

Guidelines for proposals

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SUMMARY

Leiden University, Delft University of Technology and Erasmus University Rotterdam Centre for Safety and Security (LDE CSS) is happy to contribute to realize projects by granting budgets to proposals that fit within the LDE CSS focus. This document aims to clarify the kind of proposals we would like to receive, as well as the procedure for submitting proposals and our evaluation process.

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CHAPTER 1: HOW IT WORKS

The LDE-CSS makes use of the already apparent domain expertise and their experts (PhD, professors, ...) affiliated at the three universities. This means that there are no additional costs involved for involving them in research and education projects that may fit with the LDE-Centre for Safety and Security. LDE-CSS provides them ideas and concrete help for research and education projects, leads, coordinates cooperation, and informs them about research and educational projects, helps drafting research proposals if required, keeps an eye on calls and takes appropriate actions accordingly, etc.

CHAPTER 2: THE TYPE OF PROPOSALS WE ARE LOOKING FOR

We are looking for proposal that fit with in the basic 7 research questions (RQ) that drive the LDE Centre for safety and security (see appendix 1). In addition, the proposals should add to reaching one or more of the 6 operational goals (O) of the LDE CSS (see appendix 2)

Projects that are carried out within the centre, should always be able to be positioned within the fields of the matrix displayed in Table 1, or at different fields simultaneously. In this matrix the 7 research questions are depicted vertically in the most left column. Horizontally, we depicted the main safety and security domains in the centre, being Industrial, Cyber, Natural, Counter Terrorism and Medical (microbial patient safety).

Furthermore, every project should be related to one or more operational goals, and it should be made clear how this transpires into a benefit for the LDE Centre for safety and security. Table 1 provides an example of how the projects and their goals should be seen.

Table 1: Matrix of project determination using pair-wise verification of safety and security theme and research question

	<i>Industrial</i>	<i>Cyber</i>	<i>Natural</i>	<i>(Counter) Terrorism</i>	<i>Medical</i>
RQ1				Project Y O2	
RQ2				Project Y O2, O4	
RQ3	Project X O1, O3				
RQ4					
RQ5					
RQ6					
RQ7					

As an example, Project X situated in the matrix is a project related to investigating the question (from a research and/or an educational viewpoint) whether the perceived risk corresponds to the real risk in a certain industrial safety (and/or security) setting. The concrete objectives of Project X mainly correspond to establishing trust and developing innovative solutions.

Another illustrative example is Project Y studying two questions within the theme of terrorism, that is, ‘when is secured, secured enough’, and how much can/should one spend on terrorism prevention. It does so by streamlining cooperation between institutions, and by creating external visibility of the centre and the needs for terrorism prevention.

CHAPTER 3: THE CRITERIA FOR PROJECT PROPOSALS

Project proposals are to be submitted to both the Scientific Director of the Centre (g.l.l.m.e.reniers@tudelft.nl) and the Associate Director of the Centre (n.rosnuller@tudelft.nl) using the following approach.

1. A proposal (research- or education related) should be written by members of at least two of the three universities.
2. The objectives and the position of the proposal within the pairwise matrix (table 1) should be clear and explained.
3. The proposal should present one or more deliverables.
4. There should be a clear indication of what LDE Centre for safety and security research question(s) is/are dealt with by the proposal
5. The budget that is needed should be linked to the deliverables envisioned.
6. An achievable overview of tasks, responsibilities and deadlines (/timeline) should be included.

Hence, proposals have clear deliverables and focus is put on cross-university research and/or education. There is no strict format/layout available for proposals.

- A project proposal should not exceed 15 pages in total, excluding appendices.
- The proposal should be clearly written (in English).
- There should be a Table, similar to Table 1 in this document, in which the objectives, research questions, and the safety and security domains involved, are clearly indicated. The Table should be well explained in text as well.
- It should be clear which sciences and scientists from at least two of the three universities are involved in the project in what way.
- A clear budget linked with deliverables of the different project executors, and deadlines, should be present

Applicants are encouraged to submit proposals that have a budget between 10.000€ and 40.000€. The Centre for Safety and Security reserves the right to also eventually partially finance submitted projects. Co-financed projects are preferable and will be encouraged.

