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Lessons Learned from the Swedish Introduction of HERM

Gerolf Nauwerck[1*] , Johan Flid Fridell[2], Catrin Karling[3], Henric Thisell[4], Julia Benjaminsson[5], Ola Ljungkrona[6], and Per Hörnblad[7]

[1] Uppsala University, Sweden; [2]Royal Institute of Technology, Sweden; [3]Örebro University, Sweden; [4] University of Gothenburg, Sweden; [5]Stockholm School of Economics, Sweden; [6]University of Gothenburg, Sweden; [7]Umeå University, Sweden

gerolf.nauwerck@uu.se, jfridell@kth.se, catrin.karling@oru.se, henric.thisell@gu.se, julia.benjaminsson@hhs.se, ola.ljungkrona@gu.se, per.hornblad@umu.se

Abstract

This paper presents experiences from the work undertaken by the Swedish Enterprise Architecture Group in introducing the Higher Education Reference Model into the Swedish context. The paper highlights practical challenges and discusses possible ways forward. The overarching conclusion is that currently adaptation will continue on the institutional, rather than national level.

1 Introduction

The Higher Education Reference Model (HERM) has emerged as a powerful framework for structuring Enterprise Architecture higher education institutions. HERM consists of a growing number of components developed alongside the original Business Capability Model (BCM). Our adaptation and translation work so far has focused on the HERM Business Capability Model; other components of HERM also being introduced, facing similar challenges. Therefore “HERM” is used an an umbrella term even though we mainly refer to the BCM.

While HERM offers a structured way to develop institutional capabilities, its broad scope encounters significant hurdles when implemented in diverse national contexts. In Sweden, with its particular governance, funding, and regulatory structures, the localisation of HERM reveals both linguistic and conceptual complexities. We can borrow a quote from a in-house document (Maltusch & Suominen, 2025) as an overarching problem statement:

* https://orcid.org/0000-0002-9927-1294

> The challenge is therefore finding the good equilibrium between a common reference model that can be shared, used and widespread among the EA community and a model, more localized, that will be easily adopted by the HE community because they identify with it.

A central question thus arises: should HERM be translated directly, preserving its original structure, or adapted to reflect the specific realities of Swedish higher education? Based on our observations, a fixed, fully adapted Swedish version appears neither feasible nor desirable. Institutions invariably require further adjustments to align HERM with their distinct governance models, funding structures, and operational contexts.

This paper examines three main questions:

1. What linguistic and conceptual challenges arise when translating and localising HERM into Swedish?
2. How much should HERM be adapted to align with local institutional practices without losing its broader coherence?
3. How do these localisation efforts inform debates on standardisation versus flexibility in enterprise architecture for higher education?

Our study provides an empirical account of the tension between linguistic precision and conceptual alignment, highlighting how seemingly straightforward translations can introduce inconsistencies across different academic settings. We also argue that the model's underlying assumptions may not seamlessly align with Swedish realities, underscoring the need for ongoing adaptation. Ultimately, we propose that HERM be treated as a flexible, international reference framework—one that benefits from continued collaboration, localised refinements, and critical examination of its foundational assumptions.

2 The Swedish Localisation Process

The localisation of HERM in Sweden has been an iterative effort, blending practical translation work with deeper discussions on adaptation. The work has been carried out in a working group within the Swedish Enterprise Architecture Special Interest Group (ATI). Initially the working group was soley enterprise architects, but it later expanded to include business developers, which broadened the perspectives and ensured that the localisation was both technically precise and strategically relevant. The working group has combined a learning journey related to the business capability concept, mixing discussions, guest lecturers and translation sessions. It has by no means been a straight and quick journey. The process combined different approaches over time. Some participants reviewed the entire model independently to provide a holistic translation and adaptation, while others engaged in focused discussions and workshops to refine challenging terminology and conceptual alignments. Domain experts were also consulted for input on specific capabilities, although variations in their familiarity with business capability modelling sometimes led to differing interpretations.

