



Growing
ideas
through
networks

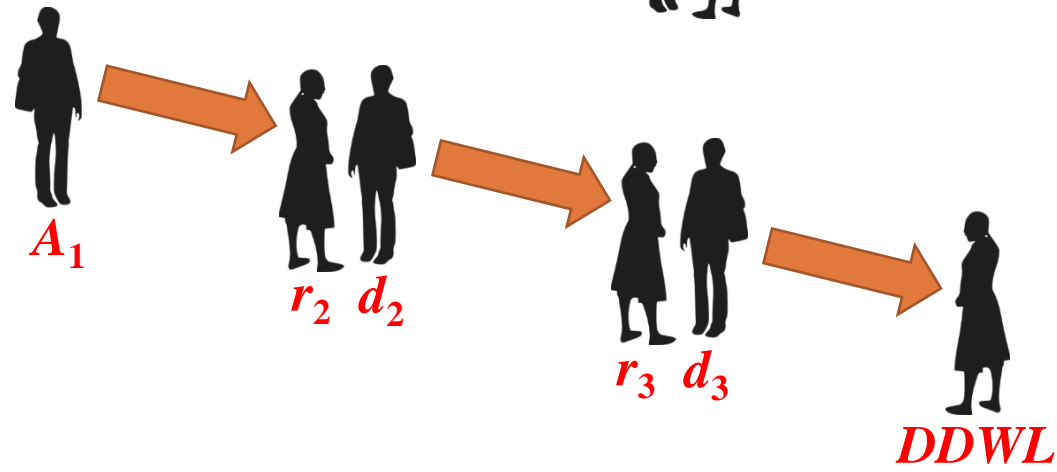
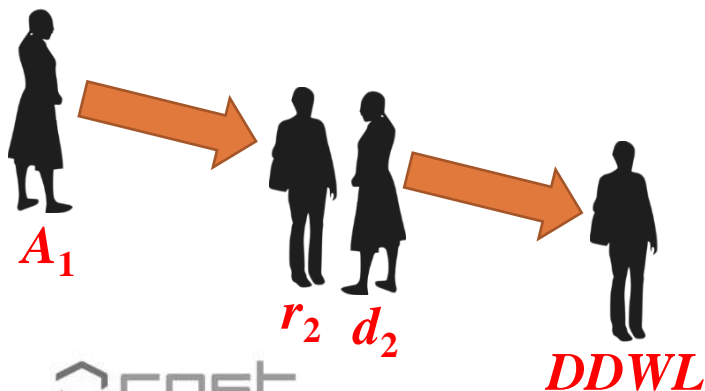
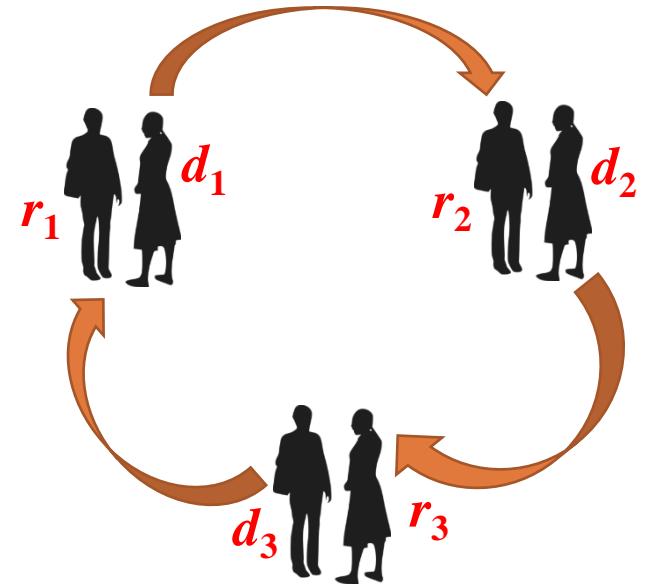
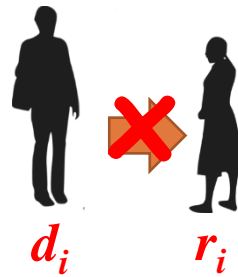
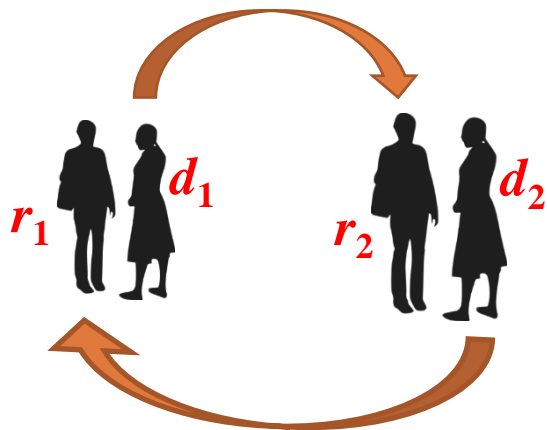
Reflections on COST Action CA15210 ENCKEP: European Network for Collaboration on Kidney Exchange Programmes UKRO Webinar: An Introduction to COST

