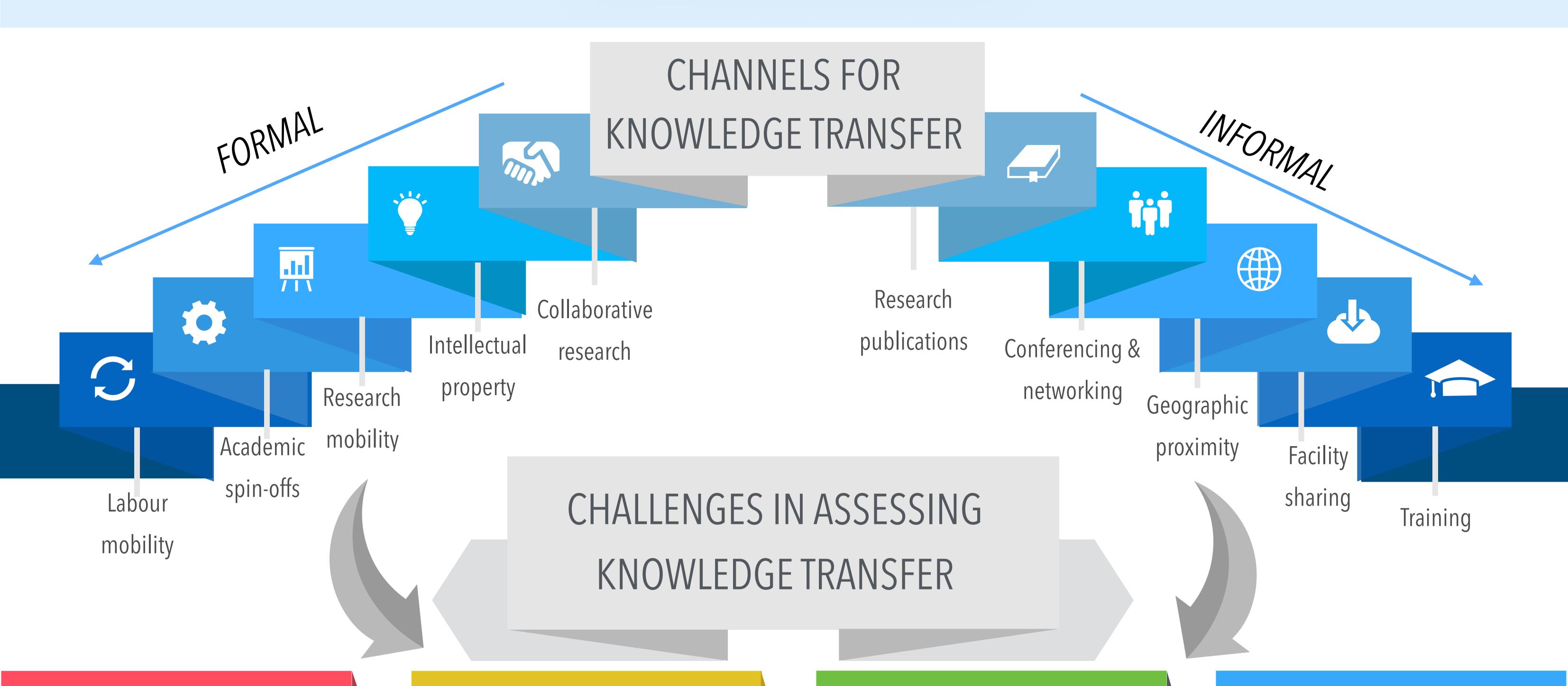
# HOW TO ASSESS THE IMPACTS OF KNOWLEDGE TRANSFER ON INNOVATION?



#### DATA QUALITY

Data gathered for analysis needs to be representative of research & industry, also to allow to exploring the impacts at micro and macro levels

#### COMPARABILITY

Qualitative studies provide rich information on specific cases, but concerns regarding external validity arise

Quantitative studies allow for comparability but capture only a limited number of knowledge transfer channels (e.g. patenting)

#### CAUSALITY

Establishing whether public research caused an observed effect (e.g. identifying whether impacts are due to research policies in place or local business dynamics) is challenging

## BROADER SOCIETAL IMPACTS

Impact analysis should also consider societal impacts of public research (such as impacts on public health or the environment), in addition to economic impacts

### DATA SOURCES FOR THE ASSESSMENT

K	nowledge transfer channels analyze	d Advantages	Drawbacks
Publications data	Collaborative research	<ul> <li>Availability of comprehensive, long-term &amp; internationally comparable data</li> </ul>	<ul> <li>Industry-research co-publications capture only a small share of collaborative research</li> </ul>
Patent data	Collaborative research (co-patenting) & informal linkages (citations to non-patent literature)	<ul> <li>Availability of comprehensive, long-term &amp; internationally comparable data</li> </ul>	<ul> <li>Rates of patenting differ across fields</li> <li>Co-patents only capture a small share of collaborative research</li> </ul>
Labour force surveys	Labour mobility	<ul> <li>Representative samples of total labour force across countries, conducted regularly across countries</li> <li>Captures contributions of all sciences to industry innovation</li> </ul>	<ul> <li>Only capture the flow of human capital from university to industry</li> <li>Sometimes do not allow assessing individuals' contribution to innovation</li> </ul>
Surveys & case studies	All channels	science relations	<ul> <li>Costly to implement at large scale</li> <li>Often confined to specific examples, limiting representativeness</li> </ul>