A central challenge was balancing a strict one-to-one translation with the need for contextual adaptation. Our initial approach aimed for both a direct translation and a national baseline adaptation. However, it soon became clear that such a fixed "Swedish version" would not reflect the operational realities of individual universities. Each institution inevitably needs to modify the model to align with its unique governance structures, funding mechanisms, and operational contexts. This realization shifted our focus: rather than producing a single national adaptation, we recognized that the original English model could serve as a comparative reference, with local modifications emerging organically.

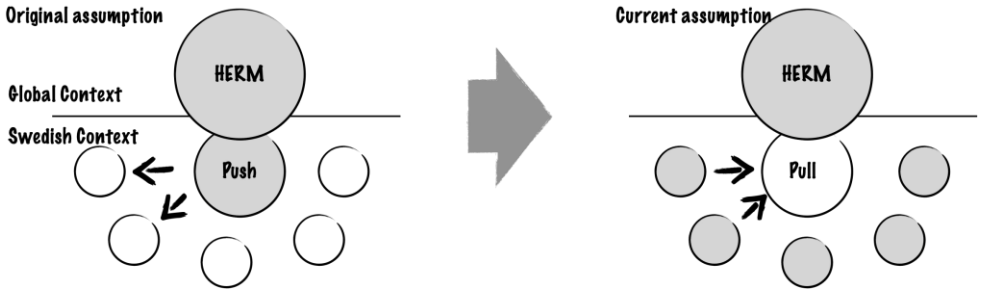

Figure 1. The shifting assumptions during the localization process

This is shift is in a way perhaps the most significant outcome of the process and illustrated in Figure 1, above. The initial assumption was that we would end up with a national Swedish HERM, that could propagate (push) to the different institutions. Now the assumption is that we will have local models and that on the national level we will rather have an ongoing discussion (pull). Our work has resulted in a baseline translation but further work will be done at the higher education institution level.

Beyond language, the Swedish experience reveals critical issues related to coordinated versioning of HERM. A simple shared repository or spreadsheet is insufficient; advanced tooling is needed so multiple institutions can collaboratively propose terms, vote on definitions, discuss conflicts, and track local adaptations. A useful technical solution might feature discussion threads for each term, user voting or approvals, and transparent logging of all changes. To maintain links to original HERM identifiers, we suggest suffixes that indicate local adaptation, e.g., BC123.SE or even BC123.SE.GU if additional sub-variants arise. Crucially, these local references should not "compete" with HERM's original references; instead, they extend them. The insights from this process directly inform later sections of this paper, where we examine specific university implementations and explore the implications for the future of HERM as a European standard.

3 Localisation Challenges

While HERM is designed as a broadly applicable capability model, adapting it to the Swedish context presents challenges beyond simple translation. Two interrelated issues emerge: linguistic complexities and conceptual mismatches. Linguistic challenges involve translating key terms without losing their intended meaning, while conceptual challenges arise from structural differences between HERM's assumptions and the realities of Swedish higher education governance, funding, and operations.

While HERM is designed as a broadly applicable capability model, adapting it to the Swedish context involves more than merely substituting words. Two interrelated challenges arise:

- Linguistic complexities: Ensuring that key terms retain their intended meaning in Swedish.
- Conceptual mismatches: Reconciling HERM's original assumptions with Swedish governance, funding, and operational structures.

Although this paper is not a theoretical contribution per se, longstanding translation theories help clarify why these challenges occur. Nida's (1964) notion of dynamic equivalence highlights the need to convey meaning and effect rather than literal wording. Newmark's (1981) distinction between semantic and communicative translation similarly emphasizes a balance between faithful representation and culturally resonant language. Moreover, Polysystem Theory reminds us that translations unfold within wider socio-institutional frameworks—in this case, a publicly funded Swedish higher education

landscape that differs significantly from HERM's presumed context of financial and administrative autonomy.

Translating HERM into Swedish often reshapes how the model is interpreted and applied. Terms that appear straightforward in English may have no exact equivalent or carry divergent connotations in Swedish. For example:

- "Student success". Implies an Anglo-American emphasis on outcomes like retention and employment, whereas Swedish terms might instead reference studenters genomströmning (throughput) or studiekvalitet (study quality).

