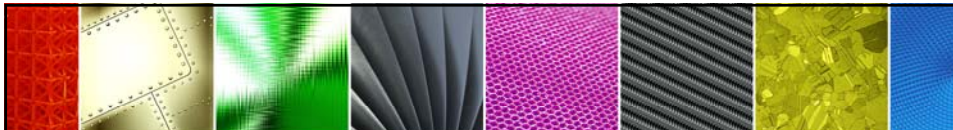


## Agenda – day 2

Time	Duration	Session	Session Lead
9:00 AM	00:30	Member update 4	KSPG
9:30 AM	01:00	Technical session 4 - Workflow	Dan Williams
<b>10:30 AM</b>	<b>00:20</b>	<b>Coffee break</b>	
10:50 AM	01:00	Technical Project session: Welding & Joining	Fatih Cetin
11:50 AM	00:30	Member update 5	JLR
<b>12:20 PM</b>	<b>01:00</b>	<b>Lunch</b>	
1:20 PM	01:00	Technical session 5 - Material selection/recommendation	Arthur Fairfull
2:20 PM	00:15	Technical projects / shared development	Dan Williams
2:35 PM	00:25	Consortium process review; next meeting	Dan Williams
<b>3:00 PM</b>		<b>Adjourn - opportunity to visit Motor Museum</b>	

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## Technical Session 5 – Material Selection/Recommendation

Arthur Fairfull



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MATERIAL INTELLIGENCE

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## Agenda vote

Data management	Automating workflows	T4	5
Materials approval	Approval workflows	T4	5
Materials engineering	Capturing knowledge and expertise	T2	4
Simulation	Data provision for simulation	T1	4
Selection & specification	Materials selection / recommendation tools	T5	4
IT infrastructure	Global synchronization	T2	3
Data management	Collection of legacy data	T2	3
Simulation	Shared exporter development within AutoMatIC	Tech proj review	3
Selection & specification	PLM integration	T3	3
IT infrastructure	Data security	T2	2
Data model	Standard schema for adhesives/lubricants	Tech proj review	2
Data model	Standard schema for fabric materials	Tech proj review	2
Data management	Collection of future data	T2	2
Data management	Standardization of data	T2	2
Selection & specification	CAD integration	T3	2
IT infrastructure	Logging user activity	Software update	1
Data model	Standard schemas for wear/tribology		1
Data model	Standard schema for lightweight alloys	Tech proj review	1
Materials approval	Using GRANTA MI across the supply chain		1
other	Material data extraction from CAE model and comparison with database		1

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## In this session

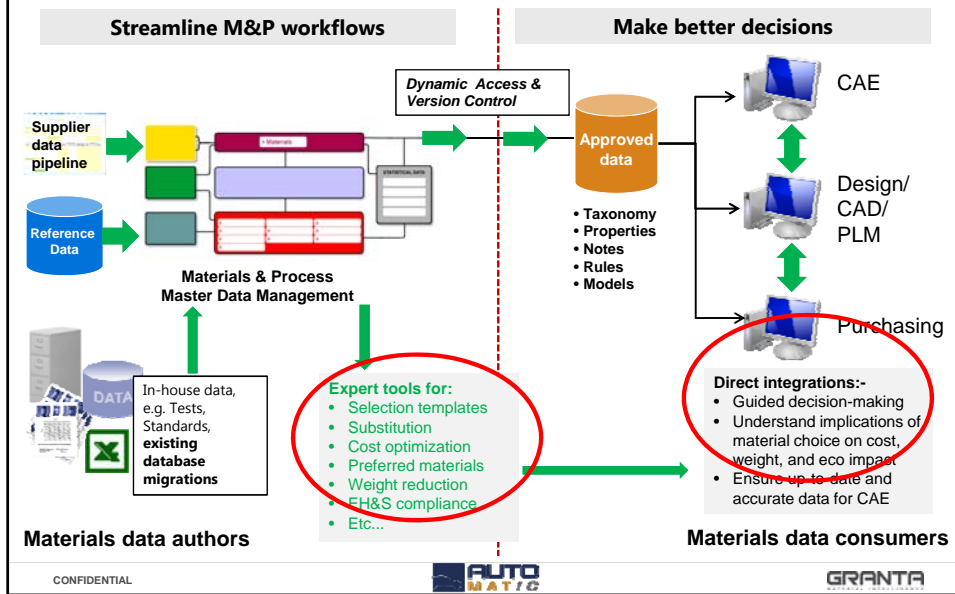
Area	Discussion topic	Session	Totals	GM	KSPG	PSA	JLR	HNY
22	Selection & specification	Materials selection / recommendation tools	T5	4	X	x	k	k

- Round table:
  - Why did you vote for these items?
  - How can AutoMatIC help?
  - What are the challenges in these areas?

