RIMS CANADA Conference

Proudly presents…

3A
Project Risk and Opportunity Management

Hans Læssøe
Senior Director
Strategic Risk Management
The LEGO Group

The LEGO Group run a significant number of projects … and need to be able to do that well

- 60-70% novelty share of sales
- 20 novelty projects for any given launch year
- The growth invokes factory building projects in multiple sites – simultaneously
- A portfolio of almost 200 IT projects of all sizes and levels of complexity

… and we also have projects for

  - Market expansion
  - Business process improvements
  - Product safety requirements

  etc.

- A “Process Expert Network” own the process and tools
- AROP developed in close collaboration

AROP was decided upon to provide explicit improvements

Identification

- Support a comprehensive risk and opportunity identification by all stakeholders

Assessment and Prioritization

- Define explicit assessment scales and hence limit biased and rough/intangible High/Medium/Low measures

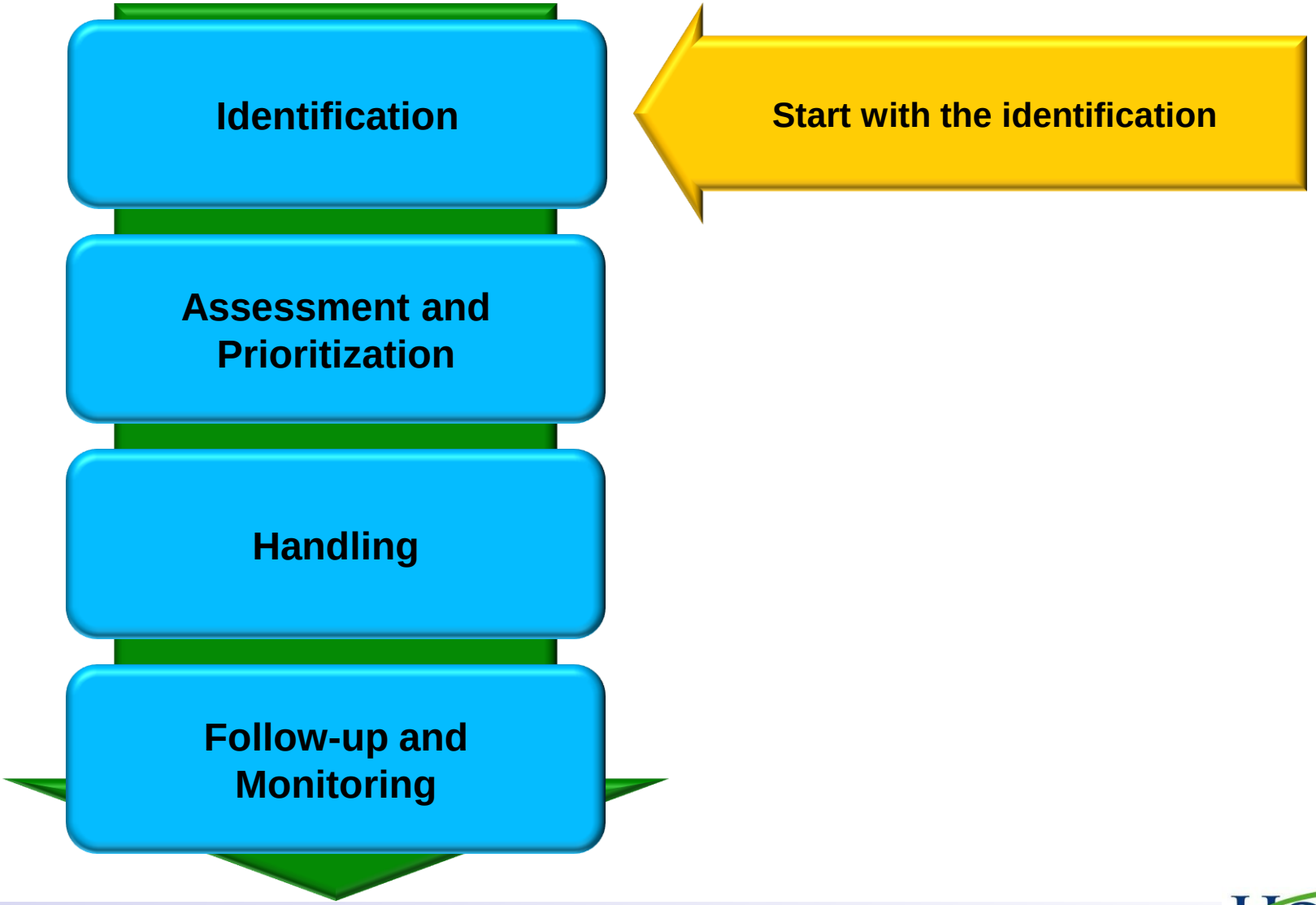
Handling

- Define ownership and use explicit combination of Early Warning measurements and active handling

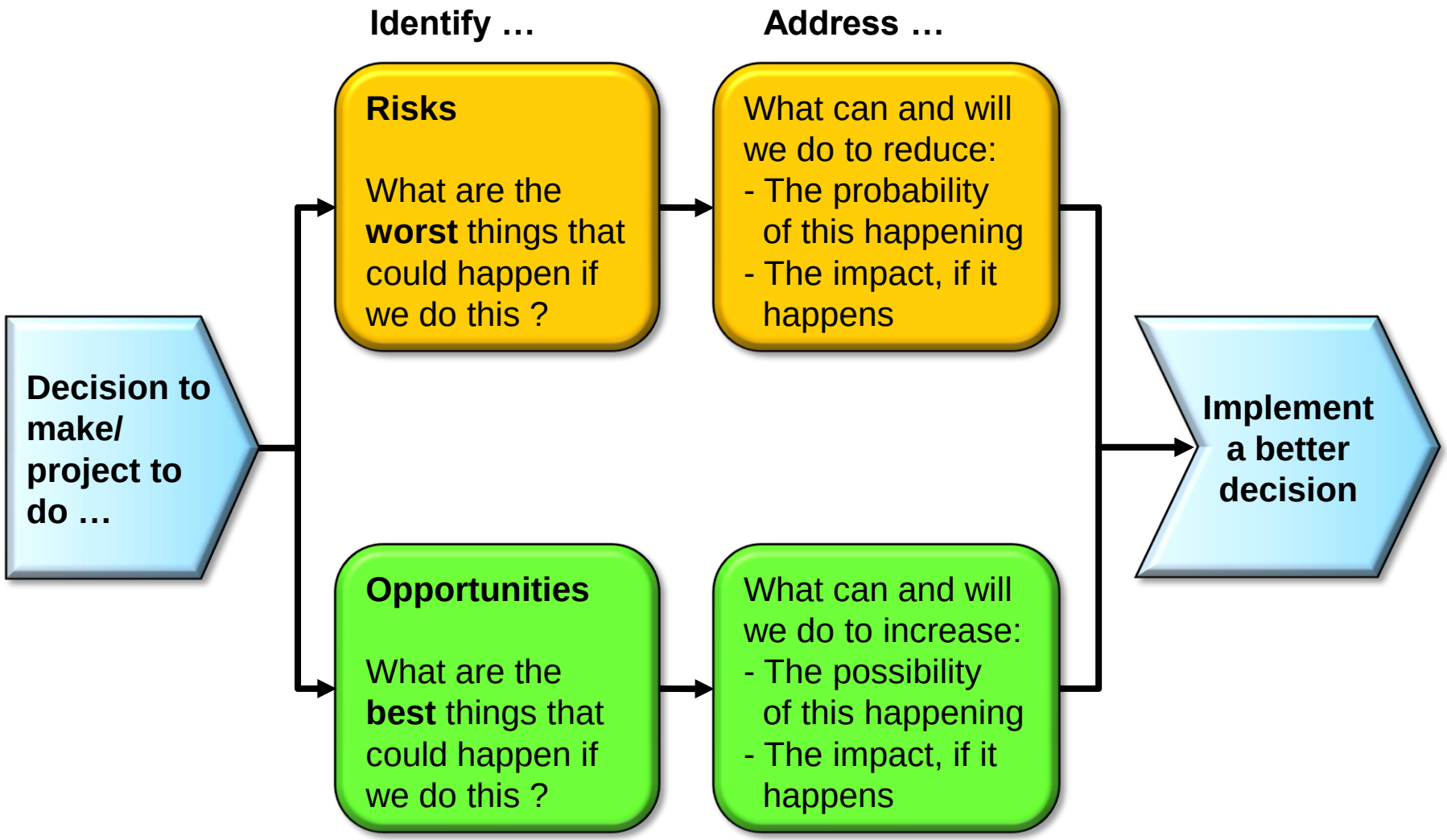
Follow-up and Monitoring

- Automatically generated and pre-defined standard business case and follow-up reporting

