



HCSS DataLab



HCSS Datalab

Strategic decision-making is inherently subject to significant risk. Uncertainty makes it difficult to engage in long-term decision making, preventing you from taking bold action and realising your desired impact or potential. Within the HCSS Datalab we model complex phenomena, quantify and compare the impact of decisions, to provide insights into such risk. This allows us to gain a better understanding into the everchanging world of geopolitics, defence, and security. Using data and in-depth subject matter knowledge we can help to enhance decision-making and better communicate stories to in turn reach the desired audiences.

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“ Rather than waiting for a **crisis** to announce itself, we try to read the early signals across the **defence, security and geopolitics** domains and put numbers to them, so a decision-maker can see where the ground is shifting before it moves. ”

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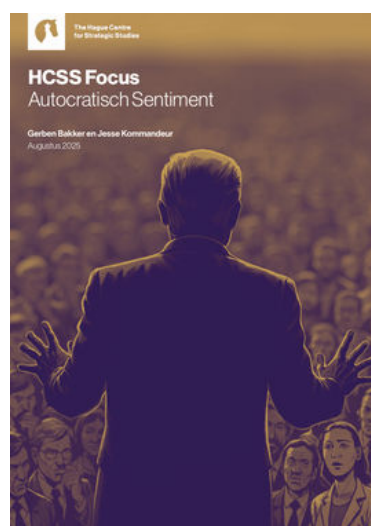
Products



Research as a Product

We turn quant to qual insights

We treat reports as carefully designed products that translate quantitative research into clear, qualitative insight that is credible, interpretable, and policy or scientifically relevant. By combining quantitative analysis with qualitative interpretation and contextualisation, we produce publications that go beyond presenting results: they explain meaning, surface implications, and structure strategic or scientific debate.



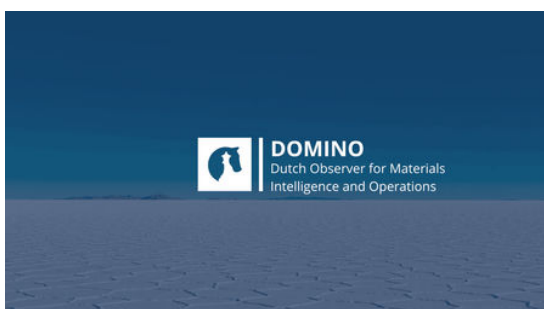
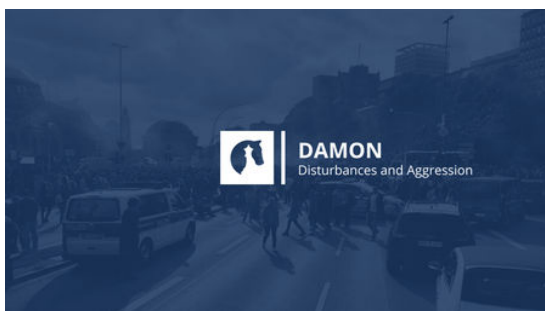
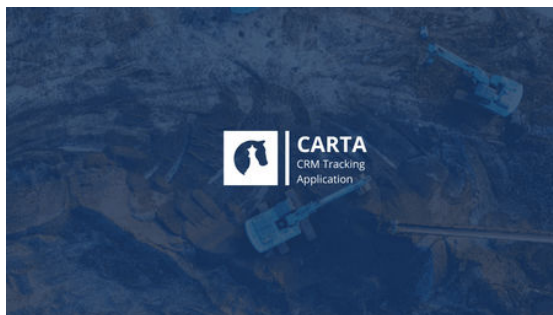
Products



Tool as a Product

We build end-to-end solutions

We design, build, and maintain secure digital tools and platforms that support analysis, collaboration, and decision-making from start to finish. These tools are developed as reusable products rather than one-off project artefacts, and are actively adopted through onboarding, integration into workflows, and clear value propositions. This allows analytical insights to scale beyond individual projects and reach a broader set of users.



