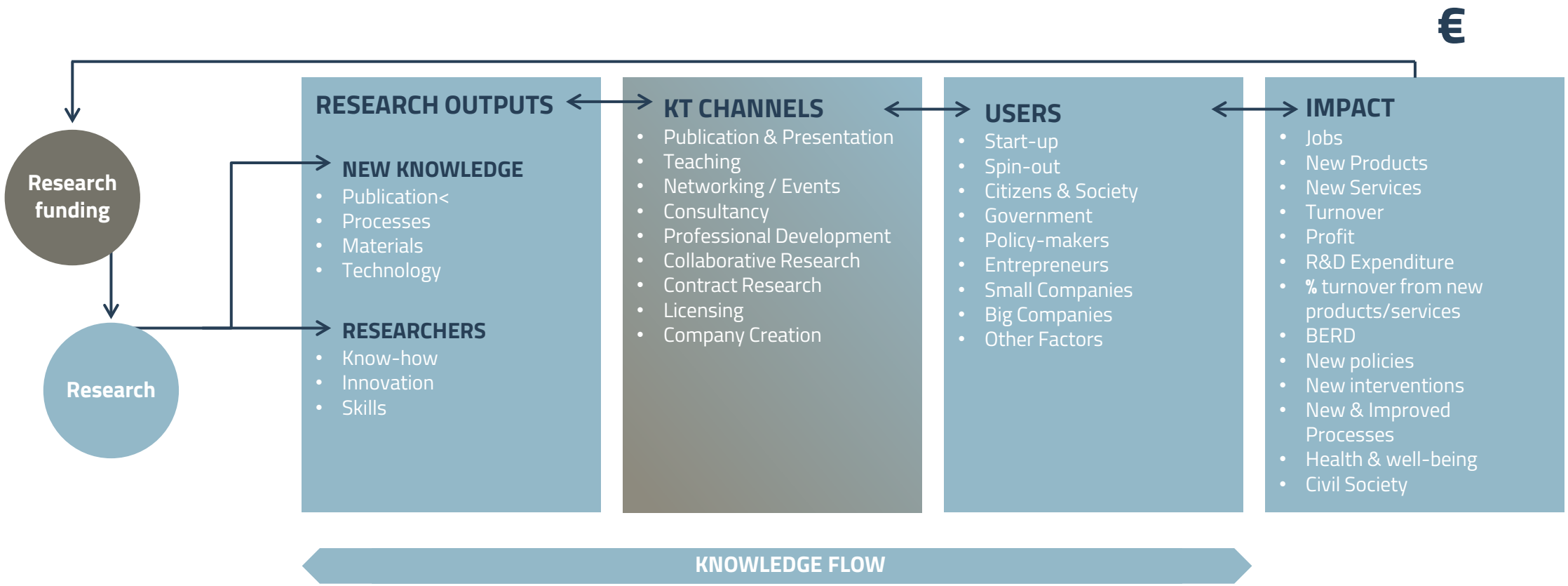
# Knowledge transfer: From research results to measurable business impact

Knowledge transfer at JSI • Robert Blatnik, Head of KTO • 21 September 2026




**Source:** Campbell et al. (2020), *Knowledge Transfer Metrics*, European Commission JRC / Competence Centre on Technology Transfer, with ASTP.

# From research results to measurable business impact

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## What we do

1. **MATCH**
   industry challenge ↔ research competence
2. **BUILD**
   collaborative R&D and long-term partnerships
3. **PROTECT**
   IP, know-how, contracts and licensing
4. **CREATE**
   spin-outs and routes to market

## A practical impact pathway

**Research** – result / competence → **Need** – company / problem → **Co-create** – R&D / validation → **Transfer** – licence / spin-out → **Impact** – market / society

## Impact can take

- **Better product** – new or existing company
- **New company** – and high-tech jobs
- **Public value** – safer, greener, healthier

**"Our job is to make the next step easier."**

**Right partner • right transfer route • right support**

Cocreation of innovation support system → Capacity building / national KTO consortia → Promotion, Education & Training, Events → International networks (ASTP, EEN, JRC TTO Circle, EPO PATLIB, WIPO, EARTO, …)

# Industry collaboration: value is co-created

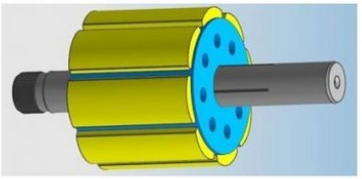
Two examples where JSI expertise was integrated into real industrial and infrastructure challenges

MOBILITY

## MAHLE + JSI

### Electric motor design for vehicle steering systems

- Simulation-based optimisation coupled with finite-element modelling
- Statistical evaluation included manufacturing tolerances
- Result: technically advanced, cost-effective motor design
- Collaboration initiated through JSI technology-transfer support



