**Why We Need Specialized Business-Side Resources for MDSOR Buildout**

**Summary for Executives**

**MDSOR**

* **Accelerate product and model onboarding**
  + Our goal is to shorten the onboarding time from months to days, allowing teams to quickly integrate new data
* **Eliminate waste in data wrangling**, specially on the historical analysis
  + This means making data easily discoverable and accessible without the need to navigate complex schemas or request help.
* **Strengthen audit defensibility**. Audit trails for override.
* **Scale data usage, not just data storage**
  + MDSOR will not just store data but turn it into high-quality, curated data products that are ready for immediate use.
  + **Ready-to-Use Data sets:**

**Bitemporarility vs Historical Cost**

* Eliminate waste in data wrangling

This **Bitemporarility + immutability + versioning** is:

* ✅ Perfect for **daily pricing views** or **event-driven analytics**
* ❌ Heavy and slow for **long-span statistical time series analysis**
  + **1 risk factor -🡪 4000 dates 🡪 deserialize all of them.**

this model:

* Adds significant latency
* Requires large memory allocations
* Is not optimal for “scan-and-summarize” operations

You trade the flexibility of immutability for performance

**MDSOR Credit Curves:**

key steps and considerations.

* **Curve Underlying Management🡪 Cusip level managements** 
  + **Bond selection ( rules for inclusion /exclusion)**
  + **Cusip level mappings ( issuer, sector, rating, ..)**
  + Manage underlying lists dynamically (based on bond universe changes)
* Credit Curve Construction and Methodology
  + Term structure
  + Curve fitting or bootstrapping
  + Manage lack of coverage, don’t have direct observables,
    - Reference ( proxy), factor based model ,
  + Waterfall logic and fallbacks
* Curve generation

**Focusing on What We Can Control:**  
Even if full buy-in isn't immediate, we can still focus on building these reusable components internally. This means improving our pipelines, enhancing data validation, and simplifying data discovery and cataloging processes to make the entire workflow more efficient.

**Decoupling**

* MDSOR will need **build its own ingestion, modeling, validation, and distribution pipelines** — **decoupled from Vasara’s deployment cycles**
* At least from its **priorities**
  + It’s about **unlocking speed, ownership , and agility**

Vasara code base is hard as you have multiple coupling points:

* **Infrastructure/** Environment**: HBase**, **Ignite**, and **Grid compute, build pipeline are shared**
* **Module/Code Coupling:** 
  + Sits **on top of Functional-SOR**, which uses **Vasara’s core libraries**
* **Data Coupling**
  + **Silver and Gold layer** objects are serialized using **Vasara-native versioned POJOs**
* **Transformation**
  + MDSOR leverage Vasara Quants Call to transform the data **using fix libraries**
* **Configuration Coupling:**
  + Namespace definitions and object IDs are **hardcoded**, tightly binding MDSOR logic

**Deep API Refactoring & Interface Abstraction**

* **🡪 Architect-level Java engineers** with strong domain modeling skills

**On onboarding (From) :**

* **Bringing the data is easy** 
  + But in between is hard
    - To produce it ,
    - converted into datasets in order to make it useful.
    - To linked, and modeled,
    - can be joined with minimal effort.
    - and can be challenging
    - Derive it fast.
* **Consumers/clients will be easy ( once done)**

**Speed**

Faster onboarding. Faster analysis. Faster Production , Faster compliance

* *Raw data to be Ready- to use: from Months to Days/weeks*
  + Accelerate Every Workflow
  + Data, schema, modeling
  + Build reusable pipelines

**Scale data usage, not just data storage**

**Well-architected framework**

Well build kitchen

Platform

* Hbase is mess
  + Data Lake: hybrid of no SQL and SQL
  + Tools that simplify data catalogue and data sharing
  + Architect approach:
    - Can be do virtualization approach
    - Of Data Mesh architect

**Why Tech Can’t (and Shouldn’t) Do This Alone**

One fact: We can’t **control the quality of who gets staffed**

**Most Tech Resources Are Not Set Up for This Kind of Work**

**These Roles Are Not Just Technical — They’re *Specialized***

You need hybrid of business, data domain, and systems engineering skills, architectural thinking, modeling skills.

* **You need people Design reusable components**

**Drive functional design**

**This is not “ hand off here is list of requirements , deliverable” and wait for results:**

* **You need to be involved in design, implementation :** 
  + **Otherwhise, every requests turn to be IT Projects ( I’, booked.**

**Collaboration is at the heart of this initiative**. We’ll have dedicated liaisons from the business side working closely with the tech team to ensure that development is aligned with business needs. **Regular check-ins, joint planning sessions, and continuous feedback loops will ensure seamless integration**

**One of the key principles in our roadmap is to ensure that MDSOR is built with flexibility and scalability in mind**.

We’ll adopt a **modular architecture that can integrate with new technologies** and evolve as the landscape changes. This ensures that MDSOR remains relevant and continues to add value, no matter how the tech environment shifts.

We’re asking for **co-owners of a platform that will serve the entire firm**

**Vasara Wasn’t Built by Tech Alone — Neither Should MDSOR Be**

**. Responsibilities of These Business-Embedded Engineers**

Each of these four roles will:

* 🧠 **Drive functional design**: Define how risk factors are modeled, transformed, versioned
* 🧩 **Design reusable components**: Normalize onboarding, validation, and QA pipelines
* 📊 **Define schemas and taxonomies**: Build the foundational layer for discoverability and compliance
* 🔁 **Embed bitemporality and lineage**: Architect data lifecycle tracking at the core
* 🛠️ **Prototype tooling**: Create UI, SDKs, and pipeline builders that FO and Risk can own
* 📓 **Codify the data catalog**: Establish domain-aligned metadata, naming, SLAs

1. **What if the technology landscape changes? How adaptable will MDSOR be?**
   * **Response:** **One of the key principles in our roadmap is to ensure that MDSOR is built with flexibility and scalability in mind**.

We’ll adopt a **modular architecture that can integrate with new technologies** and evolve as the landscape changes. This ensures that MDSOR remains relevant and continues to add value, no matter how the tech environment shifts.

1. **How will we ensure collaboration between business and technology teams?**
   * **Response:** **Collaboration is at the heart of this initiative**. We’ll have dedicated liaisons from the business side working closely with the tech team to ensure that development is aligned with business needs. **Regular check-ins, joint planning sessions, and continuous feedback loops will ensure seamless integration** and mutual understanding.
2. By bringing in dedicated resources, we ensure that MDSOR gets the focused attention it needs without compromising other projects.