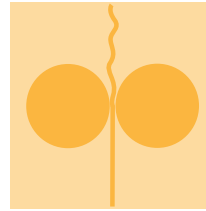


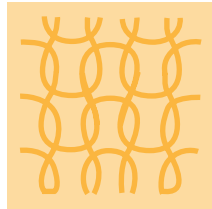
Textile Engineering Group



Spinning



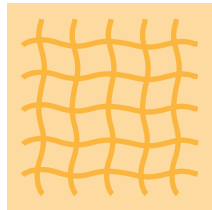
Web-guiding



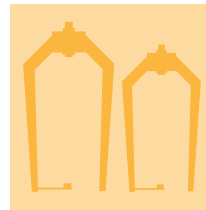
Knitting



Nonwovens



Weaving



Accessories



Processing

Automation Enabled Material Transport System



Indian Textile Industry



More than 3000 Mills

Industry worth \$40 bn

Export target of \$50 bn by 2010

Installed base

- 37 Million Spindles
- 481 thousand rotors
- 45 thousand shuttle less looms

Technology up gradation fund TUF

Why Automation



Advantages-

- Increase in Productivity
- Less labour
- Minimum errors or human interference
- Consistent quality
- Competitive
- Increased Profits

Disadvantages

- More technology dependency
- High initial investments
- Availability of manpower

Zinser Zweigniederlassung der Saurer GmbH & Co. KG, A Saurer Group Company, manufactures of

- Speed Frames with Automatic doffing
- Ring Frames with compact, siro, core spun and auto doffing,
- Automation enabled transport system

Maximum labor in spinning is required at Ring Frame Department due to handling of small size – more number bobbins. Hence, the presentation is based on this subject.