A purely literal translation risks distorting how HERM's capabilities are understood on the ground, while excessive adaptation might stray too far from HERM's core structure. The next section explores the deeper, systemic factors underpinning these linguistic gaps.

Beyond terminology lie broader conceptual gaps. HERM's Business Capability Model (BCM) outlines what a university should be capable of, intentionally separating capabilities from how they are implemented. Yet those underlying assumptions reflect a context where universities have substantial independence—e.g., setting tuition, handling internal quality assurance, or allocating research funding. In Sweden:

- Advancement Management. HERM includes sub-capabilities for Alumni, Fundraising, and Donor relations, which in some higher education systems are major strategic drivers. In Sweden, these activities do exist but tend to be more marginal compared to obligations linked to being a government agency.

These divergences raise a key question: should HERM's structure be modified to mirror Sweden's processes, or should discrepancies simply be documented so users understand where adaptation is required? Either way, the Swedish case illustrates that localising HERM demands more than effective word choices; it requires contextual alignment with an institutional environment shaped by public funding and national oversight.

3.1 Structural Challenges

HERM's inherent design also poses challenges for localization. The absence of a dedicated management block—common in other frameworks—created questions related to representing leadership functions. The incorporation of value chains and sequential ordering implies that there is a process perspective, something that blurs the borders to existing process models.

Moreover, distinguishing whether a higher-level capability is merely a sum of its parts or possesses unique qualities remains unclear, as the descriptions sometimes blur these boundaries. Inconsistencies between the model's labels and their explanatory texts further complicate practical application.

Addressing these structural issues requires not just linguistic and conceptual adaptation, but also a critical reassessment of the model's hierarchy and internal logic to better align with the Swedish context.

These challenges highlight the tension between preserving HERM's original structure and adapting it to fit local conditions. On one hand, a strict adoption of HERM could force Swedish institutions into roles and responsibilities that do not match their established practices. On the other hand, extensive modification might undermine the model's intended coherence as a European reference. Our findings suggest that a balanced approach is needed—one that maintains HERM's core elements while allowing for documented, context-specific adaptations.

4 Interplay between existing models and HERM

While the Higher Education Reference Model (HERM) offers a structured approach to business capability mapping at a European level, Sweden has long developed its own models. Over the past decade, Swedish universities and national initiatives have designed frameworks to structure and understand higher education capabilities—particularly in research support and student administration. These efforts not only align IT and business needs but also provide insights that could refine HERM. By examining these projects, we gain a clearer view of how capability mapping is applied in practice, the challenges encountered, and the lessons that can inform HERM localisation.

4.1 The Existing Swedish Metamodel: The City Plan Approach

A notable example is the City Plan Metamodel, developed as part of a national collaboration in enterprise architecture (Ljungkrona & Hörnblad, 2017). This metamodel establishes a common architectural language for Swedish universities to describe business functions, information structures, applications, and IT infrastructure. It was motivated by growing demands for cost efficiency, collaboration, and a unified way to describe institutional landscapes.

At its core, the City Plan Metamodel organizes an institution into seven architectural domains:

- *Strategy Architecture:* Captures long-term goals and priorities.
- *Organizational Architecture:* Maps administrative structures.
- *Product Architecture:* Defines core educational and research offerings.
- *Functional Architecture*: Provides a business function view (akin to HERM's approach).
- *Information Architecture*: Structures data and knowledge management.
- *Application Architecture*: Describes IT systems and digital tools.
- *Infrastructure Architecture*: Lays out the technical backbone of operations.

A key feature is its hierarchical approach to business functions, offering a stable representation of capabilities over time. Unlike rapidly shifting processes, these enduring functions provide a reliable basis for planning and investment. The existing City Plan means that HERM is not introduced in a vacuum but rather needs to be related to the City Plan in a complimentary way. The working hypothesis is that HERM in general and the capability model in particular are more descritive *what*, wheras the City Plan is more of an solution oriented *how*.