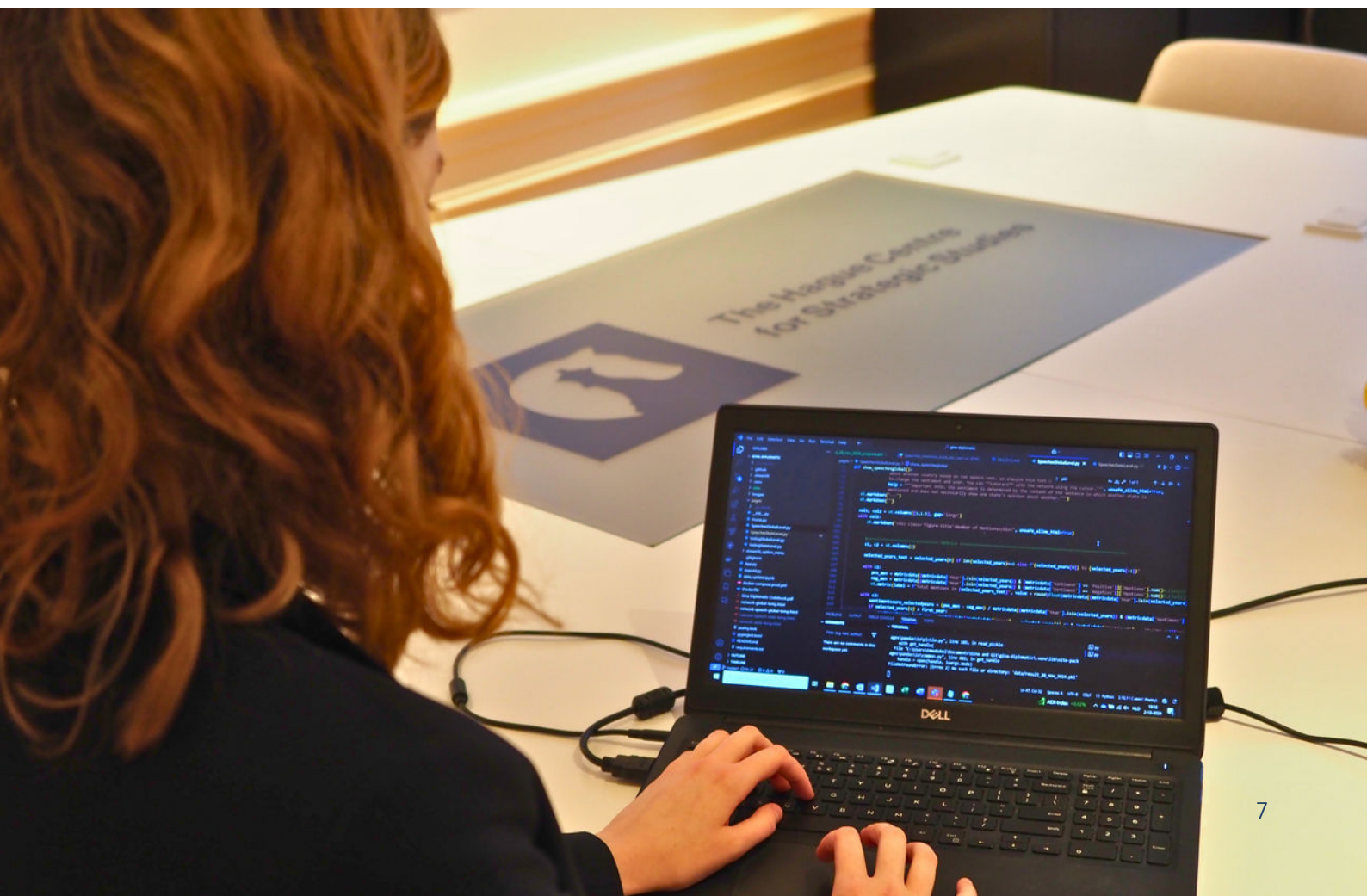
Products



Data as a Product

We provide datasets

We create, enrich, and publish high-quality datasets as first-class products, designed for reuse by researchers, policymakers, and partners. By combining original data collection, enrichment, and transparent documentation, we make HCSS-owned data accessible through a publicly available APIs, following examples such as ACLED (operational) and POLECAT (terminated). This approach turns data into a durable asset that enables external research and collaboration with third parties.



