Johnson&Johnson x Capgemini

Innovation
& Techday

Digital Training.

Using web, gaming, virtual reality and augmented reality technologies to reduce time to competency of your teams.

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Let's connect!

Agenda
Digital Training

1. Overview & concepts
2. Approach
3. Success stories & best practices
4. Exchange

Digital Training

Main goals & outcomes

These goals aim to create a more adaptive, technology-enabled, and effective training ecosystem.

- **Accelerate skill development**
- **Reduce training time and costs**
- **Standardize training processes**
- **Enhance knowledge retention**
- **Enable personalized learning experiences**

Digital Learning Platforms

Knowledge Capture and Transfer

Personalized Learning Paths

Performance-Based Training Tracking

Remote and On-Demand Learning

Augmented Reality (AR) Training

Immersive Learning Technologies

Compliance and Certification Management

Digital Training

Our 3-step approach

1 Training assessment & optimization

Deploying our **deep knowledge of Manufacturing** in a **lean based Learning approach**, our team will:

- Map training processes & benchmark its performance
- Analyze operational processes to identify required competencies & current training path for Target Audiences
- Share with the teams the AS IS picture, efficiency sources and associated recommendations / stakes.
- Build a prioritized transformation plan to achieve a streamlined OTS
- Support the transformation before, during and after start up of facilities.

2 Setting up the training strategy plan

Guarantee the best pairing between the training needs and the state of the art of digital training tools on a didactical approach:

- Transforming the list of needs into objectives (Bloom Taxonomy and SMART philosophy)
- Clustering objectives based on Knowledge, knowhow and Interpersonal Skills
- Create overall learning paths
- Define stakes & efforts matrix criteria
- Select the pairing between training candidates and digital solutions

3 Developing & deploying the digital training content

To fulfill the strategy and objectives, we develop and implement **customized digital training solutions** by integrating **state of the art learning alternatives and technologies,** such as:

- E-Learning
- Video Learning
- Serious Game
- 360° Video
- VR Training
- AR training
- Metaverse
- Cognitive Training

Digital Training

Content creation formats

E-Learning

Provide content on one or several subjects.
Activities, interactivities and quiz can be included.

Video Learning

Video focusing on the actions to be performed by the final user

Non-Immersive Learning

Digital Serious Game

Training tutorials leveraging gaming principles
Serious Games can be: Fully Digital, Board/Classroom or a mix of both

360º Serious Game

Focus on the benefits of both videos/imaged and digital interactions. It creates a 3D scene with a 2D image/video.

Semi-Immersive Learning

Virtual Reality (VR)

Creation of a simulated environment allowing the user to be fully immersed in the experience. It relies on desktop, googles or projection.

Augmented Reality (AR)

Enhancing of real-world environment with computer generated information. It relies on mobile devices, googles or projection.

Immersive Learning

Metaverse

Introducing interaction and communities in the learning process. So, activities are executed in collaboration with other colleagues. In addition, Master sessions can be addressed.

Cognitive

Using AI / Gen AI to deploy cognitive training to adapt skill gaps and as well training profile diversity

Immersive and Collaborative Learning

+50% of the trainings

Spatial Awareness & Interactions

Social & Cognitive

Digital Training
e-Training

Pharma / Sanofi

Advanced Digital Training System for Pharma sector in Sanofi Toronto. The Project consist in the conception, design and development of **3 real training scenarios** or **MVPs** related to **Environmental Monitoring** by using Augmented SPOC, **Personal & Material Flow** by employing Interactive Video and **Large Ultrafiltration** by means of VR with embedded Video.

DRIVERS & CHALLENGES

- It is an objective in the Toronto Site to create digital training MVPs capable of notably improving the time to competency for training activities and extrapolate these solutions in the near future to the rest of Sanofi sites as improved training procedures.
- Develop digital trainings (Proof Of Concept)
- Turn the Digital Trainings into an operative solution
- Deploy it on B89 (Minimum Viable Product, MVP)