David Manlove, University of Glasgow
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What is kidney exchange?



ENCKEP: summary

- Brought together policy makers, clinicians and optimisation experts in Europe to:
 - i. exchange best practices and scientific state of the art with respect to national KEPs
 - ii. develop a jointly-used, common framework for data and optimisation
 - iii. develop and test a prototype for transnational KEPs
 - iv. stimulate European policy dialogue
- 28 participating countries and 5 international organisations
- Sep 2016 – Mar 2021, Chair from May 2018 onwards
- Budget approx. €145k p.a.
- Websites:
 - <http://www.enckep-cost.eu/>
 - <https://www.cost.eu/actions/CA15210>



Participating countries

- Austria
- Belgium
- Bosnia and Herzegovina
- Bulgaria
- Czech Republic
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Latvia
- Malta
- Netherlands
- North Macedonia
- Poland
- Portugal
- Romania
- Serbia
- Slovakia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom

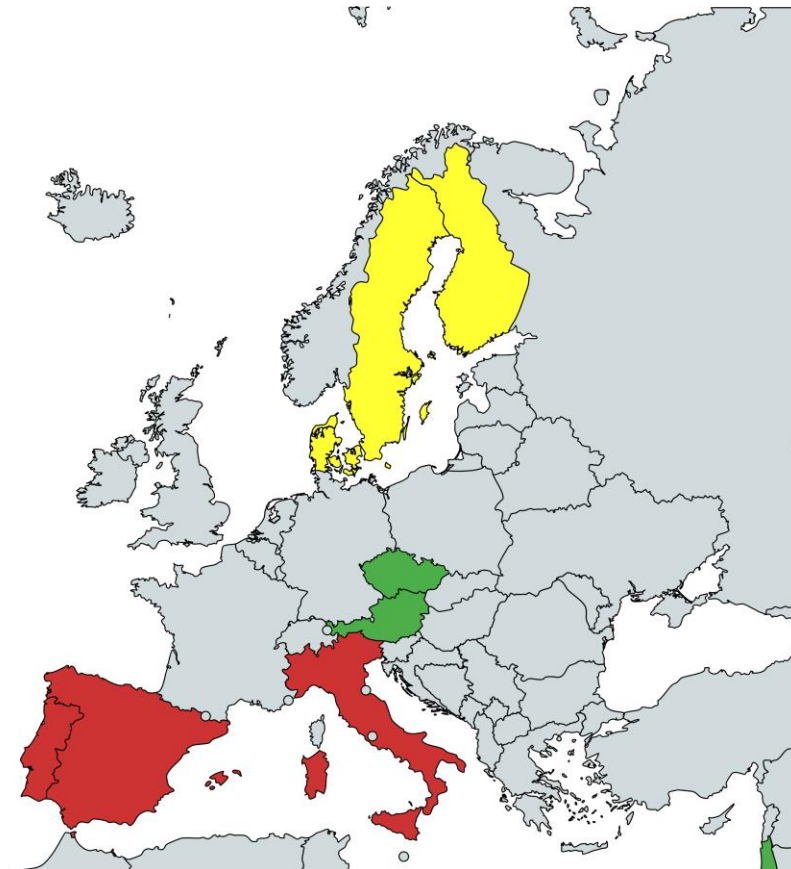
National / Transnational KEPs in Europe

■ Countries with national / transnational KEPs



Transnational KEPs in Europe

- KEPSAT (Italy, Portugal, Spain)
- STEP (Denmark, Finland, Sweden)
- Austria, Czech Republic, Israel



Achievements of ENCKEP

- The network; sharing of best practice
- Publications:
 - Building Kidney Exchange Programmes in Europe—An Overview of Exchange Practice and Activities, Péter Biró et al, Transplantation, 2019 (WG1)
 - Modelling and optimisation in European Kidney Exchange Programmes, Péter Biró et al, EJOR, 2021 (WG1)
 - Data and optimization requirements for Kidney Exchange Programs, Bart Smeulders et al, Health Informatics Journal, 2021 (WG2)
 - Kidney Exchange Program Reporting Standards: Evidence-Based Consensus From Europe, Bart Smeulders et al, Frontiers in Public Health, 2021 (WG2)
 - IP Solutions for International Kidney Exchange Programmes, Radu-Stefan Mincu et al, CEJOR, 2021 (WG3)
 - Fairness models for multi-agent kidney exchange programmes, Xenia Klimentova et al, Omega, 2021 (WG3)

Achievements of ENCKEP (cont)

- Publications (cont):
 - Stochastic modelling and simulation of a kidney transplant waiting list, Katarína Cechlárová et al, CEJOR, 2021
 - Crossing borders to facilitate live donor kidney transplantation: the Czech-Austrian kidney paired donation program, Ondrej Viklicky et al, Transplant International, 2020
 - Compensation Scheme With Shapley Value For Multi-Country Kidney Exchange Programmes, Péter Biró et al, ECMS 2020
 - International Cooperation for Kidney Exchange Success, Maria Valentín et al, Transplantation, 2019
 - New integer programming formulations for the stable exchange problem, Virginia Costa et al, VOCAL Optimization Conference, 2018

Achievements of ENCKEP (cont)

