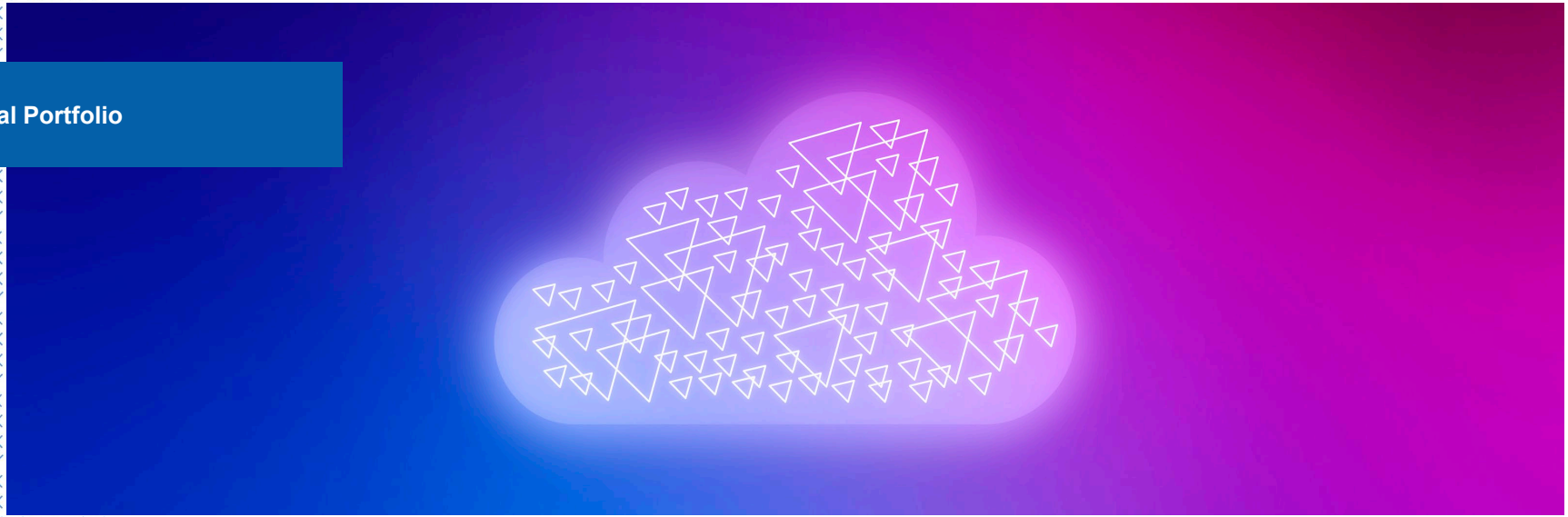
Global Portfolio



One Pipeline. It defines our future.

Risk-adjustment of Pipeline Value – Overview

Heiko Bullinger

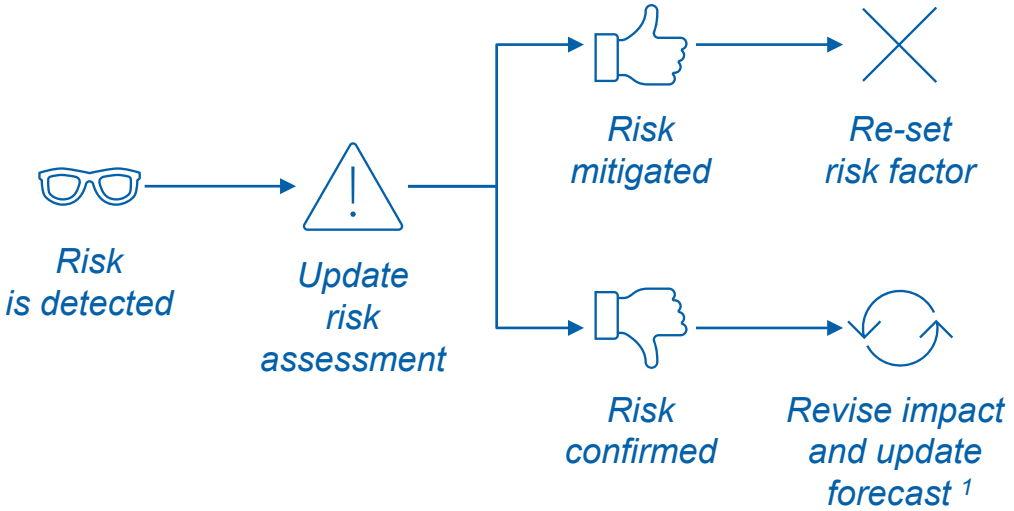
July 2022

SANDOZ A Novartis Division

Risk assessment of projects is essential for Pipeline Transparency and a continuous exercise

