



INNOVATE  
SIMULATE  
OPTIMIZE

• **innVision**

Artificial Vision Measuring System

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[innVision](#) is an innovative analysis software used to detect load deformation & validate load stability. With the high-speed camera and software, analysis time is greatly reduced to just a few mouse clicks.

[innVision ST](#) is the semi-automatic version for load stability and deformation measuring. The system takes a series of photos that the user can analyze to determine the point of deformation of the test unit. **Included with the innSlide family.**

[innVision PRO](#) is the fully automatic version for load stability and deformation measuring. The system takes a series of photos, automatically analyzes them, and demonstrates the deformation points – saving valuable analysis time.



# Compatible Standards

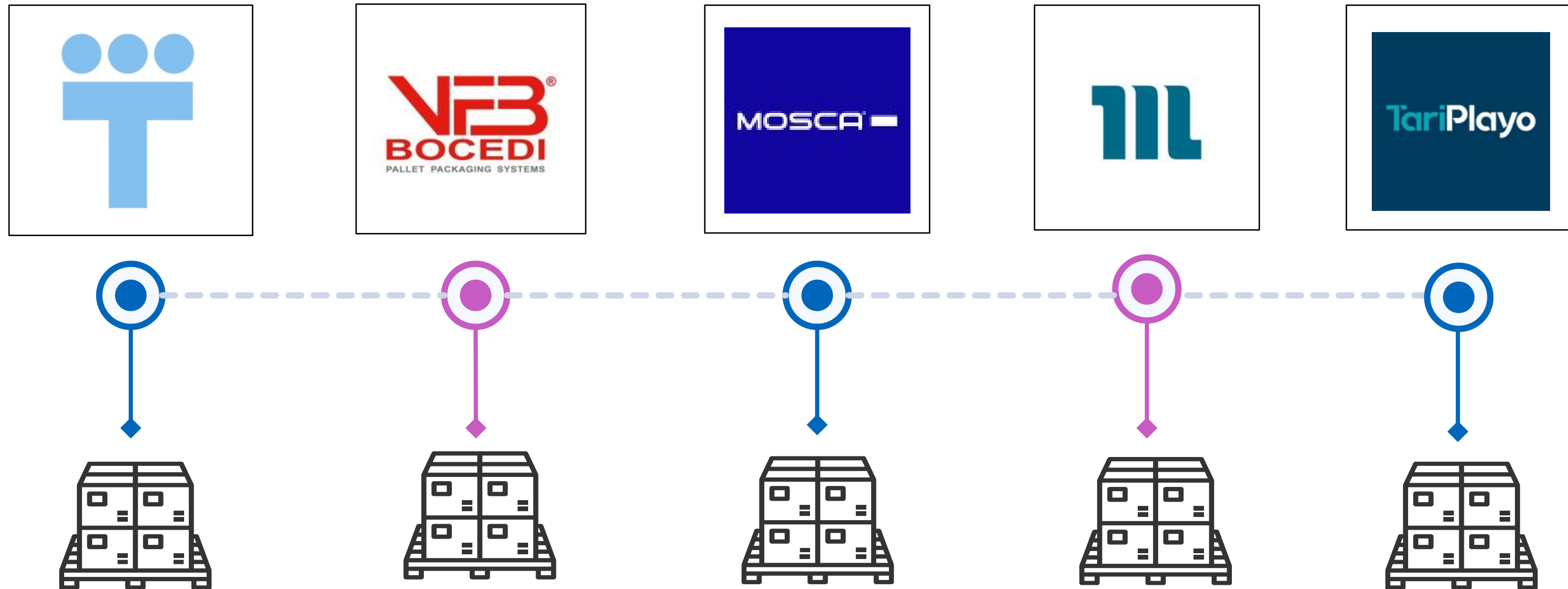


40509

Used to create reports for load verification

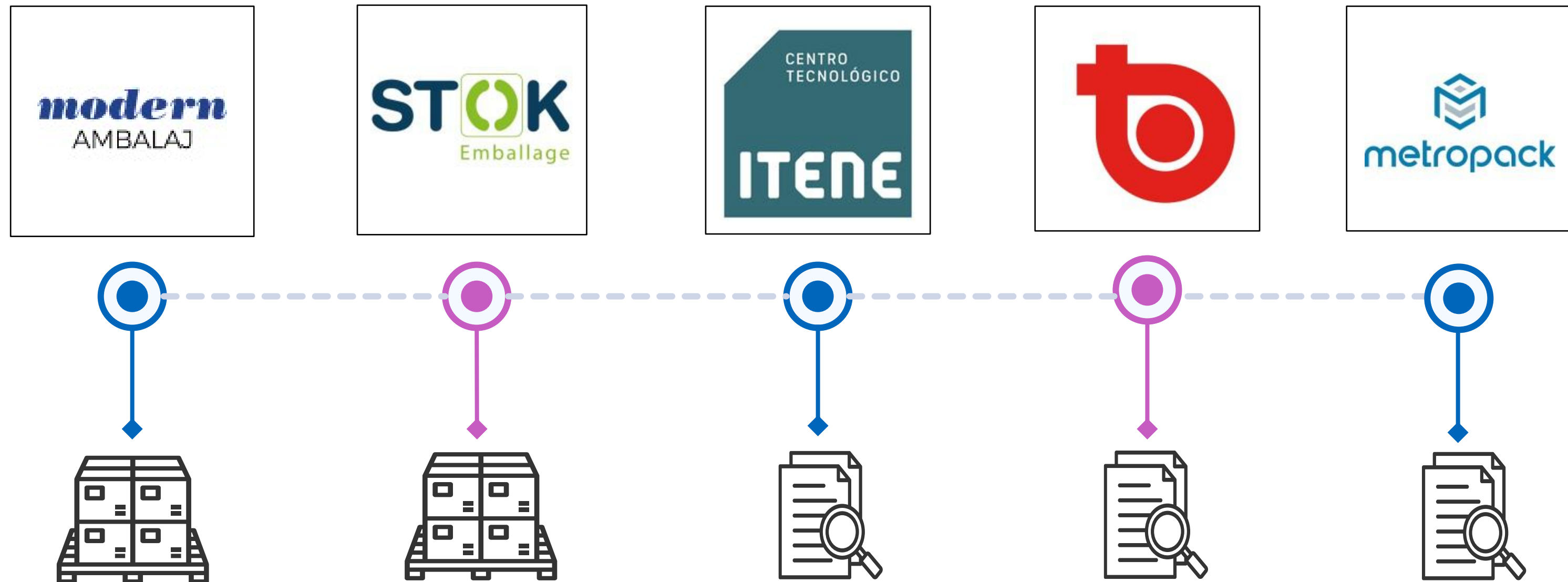
# Industries:

