



# The UKRI Trustworthy Autonomous Systems Hub

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Sector Leads Committee: Defence and Security, UKRI TAS Hub

[www.tas.ac.uk](http://www.tas.ac.uk)    <https://www.ecs.soton.ac.uk/people/sem03>

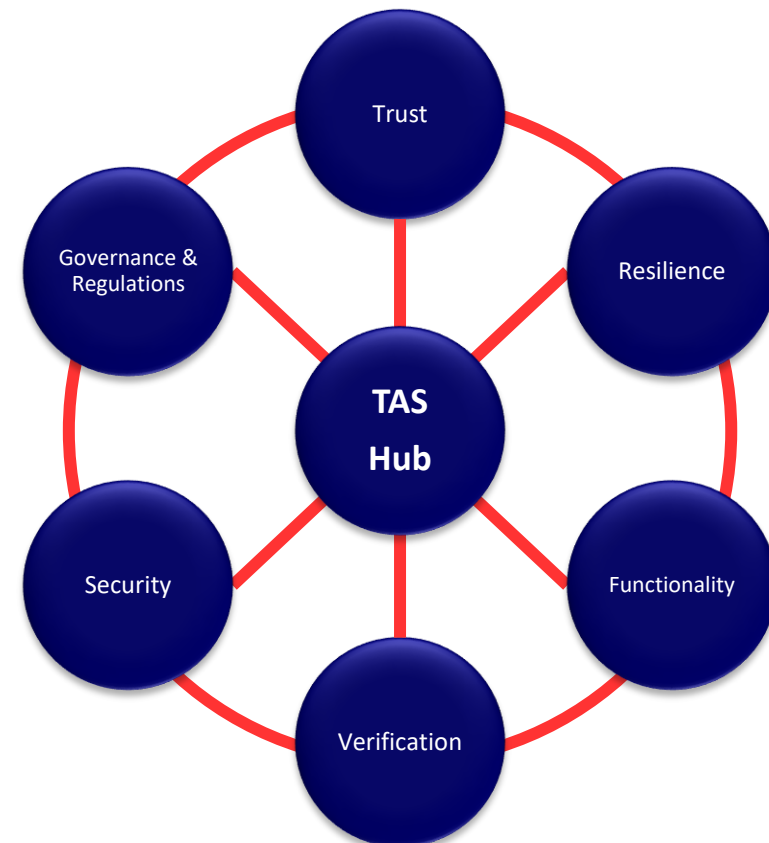


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# The UKRI TAS Programme

The TAS Hub is funded as part of the Strategic Priorities Fund (SPF) which funds multi- and interdisciplinary research across 34 themes in response to strategic priorities and opportunities.



**World's largest research programme in Trustworthy AI and Autonomous Systems**

# TAS Programme Objectives

## COORDINATION AND COLLABORATION



A coherent interconnected and multidisciplinary UK research community around the theme of Trustworthy Autonomous Systems.

## CREATIVITY AND MULTI-DISCIPLINARITY



Creative and adventurous fundamental research into the technical, social and ethical challenges surrounding Trustworthy Autonomous Systems, drawing on diverse approaches from across disciplines.