Risk assessment and (financial) **quantification** of impact is essential for effective Portfolio and Launch Management.
It enables

- **Transparency** on risks embedded in Pipeline
- Initiation of **mitigation actions** and appropriate allocation of **resources**
- Differentiated view for **prioritization**
- Realistic **financial outlook**

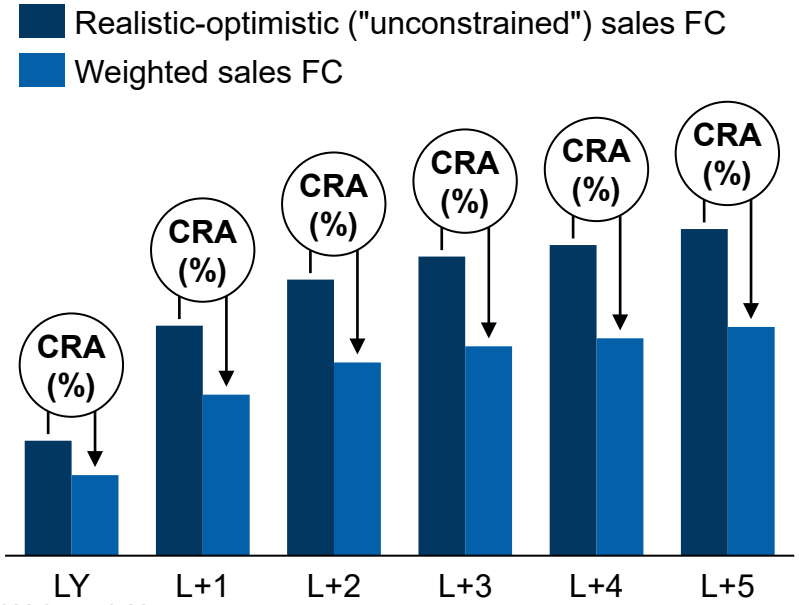


Risk assessment** is **not static**, but a "moving target". It needs to be applied as soon as **risks become known**. Once the risk is **mitigated** or **confirmed**, the new situation has to get **reflected in Pipeline Transparency

1 Timing of FC update depends on severity of risk impact (escalation criteria)

Weighted (probabilized) PV results from multiplication of full FC with Commercial Risk Adjustment (CRA) factor