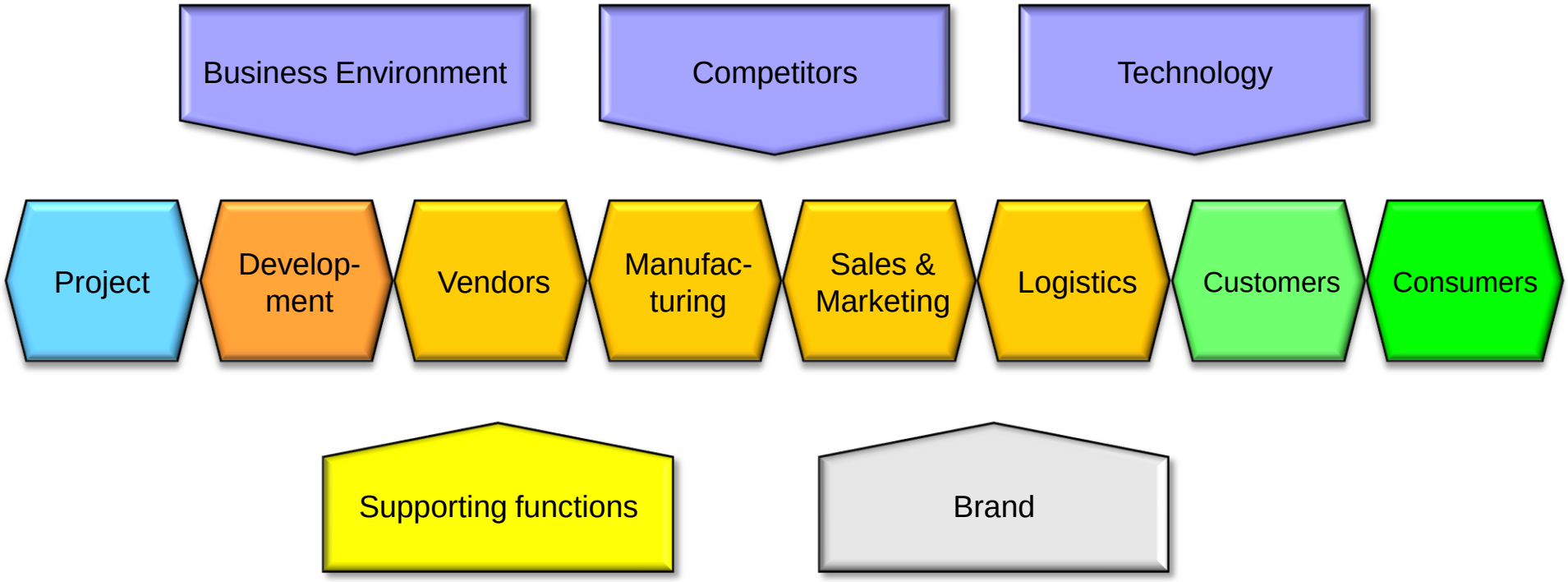
AROP will help manage project uncertainty – better and is based on a defined process flow



By failing to prepare, you are preparing to fail Benjamin Franklin



Addressing risks and opportunities can valuably be done by systematically and coherently addressing each “box”



Step 1 is the identification of risks and opportunities …

Active Risk & Opportunity Planning[3]					1 - Risk & Opportunity Identification
RIMS - Moulding Changeover Efficiency					Updated … 12 Sep
Project Target (KSF/KPI)	An IT tool for moulding operations, which is expected to reduce changeover time by 1 hr in average and hence add manufacturing capacity and reduce changeover costs. Total business potential is 40 mCAD per year. THIS IS ILLUSTRATIVE ONLY				
No.	Grouping	Risk or Opportunity	Risk Name	Issue/Description	Owner
101	Hardware	R	Resistance to operating conditions	The equipment will be running … temeparture and humidity varia… "cope" with real life thermal co…	…on
102	Hardware	R	Late delivery	The hardware is a new platform … compared to agreed plan - delaying run-in and ramp-up processes	Jones
103	Software	R	Architecture inconsistencies	The system architecture does not match the processes and drives down performance speed based on add-on work-arounds	Peterson
104	Software	R	Vendor bankruptcy	The software is from a single vendor, who's financial strength is not impressive	Olsson
105	Software	O	Pricing	The pricing of software is defined conservatively, and we may obtain … reduced price	Olsson
106	Hardware	R	Th…	…en IT equipment and moulding …ly - reducing speed	J…n
107	Process	O	Sin…	… conservatively, and may … faster than planned for	
108	Proc…	R	Changeover complexity	The new changeover pro… processes and time-con…	Andersen
1…			Flexibility	The new process proves … applicable than expecte…	Andersen
1…			Easier software maintenance	The cost and efforts of … smaller than expected	Olsson

Be very specific about the target(s) of the project

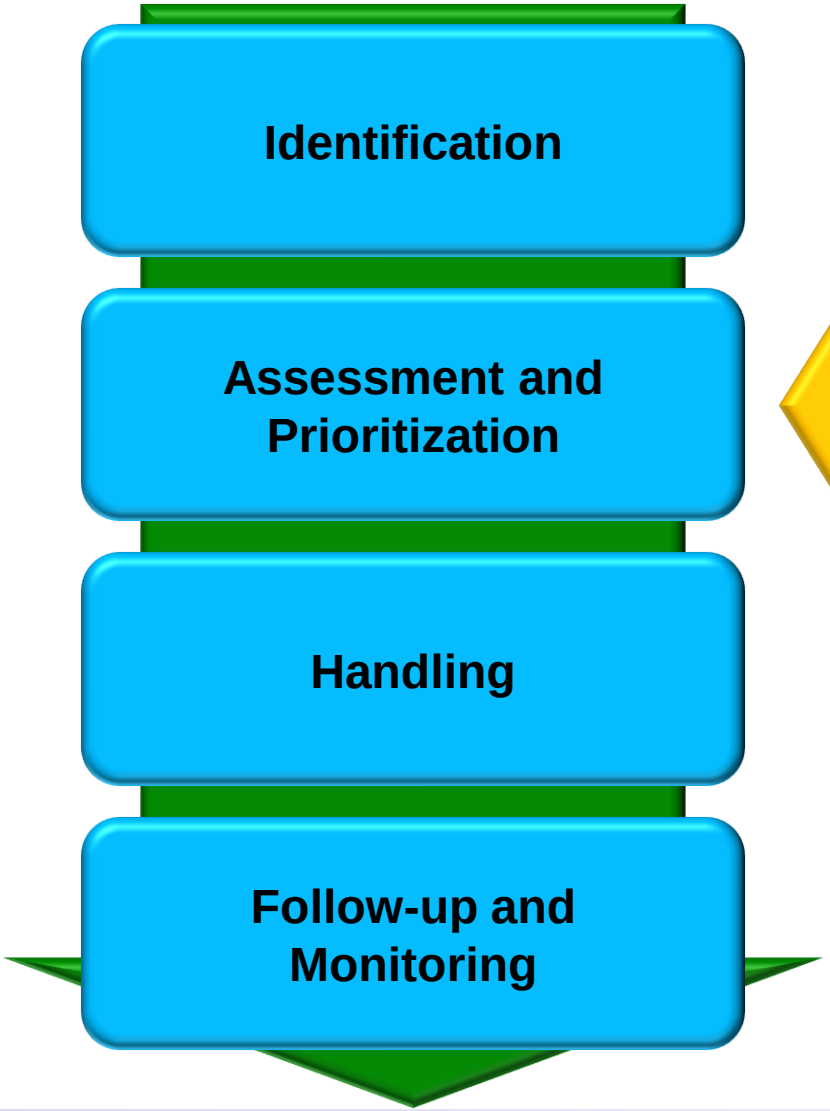
Give your risk/opportunity a telling name for reference …

