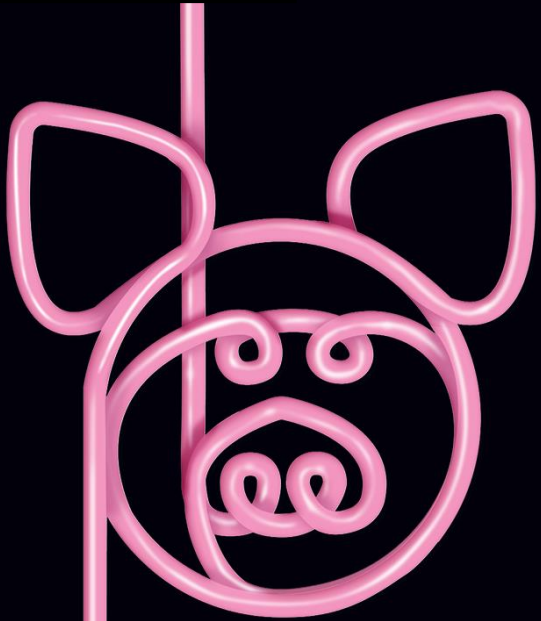


Our Journey From Excel to JMP Automations



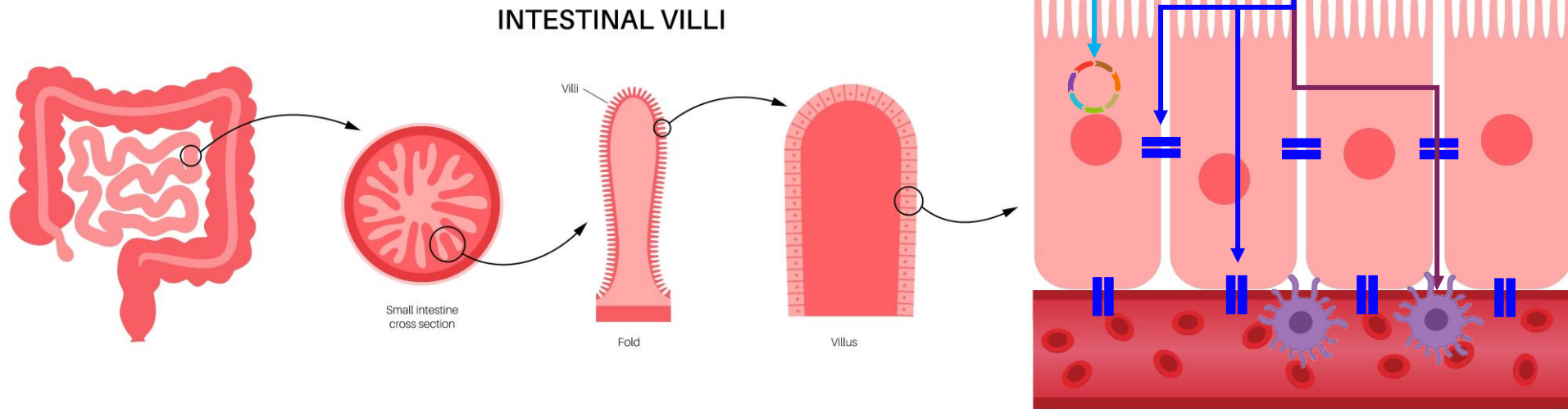
Dr. Stefan Buzoianu
Senior Scientist,
Tonisity International
stefan@tonisity.com

Tonisity
Oink. Sip. Love.



Power bank for the gut!

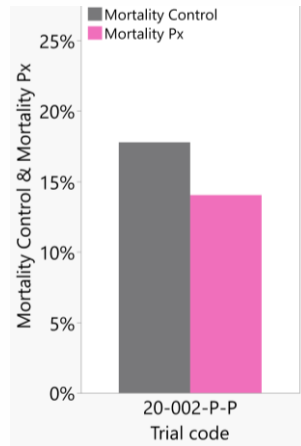
- Isotonic protein drink
- Administered to newborn piglets
- Hydration and key nutrients for gut cells
- Pigs survive better, grow faster and are healthier