4.2 Research Capability Mapping

One of the most detailed applications of capability mapping in Swedish higher education is found in research support. As described by Lassi et al. (2022), the Milky Way method was used to create an integrated, high-level map of the research process by focusing on the researcher's journey rather than on predefined administrative structures. Through interviews, workshops, and capability heatmaps, the project identified critical gaps and inefficiencies, pinpointing areas where additional services or system integrations were needed. This approach enabled stakeholders to look beyond immediate organizational constraints and focus on the essential capabilities required to support researchers. For HERM localisation, this raises a pertinent question: Does HERM fully capture the research journey as experienced by Swedish institutions, or should it be expanded to better reflect a cross-institutional research support effort? Moreover, the study shows that research support often involves multiple stakeholders at both institutional and national levels, suggesting that a strictly university-focused model might not capture the complete picture. One particularily relevant finding is how research data is enriched throughout the process, rather than being a discrete element, thus possibly mirroring how Student Management is given a semi processual status in the HERM BCM.

4.3 Mapping Student Administration Capabilities

A similar capability mapping approach has been applied to student administration, as described in Lassi et al. (2022). Two different projects at Gothenburg University and Stockholm University employed this technique to identify inefficiencies, process bottlenecks, and opportunities for digital transformation. Both projects aimed to enhance business-IT alignment by visually representing the student administration landscape, detailing:

- How student journeys align with administrative processes.
- Where key information systems fit within the capability structure.
- The challenges in governance, workflows, and inter-unit handovers.

The findings reveal that while student administration is standardized nationally—thanks to systems like Ladok ensuring baseline interoperability—implementation remains fragmented at the institutional level. This raises the question of whether HERM should assume a uniform capability structure for student administration or allow for greater institutional differentiation. Furthermore, as many core functions (such as admissions, degree verification, and funding allocations) are managed centrally, HERM might need to explicitly incorporate national-level capabilities to fully represent the Swedish student administration landscape.

5 Local Implementations of HERM

As Swedish universities have engaged with HERM, different institutions have taken varied approaches. Some have made major adaptations to better fit local governance structures and strategic priorities, while others have adopted minimal modifications—treating HERM more as a flexible reference framework. A number of universities—including Gothenburg, Örebro, the Stockholm School of Economics, and even Uppsala University—are in the early stages of exploring HERM-based initiatives, each navigating how to strike a balance between local needs and broader standardization. These diverse experiences shed light on HERM's strengths and areas for refinement, but also raise a crucial question: when do local adaptations become so extensive that they risk losing the reference model's shared language?

To illustrate how these challenges play out in practice, the following section takes a closer look at KTH Royal Institute of Technology. KTH is in the midst of reorganizing its IT-portfolio governance, using HERM as a guiding lens for this work. By referencing HERM's N1 and N2 capabilities, the ambition is to establish clear governance for each capability, ensuring alignment with mapped people, processes, information, and systems. KTH has also developed a "Milky Way" Capability Map for its teaching and learning, fully grounded in HERM. This initiative proved beneficial but required refinements to account for capabilities that span multiple value-chain stages—particularly "N1: Student Management" and "N1: Student Support." These adjustments have, in turn, improved the visualization and management of educational capabilities, suggesting that HERM can flexibly adapt to local needs. KTH also provides a visual illustration of the transformation that happens at the institution level when adopting the Capability Model, see figure 2 below:

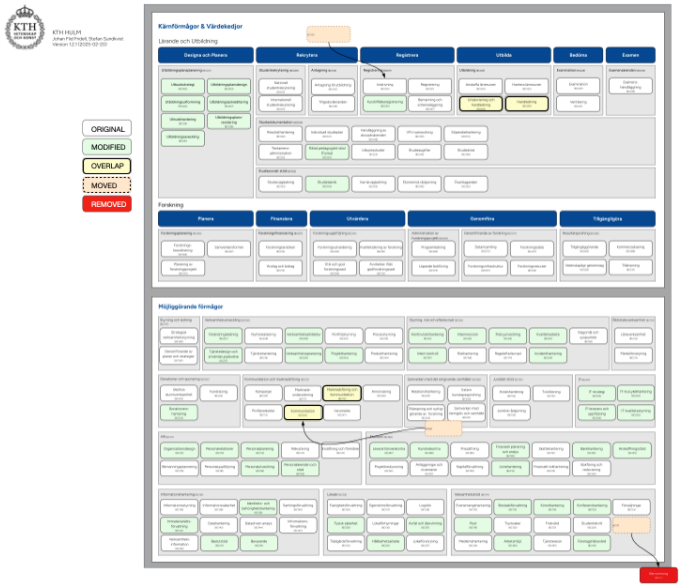

Figure 2. Proposed adaptation of HERM for KTH. It is the shading that is relevant here, with different shading indicating various modifications or issues. Illustration by J Flid Fridell.