very important – assign an owner

… and describe the reason this is a risk or an opportunity

You may chose to group risks and opportunities … from the outset … or later

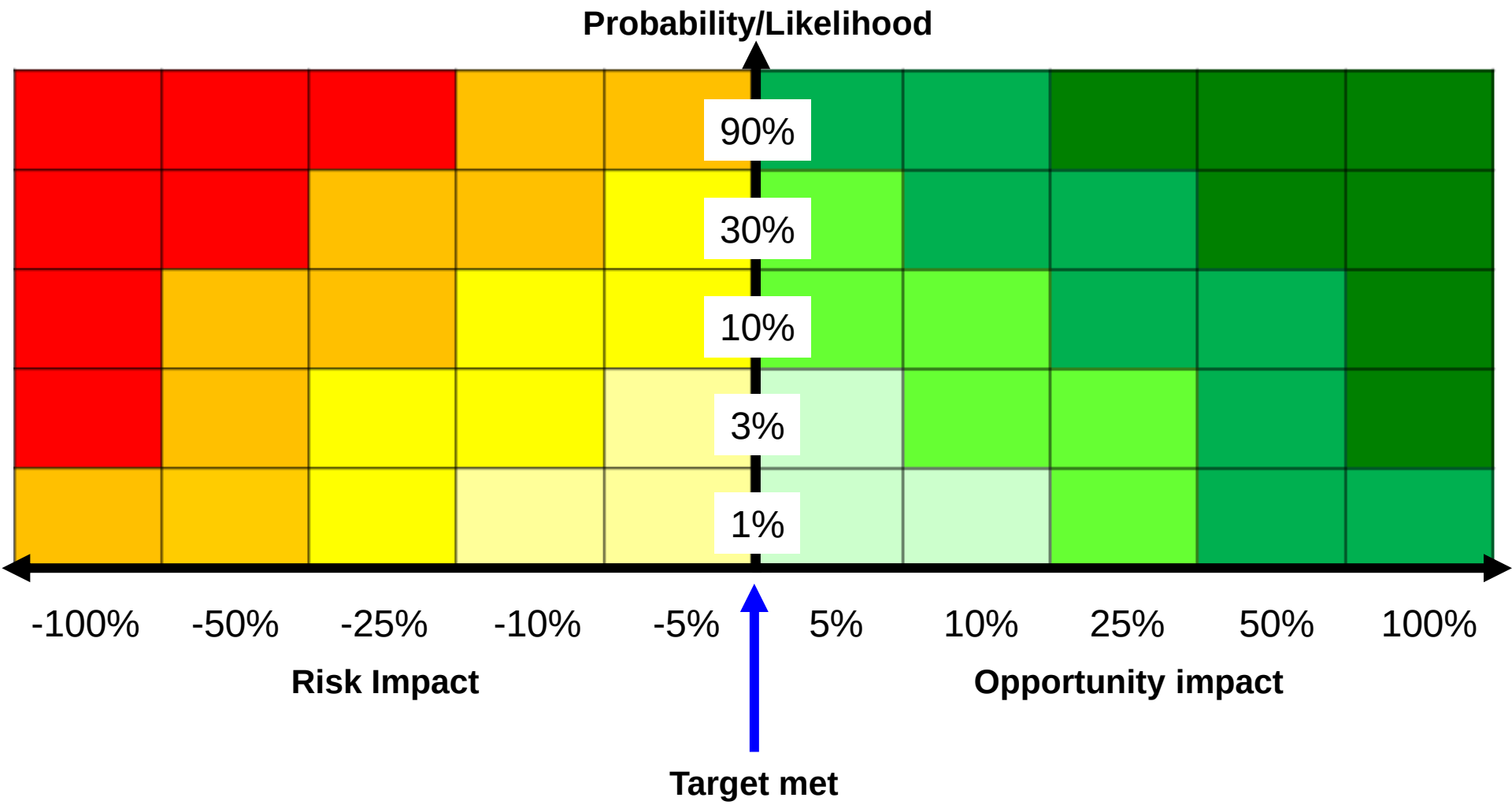
You now have a strong base for the next steps – as you know what can/will/may impact your project



- Involve all stakeholders in identifying the project uncertainties
- Look at opportunities as well as risks
- Look at the entire business system

With the uncertainties described, focus on prioritization

Introducing a map where we balance risks and opportunities



Step 2 starts with 2.1, defining scales of impact as not everything is financial and financial impact can be hard to define

Active Risk & Opportunity Planning[3]
RIMS - Moulding Changeover Efficiency

Grade	Rationale	Very High	High	Medium	Low	Very Low
Probability/ Likelihood	The very high probability is defined to be below 100% as 100% is a "sure thing" and not a risk anymore. The below scale is found by dividing by 3 to get to a 1% level.	**90%**	**30%**	**10%**	**3%**	**1%**
… meaning **Note:** This scale is presumed "fixed" for all projects		This will most likely hapen	This may very well happen, something like once in 3 years or in every 3rd project	This may happen, something like once in 10 years or in every 10th project	This is unlikely to happen, something like once in 30 years	This is very unlikely to happen, something like once in 100 years/times, **but is cannot be ignored**
Financial Impact	Generally baseline for alignment of other scales	40	mCAD			

Grade	Very High "Definition"	Very High	High	Medium	Low	Very Low
Financial Impact (DKKm)	Worst case based on zero net impact of project	App. or above 40	App. 20	App. 10	App. 5	App. or below 2
Downtime / improved uptime	Loss of profits based on operation calculate moulding	10%	5%	2%	1%	0,50%
Delay / Early ending	Calculat… po… gains			App or above 6 months	App 3 months	2 months or less
Operating efficiencies (changeover time)	Based on value of moulded components	1 hr	30 min	15 min		
Qualitative IT impact	Assessed from IT-lead	Severe master data	Between VH and M	Systems appli…		

The probability scale is "fixed" and company standard.

There is ALWAYS a financial impact. Enter this … and the scale is defined …

You MAY define additional impact scales if this supports your assessment of risks and opportunities

… this is by no means easy, but it is VERY valuable

Addressing the natural overconfidence we have as human beings … let's play a game

Once the scales are set – step 2.2 is actual assessment of the risks and opportunities

Active Risk & Opportunity Planning[3] — **2.2 - Assessment**

RIMS - Moulding Changeover Efficiency — **Updated … 12 Sep**

No.	R/O	Group	Name	Issue/Description	Owner	*Step 1* Impact	(Optional/supporting) Impact rationale	*Step 2* Probability	(Optional/supporting) Probability rationale	Priority
101	R	Hardware	Resistance to operating conditions	The equipment will be running 24/7/360 in a moulding hall with some temeparture and humidity variances - and may not be able to do "cope" with real life thermal	Jackson	H	Based on stress testing of hardware resiliance to thermal conditions	L	The 3% based on the stress testing of equipment	-2
102	R	Hardware	Late delivery	The hardware is a new platform and delivery may be delayed compared to agreed plan - delaying run-in and ramp-up processes	Jones	VL	Delivery not assumed delaed more than one month	L	Even 1 month delay is unlikely based	-4
103	R	Software	Architecture inconsistencies	The system architecture does not match the processes and drives down performance speed based on add-on work-arounds	Peterson	VH	If architecture is inadquate, work-asounds will easily "eat up" the expected improvements	M	Architecture is validated by outside sources, some of whom are cautious	-1
104	R	Software	Vendor bankruptcy	The software is from a single vendor, who's financial strength is not impressive	Olsson	L	May postpone delivery from alternative vendor or internal redo by 3 months	L	Based on external vendor credit rating	-3
105	O	Software	Pricing	The pricing of software is defined conservatively, and we may obtain a reduced price	Olsson	L	Software is 70% of total budget, an… reduction may be 15-20%, i.e. 5…	M	Not planned for - but potentially obtainable	3
106	R	Hardware	The connection to moulding equipment does not perform	The connection/data link between IT equipment and moulding machine does not work optimally - reduci… speed	Jac…	M	Potential speed reduction … minutes	H	Link is newly developed and reference and/or test data are inadequate	-2
107	O	Process	Simplified changeover	The new changeover pro… defined conservativel… faster than plan…	Andersen			M	This is not considered "out…	1
108	R	Process	Changeover complexity	The new ch… does	Andersen			L		-3
109	O	Process			…dersen	H	If process will be applicable to more machines - impact increases	M		2
110	O	Software			…sson	L	Maintenance costs are small compared to project spending	M	May very well be, but not considered likely	3
111	R	Other			…mith	H	Complexity may reduce to only most …	L	Not expected based on desktop design of …	-2

With the scales set – define (i.e. essentially decide on) the impact first … **and** describe the rationale behind the assessment…

… and **then** define/assess the likelihood that this happens … including a defined rationale

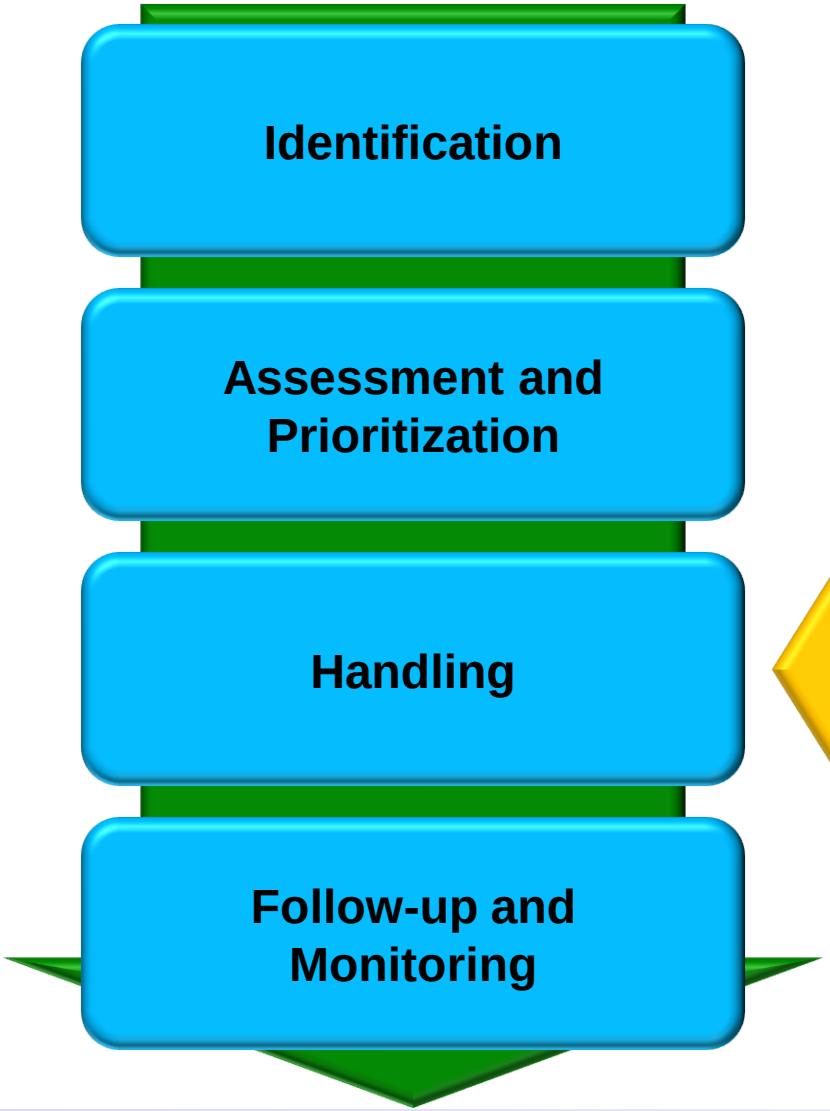
The combination of probability and impact automatically provides a priority