## ADVOCACY AND ENGAGEMENT

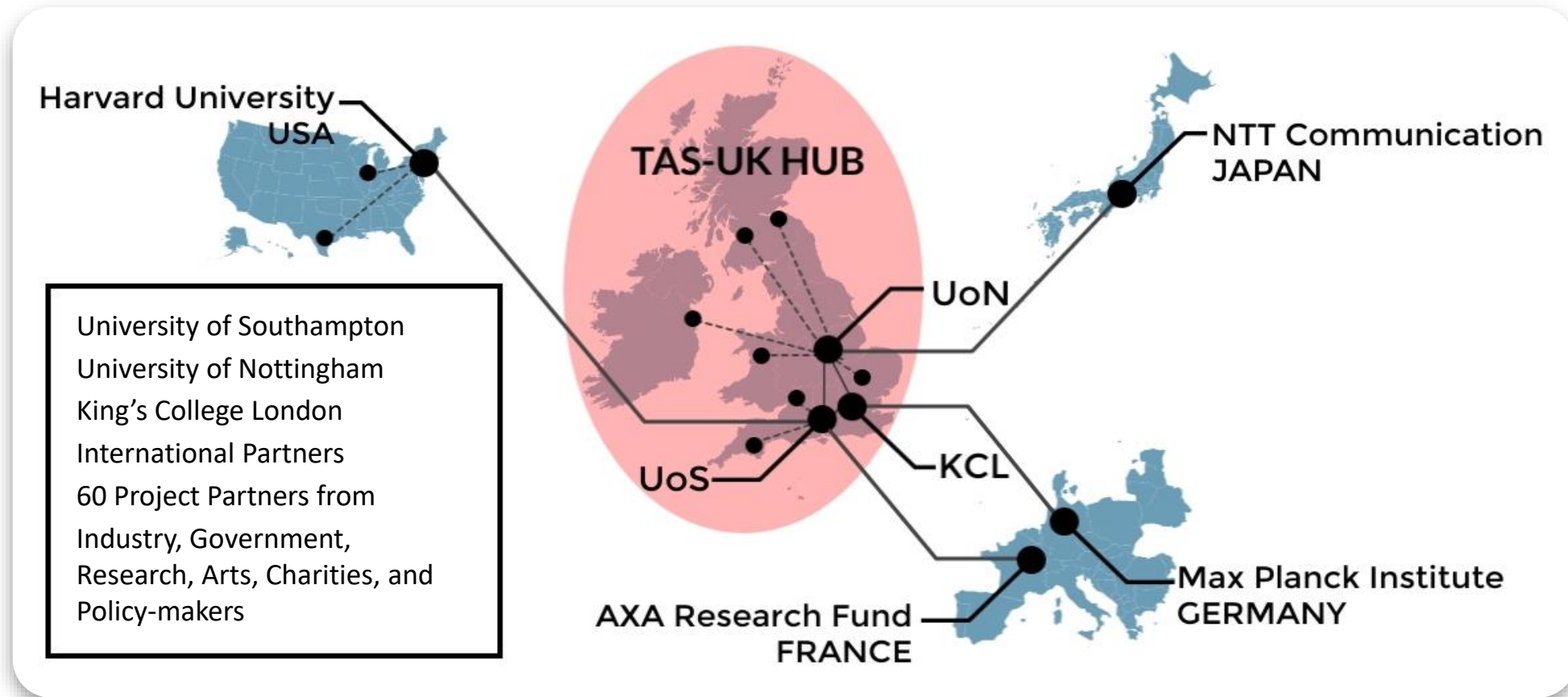


Establish a UK focal point for active engagement with key stakeholders including wider academia regulators, policy makers, industry, businesses, Non-Governmental Organisations and the public.

# Over 60 Partners



# TAS Hub International Partners

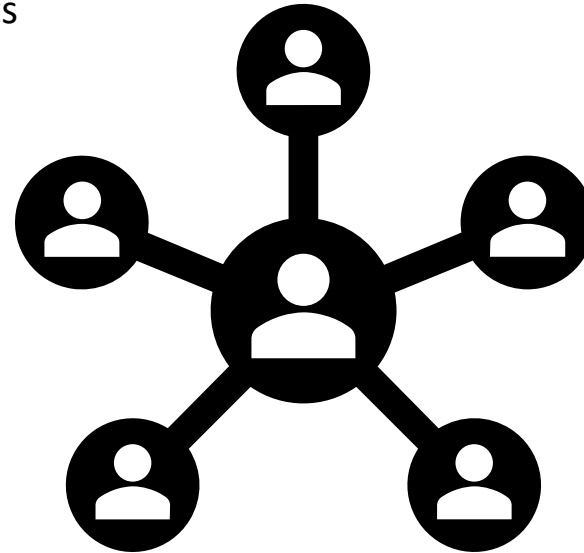


*We are open to even more international collaborations (e.g., NSF-funded AI centres, Canada, Industry,...)*