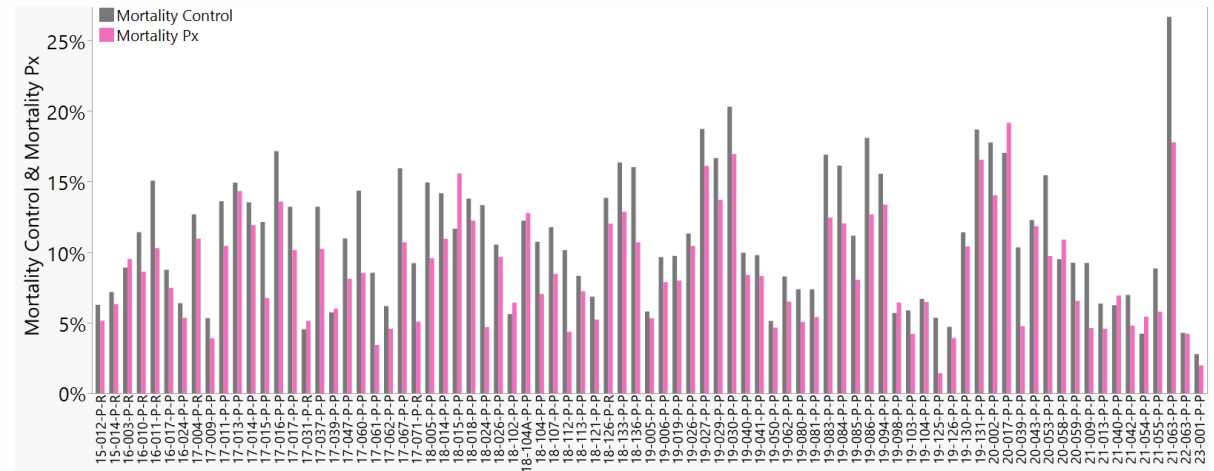
- ✓ Microbiome
- ✓ Cellular metabolism
- ✓ Cellular junctions
- ✓ Immune components

Main effect = improved piglet survival, reduced pre-weaning mortality (PWM)

...The Power of Aggregated Data

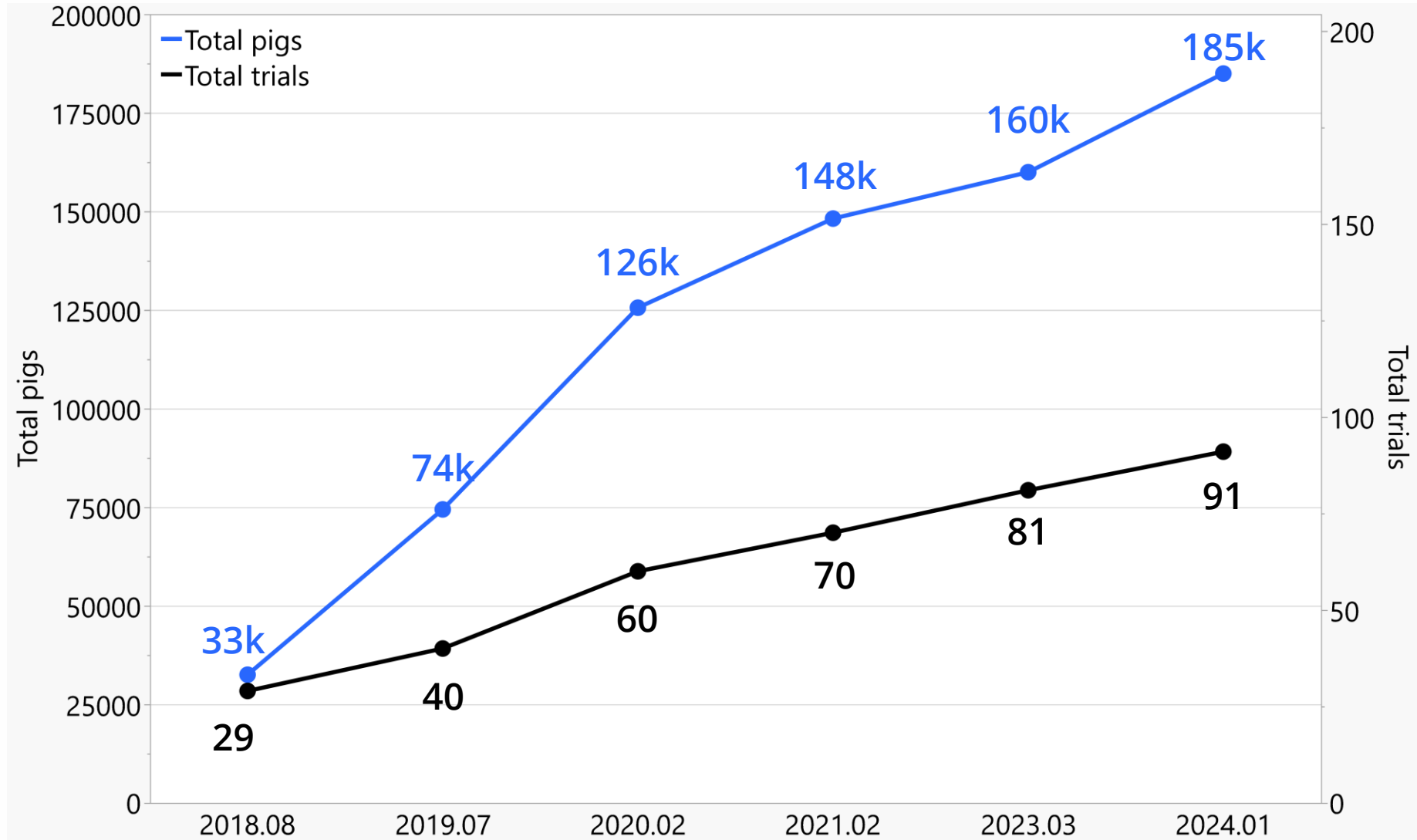


(N=1 trial)