Step 3 is "automatic" and providing you with a prioritization of risks and opportunities

No.	Group	R/O	Name	Issue/Description	Owner	Impact	Probability	Priority	Sort order
107	Process	O	Simplified changeover	The new changeover process is defined conservatively, and may be faster than planned for	Andersen	VH	M	1	1O
103	Software	R	Architecture inconsistencies	The system architecture does not match the processes and drives down performance speed based on add-on work-arounds	Peterson	VH	M	-1	1R
109	Process	O	Flexibility	The new process proves to be more flexible and more widely applicable than expected	Andersen	H	M	2	2O
101	Hardware	R	Resistance to operating conditions	The equipment will be running 24/7/360 in a moulding hall with some temeparture and humidity variances - and may not be able to do "cope" with real life thermal conditions	Jackson	H		-2	2R
106	Hardware	R	The connection to moulding equipment does not perform	The connection/data link between IT equipment and moulding machine does not work optimally reducing speed	Jackson		H	-2	2R
111	Other	R	Decreased flexibility	The new changeover process drives complexity in planning and reduce capacity flexibility and hence utilization and deliverability			L	-2	2R
105	Software	O	Pricing	The pricing of software is defined conservatively and we may obtain a reduced price			M	3	3O
110	Software	O	Easier software maintenance	The cost and efforts of continuous system maintenance proves smaller than expected	Olsson	L	M	3	3O
108	Process	R	Changeover complexity	The new changeover process does not fully match operational processes and time-consuming work-arounds limit benefit	Andersen	L	L	-3	3R
104	Software	R	Vendor bankruptcy	The software is from a single vendor, who's financial strength is not impressive	Olsson	L	L	-3	3R
102	Hardware	R	Late delivery	The hardware is a new platform and delivery may be delayed compared to agreed plan - delaying run-in and ramp-up processes	Jones	VL	L	-4	4R

This is sorting support ensuring sequencing of priorities prior to risks/opportunities.

AROP will help manage the project uncertainty - better



- Involve all stakeholders in identifying uncertainties
- Look at opportunities as well as risks
- Look at the entire business system

- **Base assessments on coherent and well-defined impact and probability scales**
- **Consolidate across multiple scales of impact**
- **Set priorities based on two dimensions**

Now, we decide to do something about it

Step 4 is deciding, who is what about the risks and opportunities …

Active Risk & Opportunity Planning[3]					4 - Handling
RIMS - Moulding Changeover Efficiency					Updated … 12 Sep
				Decided/implemented Handling Approaches/Actions	
No.	Name	Priority	Owner	**Early Warning Indicator** (Who does what monitoring to enable timely action	**Actions** (Who is doing what to minimize risks and/or maximize opportunities)	**Timing/ Status/ Cadence**
101	Resistance to operating conditions	-2	Jackson	Operating thermal conditions continuously monitored and documented	Further stress testing based on 99% extreme thermal conditions	2012
					Task force designated to address issue if it materializes	Done
					Backup equipment ready and available	2012
102	Late delivery	-4	Jones	Del ery agreement with vendor	Follow-up on delivery	Ongoing
103	Architecture inconsistencies	-1	Peterson		Validate and test architecture	2012
104	Vendor bankruptcy	-3	Olsson	ange of credit rating	Prepare, in extreme cases, to buy out vendor (small company)	2012
105	Pricing	3	Olsson		Negotiate vigurously	2013
106	The connection to moulding equipment does not perform	-2	Jackson	Operatinal monitoring	Pre-installment testing in real-life thermal conditions	2012
					D ate taskforce to address issue	
107	Simplified changeover	1		Monitor actual changeover time	to further oll-out application of	
108	Changeover comple			Monitor a implemer		
109	Flexibility			Monitor a implemer	ep roll-	
					r fast sc	

Define any potential warning signals, we can benefit greatly from monitoring …

… and as precisely as you need … define what is being done to manage/optimize the risk/opportunity …

… and optionally … by when this has to be done

… where you have a number of generic options, which you can make explicit and tailored to your project

Managing risks	Managing opportunities
• **Eliminate** … is there anything we can do to get rid of the risk? This is highly effective if possible – but rarely a true option (if I want to see the world, I need to cross the road).	• **Create** … is there anything you can do to create an opportunity, which was not considered in the project scoping (but which was now identified as yet another possibility).
• **Reduce probability** … this is like looking for traffic before crossing the road (it does not reduce the impact, if you are hit anyway, but is does reduce the "chance" of being hit).	• **Increase probability** … e.g. test for consumer responses to increase certainty of consumer affinity and "buy-in".
• **Reduce impact** … this is like wearing a helmet on your bicycle (this does not reduce the probability that you fall, but it does reduce how much you are hurt if you fall).	• **Increase impact** … e.g. ensuring capacity to deliver even if/when demand exceeds expectations.
• **Transfer** … this is generically paying someone else to take the risk i.e. buy an insurance. Hedging is also a risk "transfer" mechanism.	• "**Buy in**" … this is less common, but is seen in the financial markets. Includes applying bonus programs/profit sharing etc. The use of options may be a used "mechanism".
• **Accept** … in the end, there is a level of risk you (have to) chose to accept. If this is still "too high" you need to do more on the above risk mitigation.	• **Accept** … in the end, there is a level of opportunity you have. If this is still too low, you'll have to do more on the above opportunity instigation.

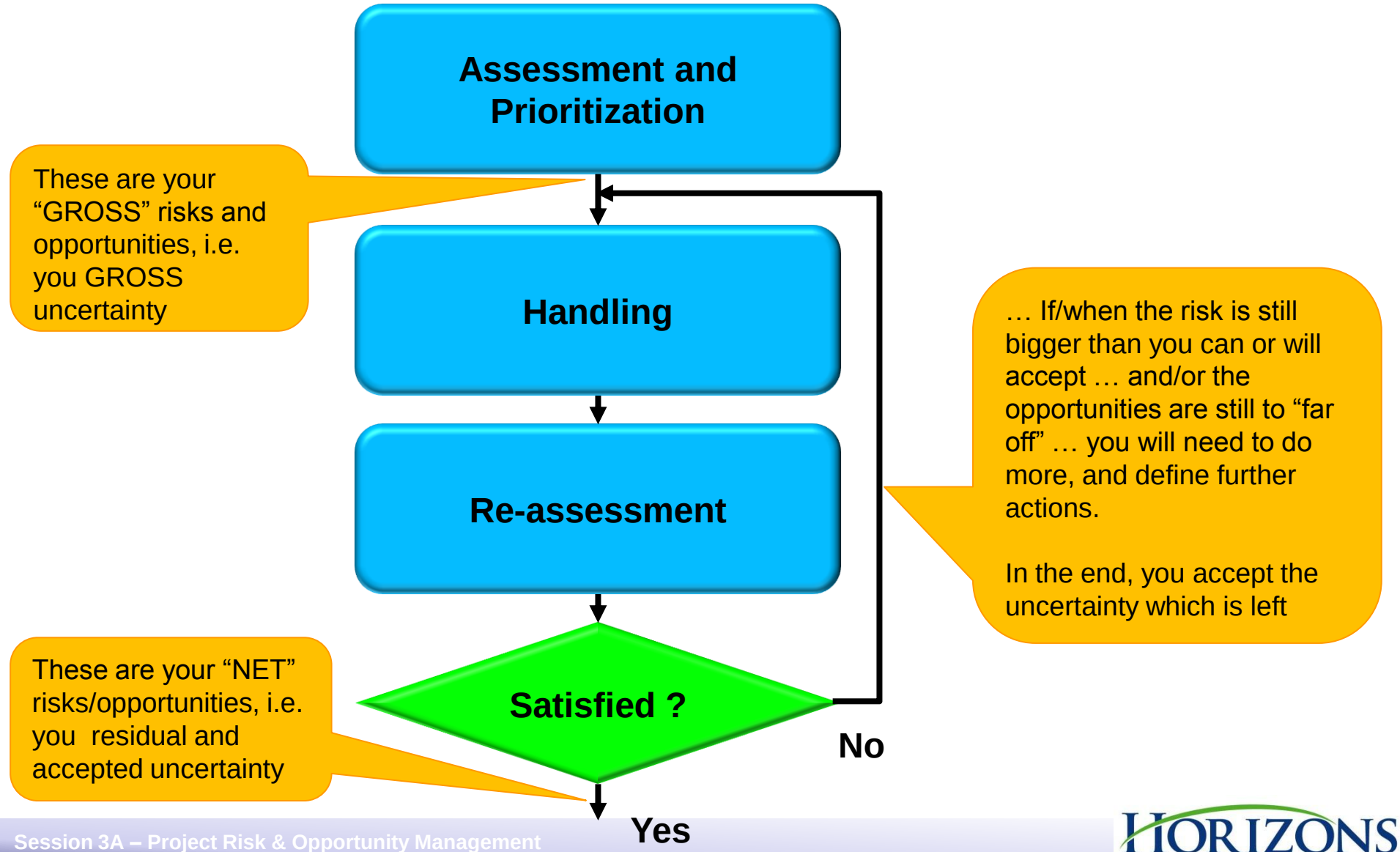
Step 5 is a re-assessment, where we include the effect of all the things we have do to manage the risks and opportunities