# Engagements Statistics



**24k** tweet impressions  
**1,056** profile visits  
**236** followers  
(as of Feb 2021)



**78**

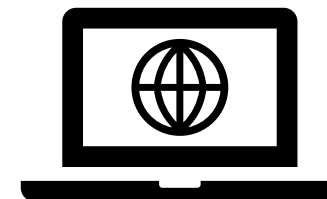


**Industry partners**  
(+ 18 since launch)

Living with AI Podcast










**500+** downloads



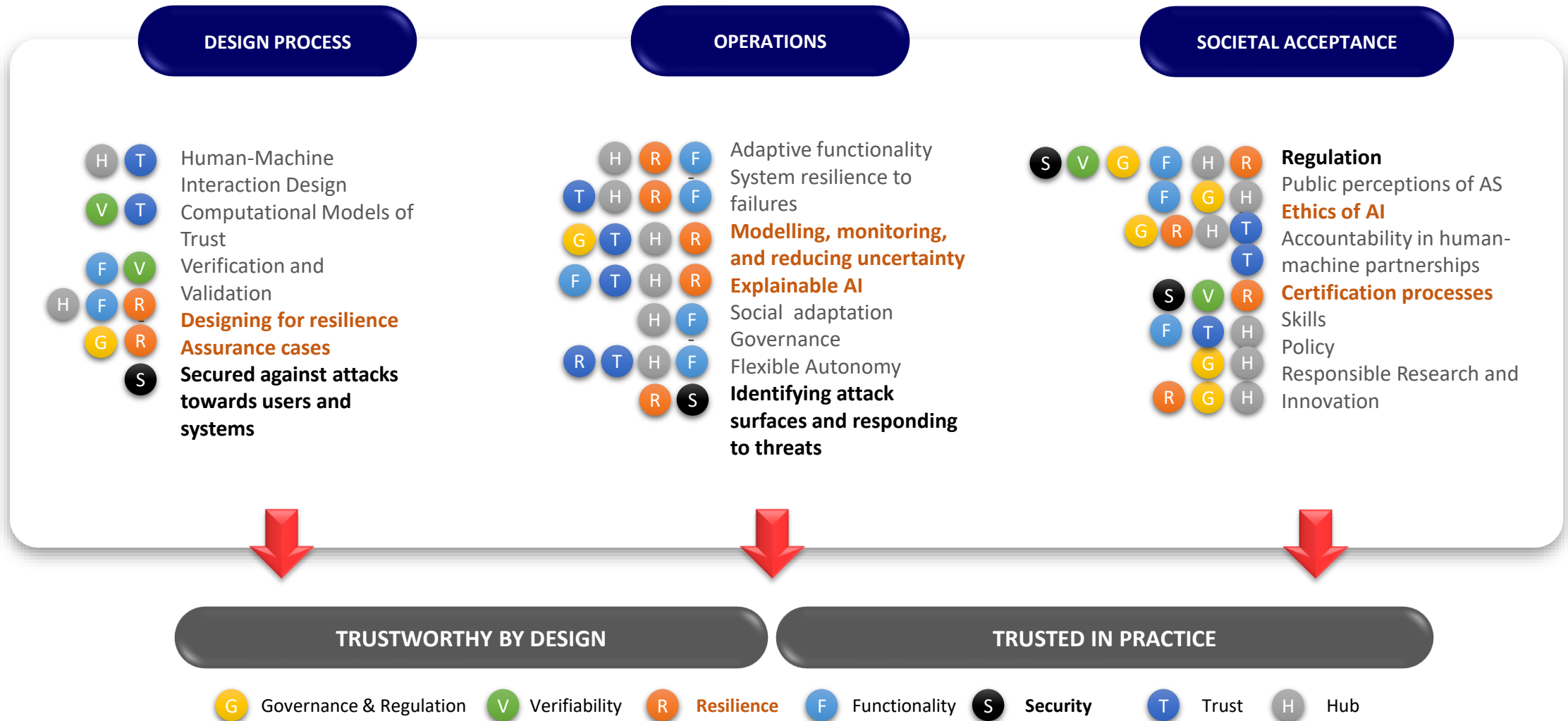
**In one week**  
**500** users (visitors)  
**2 min** (average time on site)  
**532** visits to pump priming page