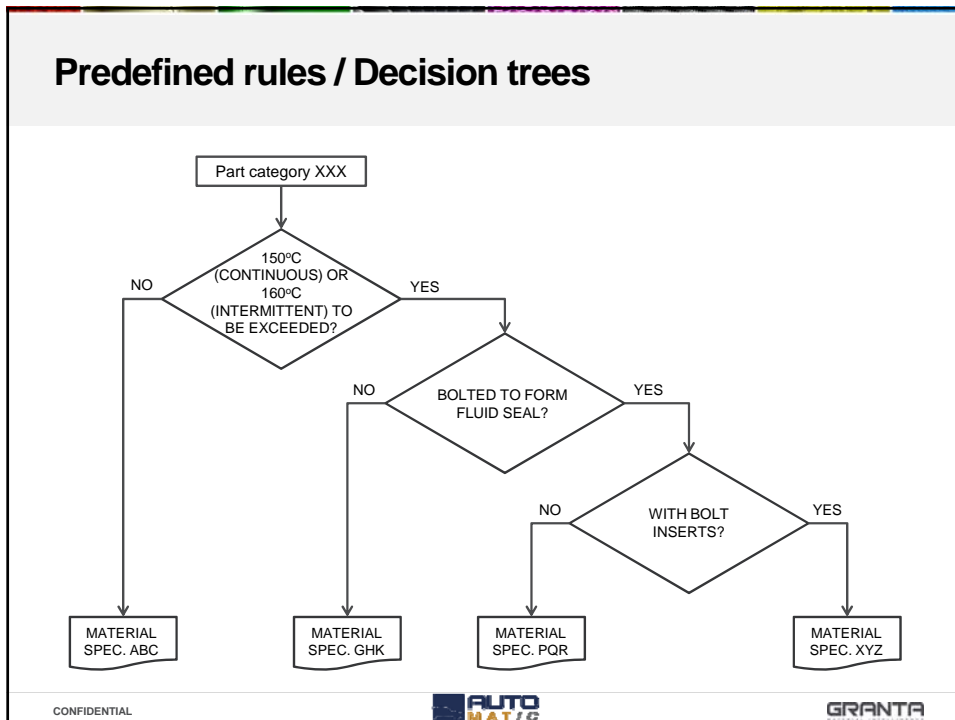
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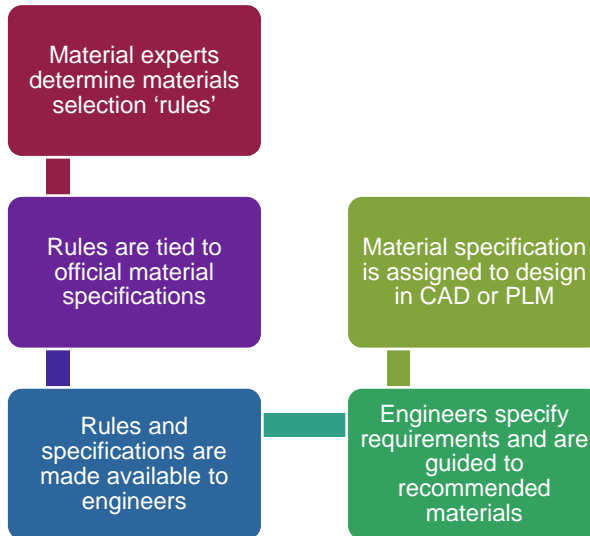
## Considerations: Predefined 'rules' and/or end-user tools?



## Predefined rules / Decision trees



## From Workflow session 12 months ago



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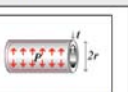
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## Considerations: Presenting rules to end users

**Optimize**

Objectives | Reference data | Critical requirements

I want to: Minimize cost

For:  Pressurized pipes, aircraft fuselages, gun barrels...  
r - radius  
t - wall thickness

I am free to change: wall-thickness

My design case is: radius fixed

My design is limited by: fatigue strength

Next Step: What do you know about the current design? Get Results

Name	Designation	Tradenames
Alumina (88)	Aluminum oxide	
Carbon steel, AISI 10...	AISI 10	Steelmark-Eagle
Carbon steel, AISI 10...	AISI 10	Steelmark-Eagle
Aluminum, 7049, wro...	7049	HP, Pochiney
Aluminum, 7075, wro...	7075	

- Find where used
- Add to collection
- Select all

- Flexible
- Glass filled
- Unfilled
- Chlorinated, molding and extrusion
- Add to list
- Copy to clipboard
- Watch record
- Properties
- Find substitutes for this record
- SAAN (Styrene acrylonitrile)
- SB (Styrene Butadiene block copolymer)
- SMA (Styrene Maleic anhydride)

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## In this session

Area	Discussion topic	Session	Totals	GM	KSPG	PSA	JLR	HNY
22	Selection & specification	Materials selection / recommendation tools	75	4	x	x	6	x

- Round table:
  - Why did you vote for these items?
  - How can AutoMatIC help?
  - What are the challenges in these areas?