Active Risk & Opportunity Planning[3]										5 - Re-assessment
RIMS - Moulding Changeover Efficiency										Updated … 12 Sep
		Gross Assessment (before handling)				Decided/Implemented Handling		Net Assessment (after decided handling)		
No.	Name	Impact	Probability	Priority	Owner	Early Warning Indicators	Actions Taken	Impact	Probability	Priority
101	Resistance to operating conditions	H	L	-2	Jackson	Operating thermal conditions continuously monitored and documented	Further stress testing based on 99% extreme thermal conditions Task force designated to address issue if it materializes Backup equipment ready and available	L	VL	-4
102	Late delivery	VL	L	-4	Jones	Delivery agreement with vendor	Follow-up on delivery		L	-4
103	Architecture inconsistencies	VH	M	-1	Peterson		Val			-2
104	Vendor bankruptcy	L	L	-3	Olsson	Change of credit rating	Prep buy out vendor (small company)			-4
105	Pricing	L	M	3	Olsson		Negotiate vigurously	H	H	1
106	The connection to moulding equipment does not perform	M	H	-2	Jackson	Operatinal monitoring	Pre-installment testing in real-life thermal conditions Designate taskfo issue	L	L	-3
107	Simplified changeover	VH	M	1	Andersen	Monitor actual changeover time	Prepare to furth application of n			1
108	Changeover complexity	L	L	-3	Andersen	Monitor actual performance on pilot implementation				-3

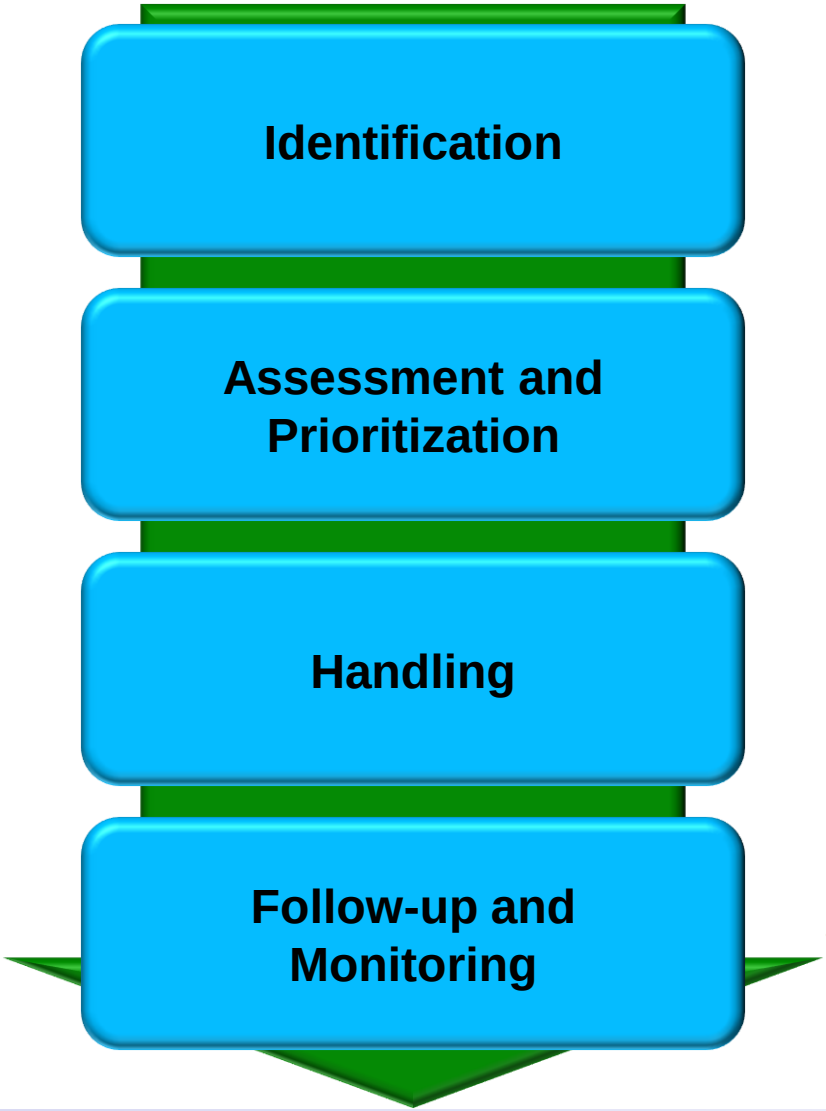
… with all the things, we have done – assess what is now our exposure/upside …

… and the priority level is automatically updated

This may lead to a series of loops, before we are “content”



AROP will help manage the project uncertainty - better



- Involve all stakeholders in identifying uncertainties
- Look at opportunities as well as risks
- Look at the entire business system

- Base assessments on coherent and defined scales
- Consolidate across multiple scales of impact
- Set priorities based on two dimensions

- **Identify and use “early warning” indicators**
- **Assign risk owners to each risk to ensure action**
- **Address handling impact and validate if this is enough**

Finally – the follow through

Step 6 is a follow-up, where you for gate/milestone meetings update your risk portfolio based on current status

Active Risk & Opportunity Planning$_3$									6 - Follow-Up
RIMS - Moulding Changeover Efficiency									Updated … 12 Sep
				Net Assessment (after handling)				Follow-Up Data	
No.	Group	Name	Owner	Impact	Probability	Priority	Status	Resulting Impact	Comments
101	Hardware	Resistance to operating conditions	Jackson	L	VL	-4	Waiting		
102	Hardware	Late delivery	Jones	VL	L	-4	Resolved	None	Delivery of equipment made on time
103	Software	Architecture inconsistencies	Peterson	H	L	-2	Waiting		Tests performed with success
104	Software	Vendor bankruptcy	Olsson	L	VL	-4	Active		
105	Software	Pricing	Olsson	H	H	1	Resolved	M	We have obtained a saving of 9,4 mCAD
106	Hardware	The connection to moulding equipment does not perform	Jackson	L	L	-3	Waiting		
107	Process	Simplified changeover	Andersen	VL	H	1	Waiting		
108	Process	Changeover complexity	Andersen		L	-3	Waiting		
109	Process	Flexibility	Andersen	H	M	1	Waiting		
110	Software	Easier software maintenance	Olsson	L	H	2	Waiting		
111	Other			L	L	-3	Waiting		

A risk/opportunity can be either:

- **Waiting**, i.e. relevant, but not yet
- **Active**, i.e. it can happen any day now
- **Resolved**, i.e. it can no longer happen

If the risk/opportunity is “resolved”, we know the outcome …

… and can show this – plus comment on the status…

The “Map” sheet provides you with an overview – which you can directly copy/paste into your business case document

Active Risk & Opportunity Planning$_3$ — **Risk and Opportunity Mapping**

RIMS - Moulding Changeover Efficiency — **Updated … 12 Sep**

Gross Risk and Opportunities (before handling)

Impact / Probability	Risks VH	Risks H	Risks M	Risks L	Opportunities
VH (90%)					
H (30%)			1		
M (10%)	1				
L (3%)					
VL (1%)					

A GROSS map, with a count of risks and opportunities in each cell – before mitigation

…

Current Risk and Opportunities (after handling and risk/opportunities being resolved/unforeseen)

Impact / Probability	Risks VH	Risks H	Risks M	Risks L	Risks VL	Opportunities VL	Opportunities L	Opportunities M	Opportunities H	Opportunities VH
Did Happen								1		
VH (90%)										
H (30%)							1			1
M (10%)										1
L (3%)		1		3						
VL (1%)				2						

Net Risk and Opportunities (after handling)

Impact / Probability	Risks VH	Risks H	Risks M
VH (90%)			
H (30%)			
M (10%)			
L (3%			
VL (			

… and a “current” (net) risk map and overview with the status knowing that some risks have been resolved.