# Key Sectors

	SECTOR	EXEMPLAR CONCERNS
	<b>Autonomous Vehicles</b>	Safety (individual vehicles and CAVs), fair access to individuals, communities and society.
	<b>Healthcare</b>	Safe & ethical telecare, rehabilitation, assisted living, diagnosis, surgery.
	<b>Industry X.0</b>	Resilient, safe, efficient, and responsive industry. Avoiding dull, dirty, and dangerous environments
	<b>Financial Services</b>	Accountable, fair, explainable, loans, insurance, trading, banking.
	<b>IoT at home and the workplace</b>	Data privacy, explainable and socially acceptable trusted devices, behaviours.
	<b>Creative Industries</b>	Understanding user expectations of future autonomous systems, trust and explainability issues.
	<b>Defence and Security</b>	Ethics, legality, equality, data privacy, for cyber security.

*\* There are more partners than in this table, incl., govt agencies and some span multiple sectors*





# TAS Hub Programmes

**Research Programmes** complement and integrate the nodes' research

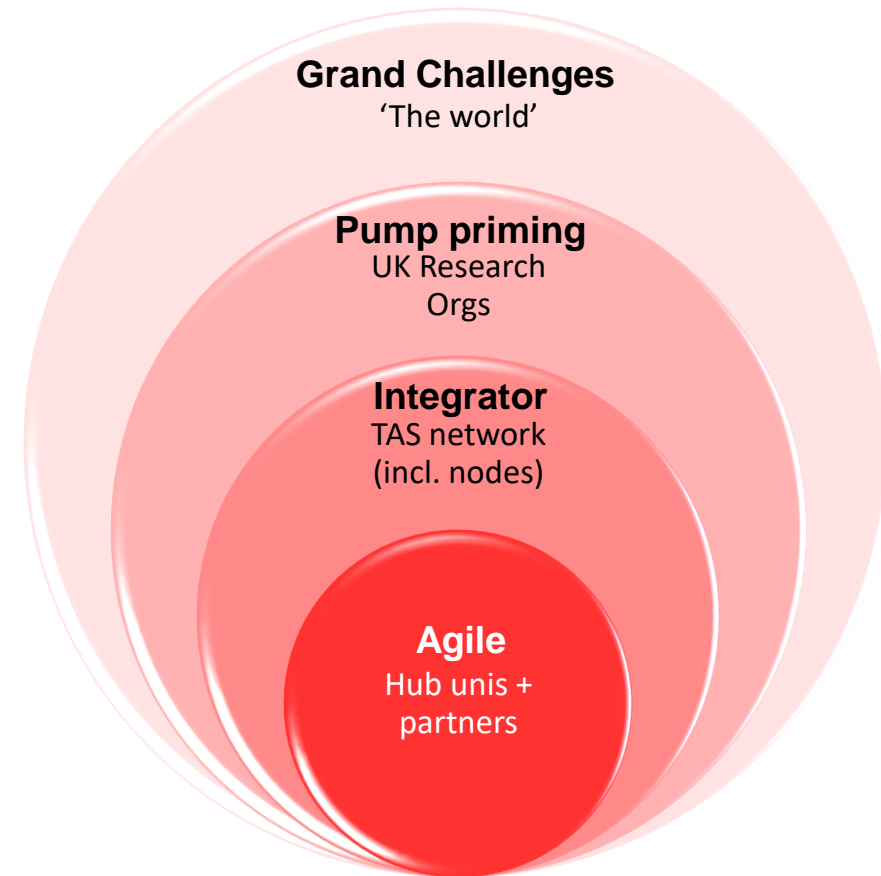
- Agile Programme
- Integrator Programme
- Grand Challenge Programme
- Pump Priming Programme

## **Advocacy & Engagement Programme**

- Public and Creative Engagement
- Adopter Engagement (users, stakeholders etc)
- Policy Engagement