**Packaging: Pallets, film, straps**

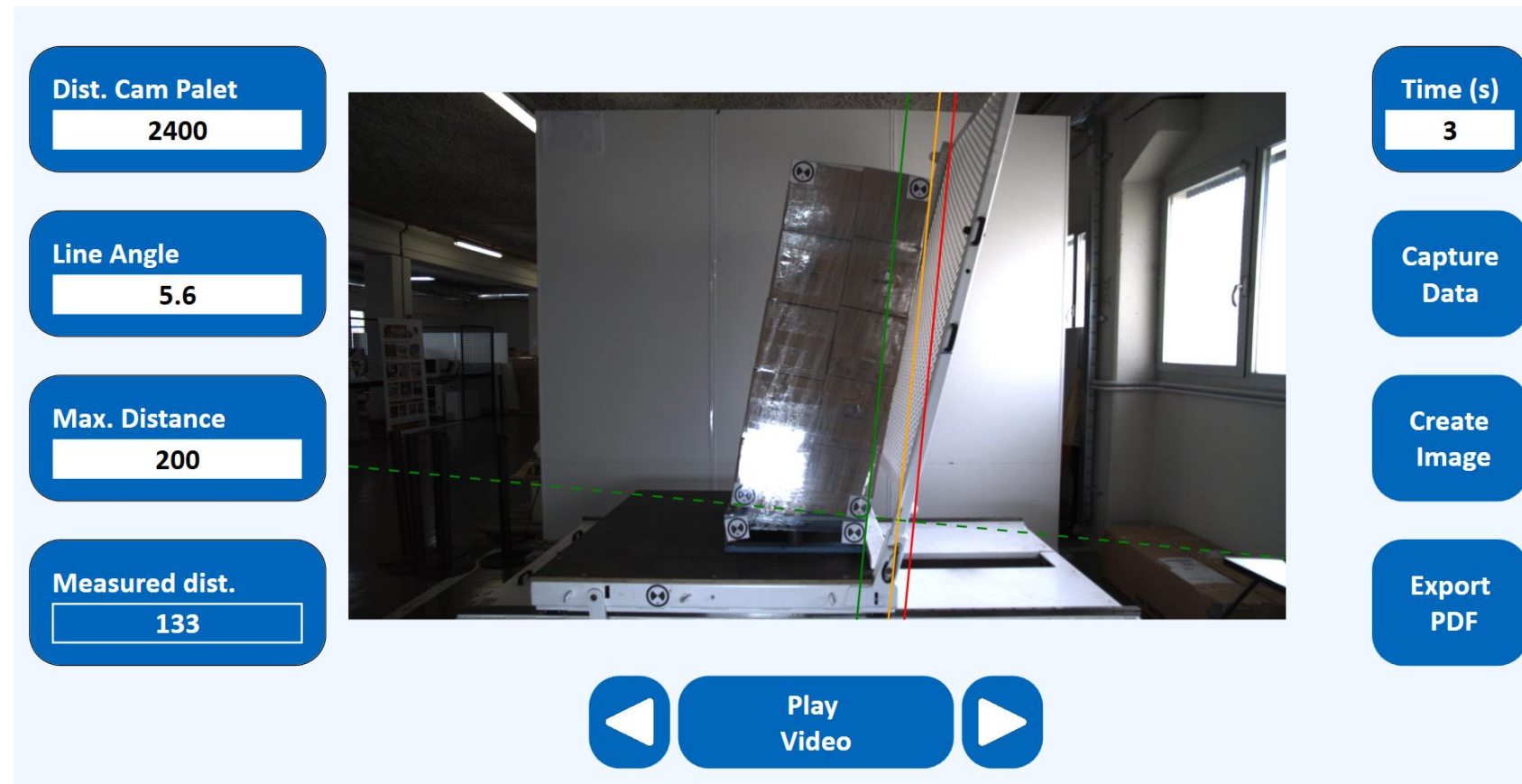


# Industries:

Packaging, Universities & Research Institutes



# innVision ST



**Semi-  
automatic  
software**


**High-speed  
camera**

**Quick, easy  
analysis;  
Multiple  
applications**

**Create test  
report**

# innVision PRO

Frame Index 200



Play Video

Frame	Time (ms)	Def (mm)	Def limit	OK / Not OK
0	0	0	160	OK
1	8	0	160	OK
2	17	0	160	OK
3	25	0	160	OK
4	33	0	160	OK
5	42	0	160	OK
6	50	0	160	OK
7	58	0	160	OK
Max/Over Elastic Deformation				
199	1652	187	160	Not OK
200	1660	189	160	Not OK
201	1668	187	160	Not OK
Permanent Deformation				
479	3976	0	80	OK

