

TNO FOR DEFENCE INNOVATION



› MISSION

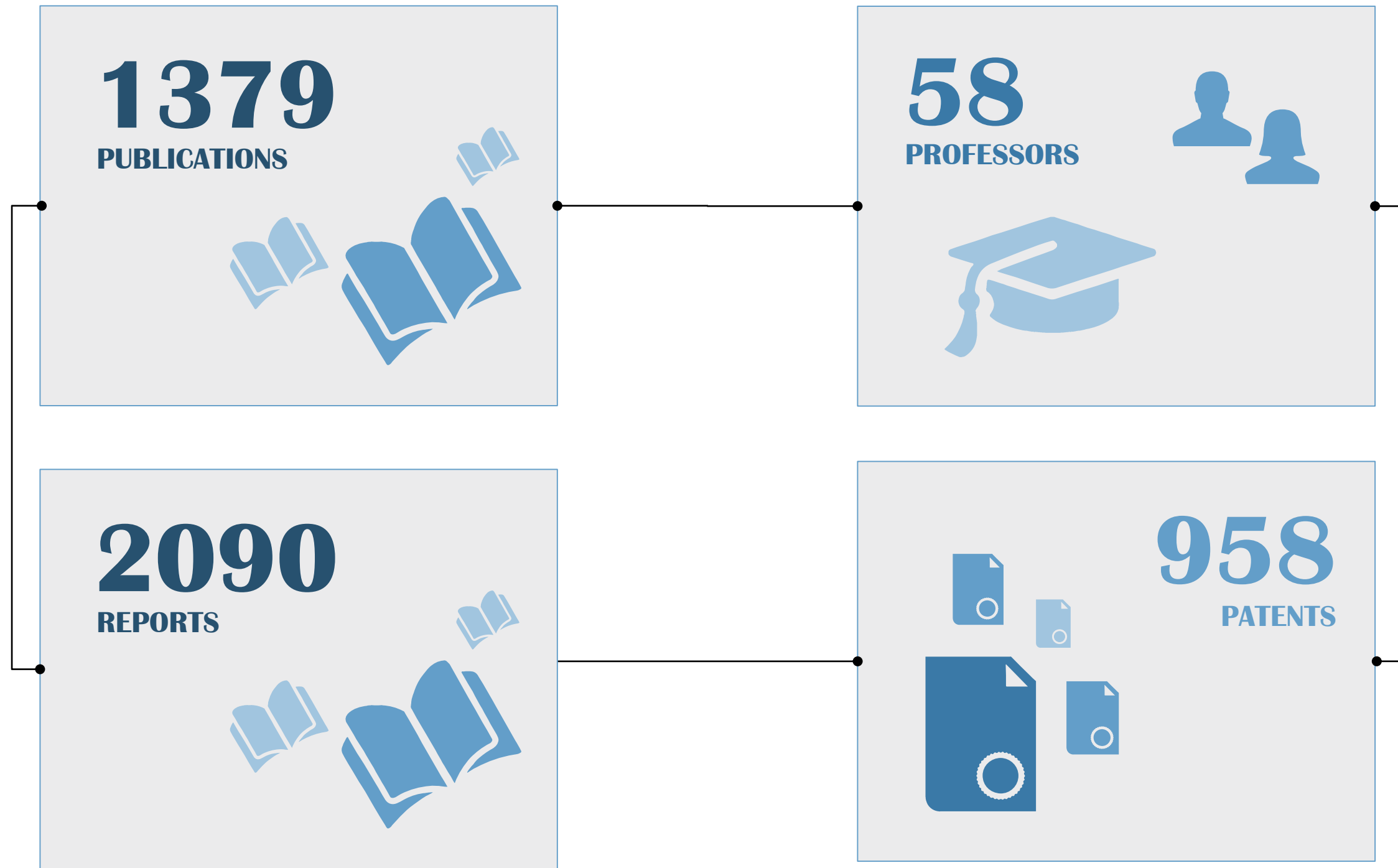
TNO connects people and knowledge to create innovations that boost the competitive strength of industry and the wellbeing of society in a sustainable way.

This is our mission and the professionals of TNO have used their knowledge and experience to this end for more than eighty years.