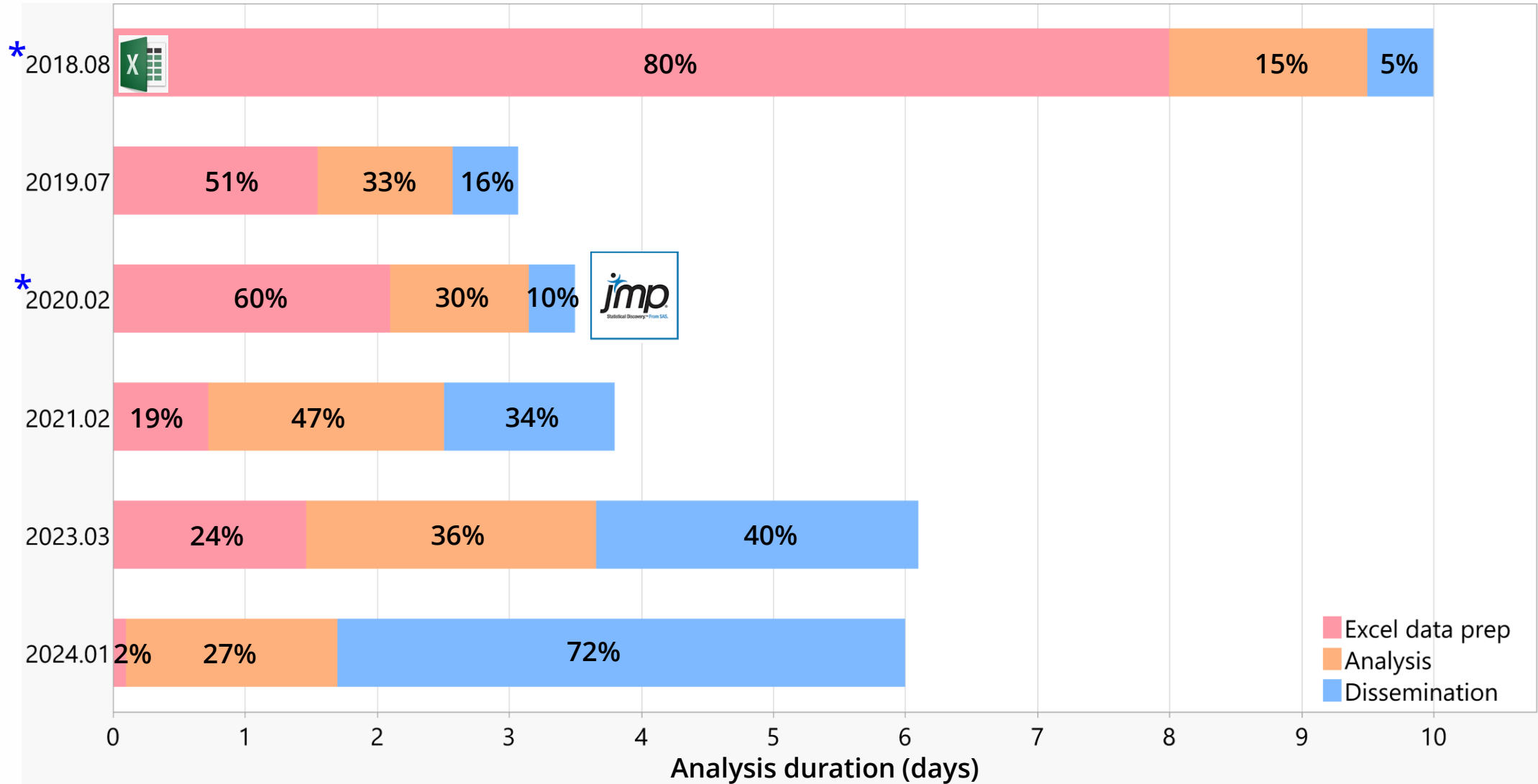


(N=91 trials)

Our Mortality (PWM) Data Analyses...