The text is not important in the figure, rather it is the fact that only white boxes remain “as is”. Those shaded in green have been modified. Those shaded in yellow and having a thicker border are identified as overlapping with others. Dotted line indicates capabilities moved and in one case (marked red) even removed. As can be noted, in this particular case almost half the capabilities are somewhat unstable.

Across these cases, HERM aligns well at a high level and is valued for its ability to structure and communicate capabilities. However, challenges emerge in the details. Structurally, deviations relate to Sweden’s tertiary education system—especially its governance and funding models—as HERM has its origins in a more market-oriented landscape, not fully applicable to Swedish universities. At the capability level, local differences are also evident. For example, Swedish universities generally do not emphasize sports-related capabilities, instead prioritizing workplace wellbeing and student support services. Some institutions downplay alumni engagement, while others give greater weight to collections management. These differences suggest that capability weighting is not uniform across institutions and raise the question of whether HERM should allow for local prioritisation of certain capabilities.

As Swedish universities continue to work with HERM, these deviations will need careful consideration. Are they minor variations that can be managed through annotations and implementation notes, or do they indicate deeper structural differences that require modification of the model itself? The next section will explore the broader implications of these findings, particularly regarding HERM’s potential refinement at the European level and the contribution of localisation efforts from different countries.

6 Reflections on Localisation and Implications for HERM

Sweden’s localisation of HERM has yielded practical and theoretical insights. While the BCM clearly is the most challenging part of HERM, we can see similar challenges arise when starting to work

with other parts, to a varying degree. The TRM so far seems more strainghtforward, the DRM will likely require more localization. One very concrete insight is that the translation process varies dramatically depending on the approach. An individual translator can work quickly, but collaborative efforts slow down considerably as participants—each with their own institutional backgrounds and interpretations—must negotiate terminology and concepts. This process underscores that localisation is as much about aligning institutional practices as it is about linguistic precision. Figure 3, below, is an attempt to illustrate the complex landscape that the localisation process must navigate.

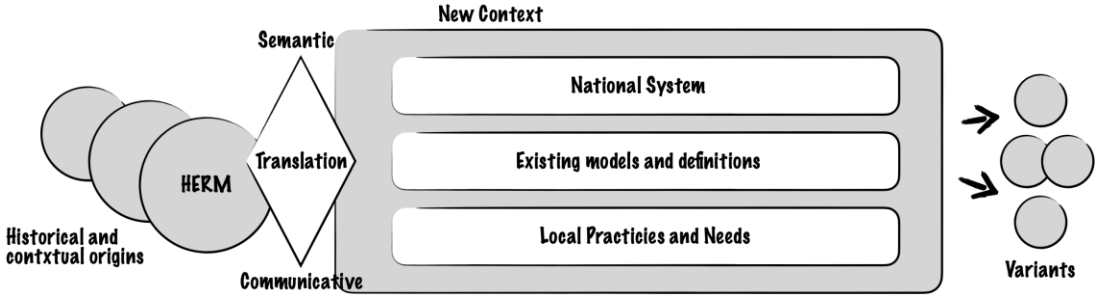

Figure 3. The translation and transformation of the model from one context to the other.

A recurring challenge has been the absence of effective systems for tracking versioning and changes. Without structured change management, different translations risk diverging over time. This issue is intensified by the interplay between translation and adaptation. In practice, the effort to produce a one-to-one translation alongside a national baseline quickly reveals its limitations. Even with a nationally adapted baseline, individual institutions must further modify HERM to reflect their unique governance, funding, and operational structures. In effect, there is no single Swedish version that fits all contexts.