Capture Data

Force Reference

Analyse data

Export PDF

Fully-automatic software

High-speed camera

Effortless analysis; Multiple applications

Automatic test report generation

# Components



High-speed camera & lens



PC with software  
*(PRO only)*

# innVision

Auxiliary tripod

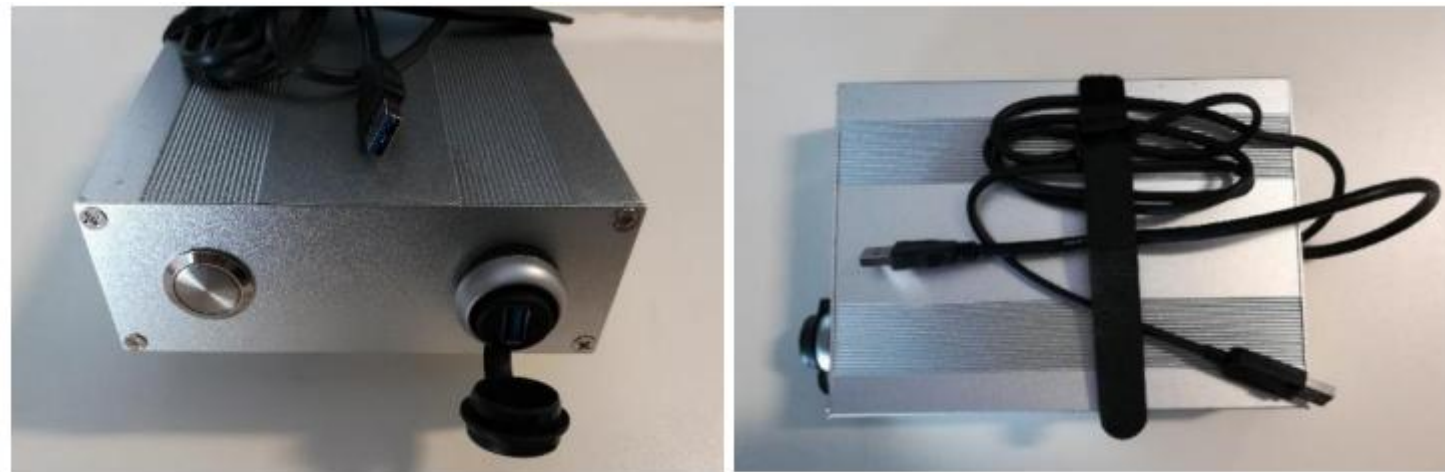


Tripod with  