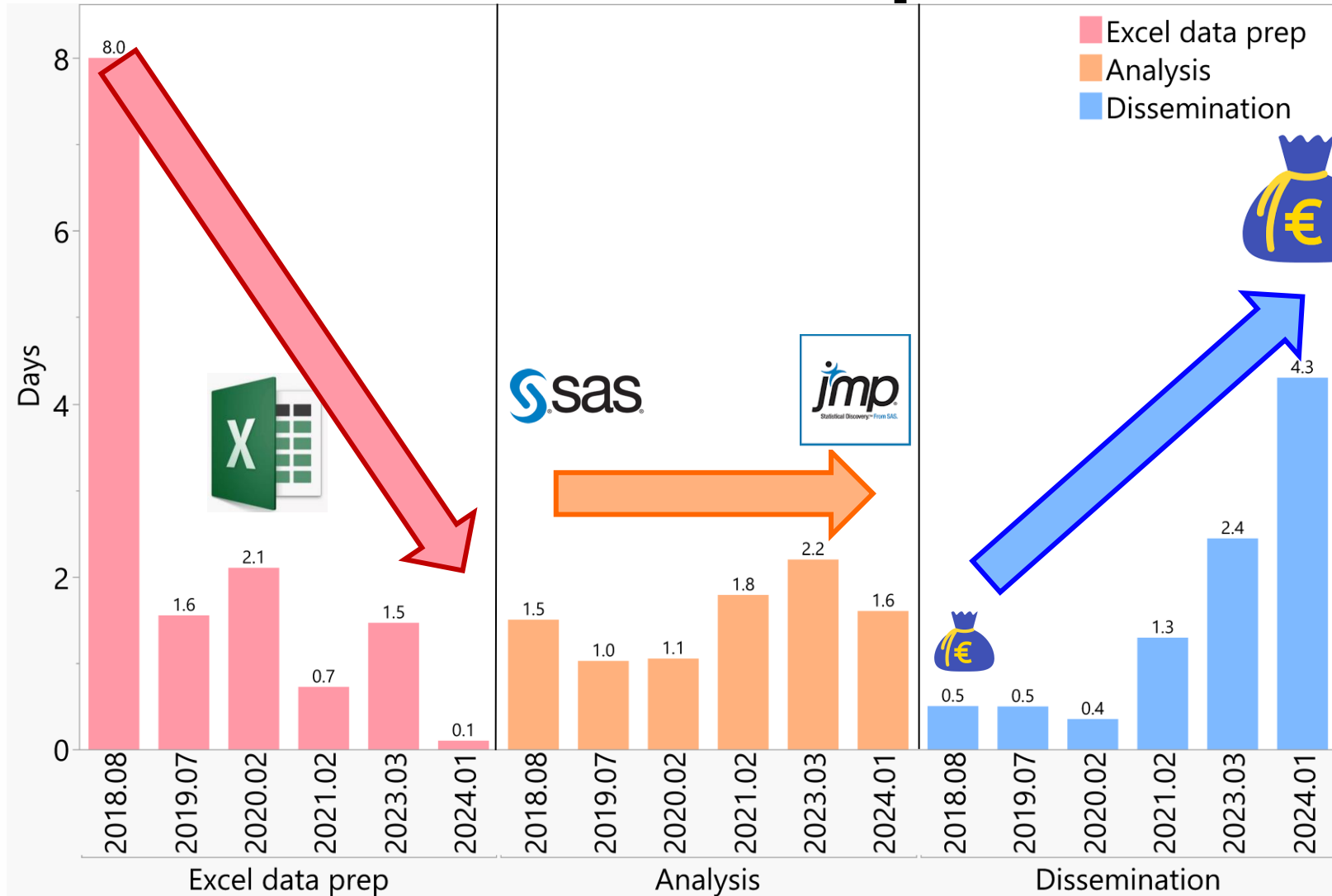


...Effort and Time Allocation



*Estimated

