



THE CONSORTIUM

BENEFICIAIRES

Academisch Ziekenhuis Leiden (LUMC), NL
Agence de la Biomédecine (ABM), FR
Erasmus Universitair Medisch Centrum Rotterdam (Erasmus MC), NL
European Society for Organ Transplantation (ESOT)
Foreningen Scandiatransplant (SCTP)
Hellenic Transplant Organization (HTO), EL
HUN-REN Közgazdaság - És Regionális Tudományi Kutatóközpont, HU
Instituto Superior de Engenharia do Porto (ISEP), PT
Istituto Superiore di Sanita (ISS-CNT), IT
Instituto Portugues Do Sangue E Da Transplantacao (IPST IP), PT
Nederlandse Transplantatie Stichting (DTF/NTS), NL
Organización Nacional de Trasplantes (ONT), ES
Országos Véréllátó Szolgálat (HNBTS/OVSZ), HU

Instituto de Engenharia de Sistemas e Computadores, Tecnologia Ciencia (INESC TEC), PT
NHS Blood and Transplant (NHSBT), UK
Óbudai Egyetem (OE), HU
Universidad Adolfo Ibáñez (UA), CL
University of Glasgow (UG), UK

ASSOCIATED PARTNERS

WP1 - Project Coordination, Leader: ONT

WP2 - IT Infrastructure and Computational Efficacy Studies, Leader: HUN-REN

WP3 - Guidelines for Implementation of EURO-KEP, Leader: ABM, SCTP

WP4 - Implementation of EURO-KEP, Governance and Sustainability Plan, Leader: ISS-CNT

WP5 - Dissemination, Leader: OVSz, Contribution Partner: ESOT

Live kidney transplantation is the best treatment option for patients with end-stage kidney disease.

In 2023, 18,212 kidney transplants were performed across EU Member States. However, only 3,322 (18%) involved organs from living donors, with significant variations between countries¹.

One major challenge in live kidney transplantation is **biological incompatibility** between donors and their intended recipients.

To overcome this, Kidney Exchange Programs (KEPs) have been established in several European countries. KEPs enable patients with incompatible donors to exchange kidneys with other pairs, creating new compatible matches - even between individuals with no genetic or emotional ties. Over the years, KEPs in Europe have evolved, expanding access to **safe and effective** live kidney transplants, including through international exchange programs.

¹Newsletter Transplant 2024; 29. Available at: <https://www.edqm.eu/en/newsletter-transplant>. Accessed: March 2025.

EURO-KEP: A European Solution

EURO-KEP is an ambitious initiative bringing together **policy makers, clinicians, and optimization experts** to establish a European-wide KEP.

The project aims to:

- Support the establishment of national KEPs in countries where they do not yet exist.
- Enable international kidney exchanges across European countries.
- Develop an advanced IT platform to optimize donor-recipient matching.
- Create ethical, legal, clinical, and logistical guidelines for seamless international kidney exchange.
- Design a long-term sustainability plan, including financial and governance strategies.
- Conduct simulations and pilot programs to refine national and international KEP operations.

By fostering cross-border collaboration, **EURO-KEP will increase access to life-saving kidney transplants** and improve patient outcomes across Europe. *Learn more at [www.hnbts.hu/euro-kep].*

WP2 - IT INFRASTRUCTURE AND COMPUTATIONAL EFFICACY STUDIES

Work package 2 (WP2) is responsible for the development of the KEPSoft software in order to provide an enhanced tool that can meet the demands of international KEPs, and support a pan-European KEP in particular. Furthermore it is responsible for the parallel development of the KEPSoft simulator (formerly known as the ENCKEP simulator) in order to allow further policy studies and analyses to be conducted.

WP3 - GUIDELINES FOR IMPLEMENTATION OF EURO-KEP

WP3 is a collaboration between Agence de la Biomédecine (ABM) and Scandiatransplant (SCTP). ABM will address legal (including GDPR) and ethical challenges of international KEPs, studying legal frameworks in each country to identify participation barriers. SCTP will analyze operational procedures in national and transnational KEPs to define a common operational procedure for pan-European matching runs.

WP4 - IMPLEMENTATION OF EURO-KEP, GOVERNANCE AND SUSTAINABILITY PLAN

During the first six months of project duration, a Network of Competent Authorities (EKEN – European Kidney Exchange Network), responsible for the development and approval of both governance and sustainability plans, will be set up. Its members will be selected among representatives of running KEPs and in-the-field professionals. The network is meant to give support and advice for the development of a future governance scheme, as well a long-term sustainability plan beyond project duration, including management of EURO-KEP IT platform and intellectual property, financial coverage and business plan. Last but not least, taking advantage of the outcomes of WP2 and WP3, pilots of EURO-KEP program, supporting national/regional efforts and testing pan-European kidney exchanges program, will be organized.

“Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them.”