Count Number of …	Gross	Net	Current Net	Did Happen	Did not Happen
- Risks	7	7	6		1
- Opportunities	4	4	3	1	

The “overview” sheet provides you with a pivot-table of risks and opportunities, to be copy/pasted into your business case document

Active Risk & Opportunity Planning[3]					Risks & Opportunities
RIMS - Moulding Changeover Efficiency					Updated … 12 Sep

Group & Risk/Opportunity	Priotitization Gross Priority	Priotitization Net Priority
Hardware		
101 - Resistance to operating conditions	-2	-4
102 - Late delivery	-4	-4
106 - The connection to moulding equipment does not perform	-2	-3
Software		
103 - Architecture inconsistencies	-1	-2
104 - Vendor bankruptcy	-3	-4
105 - Pricing	3	1
110 - Easier software maintenance	3	2
Process		
107 - Simplified changeover	1	1
108 - Changeover complexity	-3	-3
109 - Flexibility	2	1
Other		
111 - Decreased flexibility	-2	-3

Owner & Risk/Opportunity	Priotitization Gross Priority	Priotitization Net Priority
Jackson		
101 - Resistance to operating conditions	-2	-4
106 - The connection to moulding equipment does not perform	-2	-3
Jones		
102 - Late delivery	-4	-4
Peterson		
103 - Architecture inconsistencies	-1	-2
Olsson		
104 - Vendor bankruptcy	-3	-4
105 - Pricing	3	1
110 - Easier software maintenance	3	2
Andersen		
107 - Simplified changeover	1	1
108 - Changeover complexity	-3	-3
109 - Flexibility	2	1
Smith		
111 - Decreased flexibility	-2	-3

One survey based on the defined grouping – showing each group and their risks/opportunities as well as gross/net priority …

… plus a similar overview based on ownership

The “light report” sheet provides a full listing of selected key data for the risk portfolio, and allow e.g. filtering

Active Risk & Opportunity Planning[3]													Risk & Opportunity Portfolio Report
RIMS - Moulding Changeover Efficiency													Updated … 12 Sep
				Gross Assessment (before handling)			Decided / Implemented Handling		Net Assessment (after handling)				
Risk Group	Risk No	Name	Owner	Impact	Probabili	Priority	Early Warning Indicators	Actions Taken	Impact	Probabili	Priority	Current Status
Hardware	101	Resistance to operating conditions	Jackson	H	L	-2	Operating thermal conditions continuously monitored and documented	Further stress testing based on 99% extreme thermal conditions Task force designated to address issue if it materializes Backup equipment ready and available	L	VL	-4	Waiting
Hardware	106	The connection to moulding equipment does not perform	Jackson	M	H	-2	Operatinal monitoring	Pre-installment testing in real-life thermal conditions Designate taskforce to address issue	L	L	-3	Waiting
Other	111	Decreased flexibility	Smith	H	L	-2	Monitor actual performance on pilot implementation	Revise implementation plan Designate taskforce to re-design process and tools if need be	L	L	-3	Waiting
Process	107	Simplified changeover	Andersen	VH	M	1	Monitor actual changeover time	Prepare to further oll-out application of new process	VH	H	1	Waiting
Process	108	Changeover complexity	Andersen	L	L	-3	Monitor actual performance on pilot implementation		L	L	-3	Waiting
Process	109	Flexibility	Andersen	H	M	2	Monitor actual performance on pilot implementation	Pre-define next step roll-out based on efficiency criteria Pre-define plan for fast scaling	VH	M	1	Waiting
Software	103	Architecture inconsistencies	Peterson	VH	M	-1		Validate and test architecture	H	L	-2	Waiting
Software	104	Vendor bankruptcy	Olsson	L	L	-3	Change of credit rating	Prepare, in extreme cases, to buy out vendor (small company)	L	VL	-4	Active
Software	110	Easier software maintenance	Olsson	L	M	3		Re-negotiate maintenance agreement based on predefined criteria	L	H	2	Waiting

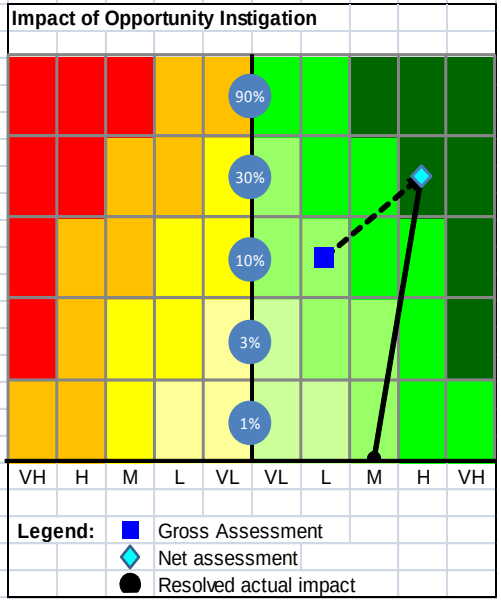
… and the "Report" sheet provide you with a full-page report on any single risk/opportunity - a potential business case appendix

Active Risk & Opportunity Planning[3]

RIMS - Moulding Changeove **Updated … 12 Sep**

Opportunity Name	105	**Pricing**
- Grouping		Software
- Owner		Olsson
Description		The pricing of software is defined conservatively, and we may reduced price
Gross Assessment		
- Impact	L	Software is 70% of total budget, and a price reduction may be 15-20%, i.e. 5 mCAD
- Probability/Likelihood	M	Not planned for - but potentially obtainable
= Priority	3	*Minus indicates it's a risk, plus indicates it's an oppotunity*
Handling		
- Early Warnings		
- Opportunity instigation		Negotiate vigurously
- Timing/Cadence		2013
Net Assessment		
- Impact	H	
- Probability/Likelihood	H	
= Priority	1	*Minus indicates it's a risk, plus indicates it's an oppotunity*
Status	Resolved	
Impact and comments	M	We have obtained a saving of 9,4 mCAD

This is based 100% of the data already entered. Hence by changing the number, all the data as well as the graphics changes automatically



The SRM team can further support the portfolio reporting by adding Monte Carlo simulation, which is embedded in the tool

Active Risk & Opportunity Planning$_2$ — **Monte Carlo Simulation of Risk Exposure**

RIMS - Moulding Changeover Efficiency — **Updated … 12 Sep**

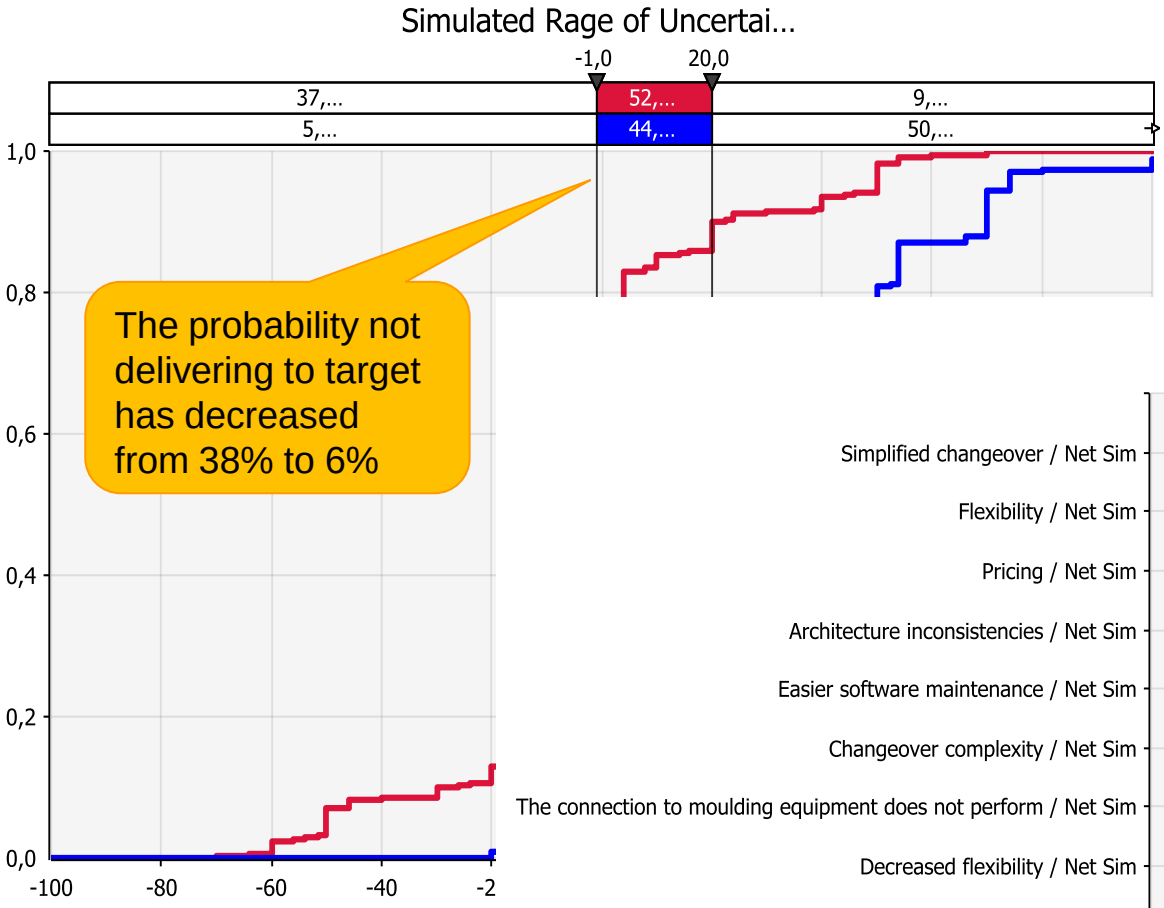
No	Risk/ Opportunity	Gross Impact	Gross Probability	Net Impact	Net Probability	Status	Actual Impact	Name	Gross Sim	Net Sim	Now Sim
101	-1	20	3%	4	1%	Waiting	0	Resistance to operating conditions	0	0	0
102	-1	1,5	3%	1,5	3%	Resolved	0	Late delivery	0	0	0
103	-1	50	10%	20	3%	Waiting	0	Architecture inconsistencies	0	0	0
104	-1	4	3%	4	1%	Active	0	Vendor bankruptcy	0	0	0
105	1	4	10%	20	30%	Resolved	10	Pricing	0	0	10
106	-1	10	30%	4	3%	Waiting	0	The connection to moulding equipment (	-10	0	0
107	1	50	10%	50	30%	Waiting	0	Simplified changeover	0	50	50
108	-1	4	3%	4	3%	Waiting	0	Changeover complexity	0	0	0
109	1	20	10%	50	10%	Waiting	0	Flexibility	0	0	0
110	1	4	10%	4	30%	Waiting	0	Easier software maintenance	0	0	0
198	0	0	0%	0	0%		0	0	0	0	0
199	0	0	0%	0	0%		0	0	0	0	0
200	0	0	0%	0	0%		0	0	0	0	0
								Simu Total Exposure	-10	50	60

