CAST

Software Intelligence for Digital Leaders

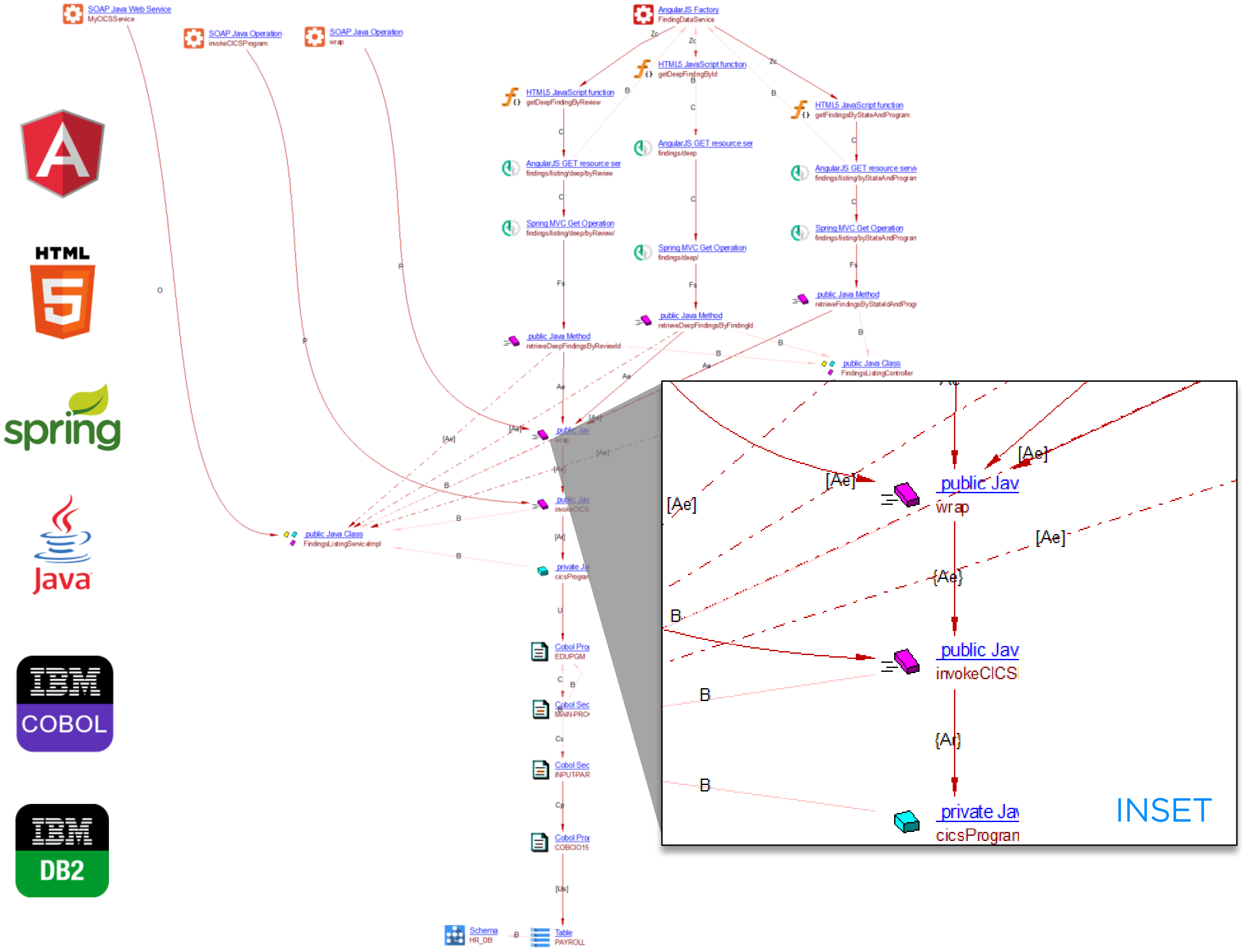
Road to Modernization

Build Understanding and Accelerate Modernization

Discover and Understand Complex Systems

CAST

- See your entire application with an in-depth mapping of artifacts, files, libraries, and databases