Wording under review



LY: Launch Year
FC: Forecast

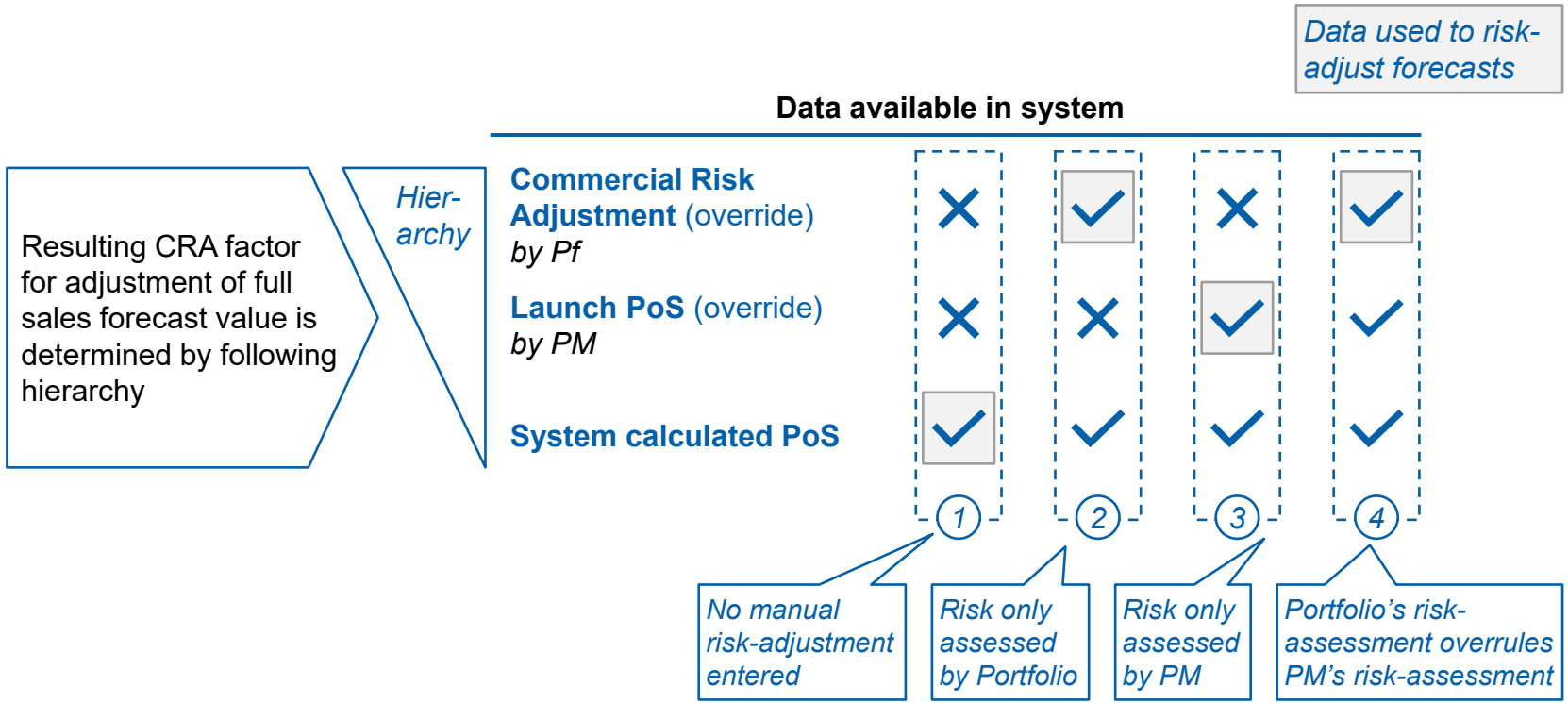
Key aspects

- The **overall risk** of a project usually results from various risks (e.g., IP, Regulatory, ...), but should be combined into **one CRA factor**
- The **CRA factor** is applied to realistic-optimistic ("unconstrained") sales FC across years
- It is derived from holistic **risk-assessment by Portfolio**
- In case Portfolio assessment is missing, **CRA factor** is derived from **PoS** (Probability of Success), maintained by IPM, or system calculated risk-factor

Data entry directly linked to forecasting in SANITY will increase coverage

IPM only maintains key countries, offline translation to others countries available

Hierarchy to determine CRA ensures risk-adjustment of every forecast and creates synergies



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BACKUP

System calculated PoS is determined by complexity and project maturity

Endorsed in Govern SteerCo on Nov 30, 2020

Standardized framework for pipeline value adjustment

Long-term solution

IH Projects

PoS	Category of complexity[1]	
Project status	1-3	4
Post MS "0": until prototype	70%	60%
Post MS3: until submission	80%	70%
Post MS7: until launch	95%	80%

BD Deals

PoS		Category of complexity[1]	
BD deal maturity	Partner's product development stage	1-3	4
Pre-signature	Irrespective	Deal Signature Probability x 80%	
Post signature	Until prototype	70%	60%
	Until submission	80%	70%
	Until launch	95%	80%

In-house projects and signed deals following same logic

High reward programs to be assessed individually

1. Complexity category mainly driven by dosage form combined with required development program – details in backup
2. General categorization complemented with deal closing probability reflects inclusion of co-Development or early stage development (BD&L) deals

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PoS Reporting: General

- All PoS assessments should lead to one project level/scope level PoS depending on project stage.
- The PoS is defined as the "*level of certainty about the launch of project on time (i.e. previously approved), in full, within budget (or CAR value) and to specification*"
- The PoS assessment outcome should lead to one of the three traffic lights.

>75% Po

Traffic lights will get automated by linking to PoS (%)

Debate (currently we have different % ranges in different reports) e.g. 4 lights for SDC projects, 35-80% for USLM...

Note: Exact % will be needed for risk-based BC calculations

- Overall PoS is owned by the responsible functions based on the stage of the project while the PoS is derived by working with the functions involved.
- The underlying methodologies are flexible according to the needs of owning functions and the projects. Common guidelines and methodologies are available for reference and as toolkits.

Note: The PoS traffic light is independent on project progress traffic light currently being used in GPC/GPB reports. Both the traffic lights will be needed as the purposes are different. The overlapping elements will be streamlined and fine tuned.

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PoS Reporting: Example

Project name (specify scope if applicable)	Overall PoS traffic light	Overall PoS %	Leading reason for the yellow & red traffic lights	Mitigation plan
xxxx		55%	Indicate the key functional risk leading to the overall traffic light Indicate the likelihood of the risk(s) to materialize (e.g. high, low, medium) Document the data supporting the PoS	Specify if mitigation plan is available – yes/no. If yes, specify the actions to be taken (with cost, timeline impact) Specify the ownership for actions and timelines