leveling mounting  
adaptor



# innVision PRO

*For non-SLTT equipment*



Trigger box



Magnetic base

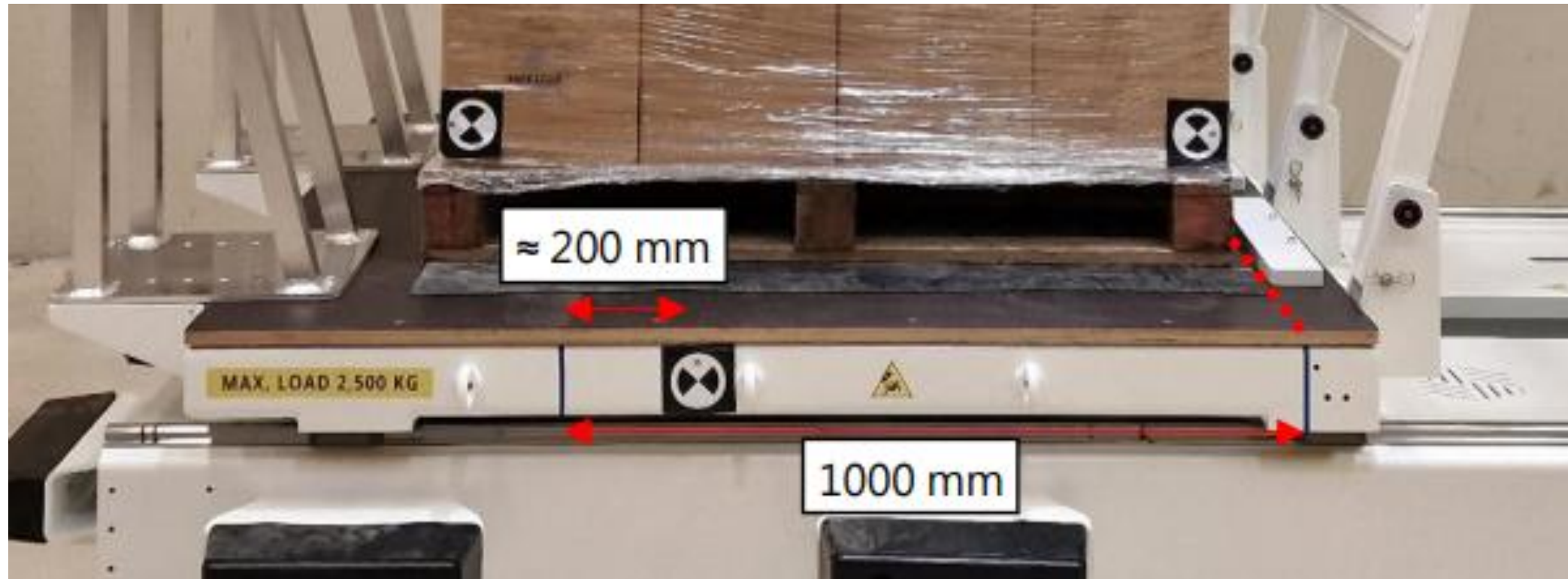


Inductive proximity sensor



Sensor cable extension

# Setup

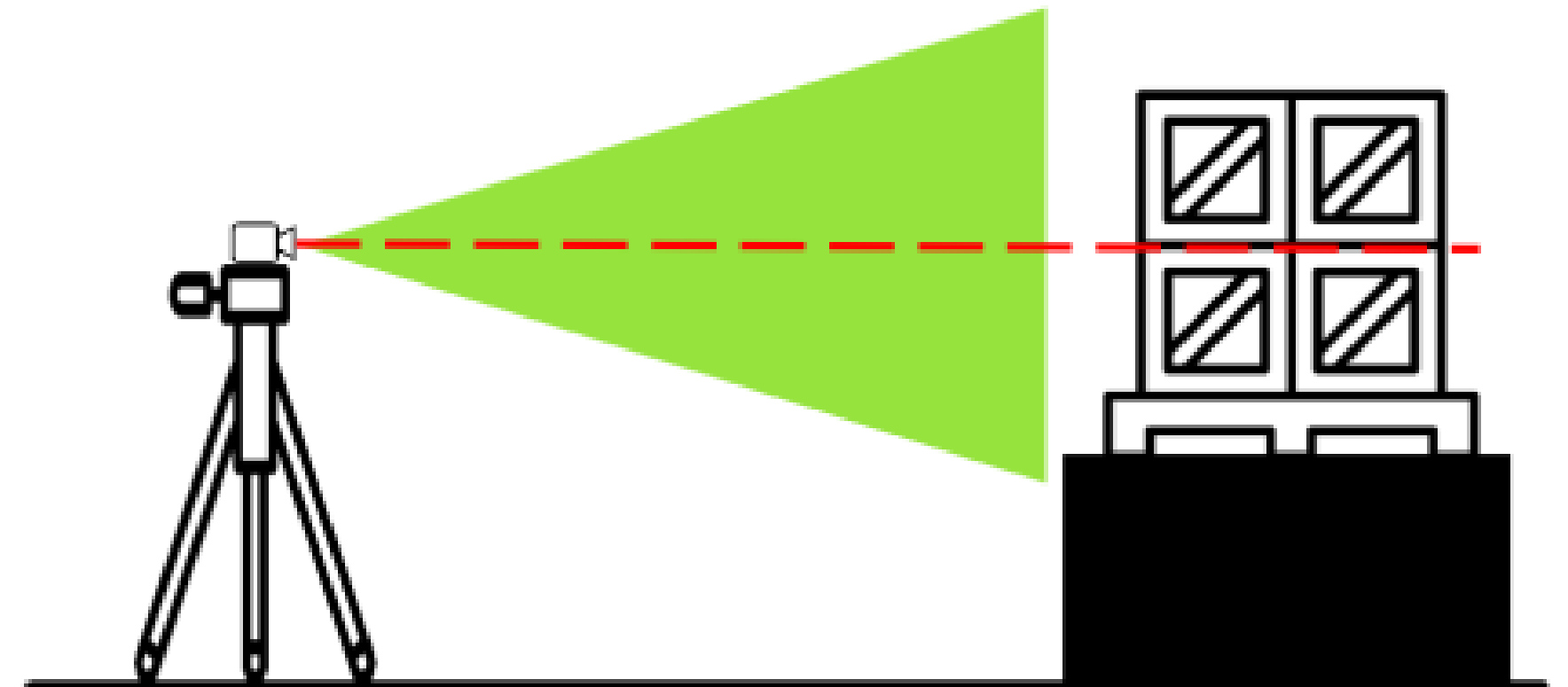
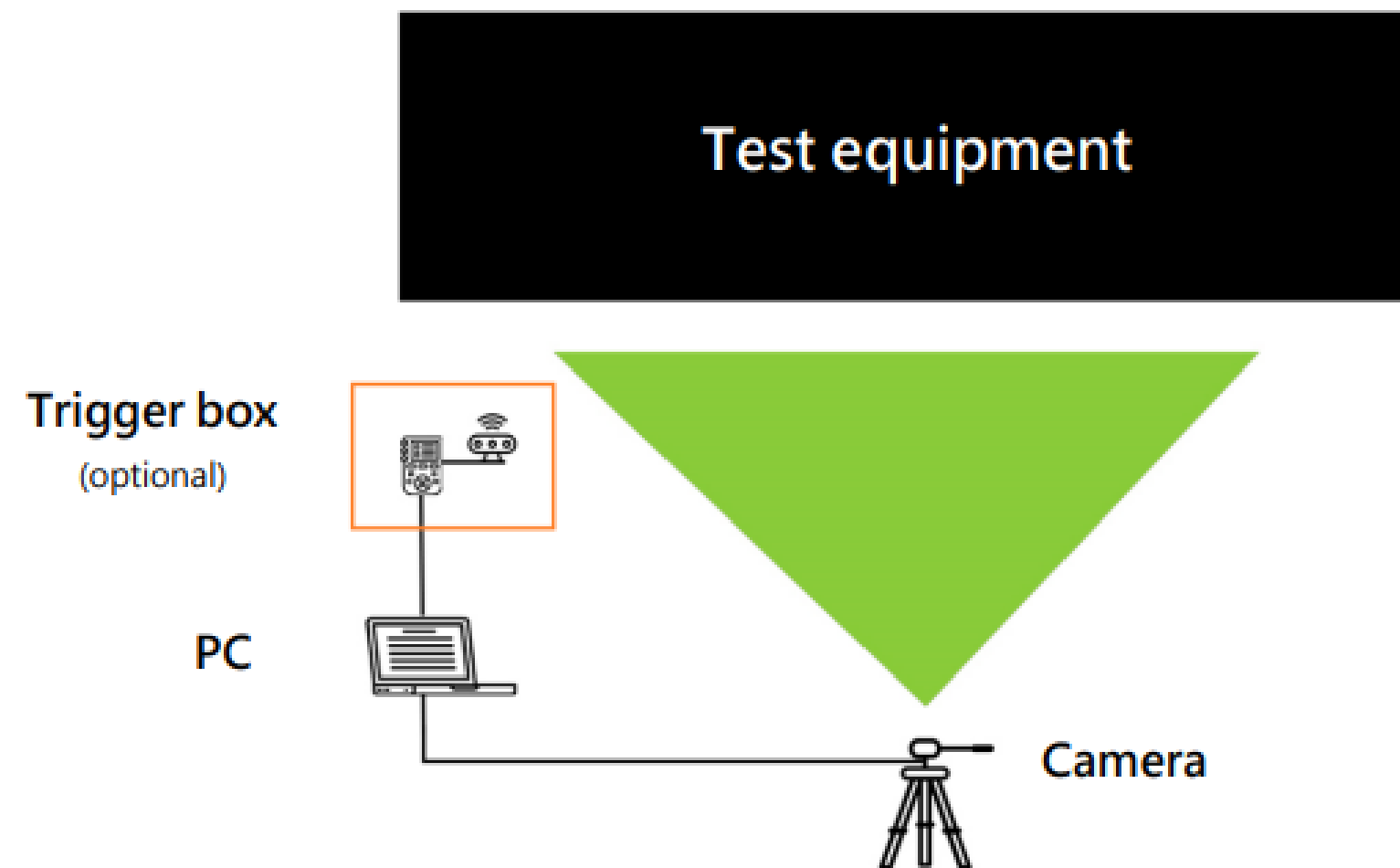


Reference target on equipment;  
recommended distances.