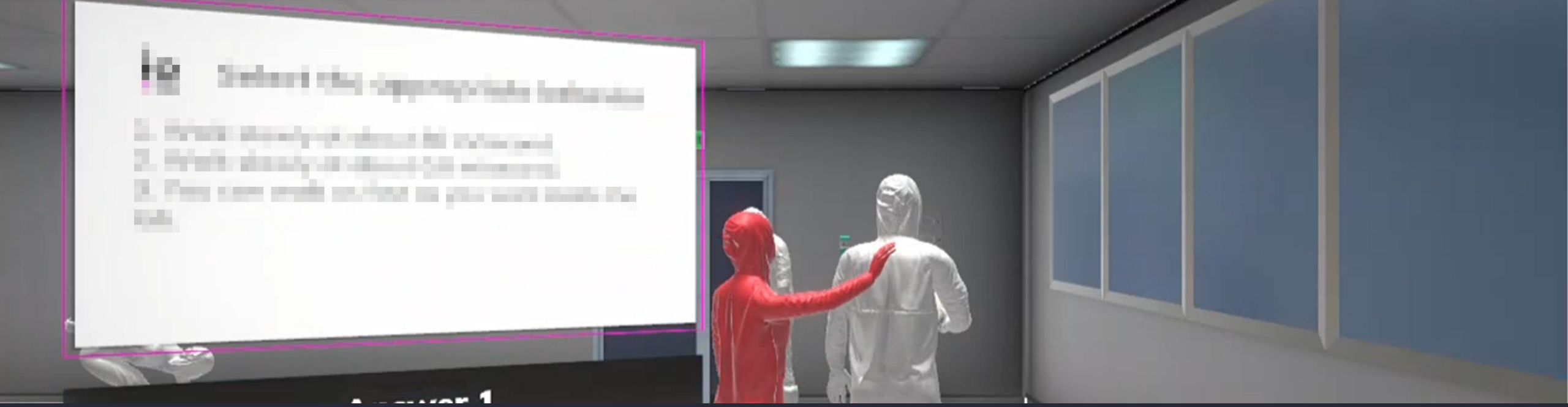
APPLIED TECHNOLOGIES

- Augmented SPOC (Small Private Online Courses) Focused on the benefits of both videos and the eLearning solution with a native web-based navigation.
- Virtual Reality Creation of a simulated environment allowing the user to be fully immersed in the experience.
- Interactive Video. Adding interactivity directly within the video and not around. It allows to create some paths directly in the video and relies on the benefit of the video training.

BENEFITS

- Difference in 40% training time between current course(s) and new digital training course(s).
- Course satisfaction and staff engagement. Score >4:5.
- Difference in 40% qualification time between current OJT and digital OJT
- Learner Assessment: Target of 80% correct score for the post-training test.
- 5 manufacturing steps are shared by all processes. Merging their trainings could save up to 70% of training sessions.
- Reduce human error.
- Increase Trainee Autonomy.

Capgemini engineering



CBD - Campus Biotech Digital

Campus Biotech Digital

We aim to develop educational content for several companies in the French pharmaceutical sector. We create educational content for e-learning, video learning, 3D simulations, and virtual reality (VR). The training is now focused not only on ensuring that the apprentice understands the process in terms of step-by-step sequences but also on internalizing safety standards. This includes correct/incorrect behaviors, the appropriate use of Personal Protective Equipment (PPE) in each case, among other

DRIVERS & CHALLENGES

- Optimizing the way of teaching new operators according to the Learning by Doing method in a safe environment, instead of the traditional approach using resources such as books and PowerPoint presentations.
- Allowing new operators to undergo risk situations where their lives are not in danger, thanks to the virtual environment, which is a digital twin of the real one
- "Enhancing the method of validating operators' knowledge by offering two levels of training:
  - Essential for beginners.
  - Advanced for examination purposes.

APPLIED TECHNOLOGIES

- Unity: Videogame engine, perfect for virtual reality projects and it comes with several tools for further development.
- Virtual Reality – VR.
- SG3D.

BENEFITS

- Interactive virtual reality guidance to the operator in the step-by-step operation.Information to support decision making processes.
- Autonomy in learning as a trainer/instructor is not required to be 100% present during this training
- Platform with numerous training sessions and individual weighting per person.
- Ensuring the respect of safety measures and avoiding risks in the pharma environment.

Capgemini engineering

Digital Training

Client success story – Bioproduction training transformation

Change story

Problem statement

- Long time to train and qualify staff
- Dependent on trainer, equipment/process availability

Challenge

Develop and deploy interactive training to:

- Reduce training time
- Reduce competency/qualification time
- Focus on the learner
- Remove redundancy out of the training in place

Expected outcome

- Deploy interactive, consistent and flexible training to mitigate pain points, reduce the onboarding training and competency time for shop floor staff.