- Support architecture refactoring (coupling/ decoupling) decisions
- Modernizing components, frameworks, or the entire system
- Create an informed phased modernization plan

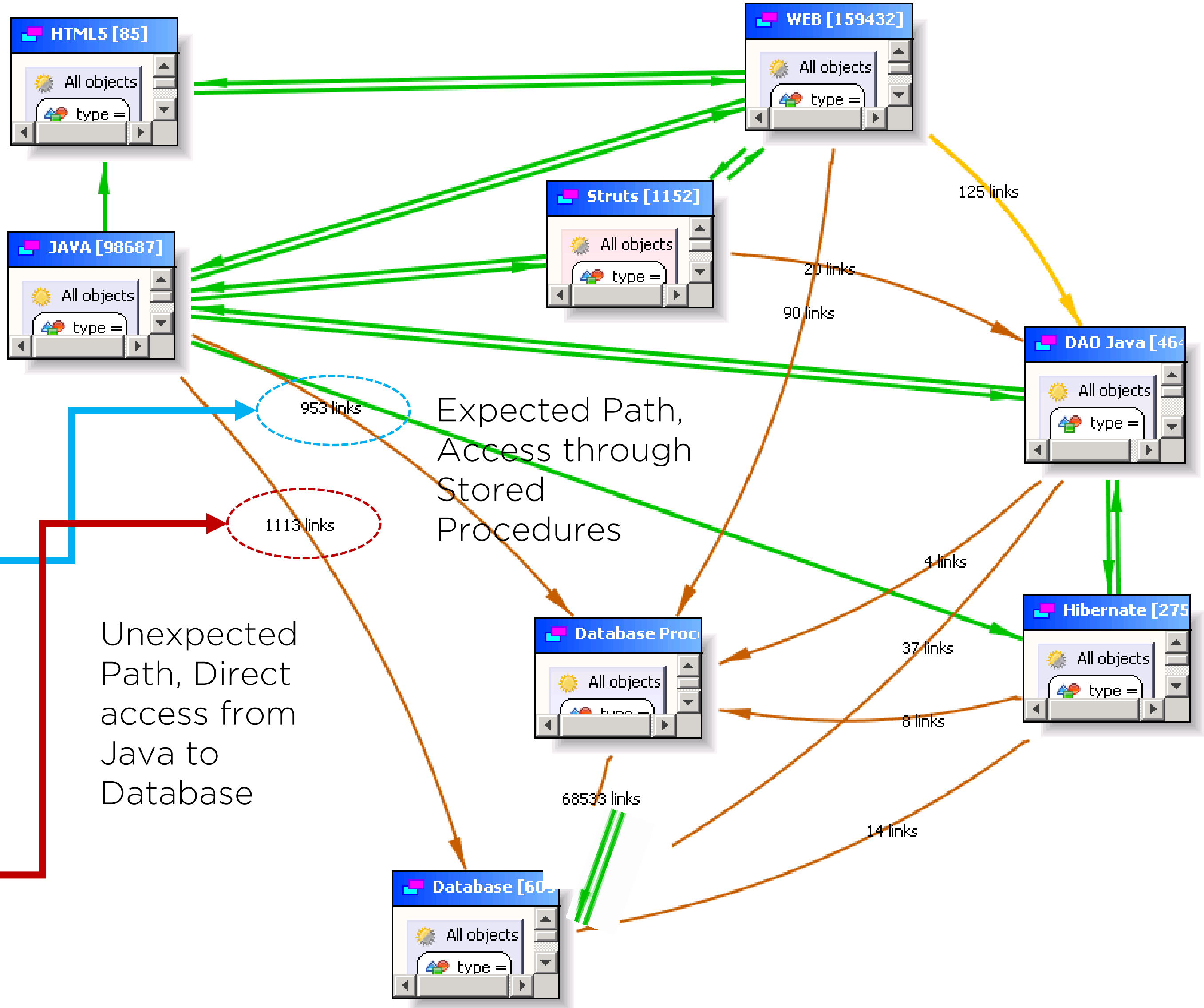
Planning a Path to Successful Modernization

