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Dear Researchers: Think about the future, for sure, but please don't forget about the present – the Odense Manifesto for academia–industry collaboration at ICSA 2025

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1. Introduction

Academic researchers and industrial practitioners naturally have different main goals in their daily work (Zimmermann, 2025). Often, the researchers focus on future challenges in software engineering, while the practitioners must deliver working systems today. This is difficult, and many IT projects fail. The reasons may on an overall level be well known, but perhaps not deeply understood; if they were, wouldn't we be in a better state?

We ask: *Can academics and practitioners collaborate more effectively to address the software industry's current and short-term problems?*

This question was the basis for a working session at ICSA 2025, the 22nd IEEE International Conference on Software Architecture, held in Odense, Denmark, which we organised and will report and reflect on here.[1] 90 participants from academia and industry co-created the first version of the *Odense Manifesto* in this working session, see Fig. 1.

Inspired by the famous and impactful Agile Manifesto (Beck et al., 2001), the Odense Manifesto prioritises values that promote practical relevance and applicability of research outcomes to contemporary industrial needs, in addition to scientific value. We present the initial version of the manifesto, discuss the rationale behind its six core statements, and reflect on structural challenges in academia–industry collaboration. Our goal is to provide a foundation for ongoing dialogue and joint action that balances the needs of both communities.

2. Background and Motivation

The theme of ICSA 2025, *Architecting for the next generation of intelligent systems*, invited forward-looking research in software architecture. While future-oriented work is essential, we argue that the present should also be properly prioritised in research, both in software architecture and in software engineering more generally.

This is because there are numerous classes of difficult problems in the software industry today where more help from academia is very welcome. Two examples: (1) Requirements engineers must bridge communication gaps with non-technical stakeholders to avoid misunderstandings and project failures; (2) software architects must find tradeoffs that balance conflicting non-functional requirements adequately so that the constructed software has an acceptable cost-benefit ratio and does not accumulate unjustified technical debt that endangers its future evolution and maintenance. Moreover, software architects must ensure effective communication with other stakeholders about project priorities to continuously maintain system quality as both the system itself and its domain evolve.

Some researchers perceive such problems as insufficiently challenging. One of the industrial authors recalls a conversation he once had with a computer science professor about problems we face in industry, specifically about communication and reaching agreements between non-software stakeholders and software professionals about requirements. The professor said, "we have already solved the problems through our research – why don't you just pick up and apply the solutions that we have made for you?" When the author mentioned that there are commercial and even legal obstacles – more specifically European Union procurement rules – that impede this, the professor replied, "shouldn't we do something which is more interesting than worrying about that?" The root cause of this unproductive conversation was perhaps that the professor and the author had different *definitions of done*, i.e., criteria for when a problem can be considered solved. Is it when a possible solution is published in a paper or when the solution is sustainably adopted in industry? Or at another time?

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3. The Odense Manifesto

In the session, the participants drafted bold statements reflecting a shared vision for better academia-industry collaboration. Each statement follows the "A over B" format, emphasizing that both A and B have value, but A is valued more than B. During the session opening, we gave this example of an Odense Manifesto statement candidate as inspiration for further discussion: *Helping industry over publishing papers*. It was deliberately provocative and strongly biased towards the interests of industry, without taking academic incentive structures into account.

The participating academics and industrial practitioners were divided into mixed groups, each tasked with brainstorming candidate manifesto statements and guiding principles. This process produced nine statements and eleven principles, which were then discussed in a plenary session. The statements and principles are available online (Jørgensen et al., 2025).

Following the conference, the authors refined the results, selecting the six statements below for inclusion in the initial version of the Odense Manifesto, see Fig. 2, that we present here.

S1: Applied research over fundamental research

While fundamental research remains vital, urgent industrial needs call for research that can be applied within short to medium timeframes, preferably within a few years.

S2: Novel applications and refinement of existing methods over novel methods

It can be more valuable to apply, refine, and strengthen known methods in new and interesting ways than to invent additional ones, especially when accompanied by user-friendly, well-maintained tools.

S3: Solutions to practically relevant problems over results for theoretically interesting and tractable problems

At the early stages of research projects, it is natural that theoretically interesting and also tractable problems are in focus. However, to have industrial appeal, research must be taken forward and it must demonstrate solutions to practically relevant problems. This may involve, e.g., addressing scalability and usability, because this is necessary for eventual industrial adoption.