This realization raises an important question: if every institution must adapt HERM independently, is a fully translated Swedish version necessary? The original English model remains valuable as an international reference, while Swedish institutions may continue to use it as a baseline for their own mappings. However, this choice also prompts concern about whether stakeholders less comfortable with English might be hindered in adopting the model.

Additionally, improved guidance on local version control and adaptation tracking is essential. A structured documentation method—possibly through an international repository—could ensure that modifications remain transparent and traceable, facilitating cross-country comparisons and shared learning.

As Swedish universities continue to work with HERM, there is a significant opportunity for deeper collaboration with the broader HERM community, including partners like EUNIS. Such collaboration might include:

1. Cross-national comparative studies of HERM adaptations.
2. Documentation and sharing of localisation challenges.
3. Development of a shared tool for tracking national and institutional modifications.

Ultimately, a key question remains: should HERM remain a fixed model that countries adapt independently, or should it be re-envisioned as a flexible framework that anticipates national variations? Our findings suggest that a more flexible, context-sensitive approach may be more sustainable, ensuring that HERM remains relevant and widely adopted across Europe's diverse higher education landscapes.

7 Conclusion

The Swedish experience also highlights areas where HERM could be refined to better suit diverse national contexts. Although structurally robust, HERM carries implicit assumptions regarding governance, funding, and institutional autonomy that may not align with every higher education system. While HERM remains a valuable reference model, adapting it locally underscores the delicate balance between standardisation and contextual flexibility. Our experience shows that although a direct translation can be executed relatively quickly, a collaborative localisation process is much more complex. It demands extensive negotiation and adaptation to align with distinct national governance, funding models, and institutional structures.

A key takeaway is that a fixed national adaptation is unlikely to serve every institution effectively. Universities inevitably need to further tailor the model to fit their specific operational contexts. This challenges the notion of a standalone Swedish version of HERM; rather, HERM is most effective as a shared global framework, with national and institutional adaptations emerging organically as needed.

Looking ahead, our experiences suggest that HERM itself may need to evolve to more explicitly accommodate diverse governance and funding models. A flexible approach—where core capabilities are standardised and local adaptations are documented and tracked—could ensure that HERM remains relevant across varied higher education landscapes.

Furthermore, Sweden's experience highlights the importance of the continued collaboration and knowledge sharing within the European higher education community, an effort that is well underway in the EUNIS EA SIG. Establishing robust methods for tracking local adaptations, exchanging best practices, and refining the model will be crucial to its ongoing success. Ultimately, this work calls for an ongoing dialogue on capability modeling in higher education rather than a one-time localisation effort.

This paper contributes to that dialogue by documenting Sweden's experiences and raising critical questions for future exploration. The next step is to engage with the broader HERM community to refine and enhance the framework, ensuring it remains adaptable, comparable, and useful at both national and institutional levels.

8 Disclaimer

We acknowledge that we have used ChatGPT to help us harmonise and translate the text. The input and verification were nevertheless done by the authors, who remain responsible for the content.

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9 Author biographies

Gerolf Nauwerck is a business architect at Uppsala University and a member of the advisory group on digitalisation at the Association of Swedish Higher Education Institutions (SUHF). http://www.linkedin.com/in/gerolf

Johan Flid Fridell is a business architect at the Royal Institute of Technology where he work to map business requirements, processes, regulations and laws relevant to the business's strategic objectives and ensure that solution designs and proposals take these factors into account.

Catrin Karling is Enterprise Architect at Örebro University where se has worked a lot with the IT governance model.

Henric Thisell is an IT Systems Architect at the section for support for digitalisation, Universiy of Gothenburg.

Julia Benjaminsson works a Digital Business Developer at Stockholm School of Economics.

Ola Ljungkrona has a Master's Degree at Chalmers University of Technology (1992-1997). Since 2015 he has been working as an Enterprise Architect/Business Analyst for the University of Gothenburg.

https://www.linkedin.com/profile/view?id=7735701

Per Hörnblad has a Master's Degree at Umeå University (1987-1992). Since 2010 he has been working as an Enterprise Architect/IT Architect for Umeå University.

https://www.linkedin.com/profile/view?id=47816284