Planning a Database Migration

1. Defined current architecture and create visual map

2. Quantify the Number and Scope of Dependencies to the Database

3. Identify Risky Dependencies and Make a Plan on how to Treat



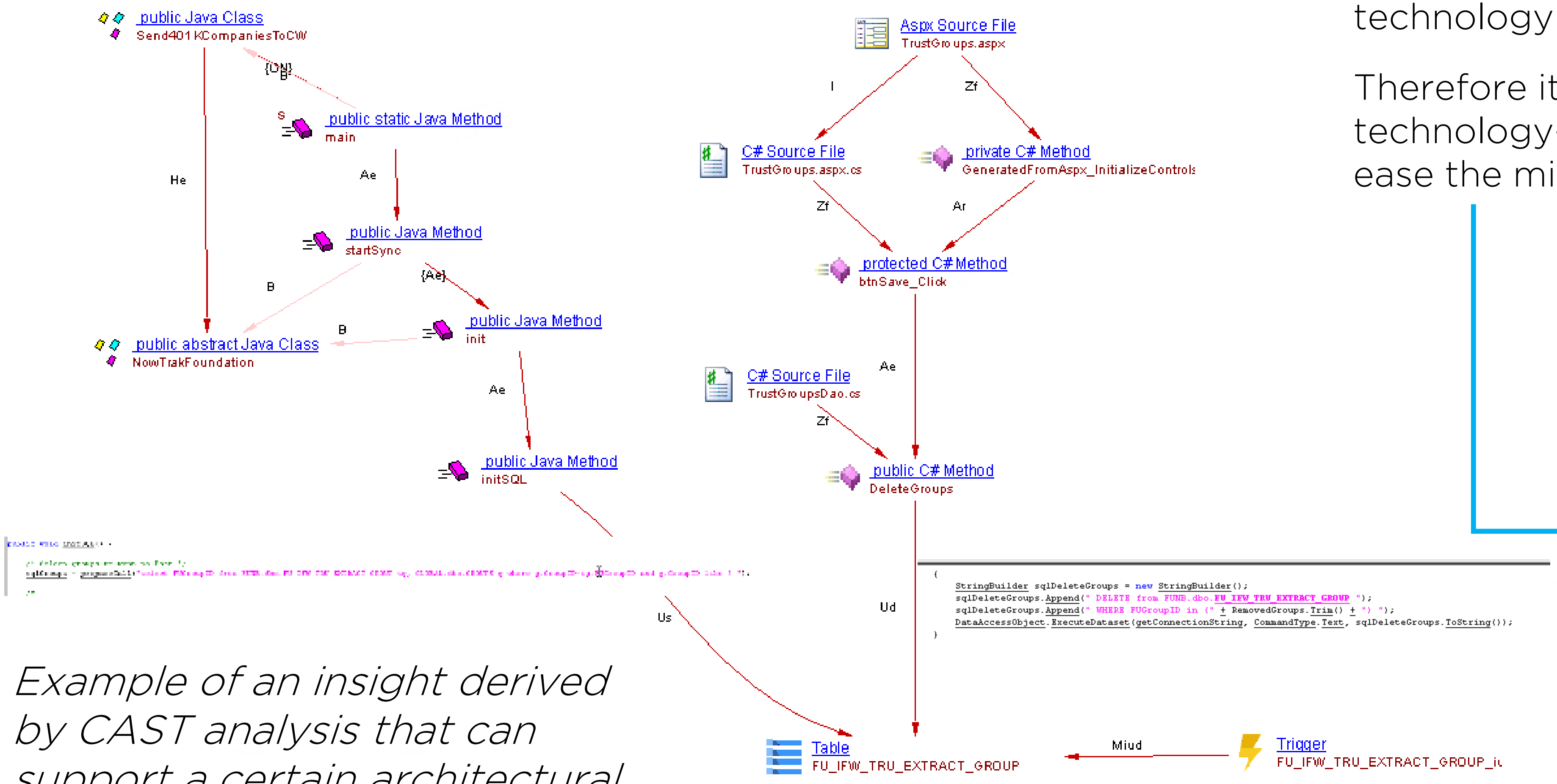
Expected Path, Access through Stored Procedures

