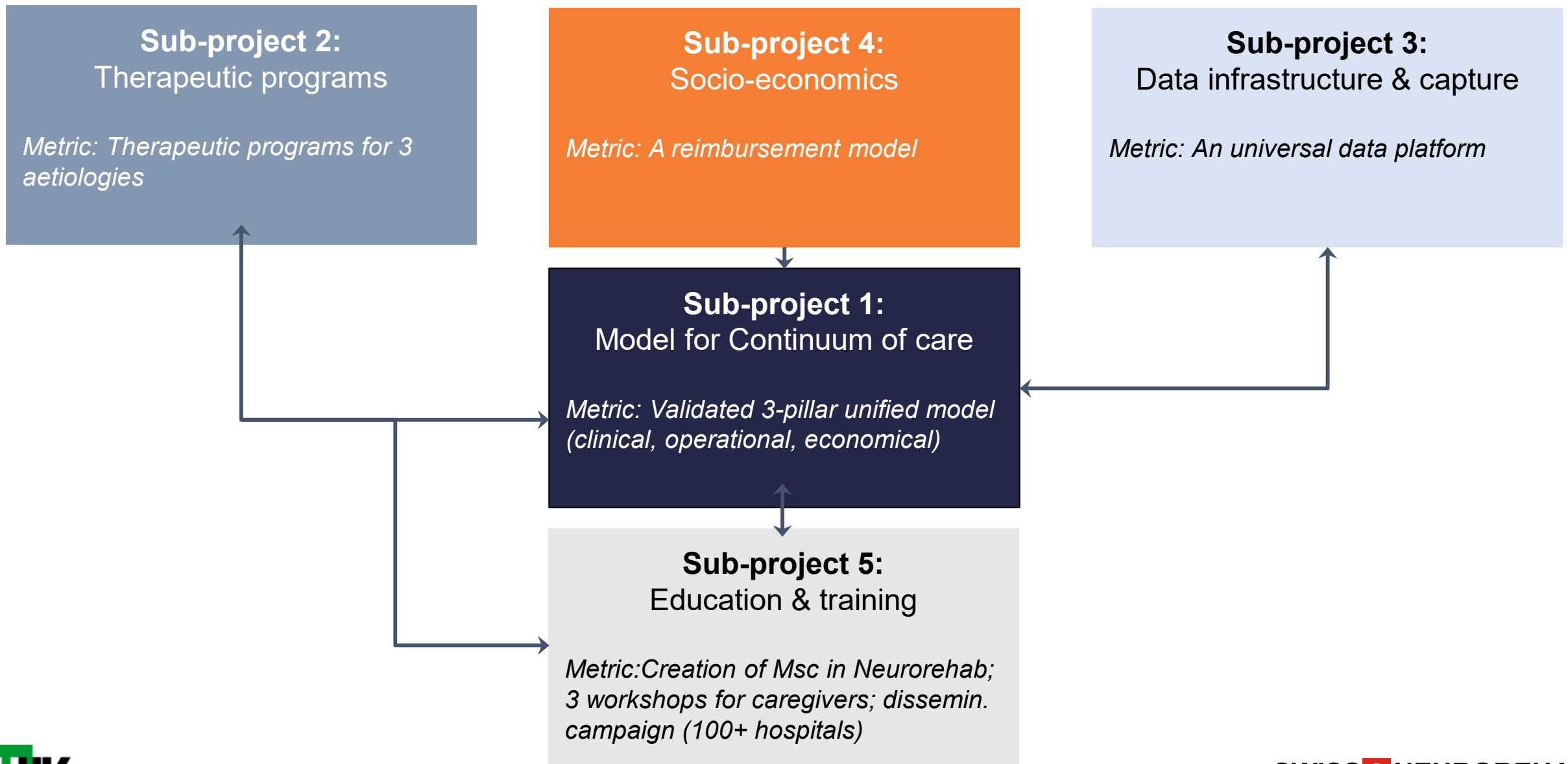
Develop and validate a new model of neurorehabilitation based on high-dose, high-intensity treatment along the continuum of care.

- ~12M CHF, 5 year project
- Lead by CHUV, one of the top 10 hospitals in the world
- 14 research partners including the top 4 university hospitals, the top 5 private clinics and the top 2 technical schools
- 13 implementation partners including the most important neurotech companies
- 3,600 patients across 6 cantons
- Ultimately provides Switzerland with a sustainable HC model for neurorehab

SwissNeuroRehab Consortium



SWISS NEUROREHAB



Potential applications

- Burden of neurological disease is high on a global scale
- Neurorehab is a global problem
- Start with acquired neurological disorders but can be easily exploited with degenerative disorders
(e.g. Multiple sclerosis, Parkinson's disease)

Milestones

Analysis of the current system (month 0-12)

Platform for Data Capture (3-18)

Study 1: Monitoring of cost-effectiveness of the current system (N=1800) (18-36)

Definition of the Clinical Programs of new model of care (12-24)

Implementation of new Clinical Programs into care (24-36)

Study 2: Monitoring of cost-effectiveness of the new model (37-55)

Analyses, results and conclusion (55-60)

Roadmap for adoption (60) including Education (3-60)

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