Various Types Of System



Semi Automatic Transport System

Automatic bobbin change at Speed Frame

Fix Flow Transport System

Flex Flow Transport System

Auto doffing and link coner

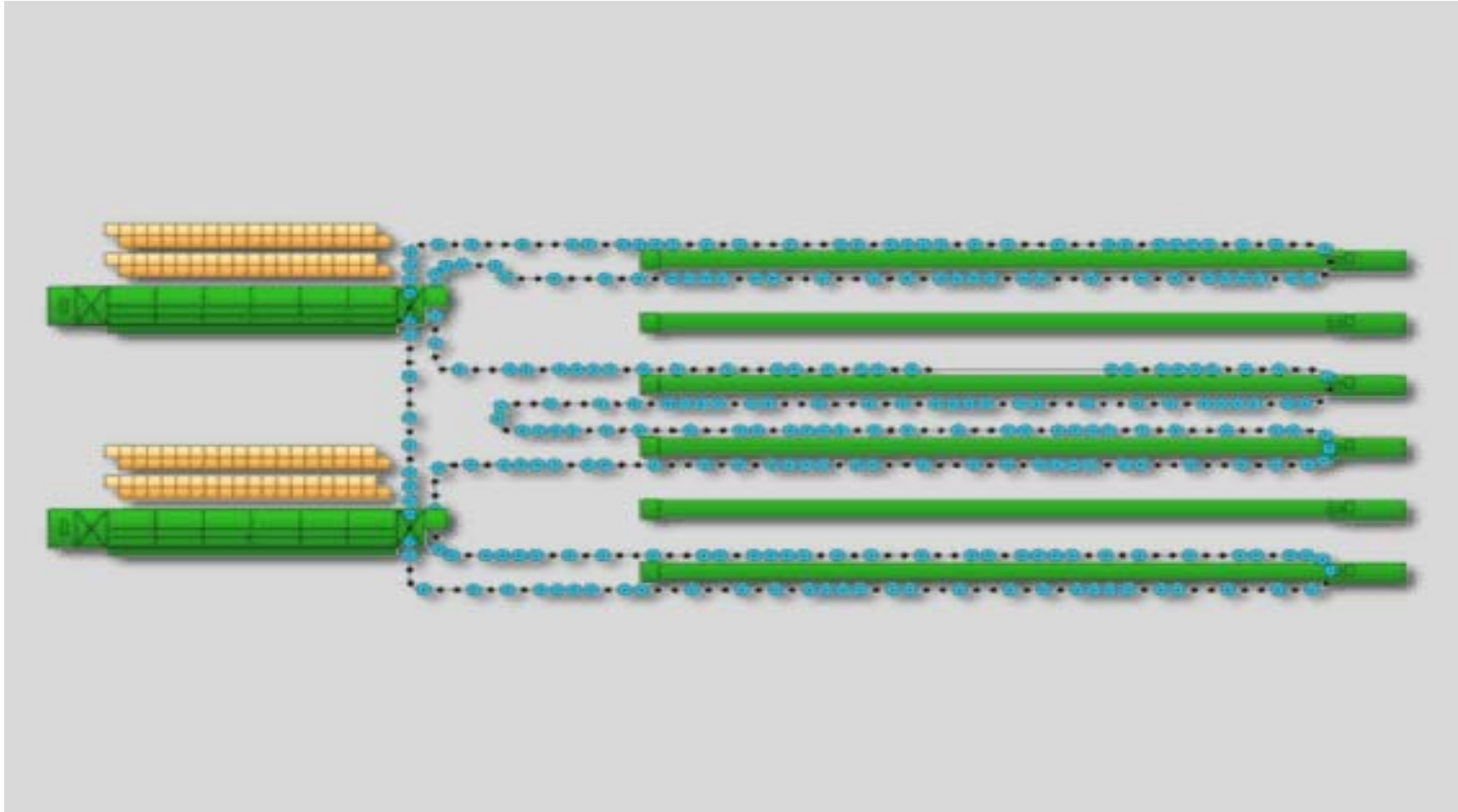
Semi-Automatic Bobbin Transport



Fix –Flow System

- Automatic material handling system
- Used for Single mixing Setup
- The full and empty bobbins are continuously running on the track
- It is most simplest type of system and can be easily incorporated for most type of machines