Unexpected Path, Direct access from Java to Database

Identify the Drivers of New Architecture

Significant number of tables are selected or updated by more than 2 different technology.

Therefore it is important to create a technology-agnostic services layer to ease the migration of the new database



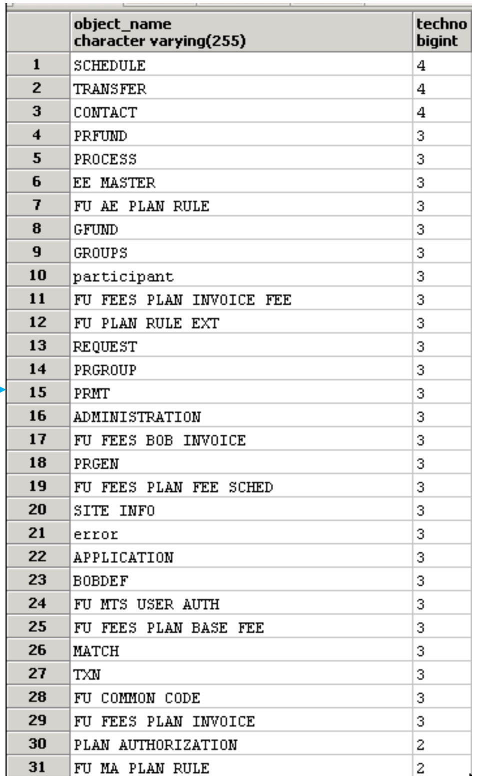
```
public void initSQL() {

    /* [illegible] */
    sqlGroups = [illegible]

    /*
```

```
{
    StringBuilder sqlDeleteGroups = new StringBuilder();
    sqlDeleteGroups.Append(" DELETE from FUNB.dbo.FU_IFW_TRU_EXTRACT_GROUP ");
    sqlDeleteGroups.Append(" WHERE FUGroupID in (" + RemovedGroups.Trim() + ") ");
    DataAccessObject.ExecuteDataset(getConnectionString, CommandType.Text, sqlDeleteGroups.ToString());
}
```