Important assessment criteria to the board are:

- Leverage: executing the proposal may lead to additional projects or greater projects by combination of project fundings
- Interdisciplinary: expertise of two or more domains on two or more of the LDE universities is elementary for success
- LDE-contribution: the results contribute to the LDE mission and exposure

CHAPTER 4: THE EVALUATION PROCESS AND DEADLINES

Proposals are discussed within the Scientific Board and facilitated by the Associate Director, ending in acceptance or rejection of (eventually improved) proposals. Proposals can be 'renewed', in the sense that a new proposal can be submitted two times. After two times, the proposal should at least be substantially rewritten, or the new submission of the same proposal should be postponed at least for two years. In the end, the Scientific Board decides on proposal acceptance or rejection. We work with a limited annual available budget. This means that we might not be able to grant all proposals, even when they fit clearly within the LDE CSS. In that case, the Scientific Board decides which proposals will be granted.

The criteria that we use for assessing the proposals are

1. There should be a clear indication of what LDE Centre for safety and security research question(s) is/are dealt with by the proposal
2. A proposal (research- or education related) should be written by members of at least two of the three universities, and incorporate at least two scientific disciplines
3. Preferably, the result of the project should be preparatory work for a greater research proposal of education program.

There are two periods per year for submitting project proposals. Within 6 weeks from the submission deadline, applicants will receive the results of the evaluation process. The submission scheme and our evaluation is as follow:

Submission period	Notification of reception	Notification of our evaluation
1-31 January	7 March	Before 15 April
1-31 May	7 June	Before 15 July

Correspondence regarding the submission process and the result of our evaluation is of course possible. Please get in contact with the associate director of the centre: n.rosmuller@tudelft.nl.

APPENDIX A: RESEARCH QUESTIONS DRIVING LDE CSS

The societal needs can be summarized and formulated as state-of-the-art problems encountered within safety and security science. The problems relate to:

- The acceptability of risks
- Economic issues with respect to safety and security decision-making
- Moral, ethical and legal aspects surrounding safety and security
- The public's knowledge and perception of risks, safety and security

The 7 research questions which are highly relevant to today's society and which deserve justifiable answers that can be disseminated and defended by authorities and academia towards the public, are the following presented below. The necessary domains to answer them are presented, not in a limited way, as well:

RQ1 - When is 'safe/secured', 'safe/secured enough'?

In addition to core expertise in safety and security (e.g., transportation, logistics, chemistry, nature, environment, cyber, privacy, ..), elaborating on this research question asks for political expertise, as well as knowledge from public policy and business administration and legal.

RQ2 - How much investment do safety and/or security need?

In addition to core expertise in safety and security, elaborating on this research question asks for economics, management, and financial expertise.

RQ3 - Does the 'perceived risk' correspond to the 'real risk'?

Here, in particular knowledge in the field of psychology and sociology is needed, as well as modelling approaches such as stated preference research.

RQ4 - What innovative solutions can be developed to further improve safety and/or security?

Here, domain specific technology as for example for flooding, cyber security, informatics, transportation, chemistry, ...is relevant. However, technology in itself is insufficient to add to making breakthroughs regarding safety and security. Hence, to improve safety and security, organizational and behavioral knowledge is essential to implement innovative solutions, as well as legal and policy making and business administration.

RQ5 - How to achieve converging models and viewpoints on safety and/or security prioritizations and improvements?

Knowledge from a manifold of various fields of expertise is essential: from technology to politics, from policy to business, and from psychology to sociology, from disaster abatement to medical and health care and from economic to ethics.

RQ6 - What solutions can be developed to further improve safety and/or security that are proportional, ethical and within the limits of the rule of law?

See RQ5 for the essential fields of expertise

RQ7 – How to deal with the public’s knowledge and perceptions of risks, safety and security?

Here, expertise from risk communication, psychology, self-rescue and resilience is crucial.

These seven research questions are complex, since they can be answered in a different way (sometimes an even seemingly contradictory way) when different viewpoints are considered. The questions also need a variety of disciplines to answer them adequately, and a systemic as well as an analytic perspective.

APPENDIX B: LDE CSS OBJECTIVES

The overall objective of the LDE centre for safety and security is to exploit the unique features and characteristics of the Leiden-Delft-Erasmus alliance, being trans-disciplinary and conducting and providing groundbreaking research and education, within every safety and security theme, to achieve the following pragmatic goals:

- O1** - Establish trust between the partners via transparency, communication, cooperation, and shared successes
- O2** - Streamline cooperation initiatives / joint projects; initiatives can be bottom-up as well as top-down; stimulation is top-down
- O3** - Develop innovative safety and security solutions to deal with today's problems and to meet with today's challenges. Solutions can be technological, but also organizational, conceptual, psychological, etc.
- O4** - Enhance internal and external visibility of the LDE centre for
- O5** - Explore and develop integrated safety and security research and/or education at Leiden University, Delft University of Technology and Erasmus University Rotterdam
- O6** - Create a research and education community and link this community to society and industry and benefit from synergy or different views and disciplines.