Qualitative benefits

Interactive

Mixed eLearning content in the form of simulators/interactive applications, animations, videos

Autonomous Learning

Learner is autonomous to complete the training and review concepts as need-be removing the dependency on trainer and process availability

Standardized delivery and evaluation

Consistent delivery of material with learning assessments for knowledge evaluation

Paperless and Web-based

Cuts down on the paper-based material and can be easily accessed online through iLearn system

Quantitative benefits

Training time

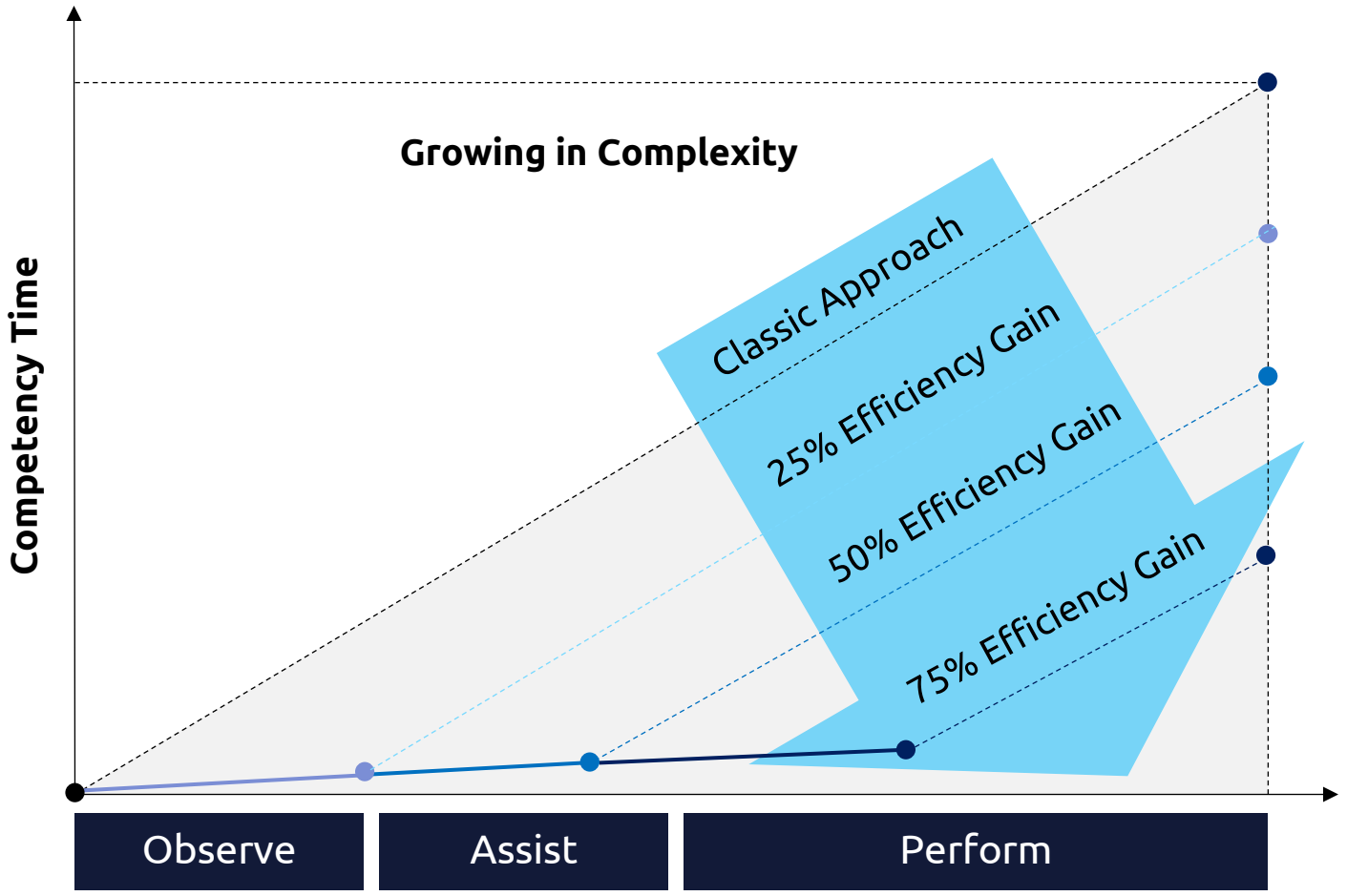
↓ 40%

Time to Competency

↓ 40%

Digital Training

Client success story – Bioproduction training transformation



Efficiency levels:

1st Level - Digital Transformation strategy based on **e-Learning & Video learning**

2nd Level - Adding **Serious Gaming and 360 Interactive Video** to allow process awareness and feedback interaction

3rd Level - Adding **immersive reality training** (AR/VR/MR) to allow spatial awareness and real process interaction

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Thank you.

Make it real.