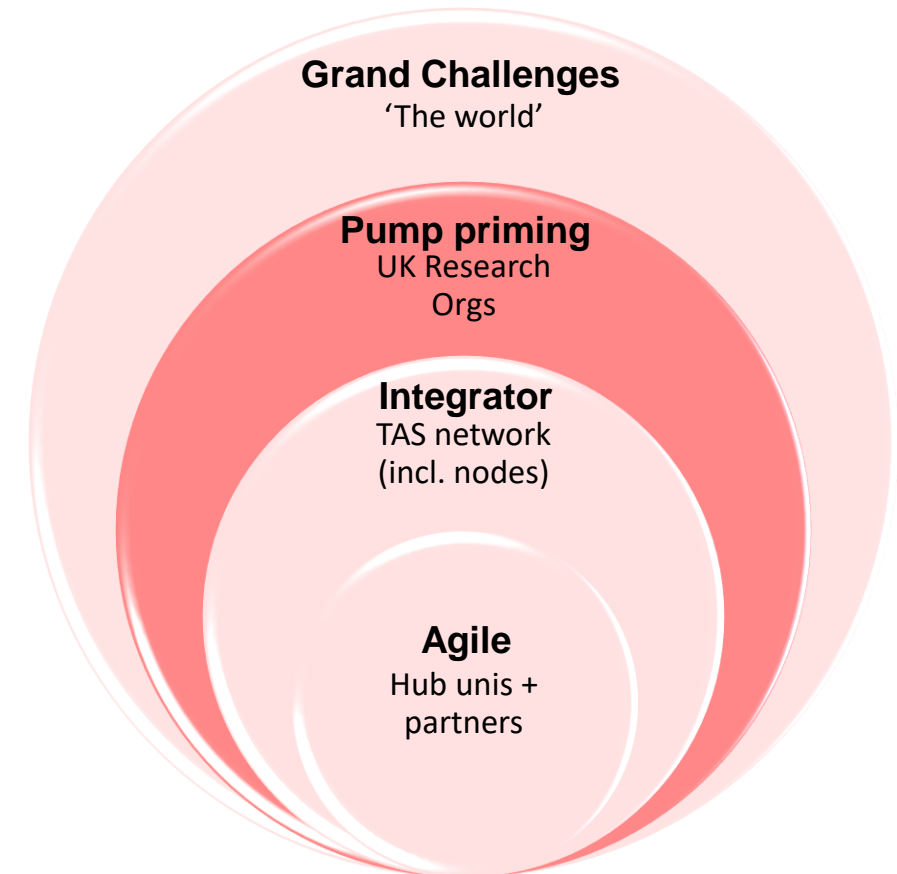
## **Skills Programme**

- TAS Doctoral Training Network
- Syllabus Lab to develop new training material for TAS job family
- Industrial Internships & Fellowships