We turn text into insight

Methods



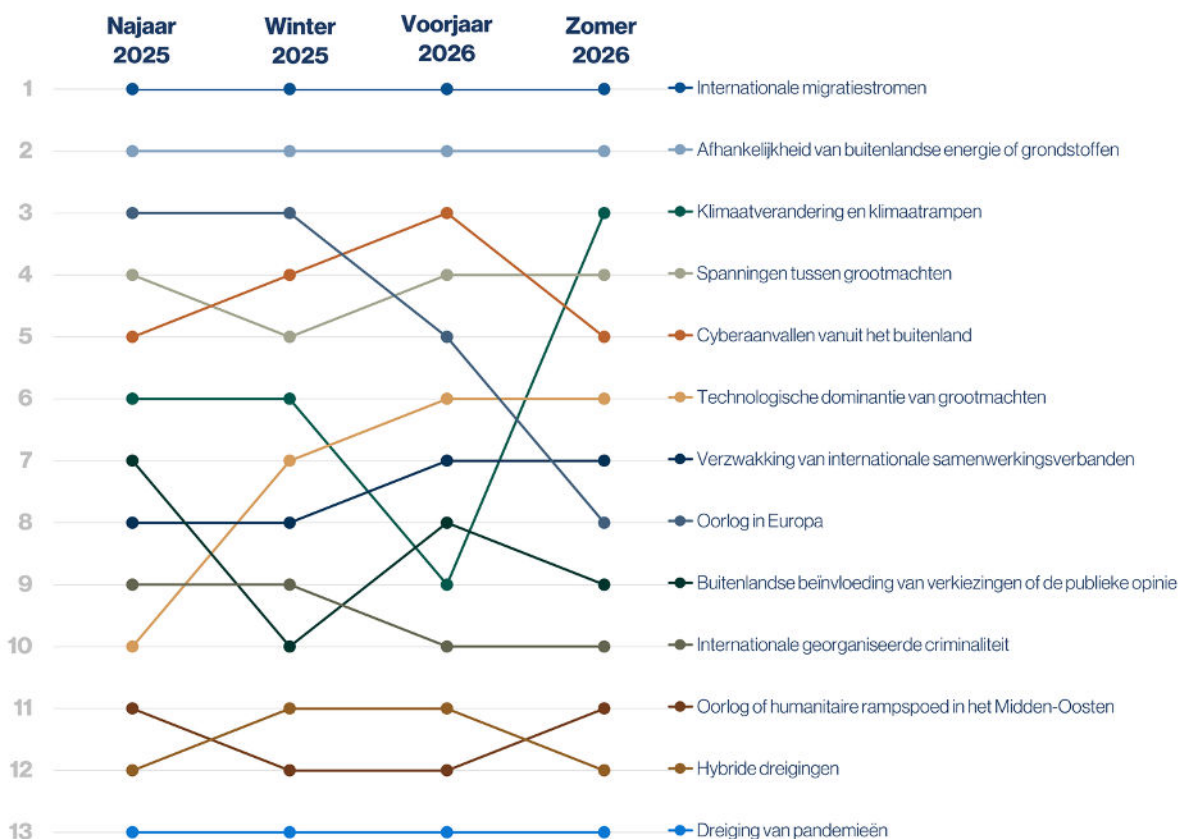
Surveying

We measure attitudes at scale

We design and run large, representative, longitudinal population surveys that capture public attitudes, perceptions and trends across society. Fielded several times a year, they have built up one of the largest collections of Dutch population-survey data in the Netherlands and Europe, and provide a robust empirical foundation for tracking societal dynamics over time. The results inform our analyses, validate assumptions and ground strategic research in lived public experience.

Externe Druk: Grootste zorgen

Rangorde van politieke en internationale dreigingen die het vaakst door Nederlanders worden gekozen als bedreiging voor nationale veiligheid, zoals gemeten in de HCSS Publieksmonitor.