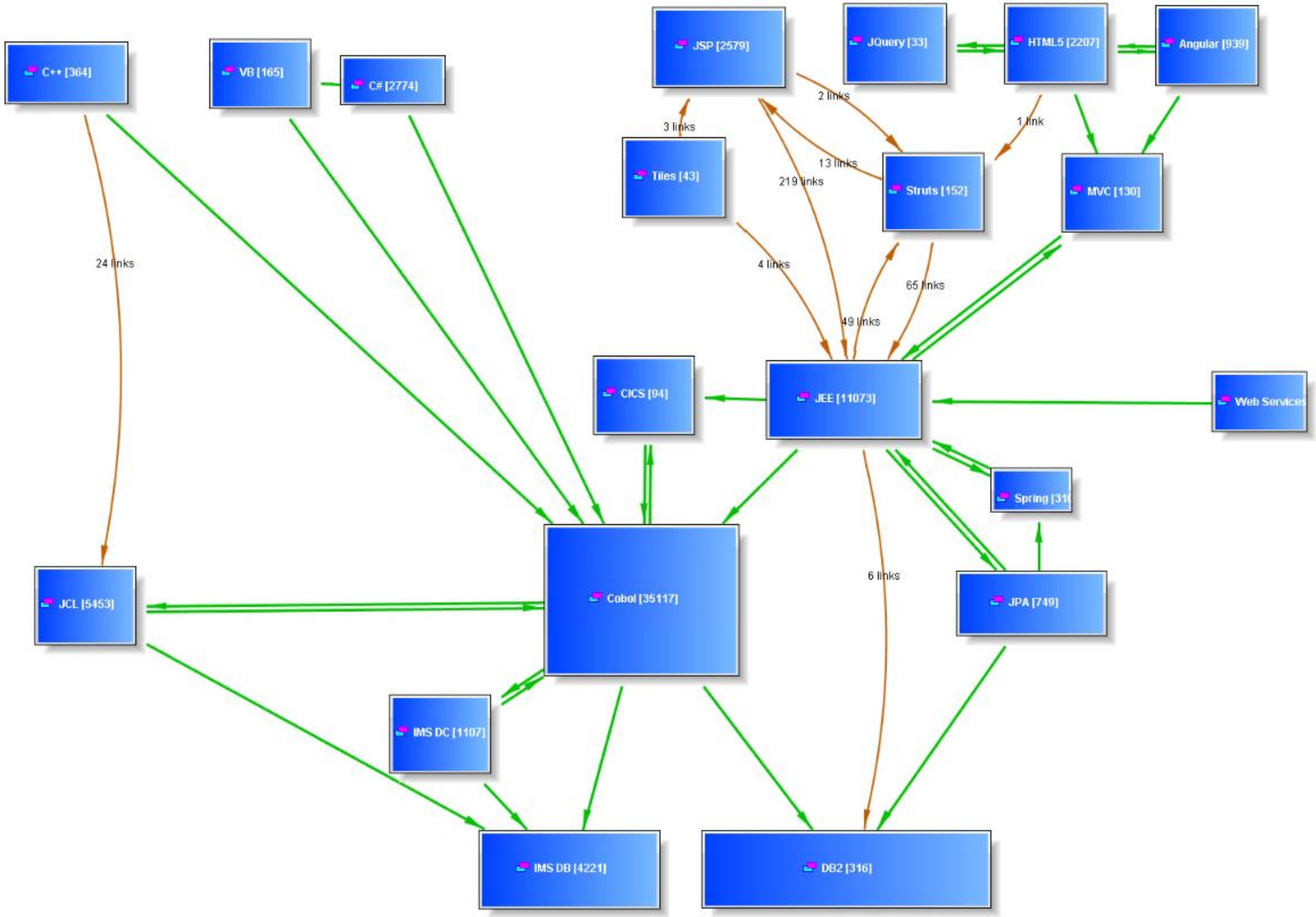
Example of an insight derived by CAST analysis that can support a certain architectural design.



	object_name character varying(255)	techno bigint
1	SCHEDULE	4
2	TRANSFER	4
3	CONTACT	4
4	PRFUND	3
5	PROCESS	3
6	EE MASTER	3
7	FU AE PLAN RULE	3
8	GFUND	3
9	GROUPS	3
10	participant	3
11	FU FEES PLAN INVOICE FEE	3
12	FU PLAN RULE EXT	3
13	REQUEST	3
14	PRGROUP	3
15	PRMT	3
16	ADMINISTRATION	3
17	FU FEES BOB INVOICE	3
18	PRGEN	3
19	FU FEES PLAN FEE SCHED	3
20	SITE INFO	3
21	error	3
22	APPLICATION	3
23	BOBDEF	3
24	FU MTS USER AUTH	3
25	FU FEES PLAN BASE FEE	3
26	MATCH	3
27	TXN	3
28	FU COMMON CODE	3
29	FU FEES PLAN INVOICE	3
30	PLAN AUTHORIZATION	2
31	FU MA PLAN RULE	2

Define New Architecture and Monitor Risk

- Define *to-be architecture* and check compliance
- Generate development tasks from discovered violations
- Identify areas that could benefit from re-work or enhancement
- Guide development work with technical blueprints
- Use metrics to track risks during transformation journey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