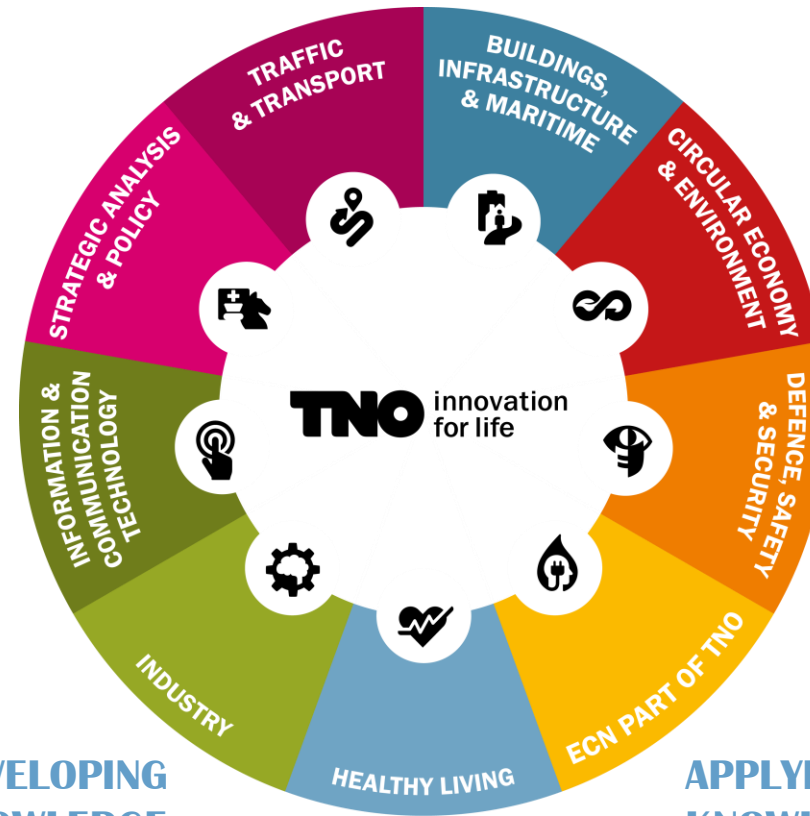
‘INNOVATION FOR LIFE’



› SCIENTIFIC PROFILE



› INNOVATION PROCESS



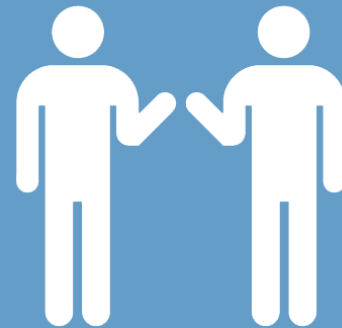
**MOU signed with
CNI-SESI-IEL-SENAI**

DEVELOPING FUNDAMENTAL KNOWLEDGE



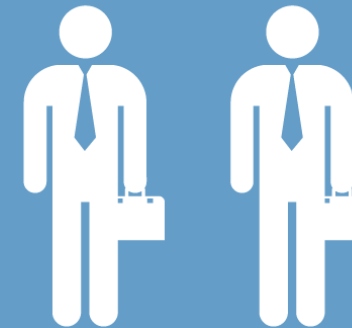
Together with
universities

DEVELOPING KNOWLEDGE



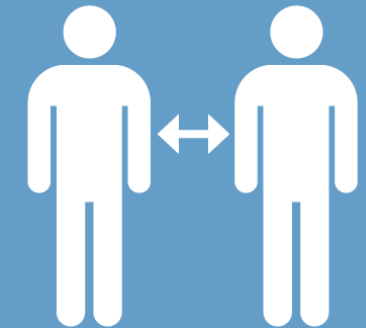
In public-private
collaboration with
partners from the
golden triangle