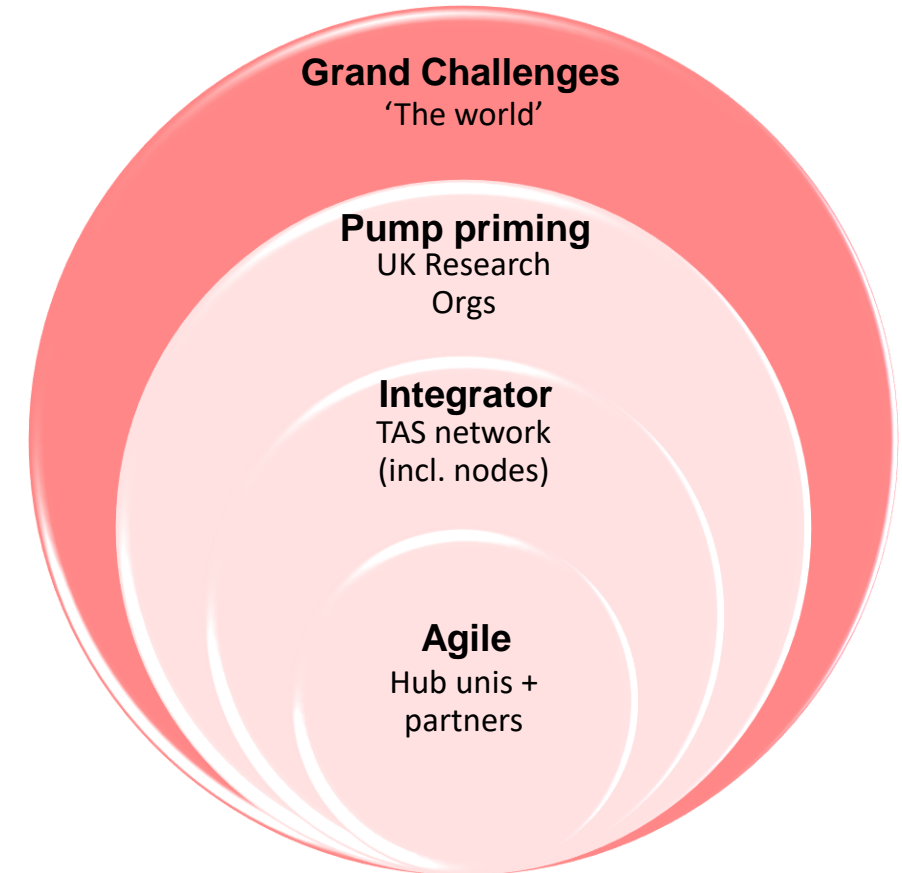
# Pump Priming Programme (open to UK research orgs)

- Provide up to £5M (100%FEC) of **competitive research funding** to the UK research community at large with targeted bi-annual calls to fund complementary and integrative research (strict spend profile)
- Fund a **variety of project types**, each worth between £50k to £150k
  - Early career proof of concept; industry-led; foundational; exchanges; business incubators
- Over the initial 4 years of TAS-UK, we anticipate **funding 25 to 80 projects**
- Later **themes for calls set by the grand challenge programme**, and reviews of the research programmes across the hub and nodes
- Call launch after nodes start (Nov) – deadline Jan/Feb, June start



# Grand Challenges Programme (open to ‘the world’)

- Source **grand challenges** for the TAS programme from the international TAS community (similar EPSRC Big Ideas)
- Candidate ideas will go through a **sifting and consultation process** involving the hub, nodes and partners to select ideas
- Grand challenge ideas developed further for pump priming (specific calls), agile, integrator projects as appropriate
- May lead to further funding calls with UKRI



# Sector Leads Committee: Defence & Security



**Alec Banks**  
*Principal Scientist,  
Software Systems*



**Joseph  
Devanny**  
*KCL*



**Christine  
Evers**  
*UoS*



**Hector  
Figueiredo**  
*QinetiQ*



**Stuart  
Middleton**  
*UoS*

**Defence and security**

# Engagement Examples

## Advertising Internships

- Advertise your internship positions to the TAS Hub Doctoral Training Network (DTN)
- TAS Hub has many world class UK universities and students with deep AI skillsets

## Matchmaking

- Engage with existing TAS Hub projects e.g. Agile or Pump Priming projects
- TAS Hub can help you via matchmaking to find collaborators for your projects
- TAS Hub Partner onboarding process

## AI Horizon Scanning

- Keep up-to-date with TAS Hub mailing lists and Teams site
- TAS Hub engages in regular government consultations and expert reports

## Get in Touch

Dr Stuart E. Middleton

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Southampton



### Email

general: [contact@tas.ac.uk](mailto:contact@tas.ac.uk)

matchmaking and DTN: [I.j.male@soton.ac.uk](mailto:I.j.male@soton.ac.uk)

defence and security leads: [sem03@soton.ac.uk](mailto:sem03@soton.ac.uk)



### Website

[www.tas.ac.uk](http://www.tas.ac.uk)



### Social

Twitter: [@tas\\_hub](https://twitter.com/tas_hub)

LinkedIn: <https://www.linkedin.com/groups/8966227/>