

ELN Material Weighing

How one major pharmaceutical company leveraged scientific voice assistants to save time on routine - but crucial - tasks

LabVoice partnered with a Product Development team at a major pharmaceutical company to help their scientists save time by voice-enabling a common laboratory task: weighing out reagents. Prior to LabVoice, scientists would have to start and stop the weighing process several times. Once the LabVoice digital assistant was introduced and integrated with their ELN and Inventory Management system, they were able to eliminate manual data entry (and as a byproduct, any manual errors) as well as save scientists' time in the lab, so they can run more experiments efficiently.

- Scientists saved several hours each day by eliminating manual transcription and data entry.
- The quality of data entered into their ELN and Inventory Management system drastically improved when it was automatically captured through the LabVoice digital assistant.
- Important EH&S information was relayed immediately to the right people.

About the Customer: Our customer was part of a PD team of a global pharmaceutical company, focused on discovering, developing, and delivering medicines for millions of patients around the world. This customer brought LabVoice into its operations through a “Lab of the Future” initiative.

By the Numbers:

150+

hours saved
each month

45%

increase in data entered
into the ELN

20%

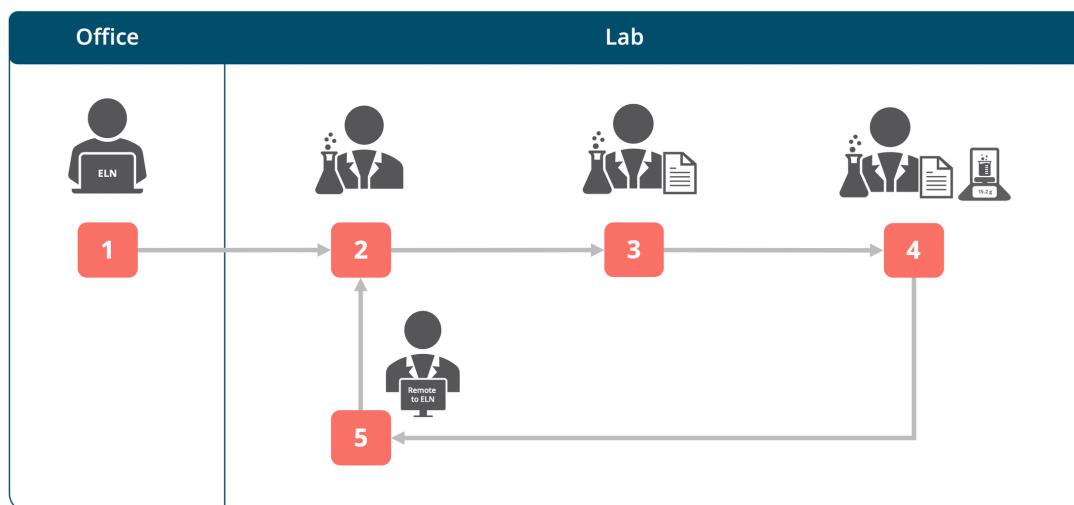
increase in scientists'
productivity

◆ **Status Quo:** Before working with LabVoice, what should have been a relatively simple process was in fact, very laborious and time-consuming. Scientists would start by entering their materials into the ELN (1) and then move on into the lab. Here they put on appropriate PPE and then collected their reagents, visually verifying that they were picking the right ones (2).

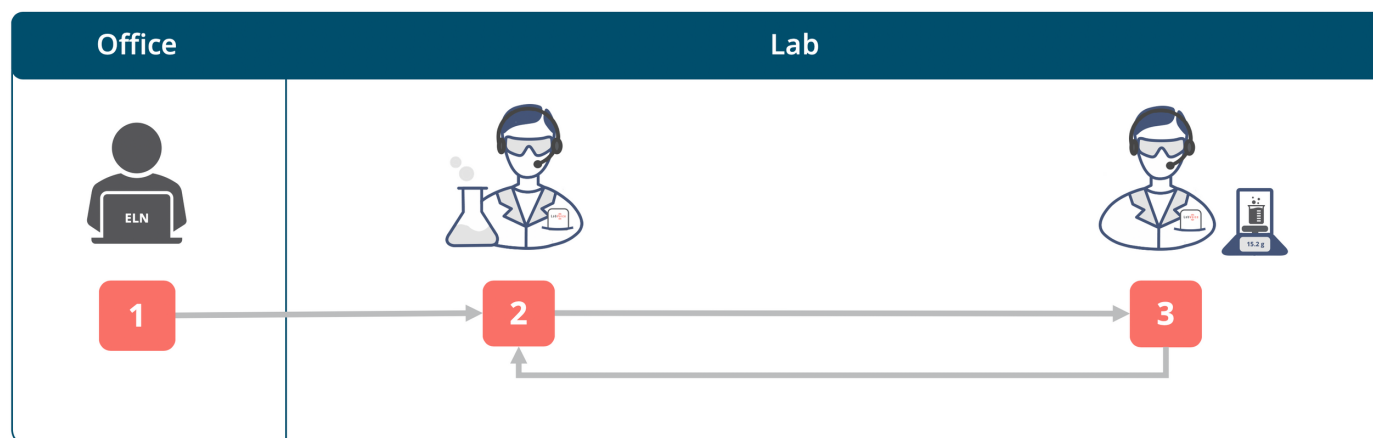
Step 3 is where things got murky for the scientists. Sometimes the scientist would write everything down on a piece of paper (or the back of their glove) while other times they would try and memorize what they needed to weigh out.

In the 4th step the scientist is weighing materials out, but also having to write down or remember the container ID and lot number of the materials their using. And if they've grabbed the wrong reagent, they have no way of knowing until they go back to the ELN.

If the scientist has more reagents to weigh than would fit on the back of their glove, they then have to use a shared laptop in the lab to access the ELN (rather than deglove and ungown). After waiting their turn at the laptop, they can jot down the next set of reagents and start the process over again, repeating this sometimes 5-6 times!



◆ **Enter LabVoice:** Let's see how this process unfolds now that our lab is voice-enabled!



For Steps 1 & 2, nothing changes, but then again, these were not the troublesome steps. Because the scientist is working hands-free, they can gather as many samples as a rack can hold, and walk over to the fume hood.

LabVoice is integrated with both a barcode scanner and the balance used for weighing, so all our scientist has to do is scan and weigh the sample - that's it.

LabVoice is confirming that the scanned reagent is indeed one of the reagents the scientist initially selected. If they grabbed a reagent by mistake, LabVoice will alert them to this error. Further, LabVoice can recall important EH&S information regarding each reagent as the user scans it.

If everything checks out, LabVoice immediately retrieves the reagent metadata (lot number and manufacturer) from the Inventory System and the expected weights from the ELN. Once the reagent is weighed, LabVoice packages all of this information plus the actual weight and returns it to the ELN.

All the scientist has to do is follow LabVoice's instruction as to when to load the reagent, and then, in turn, prompts LabVoice when to capture the weight, which they can do so easily with a headset. In the event something else pops up (perhaps a metaphorical or literal fire), LabVoice can pause the workflow, and the user can pick up where they left off simply by saying "Hey LabVoice, continue."

And that's it. They leave the lab in a fraction of the time previously spent performing the same workflow (10-15 minutes as opposed to 1-2 hours), confident the reagents weighed were the desired ones, and confident the measurements captured were the true mass of each sample.

[Want to see this in action? Follow this link.](#)