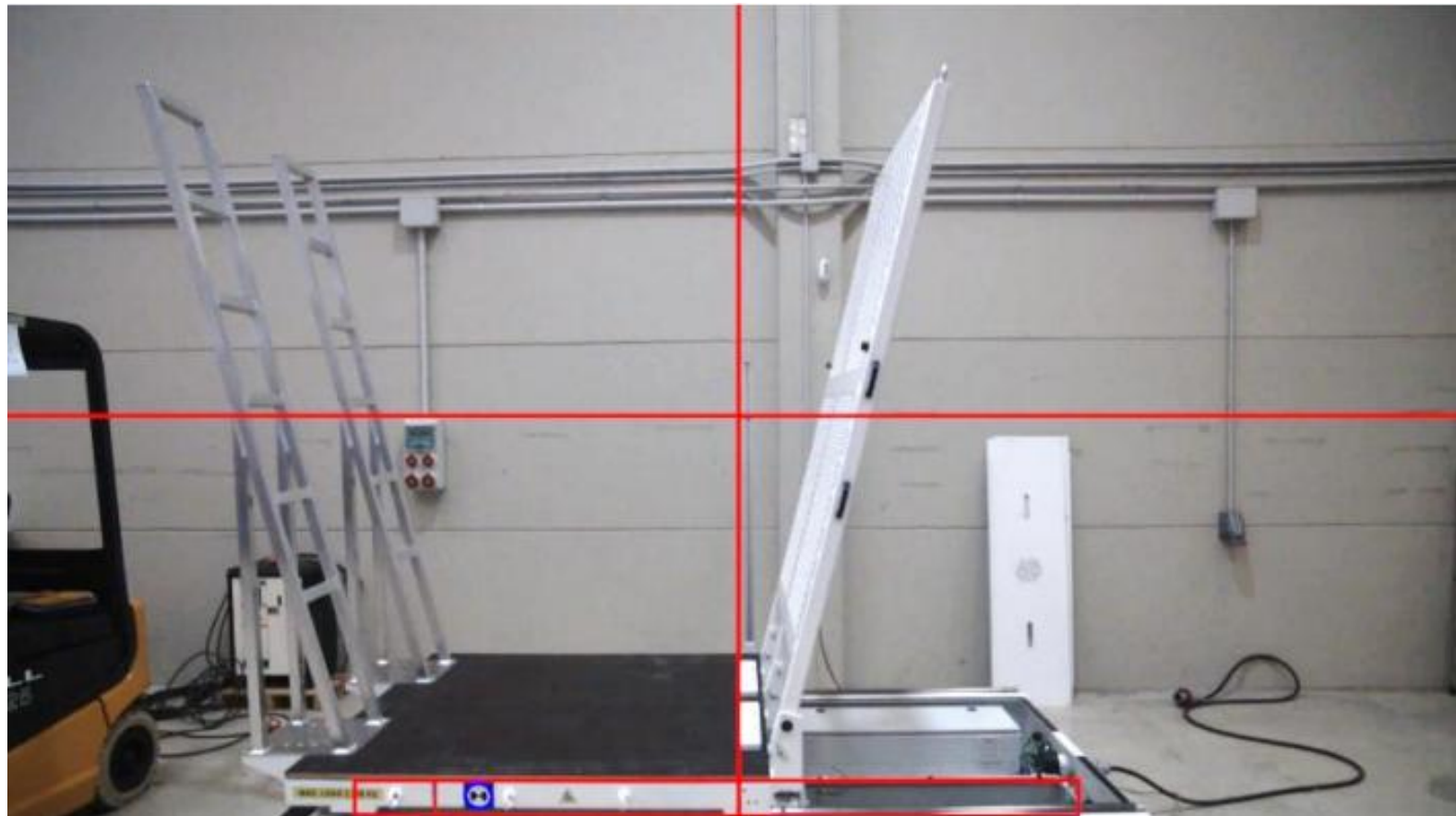
Stability tests: 4 targets, 1 per corner  
Tilt tests: 2 targets, pallet base corners

# Setup



# Setup

Lighting is important for correct operation.



Verify that targets are recognized by the system.

Adjust camera focus.



**Green:** Camera tilt angle;  
must remain horizontal

**Blue:** Pan angles

**Red:** Roll angles

# Recording

Fill in blanks to create a folder to record test data.

Project

Date

Reference

H Permanent def.

Acceleration test

Perm. Max Def. Low (mm)

Load Height (mm)

Perm. Max Def. High (mm)

Load Weight (kg)

Elastic Max Def. (mm)

Test Method

Project Folder

Intro



Project Info

Project

combined test

Reference

test

Date

26/9/2024

Project Folder

C:\Captures\testrombi2

Parameters

Dist. Palet (mm)

320

Load Height (mm)

1570

Load Weight (kg)

1800

Center Of Gravity

0

Acceptance Criteria

H Permanent def. (mm)

200

Perm. Max Def. High (mm)

78

Perm. Max Def. Low (mm)

40

Elastic Max Def. (mm)

157

Horizontal Stability Test

Test Method

EUMOS

Acceleration test

0.50G

Dwell Time

0.300

Tilt Test

Angle (deg)

10.00

Tilt Speed (deg/s)

1.00

Eq. Acceleration

0.50

Test time at angle (s)

10

5

9

Intro



# Recording

Run test. When finished, results appears indicating frame, time, deformation, and OK / Not OK report.