Fix –Flow System

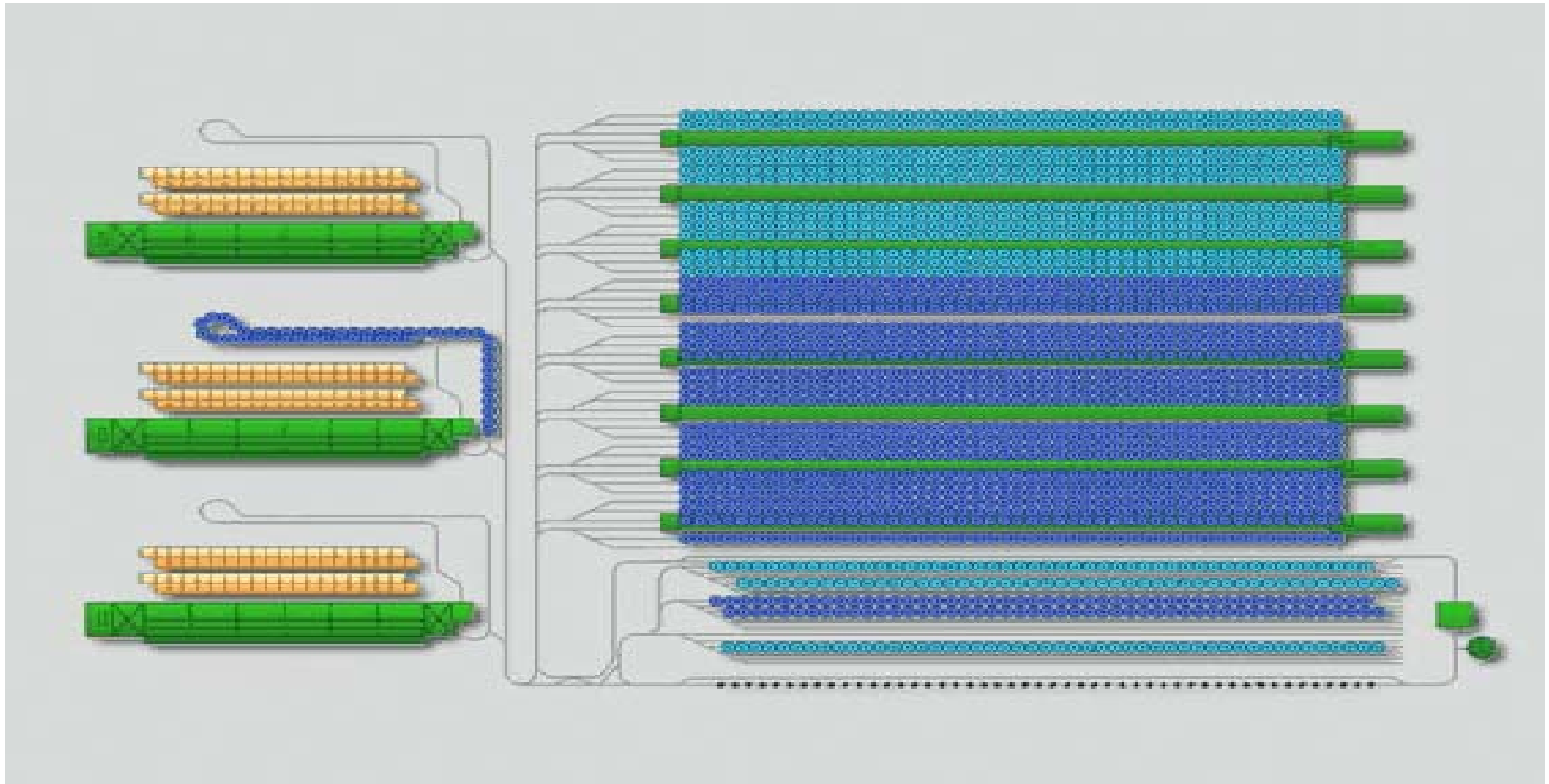


Fix –Flow System



Bobbing Exchange at Speed Frame

Bobbin Exchange



Bobbin Exchange

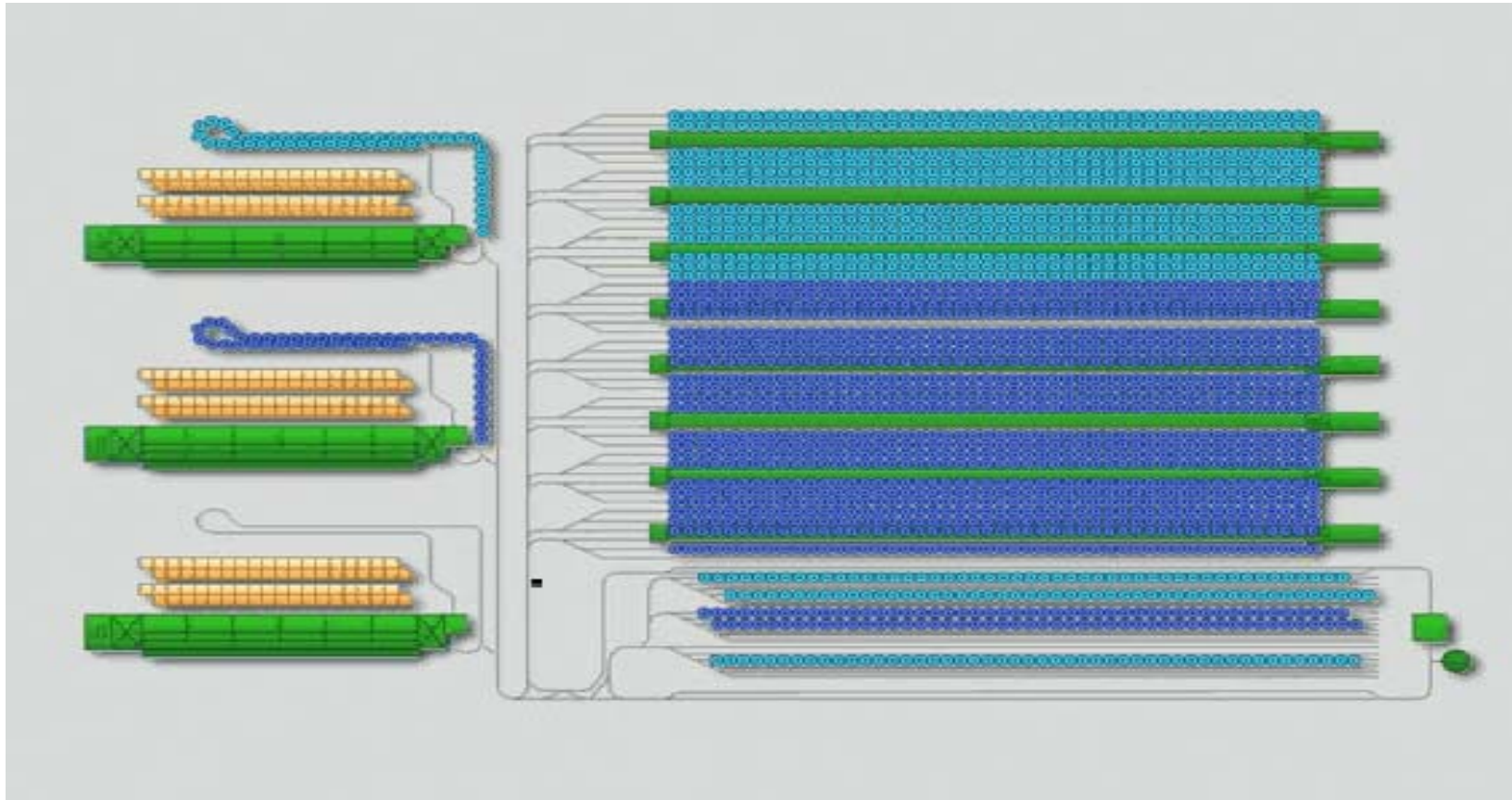


Flex Flow System



- Flexible System
- Completely automatic
- Programmable
- Suitable for more than one mixing