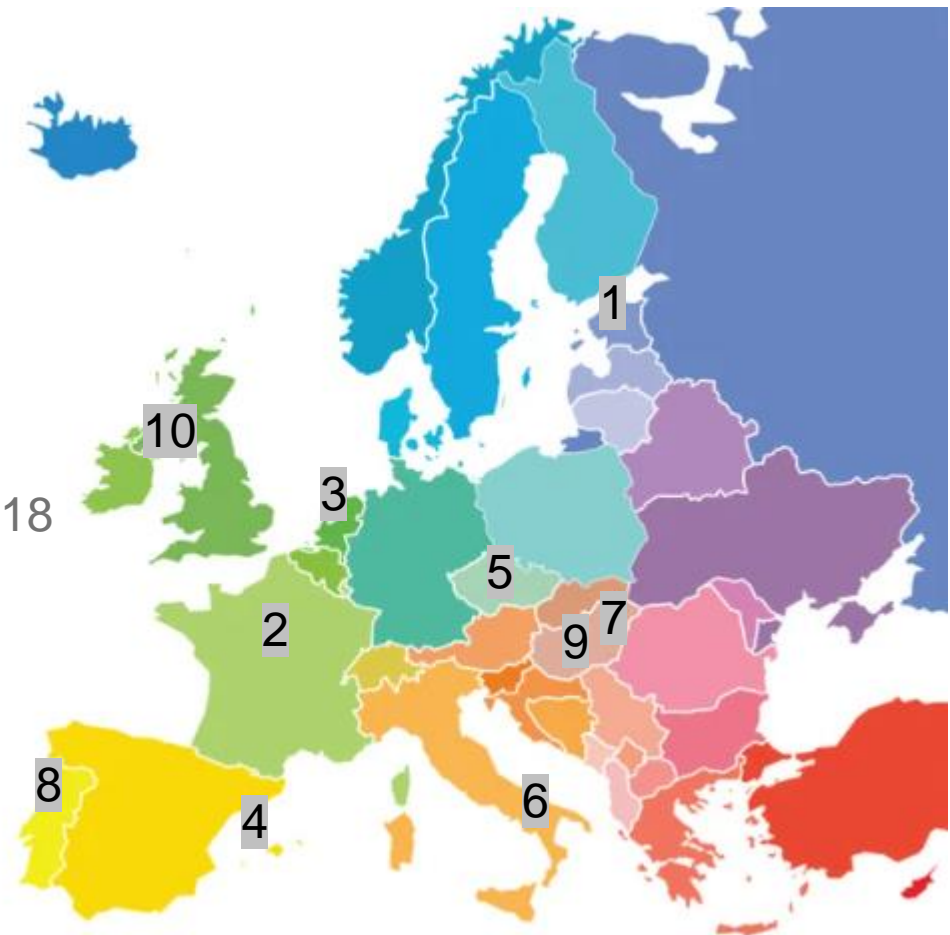
- WG3-WG4 Handbook: International Kidney Exchange Programmes in Europe: Practice, Solution Models, Simulation and Evaluation tools, Xenia Klimentova et al, 2021. Contents:
 - 1 Existing collaborations
 - 2 Overview of optimisation models in the literature
 - 3 ENCKEP Simulation tool
 - 4 Evaluation module and case studies
- Near to completion: “A Legal and Ethical Framework to Support Transnational Kidney Exchange Programmes”, Lisa Burnapp et al (WG3 handbook)
- Software:
 - ENCKEP simulation tool
 - ENCKEP evaluation tool

Achievements of ENCKEP (cont)

- Meetings to enable knowledge exchange:
 - workshops (15), conferences (3), training schools (4)
- Knowledge exchange from further afield:
 - ANZKX, India, Saudi Arabia, UNOS
- Training opportunities for ECIs through STSMs and conference grants
- Work of the action has influenced the development of national and transnational KEPs
 - e.g., STEP (13 transplants conducted in 2020)
 - other national and transnational schemes

Workshops / Conferences / Training Schools (pre-pandemic)

1. Tallinn, 12-13 January 2017
2. Paris, 27-28 March 2017
3. Leiden, 7 June 2017
4. Barcelona, 28-29 September 2017
5. Prague, 12-14 February 2018
6. Matera, 30 August-1 September 2018
7. Debrecen, 20-21 November 2018
8. Porto, 11-12 March 2019
9. Budapest, 10-12 June 2019
10. Glasgow, 9-10 December 2019





Online Workshops / Conferences / Training Schools (during the pandemic)

- 30-31 March 2020
- 5-6 June 2020
- 9 September 2020
- 7 December 2020
- 18-19 February 2021

Typically held via Zoom



How did people typically get involved?

- Usually people emailed the Chair to express interest
- Encouraged to join the Management Committee, but not necessary to participate
- Added to mailing list
- Referred to website, informed of available funding
- Invited to next meeting



KEP-SOFT: Software for Transnational Kidney Exchange Programmes

- COST Innovators Grant IG15210
- A 1-year “follow-on” from CA15210
- Main aim: deliver KEP-SOFT
 - a flexible software product for conducting national and transnational KEPs, suitable for deployment by National Transplantation Organisations



Future plans

- Apply for Horizon Europe funding, e.g.,
 - Synergy grant
 - Specific calls
 - MCSA doctoral training network



Final reflections

- Multi-disciplinary network
- Likely not possible without COST
- Knowledge-sharing and communication
- Excellent spirit of cooperation and teamwork
- Adds value to national funding