Waiting for start saving sequence signal

Frame	Time (ms)	Def (mm)	Def limit	OK / Not OK
Max/Over Elastic Deformation				
Permanent Deformation				

Play Video

Capture Data

Force Ref

Analyse data

Export PDF

Horizontal Stability Test

Frame Index 114



Frame

Time (ms)

Def (mm)

Def limit

OK / Not OK

0	0	0	157	OK
1	8	0	157	OK
2	17	2	157	OK
3	25	0	157	OK
4	33	0	157	OK
5	42	0	157	OK
6	50	0	157	OK
7	58	2	157	OK
Max/Over Elastic Deformation				
157	1308	46	157	OK
Permanent Deformation				
359	2992	8	78	OK

Play Video

Capture Data

Force Reference

Analyse data

Export PDF

# Recording: ST

Play video to select deformation points.

Dist. Base Palet

Line Angle

Max. Distance

Measured dist.



Time (s)

3

Done

Create Image

Export PDF

◀

Play Video

▶

Dist. Base Palet

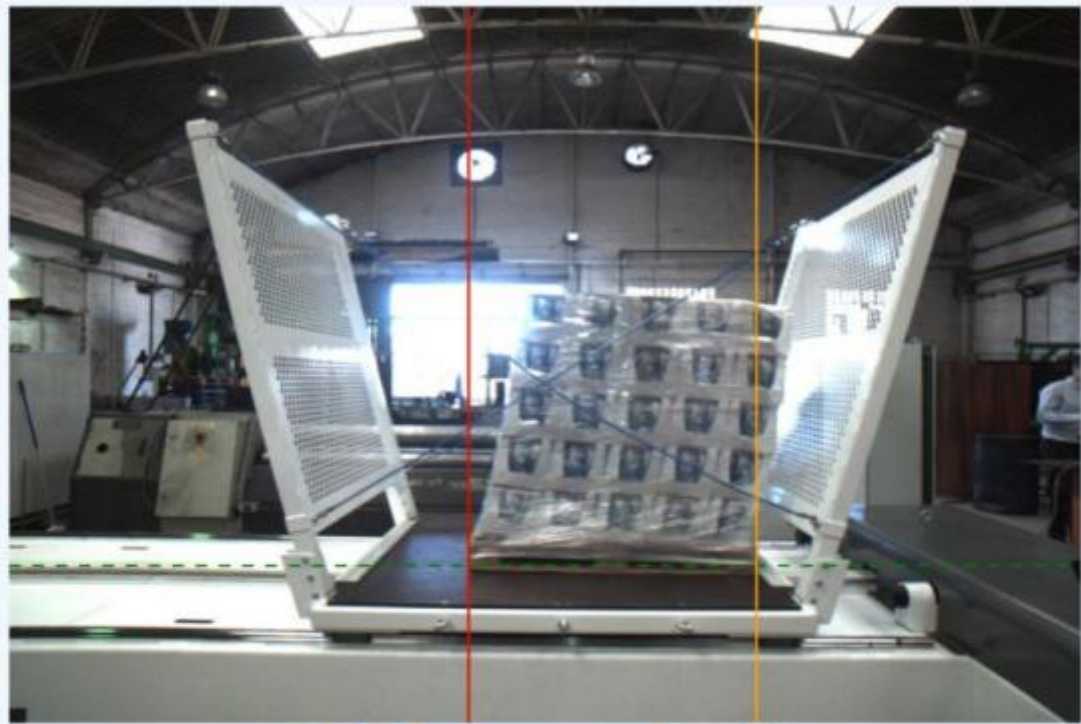
2910

Line Angle

Max. Distance

Measured dist.

1200



Time (s)

3

Capture Data

Create Image

Export PDF

◀

Play Video

▶

# ST: Application Videos

Project

Reference

Acceleration test

Load Height (mm)

Load Weight (kg)

Test Method

Date

H Permanent def.

Perm. Max Def. Low (mm)

Perm. Max Def. High (mm)

Elastic Max Def. (mm)