Methods

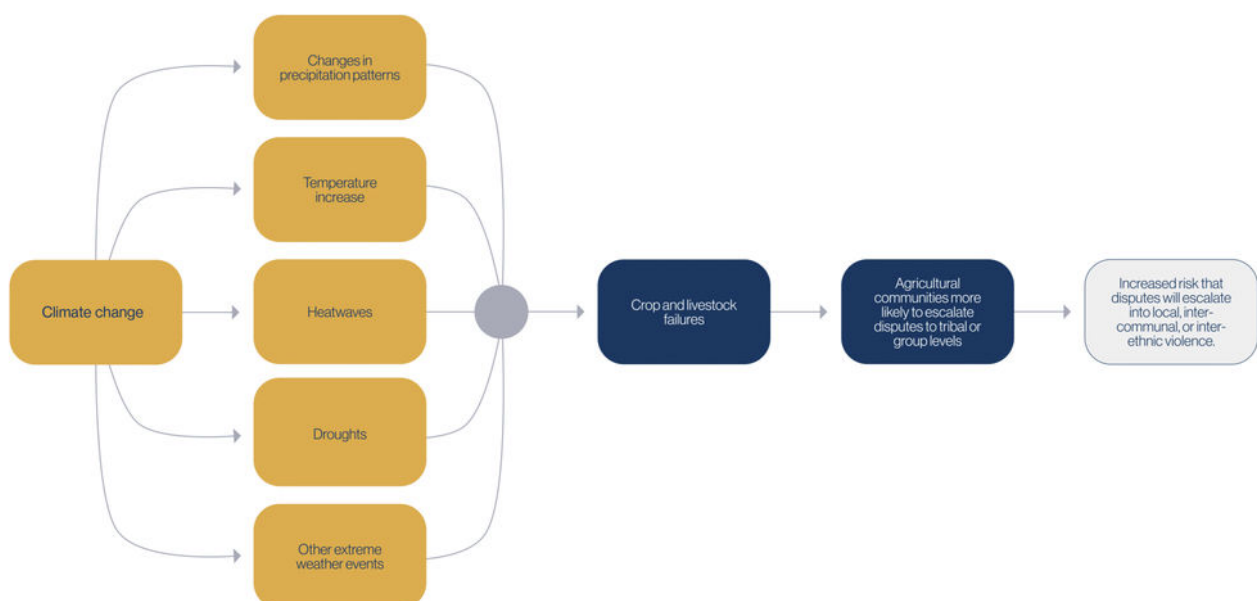


Modelling

We model complex landscapes

We build digital representations of geopolitical, security and economic environments to understand how actors, systems and dynamics interact. By combining network analysis, systems thinking and agent-based modelling, we explore scenarios, test assumptions and support decision-making under uncertainty. This includes generative agent-based modelling, in which populations of AI-driven agents reason, adapt and interact rather than follow fixed rules. These models translate complex realities into structured insights for analysis, policy discussions and serious games.

Figure 1. Climate Change-Related Resource Scarcity Leads to Larger Scale Inter-Communal Violence



People



Jesse Kommandeur
Datalab Manager



Rens van Dam
Research Scientist



Emma Bokel
Data Scientist



Nidas Brandsma
Data Scientist



James Levell
Data Engineer

Proposition



How we can help you

The HCSS Datalab develops data-rich tools that provide you with actionable insights into the challenge your organization is facing. We:

- ◆ **Conceptualise** the phenomenon including its most important components and translate these into measurable indicators that allow you to determine, i.e., country or organisation performance, relationship intensity, and risk.
- ◆ **Measure** these indicators using both textual and numerical data including from both open and proprietary datasets.
- ◆ **Analyse** the most important trend developments over time with a comparative perspective.
- ◆ **Advise** what direction a challenge is traveling by leveraging our mixed method portfolio, including tailor made NLP, quantitative models, as well as traditional subject matter expert judgment.
- ◆ **Visualise** complex challenges by presenting them in easy-to-understand infographics, interactive dashboards, videos, and to-the-point graphics both for in-house use and external communication.
- ◆ **Interact** with our clients by providing in depth consultations and deep client involvement.

Proposition

What we can offer you

HCSS offers bespoke solutions. We leverage deep multidisciplinary knowledge, hundreds of datasets, and a robust data infrastructure to build indices and dashboards designed to shed light on the challenge your organisation faces.

- ◆ **Security:** Our work is done in a cyber secure, closed network environment.
- ◆ **Scalability:** We possess the data infrastructure to be able to scale up big data operations without limits.
- ◆ **Sustainable:** We offer cost effective solutions that not only build big data projects, but maintain data infrastructure into the future.
- ◆ **Scientific rigour:** Our work is grounded in transparent methods, reproducibility, and responsible data and AI use.



Frequently Asked Questions

Products

How are your reports products?

“Report as a Product” refers to the capability to design and produce reports as structured decision-oriented outputs that translate rigorous research into clear and policy-relevant insight. Beyond writing and publishing, we believe that reports only create impact if they are read, understood, and used. The main development challenge is shifting from producing standalone publications to intentionally positioned reports that support decision-making.

How are your tools products?

“Tool as a Product” refers to the capability to design, build, maintain, and actively adopt secure digital tools and platforms that support analysis, collaboration, and decision-making within and beyond HCSS. Beyond building platforms, this method recognizes that tools only create impact if they are used. The main development challenge is shifting from “build it and they will come” to intentional adoption and positioning.

How are your data products?

“Data as a Product” focuses on creating, enriching, and operationalizing HCSS-owned datasets. It spans the full data lifecycle: from acquisition and labelling to enrichment, versioning, and controlled publication – using scraped data, partner data, and LLM-assisted generation. The emphasis is on reusable, transparent, and strategically owned data assets, rather than one-off datasets.

Methods

How do you turn text into insight?

NLP and Generative AI enable us to extract meaning from text, generate structured outputs, and support analysts in writing and synthesis. These methods help scale qualitative analysis, improve consistency in reporting, and open new possibilities for synthetic data, scenario narratives, and assisted analysis.

How do you measure attitudes at scale?

Survey research enables us to systematically capture public attitudes, perceptions, and preferences across a broad range of security-related topics. Together with KiesKompas, we conduct large-scale population surveys three times per year, reaching 10,000+ respondents across the Netherlands, making this a uniquely strong empirical pillar within HCSS. The strength of this method lies in its representativeness, continuity, and direct policy relevance.

How do you model complex landscapes?

With modelling, in the broad sense, we aim to use our data to create digital representations of geopolitical or security-related landscapes, using tools from network analysis and game theory; as well as aid boardroom sessions and serious games.



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