S4: Practical applications of knowledge over smallest publishable unit

The "smallest publishable unit" is a jargon phrase that was literally used at the session for the minimum contribution to add to the current body of knowledge in order for a researcher to write a publishable paper about it. The academic incentive system favours incremental results, and changing that may require revising evaluation criteria and academic values. This is because there may be an unfortunate tension between S3 and S4. Is it more prestigious and moreover sometimes less time-consuming to write and publish papers on theoretically interesting and tractable problems over papers on practically relevant problems?

Fig. 2. The Odense Manifesto for academia-industry collaboration at ICSA 2025.

S5: Relevance over originality

In contexts demanding urgent solutions, clear industry value and practical relevance may outweigh originality as an academic value – without diminishing the importance of originality in the long term. Relevance is a relative measure, and there is gradation in the short-medium term, ranging from few months to a few years. It can have high relevance to directly use a research prototype in an industrial

Fig. 1. The working session at ICSA 2025.

context, or upgrade it into product code; it can have medium relevance to implement an algorithm or method described in a research paper; it can have low but still valuable relevance if industrial practitioners find research results informative and inspirational, possibly leading to change of habits or practices.

S6: Relevance over rigour

Rigour remains essential as an academic value, but in contexts where clear industry value is critical, it should be pursued in service of relevance, ensuring that research outcomes are both valid in scholarship and valuable in practice.

4. When Academic Priorities and Industry Needs Clash

The six statements are not intended as abstract ideals. We will appreciate it if they contribute to concrete changes in how academia and industry interact. Guiding principles must certainly be produced and further developed; they should be part of the manifesto with the aim of influencing behaviour and decision-making on both sides. During the working session, we proposed a principle that suggests that academics should spend sabbaticals in industry to experience real-world challenges in software architecture. Far from being provocative, this is meant as a practical way to build relationships and foster long-term, committed collaboration.

Statements S5 and S6, in particular, must be understood in the context of academic publishing. If taken seriously, they could inspire researchers to rethink their priorities or even adjust their research direction. Similar to S4, this may require academia to re-examine its evaluation criteria and reward structures.

The issues they highlight are not limited to the manifesto alone. As discussed by Woods (Woods, 2025), esteemed academic conferences such as ICSA, indeed, but also ECSA (European Conference on Software Architecture) and TechDebt (IEEE International Conference on Technical Debt), do not appeal to industrial practitioners to a high degree. All three conferences are about subjects of very high interest for the industry, they have dedicated industrial tracks and thus promote applied research. Despite this, the extent of both contributions and participation from the industry could and is desired to be much greater.

One reason may be that industry values do not include, or incentivise, contributing to the advancement of the body of knowledge; practitioners may also lack the skills, time, and funding needed to write high-quality papers for leading conferences. Another reason may be that, although some conferences and tracks attempt to respect S5 and S6 and reflect these in their calls for papers and evaluation criteria, it is worth questioning whether this is applied effectively in the paper selection process. The two industrial authors speculate that some academic reviewers may find it difficult to prioritise relevance over originality and rigour, as the opposite priorities are deeply ingrained. The academic author does not necessarily share this view, but all three agree it is a topic warranting further joint investigation between academia and industry.

5. Conclusion and Future Work

We were happy with the working session, which was conducted in a truly cooperative spirit. Academics and practitioners worked together, discussed, and listened with interest and respect to each other's viewpoints. We had a sense that both sides really want to engage closer, and this is no surprise. Summed up in one bold statement: To better serve society, the practitioners need knowledge that the academic researchers have, and the academics need purpose (beyond individual career advancement) that the practitioners have.

As is evident from this column and many other sources, there are certainly structural problems that impede the full realization and exploitation of academia-industry collaboration, but we see a potential and a willingness to move forward together.

The manifesto does reflect a strong industrial perspective. We are thrilled about the outcome and believe that the working session has been useful for raising awareness in the ICSA community and as a building block towards improvements for academia-industry collaboration.

Planned next steps include balancing the manifesto with academic perspectives, adding actionable guiding principles, and encouraging endorsements from the broader community. We welcome your feedback.

Ultimately, the Odense Manifesto is only a beginning. While examples of strong academia-industry collaboration exist, the greater challenge is to build a research and practice ecosystem where academia and industry co-create knowledge that is both scientifically sound and socially valuable. Considering a short-medium timeframe, if relevance can align more with rigour, and originality with applicability, conferences like ICSA will not only envision the next generation of intelligent systems but also help deliver systems that society needs more urgently.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Romina Spalazzese reports financial support was provided by Malmö University. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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