Project Folder

C:\Users\carlos.mora  
\OneDrive - SAFELOAD

Intro

Drop testing

Dist. Cam Palet

850

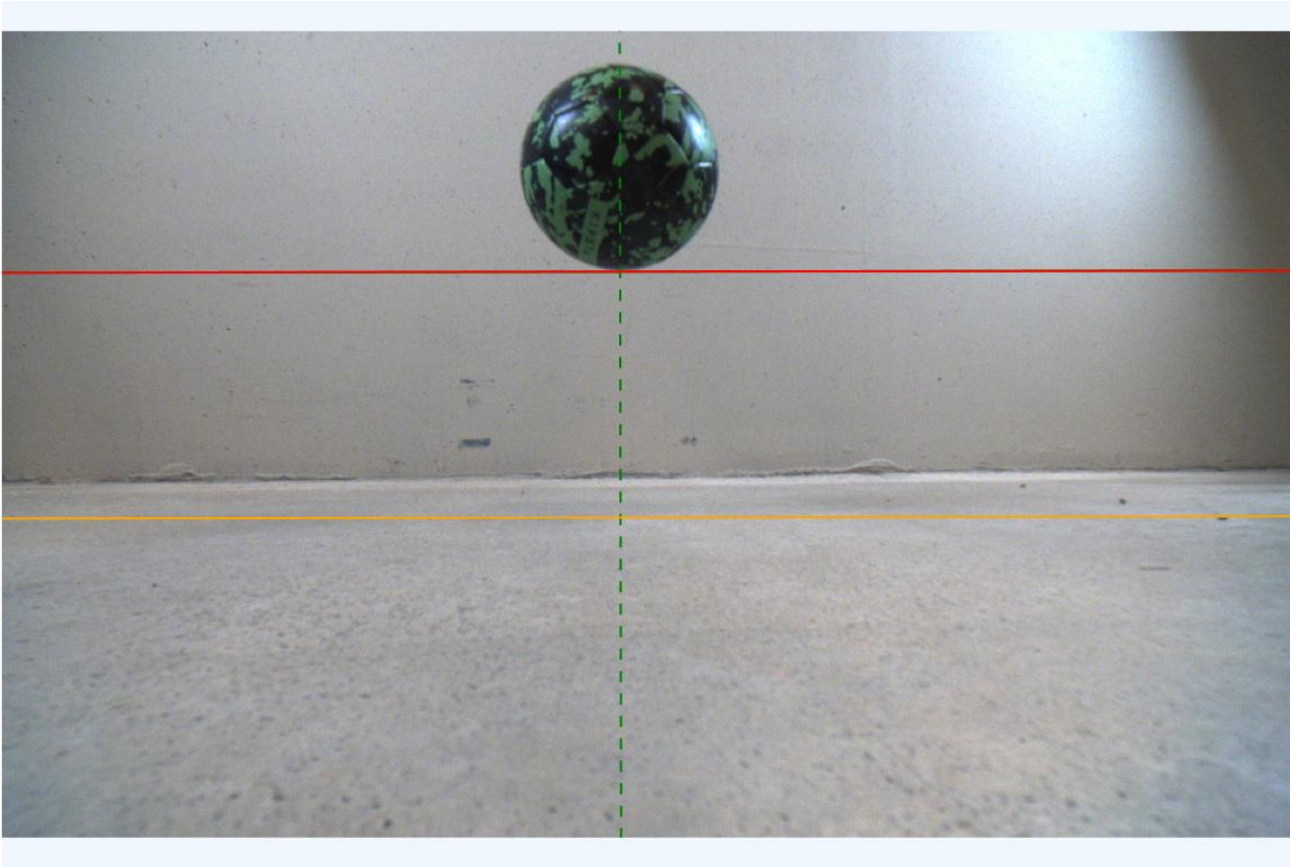
Line Angle

89.9

Max. Distance

Measured dist.

268



# ST: Application Video



**Tilt testing**

Dist. Cam Palet

3130

Line Angle

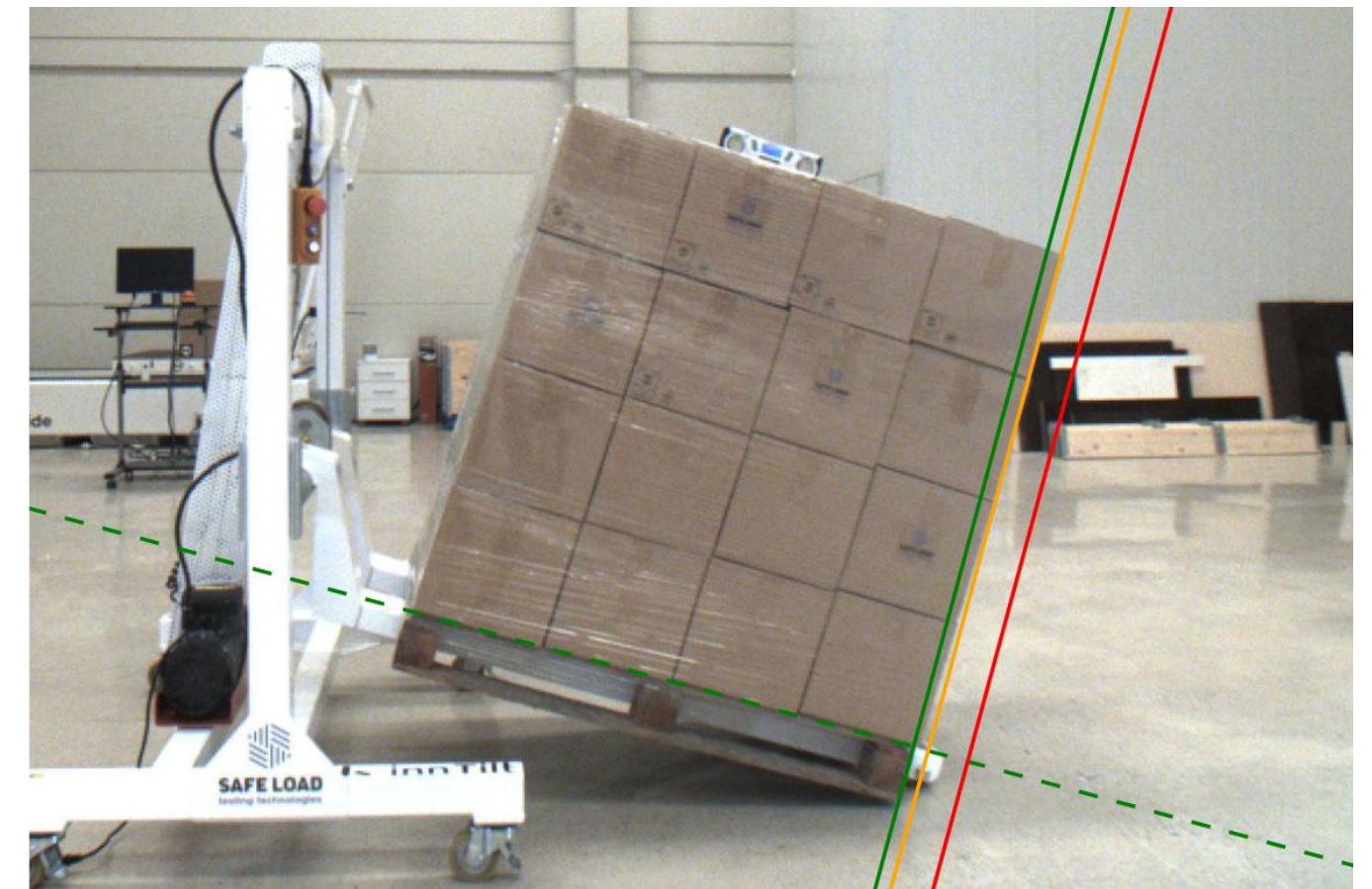
15,1

Max. Distance

130

Measured dist.