All impact is “translated” into money … gross as well as net and current

In this particular “scenario” this risk happened

The software calculates and saves the result of all the (many) scenarios

… which can then be documented as the risk/opportunity profile

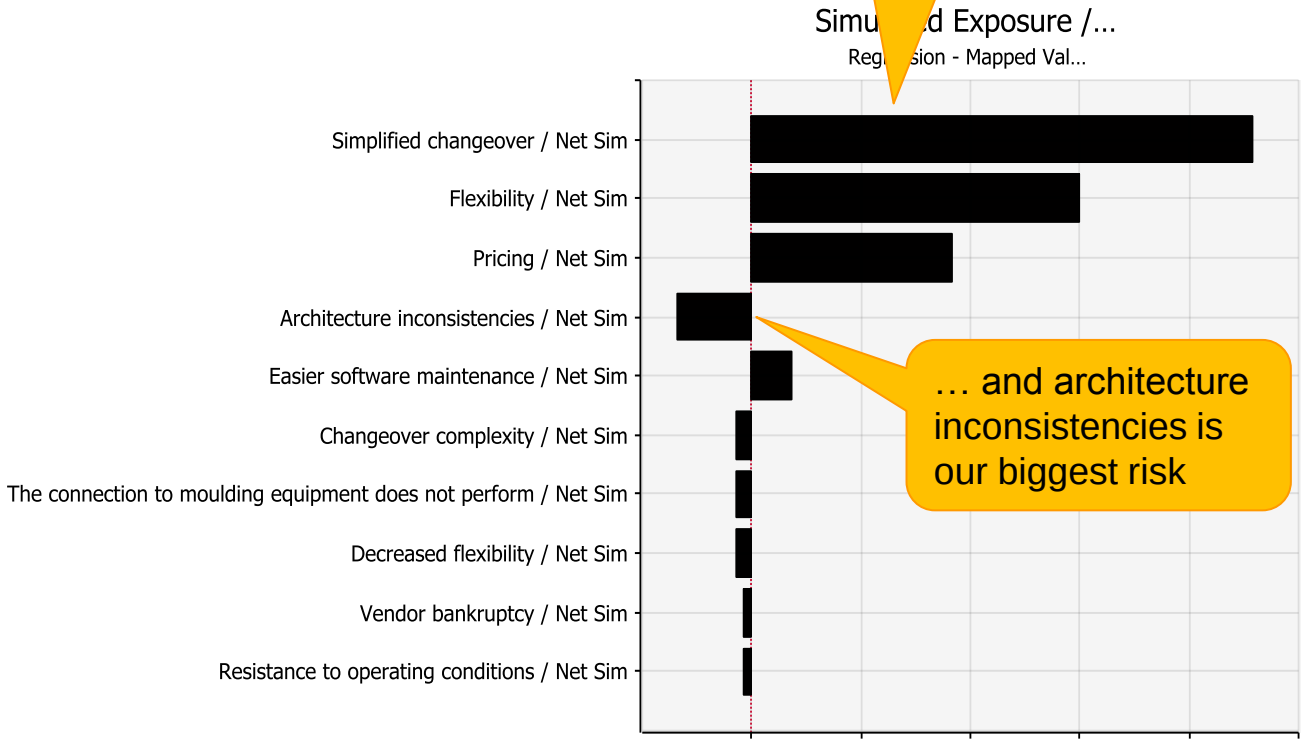


The probability not delivering to target has decreased from 38% to 6%

Net, we have the better than target handling, this was

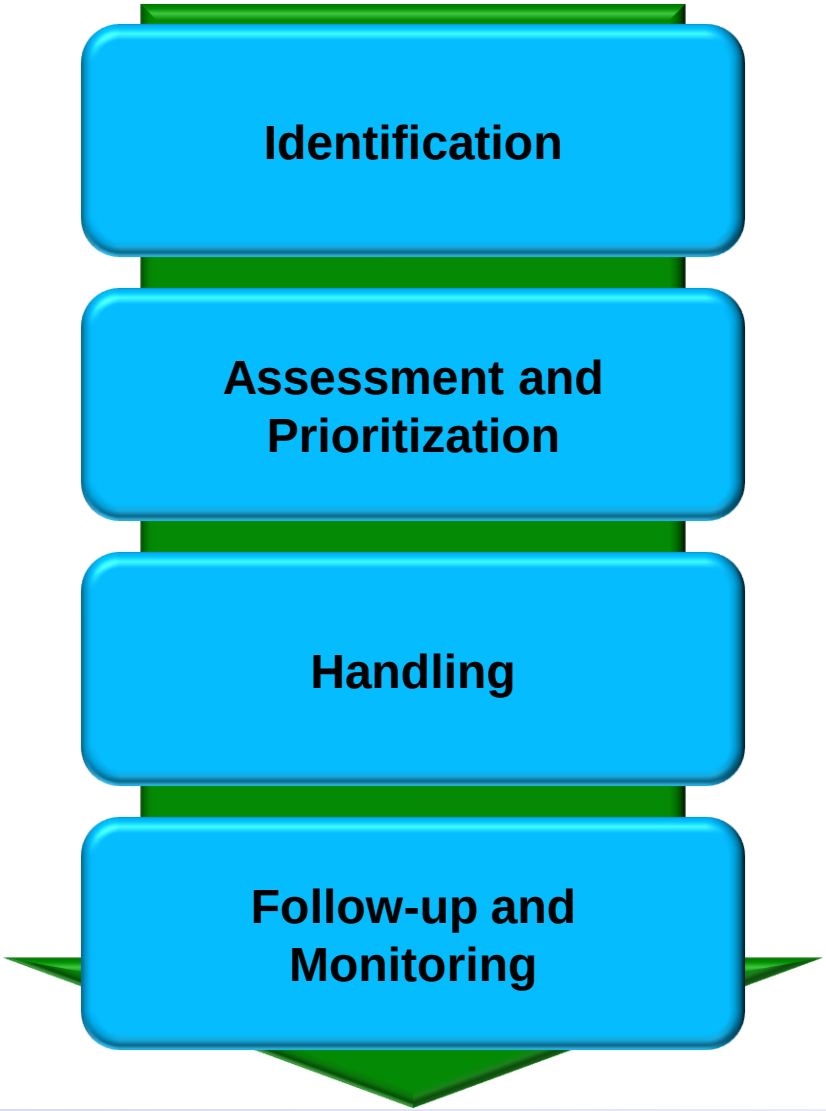
The net uncertainty is driven by three huge opportunities

…



… and architecture inconsistencies is our biggest risk

AROP will help manage the project uncertainty - better



- Involve all stakeholders in identifying uncertainties
- Look at opportunities as well as risks
- Look at the entire business system

- Base assessments on coherent and defined scales
- Consolidate across multiple scales of impact
- Set priorities based on two dimensions

- Identify and use “early warning” indicators
- Assign risk owners to each risk to ensure action
- Address handling impact and validate if this is enough

- **Monitor changes as project is progressing**
- **Standard reporting to the business case as well as project reports**
- **Enable Monte Carlo simulation “on demand”**