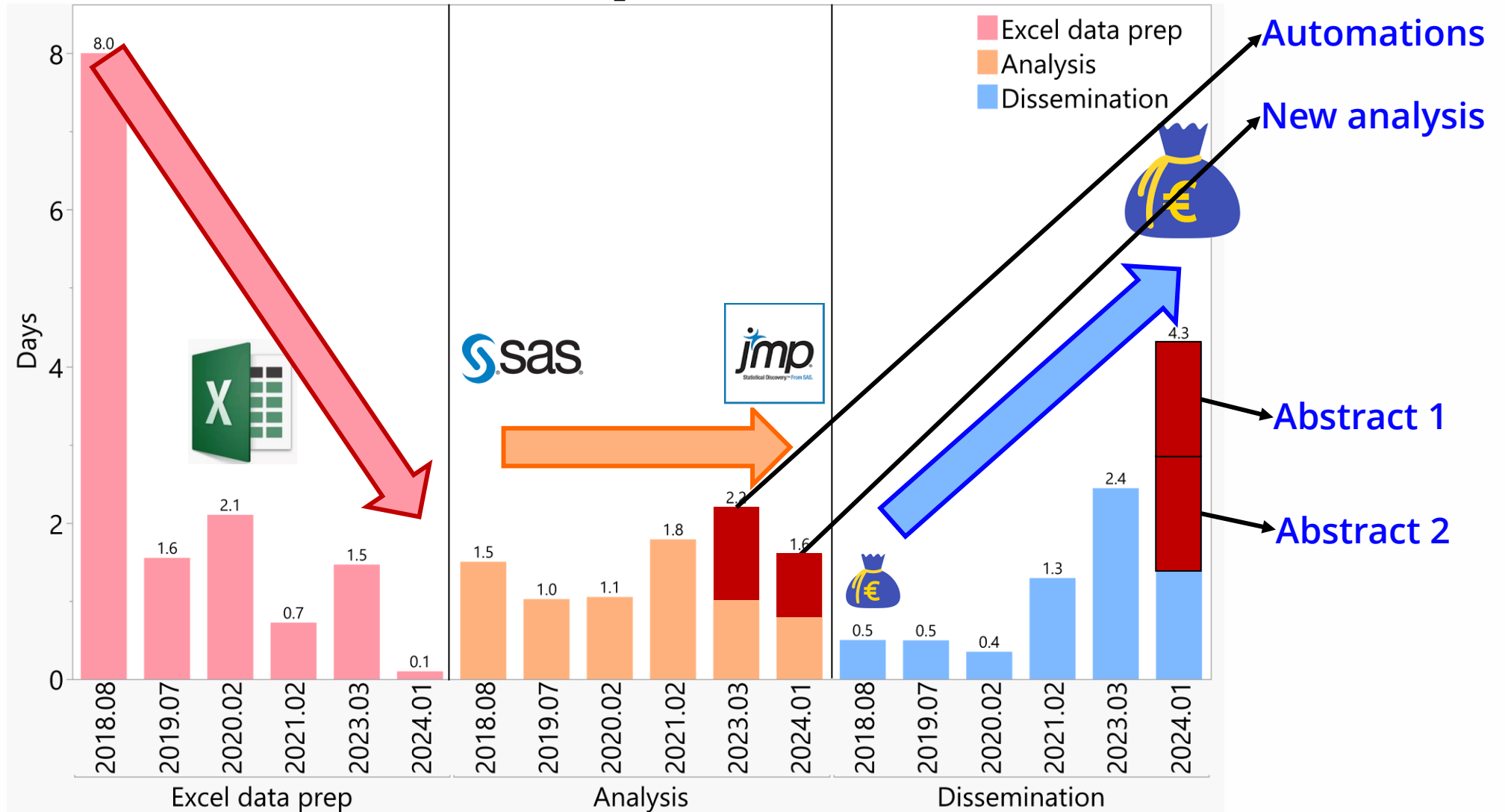
Value Added Steps



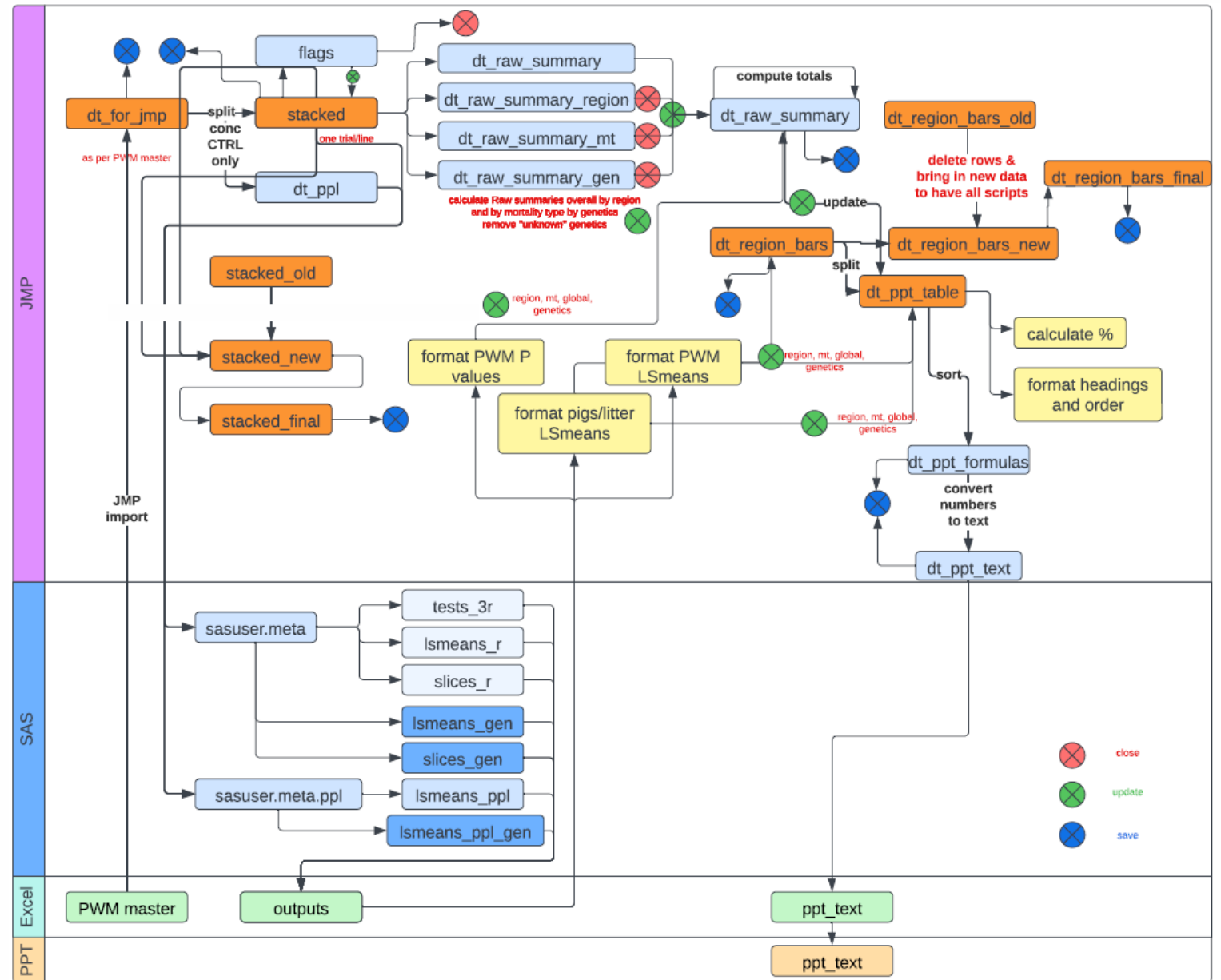
~4-6 fewer analysis days =
€3-5k
>50% less data
manipulation
Fewer errors