TARAS AWARD 2023

ENERGY

## DyThera

### Dynamic Line Rating: research → deployment → international market

**ELES** need — **JSI** R&D — **Operato** commercialisation — **SUMO** deployment

- Advanced Dynamic Line Rating software deployed in the SUMO Dynamic Rating System
- Recognised by EARTO for demonstrated impact – 1st prize

EARTO 2026 • IMPACT DELIVERED

CO-CREATION PRINCIPLE

**Start from a real problem → bring the right research team → validate together → transfer into use**

# Spin-outs: research results becoming companies

Different science domains — one route of commercialisation

QUANTUM

## AtomQL

Cold-neutral-atom quantum computing

SEMICONDUCTORS

## Particulars

Instrumentation for semiconductor characterisation

BIOTECH

## Alpha Factor Biotech

Synthetic nanobody discovery without animal immunisation

BIOTECH

## LactoThera

Engineered bacteria for oral delivery of therapeutic proteins

TECH-BIO

## Infinite Biotech

Next-generation safety testing and disease modelling

LAB AUTOMATION

## JinkaLab

Bridging the digital and physical worlds of laboratories

**LactoThera** is a joint spin-out of JSI and the University of Bologna.

**JinkaLab** is a joint spin-out of JSI and Slovenian institute Rudolfovo.

**Spin-outs are one transfer route when a technology needs a dedicated company to reach the market.**

# Industry access to people, expertise and infrastructure

Technology transfer also happens through researchers, facilities, services and innovation networks

TALENT & SECONDMENTS

PD

## SQUASH

International postdoctoral researchers • intersectoral mobility • strong links with non-academic partners → **R&D quantum tech**

MSCA & ARIS

AI & HPC

AI

## SLAIF

AI expertise, high-performance computing, data and support services for companies and start-ups → **design, test, and deploy AI**

EUROHPC-2024-CEI-AI-02 call

SEMICONDUCTORS

CHIP

## CC Chip.si

One-stop shop for technology access, training, consultancy and networking → **chip design and production**

EU Chips Joint Undertaking & Republic of Slovenija

RESEARCH FACILITIES

RI

## JSI Infrastructure

TRIGA reactor and specialised laboratories for research, irradiation, testing and validation → **neutron & gamma radiation object resistance & measurements**

**Enterprise Europe Network + U7**

international partner search • innovation support • access to EU opportunities

# From individual TTOs to a national knowledge-transfer network

Building shared capacity across Slovenia's public research organisations

KTO3

**10 public research organisations**

Coordinated by Jožef Stefan Institute

UNIVERSITIES

**3 public universities**

Led by the University of Ljubljana

KTS
Knowledge Transfer Slovenia

**13**

**public research organisations**

shared tools • professional capacity • coordinated knowledge valorisation

## What the network enables

- ✓ Find the right research team
- ✓ Share TT know-how and tools
- ✓ Access technology / IP
- ✓ Support spin-outs & projects
- ✓ Connect to national & EU partners

https://prenosznanja.si

CO-FINANCED BY

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REPUBLIKA SLOVENIJA
MINISTRSTVO ZA IZOBRAŽEVANJE, ZNANOST IN MLADINO

I FEEL SLOVENIA

Sofinancira Evropska unija

# ITTC 2026: turning co-creation into a repeatable practice

The annual national meeting point for knowledge valorisation

ITTC 19

19th International Technology Transfer Conference

LET'S INNOVATE THE FUTURE

7 & 9 OCTOBER 2026

**Strengthening Industry–Academia Co-creation for more Efficient Knowledge Valorization**

Organised by partners from both national KTO consortia • 13 PROs • JSI as leading responsible partner

- Academia–industry knowledge exchange
- Research-to-industry innovation transfer
- Technology transfer capacity building
- TT & IP scientific papers
- Best Innovation Award
- WIPO IP Awards

**2,600+ participants at previous editions**

policy makers • funding agencies • researchers • industry • investors • TTO professionals

LET'S INNOVATE THE FUTURE

# Sweden × Slovenia: let’s create the next oportunities together

Concrete entry points for collaboration with JSI

1

## Industrial challenge

We connect it to the right JSI research team.

2

## Technology need

We identify expertise, IP, infrastructure or a development route.

3

## Project idea

We help build the partnership and the transfer / exploitation path.

4

## Market opportunity

We connect technologies, spin-outs and international partners.

**We proactively seek out challenges, technologies, and project ideas with transfer potential.**

**Our task is to connect it with the right people and the right transfer pathway & help to execute.**

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