Jiří Navrátil, Ph.D.



Head of Research Valorisation

CATRIN, Palacký University Olomouc

16 YEARS TURNING RESEARCH INTO COMPANIES

1	2	3	4
Researcher	**Technology scout**	**Venture builder**	**Research valorisation**
Organic electronics, Brno University of Technology	Imperial Innovations, London, and Cambridge Enterprise	Partner at UNICO.AI; helped launch seven spin-offs	Head of Research Valorisation at CATRIN, Palacký University Olomouc

I work with researchers from the earliest stage: protecting IP, building teams, finding the first customers and investors.

Two doctorates · Trainer of technology scouts for the World Bank

Research excellence is not a pipeline

What happens after a promising result is identified, and what widerAdvance changed in how we manage it

Scientific output

Publications
Project results
Patent filings

THE GAP

Who needs this?
Who owns the next step?
Where do we stand on IP?
Which route to market?

Market uptake

Licences
Companies
Industrial partners

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What we started with: 16 KERs

16

key exploitable results selected in our widerAdvance Service Delivery Plan

Biomedical and sensing

- 2D multi-drug delivery nanoplatforms
- Fluorographene sensor materials
- Cytotoxicity testing of graphene neural electrodes

Energy storage

- Graphene derivatives for energy storage
- Magnesium-ion battery materials
- Potassium-ion battery materials

Automated chemistry

- Automated synthesis platform
- Medicinal chemistry libraries
- Targeted covalent libraries
- Chiral ligands for catalysis

Solar fuels and catalysis

- Photo(electro)catalysts
- Modular reactor cell and test rig
- Catalyst inks and electrodes

Social science and policy

- Remote ethnography methodology
- Ethnographic research database
- Indo-Pacific policy recommendations

16 entered the Dissemination and Exploitation Academy › **11** considered for individual support on intangible assets › **10** of these also for support with standardisation › **1** full FTO, IP strategy and partner-scouting report

Documented readiness ranges from TRL 3–4 to TRL 6–7. The exploitation routes differ just as much.

Making KERs actionable

ONE WORKING PAGE PER RESULT

Technology

What is it, in one sentence a business person understands?

Market need

Which problem does it solve, and how do we know?

Competitive advantage

Why is it better than what customers use today?

Target customers

Who would pay for it? Which companies, by name?

TRL

How mature is it, and what is the evidence?

IP position

Patent, know-how or nothing yet? Free to operate?

Commercialisation route

Licence, services, co-development, supply or company?

Industrial partners

Who have we spoken to, and who is next?

Next milestone

What happens next, who owns it, and by when?

FROM DELIVERABLE TO TOOL

~~Written once, for a report~~

Opened at every portfolio review

~~Describes the result~~

Records a decision, an owner and a date

~~A total score~~

A written rationale we can revisit

Case study: 2D multi-drug delivery nanoplatforms

THE OPPORTUNITY

One graphene-oxide carrier that holds several cancer drugs and releases them in sequence

Tumours

Osteosarcoma, glioma

Maturity

TRL 3–4, first in vitro studies

Research lead

Assoc. Prof. Václav Ranc, CATRIN

1

Initial hypotheses

Research services first (1–2 years). Licensing or co-development later (3–5 years).

2

FTO, IP and partner-scouting report

Delivered 17 March 2026. Patent landscape searched in three blocks. Two groups of potential partners identified.

3

Decisions now on the table

Patent or know-how, before the next publication? Which partner group first? What data will a partner ask for?

WHAT THE REPORT SAYS

Low overall infringement risk

particularly outside China

Third-party patents are mostly narrow and tied to specific chemistries

One China-only patent family rated medium risk; a design-around looks possible

Preliminary assessment. Not a legal opinion and not an unconditional clearance.