Focus on value-added
steps – dissemination
and automations

Value Added Steps

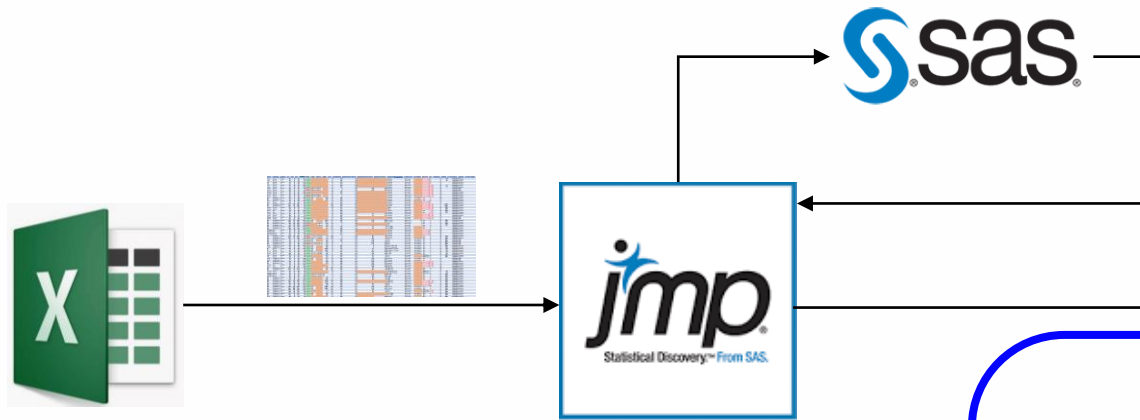


Data Analysis Process



Data Analysis Process

Overall
By 5 regions
By 2 administration protocols
By 4 genetic lines

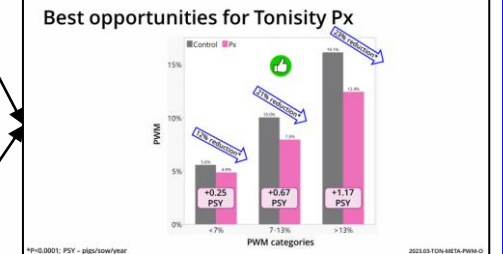
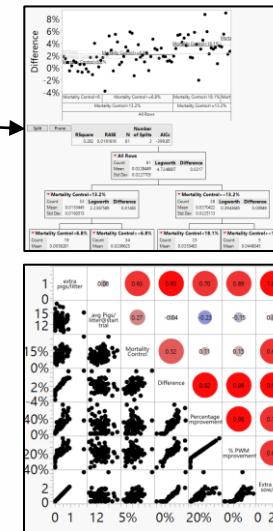
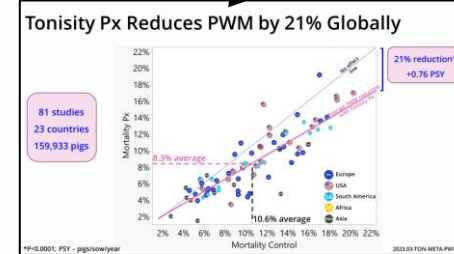
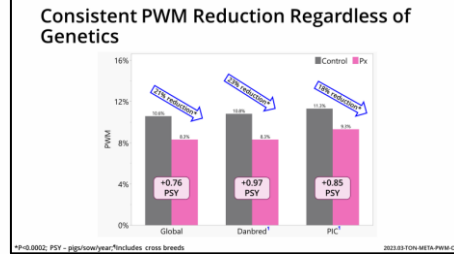
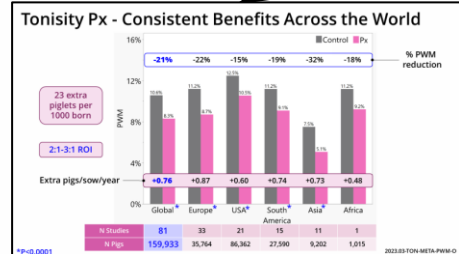


Master table

| Analysis | Control PWM* | TPX PWM* | P-value | % point PWM reduction | % PWM reduction | Extra pigs/1000 born | Extra pigs/sow/year | Studies | Pigs | Litters |
|-----------------------|--------------|----------|---------|-----------------------|-----------------|----------------------|---------------------|---------|----------|---------|
| Global (23 countries) | 10.6% | 8.3% | <0.0001 | 2.3% | 21% | 23 | 0.76 | 81 | 159,933* | 13,342 |
| Europe | 11.2% | 8.7% | <0.0001 | 2.5% | 22% | 25 | 0.87 | 33 | 35,764 | 2,716 |
| USA | 12.5% | 10.5% | <0.0001 | 2.0% | 15% | 20 | 0.60 | 21 | 86,362 | 7,004 |
| South America | 11.2% | 9.1% | <0.0001 | 2.1% | 19% | 21 | 0.74 | 15 | 27,590 | 2,746 |
| Asia | 7.5% | 5.1% | <0.0001 | 2.4% | 32% | 24 | 0.73 | 11 | 9,202 | 794 |
| Africa | 11.2% | 9.2% | 0.33 | 2.0% | 18% | 20 | 0.48 | 1 | 1,015 | 82 |
| Mortality d2-weaning* | 9.2% | 7.2% | <0.0001 | 2.7% | 22% | 27 | 0.70 | 61 | 109,600 | 9,598 |
| Mortality BA-weaning* | 12.2% | 9.5% | <0.0001 | 2.0% | 21% | 20 | 0.97 | 20 | 50,333 | 3,744 |
| Danbred & crosses | 10.8% | 8.3% | 0.0002 | 2.5% | 23% | 25 | 0.97 | 9 | 5,156 | 736 |
| PIC & crosses | 11.3% | 9.3% | <0.0001 | 2.0% | 18% | 20 | 0.85 | 28 | 47,055 | 4,118 |

*PWM = Pre-Weaning Mortality; Control 81,116 pigs and Px 78,817 pigs
*Global mortality split by whether mortality was monitored from birth to weaning or from treatment start(d2)weaning 2023.03.TON.META.PWM.0