APPLYING KNOWLEDGE



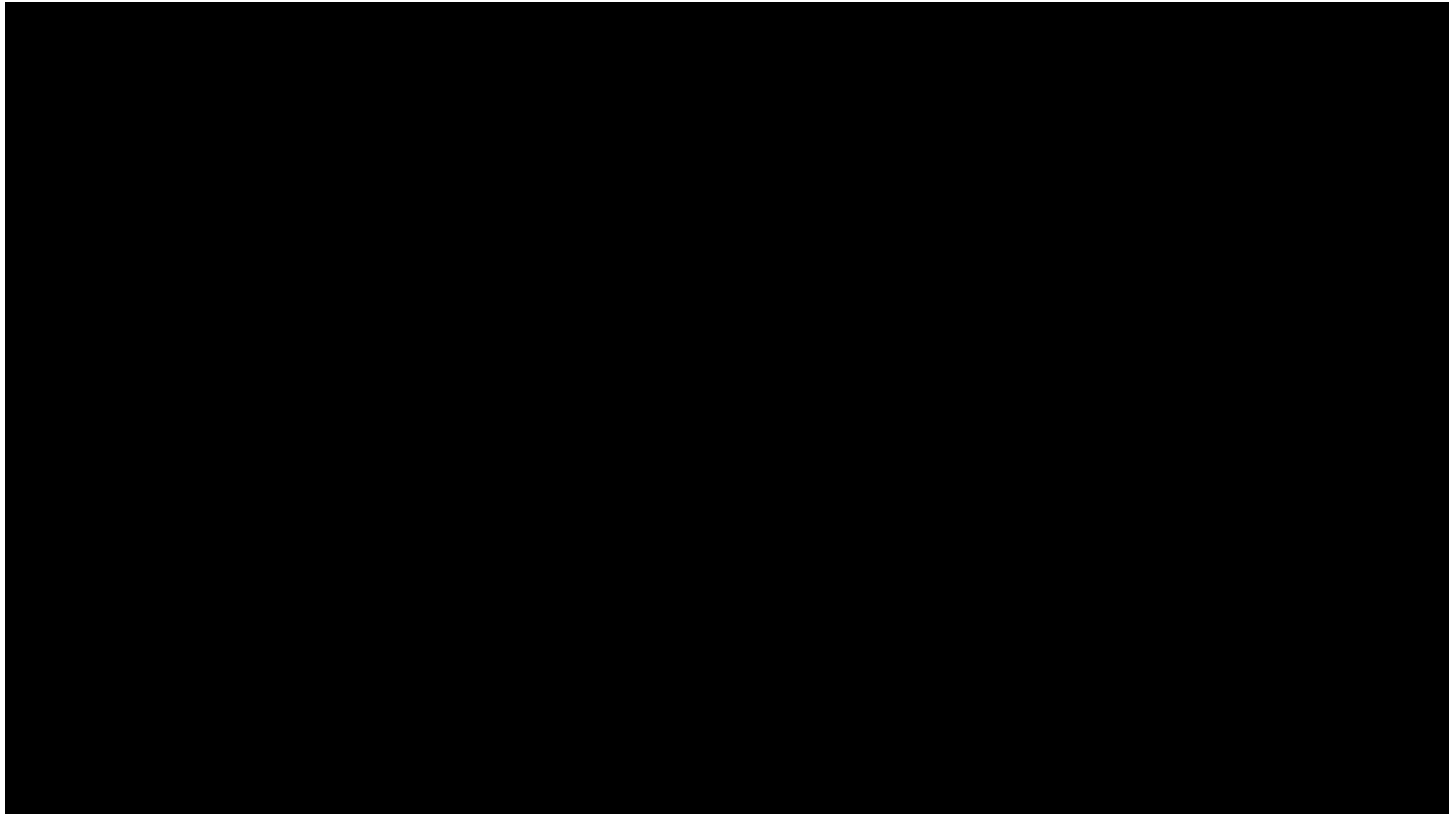
Contract research for
and with customers

TRANSFERRING KNOWLEDGE



Exploiting knowledge
through spin-offs,
licences, etc together
with other companies

INNOVATION FOR THE NEXT YEARS



SIX KEY ISSUES DEFENCE & SECURITY

PRIORITIES FOR THE COMING YEARS

- Information as a target and a weapon & information-intensive operations.
- Unmanned and autonomous systems & human-machine teaming.
- People and mindset in the armed forces and other security providers.
- Modern fighting ability, escalation dominance & protection.
- Resilience in the face of major societal disruption.
- Opportunities and threats from new technology.

KEY ISSUES IN DEFENCE & SECURITY (WHAT)

STRATEGIC PLAN 2018-2021

NINE PRIORITIES ORGANIZATION AND MANAGEMENT

INCREASE IMPACT

CONTINUOUS
DEVELOPMENT

FOCUS & MASS

INTENSIFIED
CO-OPERATION

INTERNATIO-
NALIZATION

STRONGER
TECHNOLOGY
TRANSFER

HOME FOR TALENT

WORLD-CLASS RESEARCH FACILITIES

ORGANIZATION & CULTURE: FLEXIBLE & MARKET-DRIVEN

KEY PRIORITIES IN ORGANISATION & MANAGEMENT (HOW)

REAL TIME INTELLIGENCE IMPROVES POLICE ACTIONS



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CHALLENGE

- Using RTI to bring together the relevant information so that the right actions can be taken quickly

APPROACH

- Employ expertise on ICT, modelling, artificial intelligence and human behaviour
- Use the 'RTI Lab' to test hardware, software, methods, models, approaches and combinations of these

RESULT

- Experiments provide insight into applicability
- Predict crime: RTI enables the police to quickly make the right decisions and act effectively in a wide range of situations

› DEFENCE, SAFETY & SECURITY

 TO
OVERVIEW

HIGHTECH PROTECTION AGAINST INCOMING MISSILES

HIGHTECH PROTECTION AGAINST INCOMING MISSILES

CHALLENGE

- The spread of rocket technology is useful for space programmes but at the same time can be a threat that requires effective defence

APPROACH

- Develop JROADS simulation for Defence to test own air defence systems
- Link the systems of NATO partners and test whether the network of systems performs as a whole

RESULT

- JROADS is just as effective as expensive live exercises that are difficult to carry out
- We are currently testing the systems of the new F35 jet fighter

Working together