Flex Flow System



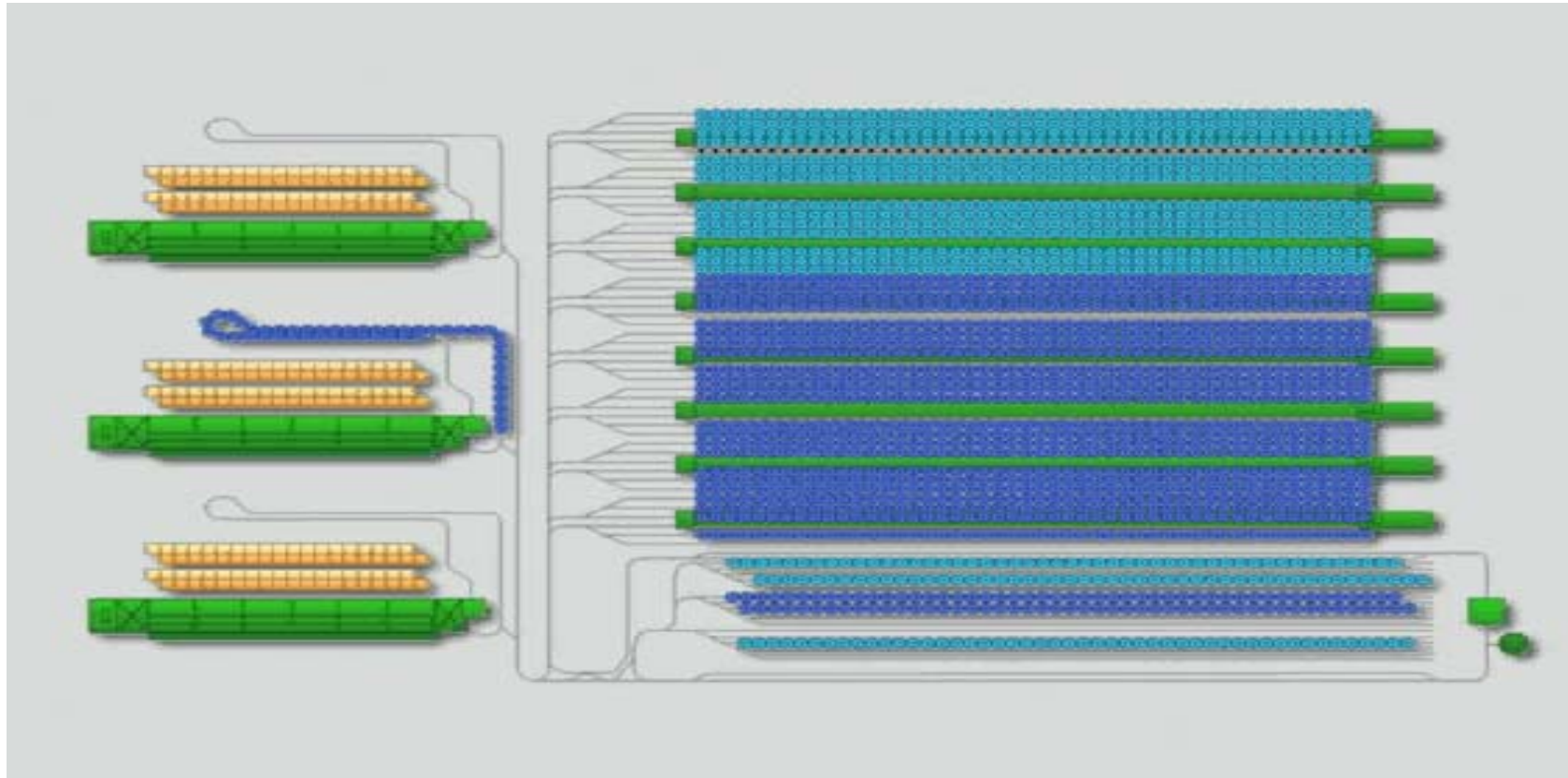
Bobbin Change on Flex-flow



Conventional operation involves:

- More labor
- Use of blades / knife to damage the fibers and bobbins
- Roving opener as additional machine.
- Generation of fluffs
- Extra handling of material
- More inventory of empty tubes

Remnant Clearing



Remnant Clearing



Auto-doffing and Link-coner



Conclusion



In order to excel in today's highly competitive business scenario, we need to keep ourselves abreast with latest trends and technology. To reap the benefits with readily available resources like raw material, manpower, and so on, we also need to compliment with state-of-art technology. We need to prove ourselves and our products as world's best.

To achieve ambitious target of Exports US\$50 billion by 2010, we should make use of best available technology.

Thank you