13 table components automated



Regular graphs

Value-added graphs

Allows us to focus on data interpretation



1. (Brief) glance over data in Excel

2. Initial parsing, send to SAS

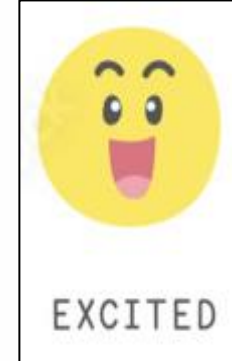
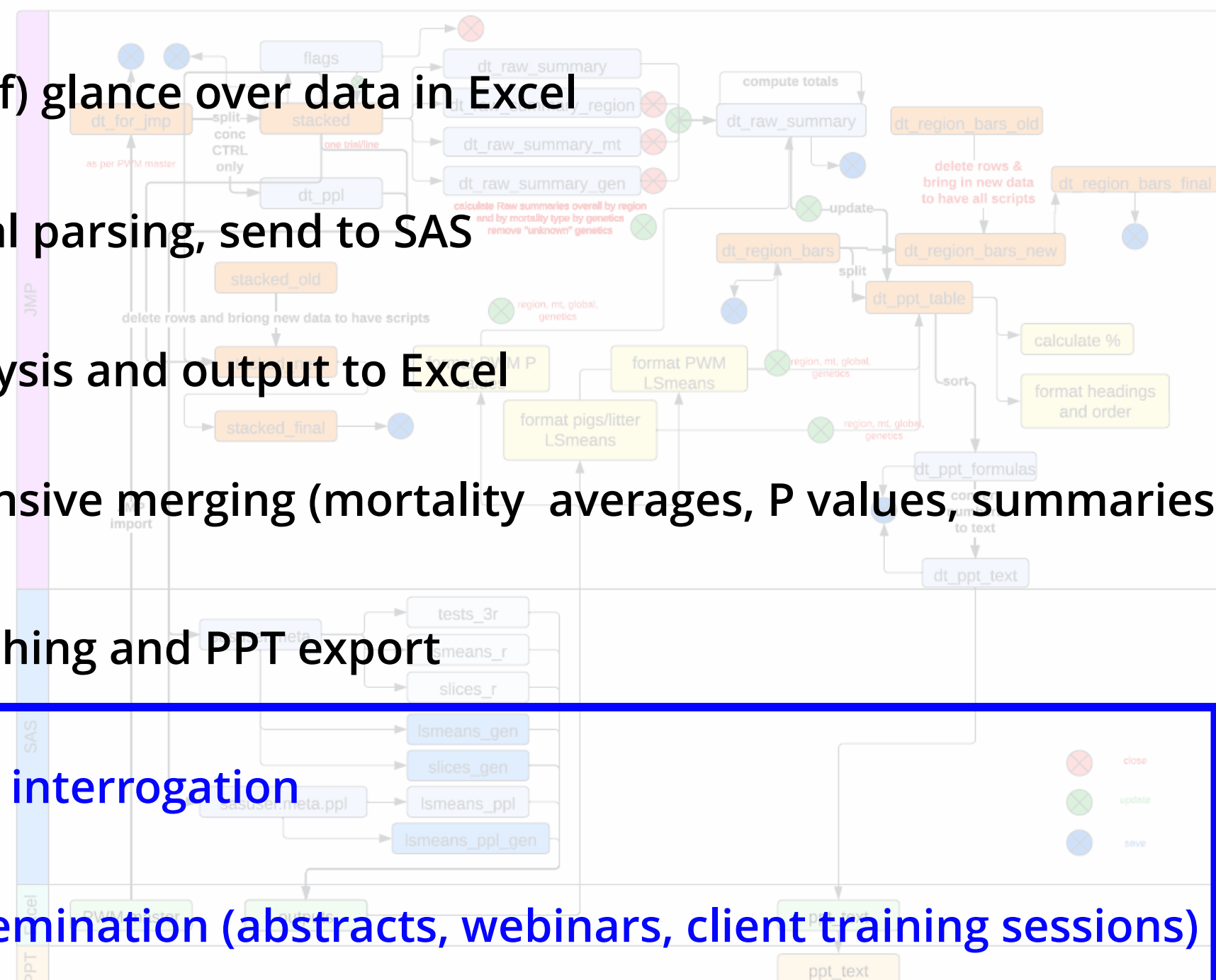
3. Analysis and output to Excel

4. Extensive merging (mortality averages, P values, summaries)

5. Graphing and PPT export

6. Data interrogation

7. Dissemination (abstracts, webinars, client training sessions)

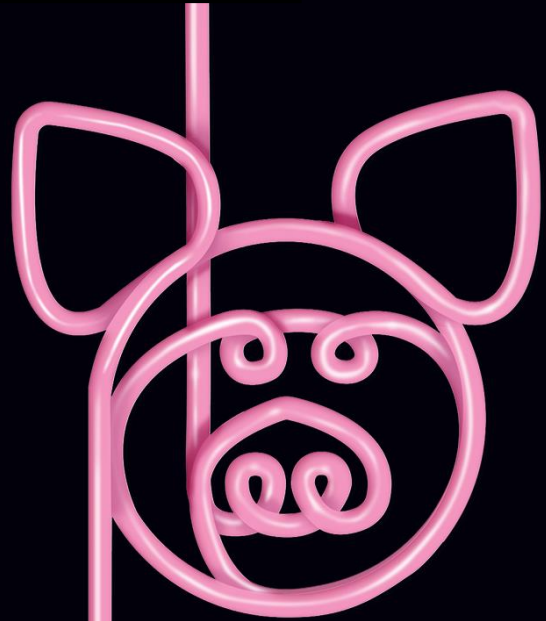




Demo

What JMP Means to Us

- Less data manipulation – JMP licence pays for itself
- Less human error
- **Focus** on value-added steps (abstracts, webinars, client training sessions)
- Allows for discovery of corners in the data and **troubleshooting**
- **All of this without any previous JMP scripting experience**



Thank you!
Questions?
stefan@tonisity.com

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