This is a lot to remember – but fear not, the tool includes a "how to..", and each sheet is provided with a supporting text …

Active Risk & Opportunity Planning[3]					**1 - Risk & Opportunity Identification**	
RIMS - Moulding Changeover Efficiency					**Updated … 12 Sep**	
Project Target (KSF/KPI)	An IT tool for moulding operations, which is expected to reduce changeover time by 1 hr in average and hence add manufacturing capacity and reduce changeover costs. Total business potential is 40 mCAD per year. THIS IS ILLUSTRATIVE ONLY					
No.	**Grouping**	**Risk or Opportunity**	**Risk Name**	**Issue/Description**	**er**	
101	Hardware	R	Resistance to operating conditions	The equipment will be ru… temeparture and humidit… "cope" with real life therm…	…son	
102	Hardware	R	Late delivery	The hardware is a new platform and delivery may be delayed compared to agreed plan - delaying run-in and ramp-up processes	Jones	
103	Software	R	Architecture inconsistencies	The system architecture does not match the processes and drives down performance speed based on add-on work-arounds	Peterson	
104	Software	R	Vendor bankruptcy	The software … impressive	…on	
105	Software	O	Pricing	The pricing of … a reduced pric…	…on	
106	Hardware	R	The connection to moulding equipment does not perform	The connectio… machine does not work optimally - reducing speed	…son	
107	Process	O	Simplified changeover	The new changeover process is defined conservatively, and may be faster than planned for	Andersen	
108	Process	R	Changeover complexity	The new changeover process does not fully match operational processes and time consuming work-arounds limit benefit	Andersen	
109	Process	O	Flexibility	The new proc… applicable tha…	…rsen	
110	Software	O	Easier software maintenance	The cost and … smaller than …	…on	
111	Other	R	Decreased flexibility	The new char… reduce capac…		

The purpose of the step is defined …

… and a recommendation to the process is outlined

… as well as a description of the data collection and update of the tool

Step 1 - Identification

The **purpose** of this step is to get a listing of all the risks and opportunities that may impact the outcome of the project … vis a vis the defined project target.

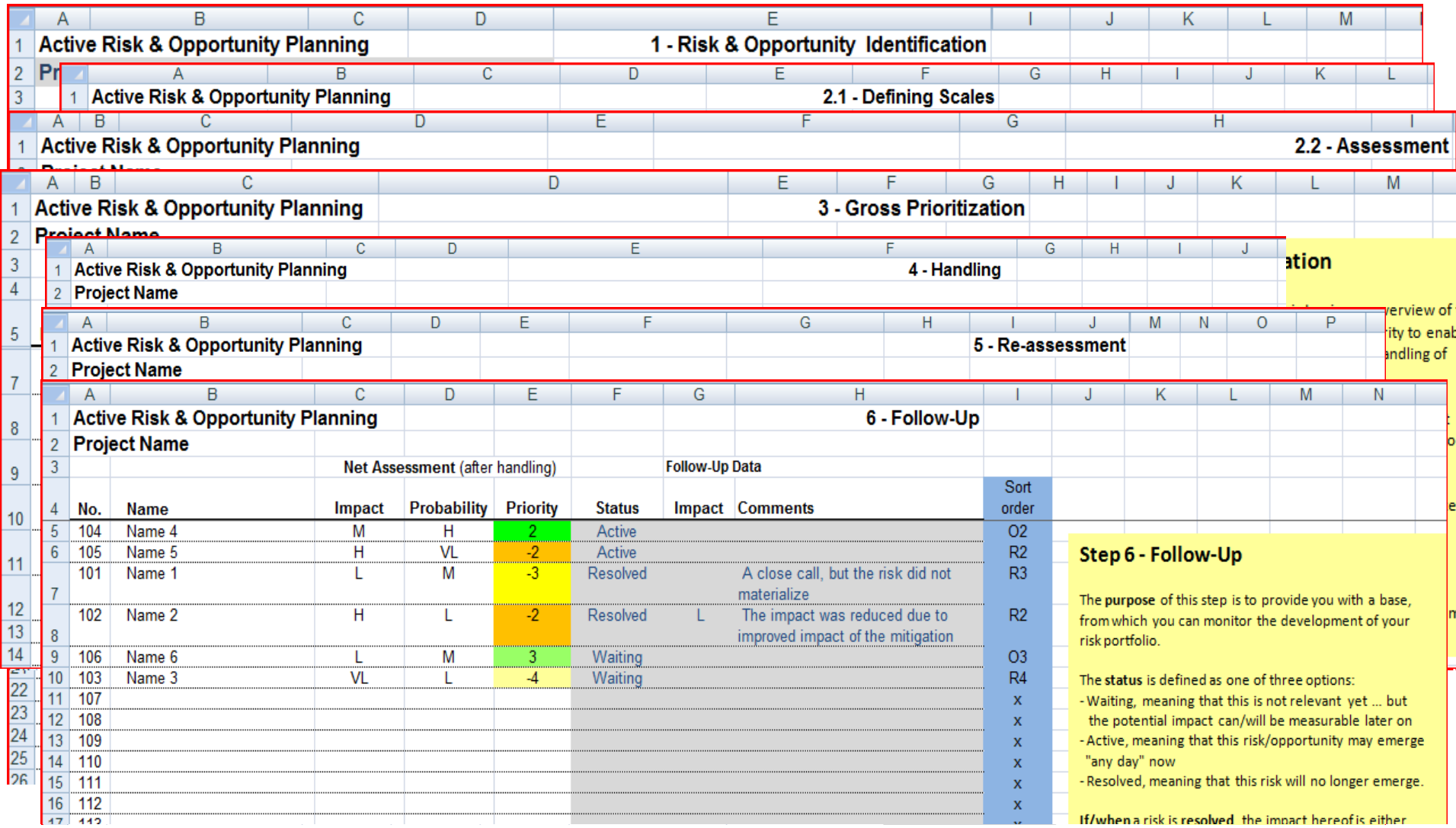
The **definition** is suggested done via a "post-it" approach where a range of relevant people are "called in" and give input as to which risks and opportunities they see

It is important to note that these should be found holisticly, and hence either look at the full business system … or use some other base for defining the full risk/pportunity impact of the project

Note - for some issues you may have a risk as well as an opportunity. These have to be entered as two separate entities and unfortunately we have currently no way of linking these (i.e. ensuring that if A happens, B will not happen)

Preliminarily, the project owner may enter the

… on all of them



Active Risk & Opportunity Planning — 1 - Risk & Opportunity Identification

Active Risk & Opportunity Planning — 2.1 - Defining Scales

Active Risk & Opportunity Planning — 2.2 - Assessment

Active Risk & Opportunity Planning — 3 - Gross Prioritization

Active Risk & Opportunity Planning — 4 - Handling

Project Name

Active Risk & Opportunity Planning — 5 - Re-assessment

Project Name

Active Risk & Opportunity Planning — 6 - Follow-Up

Project Name

			Net Assessment (after handling)				Follow-Up Data		Sort
	No.	Name	Impact	Probability	Priority	Status	Impact	Comments	order
5	104	Name 4	M	H	2	Active			O2
6	105	Name 5	H	VL	-2	Active			R2
7	101	Name 1	L	M	-3	Resolved		A close call, but the risk did not materialize	R3
8	102	Name 2	H	L	-2	Resolved	L	The impact was reduced due to improved impact of the mitigation	R2
9	106	Name 6	L	M	3	Waiting			O3
10	103	Name 3	VL	L	-4	Waiting			R4
11	107								x
12	108								x
13	109								x
14	110								x
15	111								x
16	112								x

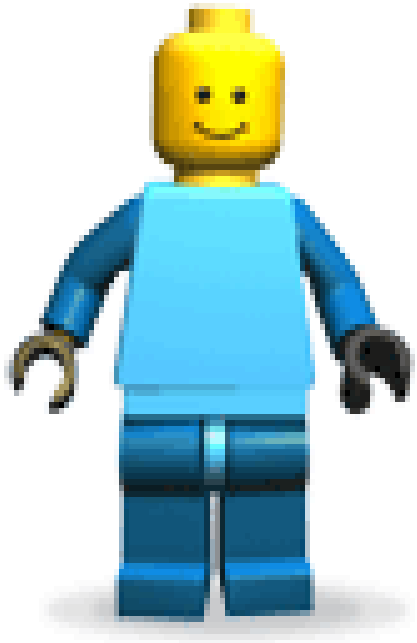
Step 6 - Follow-Up

The **purpose** of this step is to provide you with a base, from which you can monitor the development of your risk portfolio.

The **status** is defined as one of three options:
- Waiting, meaning that this is not relevant yet … but the potential impact can/will be measurable later on
- Active, meaning that this risk/opportunity may emerge "any day" now
- Resolved, meaning that this risk will no longer emerge.

If/when a risk is **resolved**, the impact hereof is either

This takes us from “damage control” to actively managing uncertainty … at documented best in class performance



Thank You

Enjoy the rest of the 2012 RIMS Canada Conference!