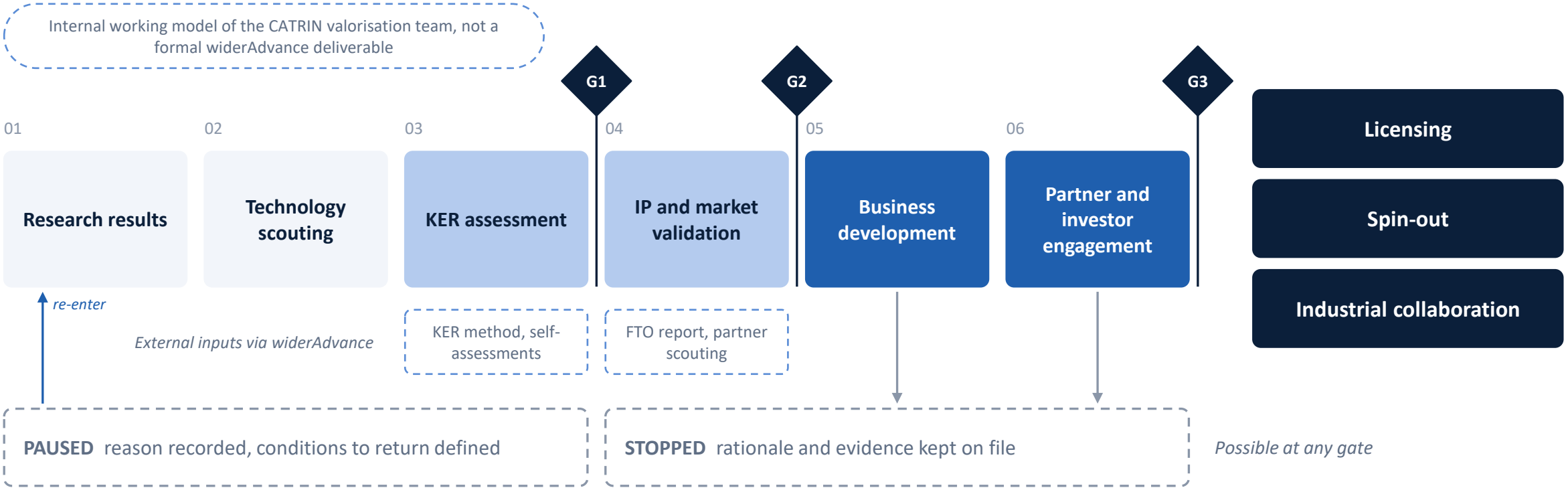
Different KERs, different commercialisation routes

	Contract research	Licensing	Co-development	Material supply	Venture creation	Why this route
2D multi-drug delivery nanoplatforms TRL 3–4 · oncology, regulated	●	○	○	—	—	Years from industrial pipelines: start with research services, license later
Fluorographene derivatives for electrochemical sensors TRL 4–5 · existing CATRIN patent filings	○	●	○	●	—	Patent base in place: license and supply the material to sensor makers
REEactor: ligand discovery for rare-earth refining TRL 3–4 · spin-out in preparation	—	○	○	○	●	Platform technology in a strategic market: a company can carry it

● Lead route ○ Also documented as an option

REEactor status as documented: patent filing and incorporation are planned milestones.

Our most important output: the valorisation pipeline



Decision gates

At G1: problem described, target customer identified, preliminary IP position known, scientist committed.

Every project carries

An owner on our side, a next step and a date. Without them it is not in the pipeline.

Three equal exits

Licence, spin-out or industrial collaboration. Projects keep entering; not every one should become a spin-out.

What actually changed in our daily practice

	BEFORE		NOW
Finding opportunities	When a researcher came to us	→	**Systematic scouting across research groups**
Assessment	Case by case	→	**The same questions for every result**
IP and market need	Raised late, often after publication	→	**Raised at the first assessment**
Priorities	Driven by enthusiasm	→	**Driven by evidence; pausing is allowed**
External expertise	Occasional and general	→	**Targeted at a specific decision**
What we show partners	Lists of results and publications	→	**A pipeline with a status per opportunity**

No impact metrics claimed. It is too early to report licences or revenue from these results.

From Widening to lasting capacity

1 Identification is only the beginning

2 The exploitation path must match the technology

3 Lasting value is institutional capability, not isolated documents

A KER is not the end of a research project.
It is the beginning of an exploitation process.

LOGO PLACEHOLDER
CATRIN

LOGO PLACEHOLDER
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