34



# ST: Application Video



**Load stability testing**

Dist. Base Palet

2200

Line Angle

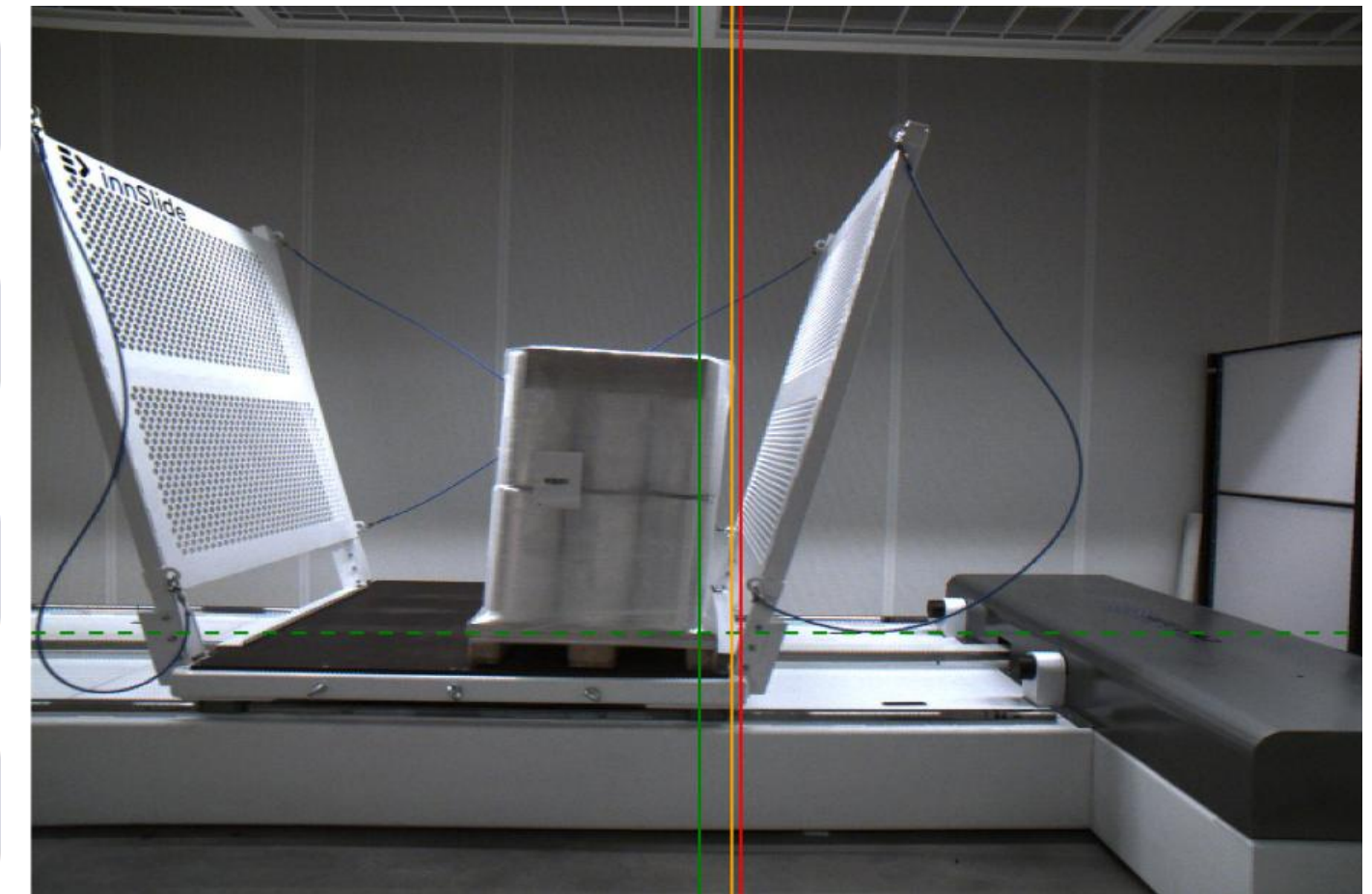
0

Max. Distance

105

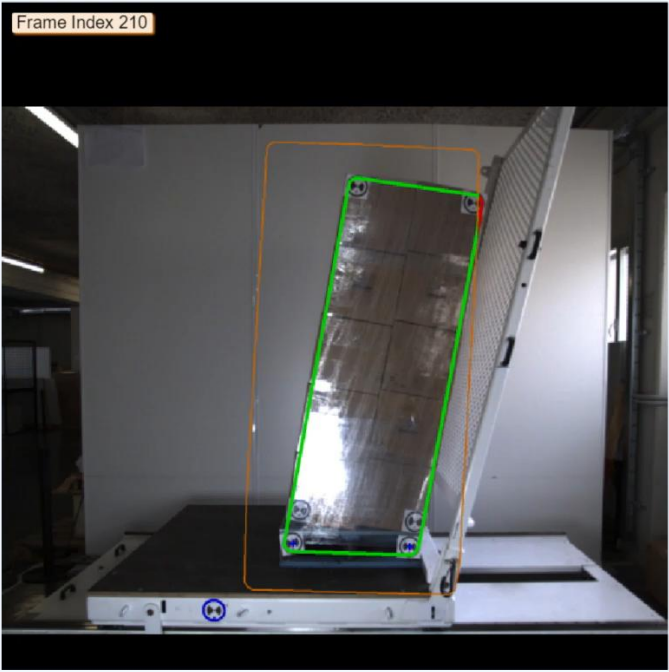
Measured dist.

82



# PRO: Application Video

Frame Index 210



Play Video

Frame	Time (ms)	Def (mm)	Def limit	OK / Not OK
0	0	0	160	OK
1	8	0	160	OK
2	17	0	160	OK
3	25	0	160	OK
4	33	0	160	OK
5	42	0	160	OK
6	50	0	160	OK
7	58	0	160	OK
Max/Over Elastic Deformation				
207	1718	187	160	Not OK
208	1726	185	160	Not OK
209	1735	185	160	Not OK
210	1743	183	160	Not OK
Permanent Deformation				
479	3976	0	80	OK

Capture Data

Force Reference

Analyse data

Export PDF

Load stability testing

Frame Index 175



Play Video

Frame	Time (ms)	Def (mm)	Def limit	OK / Not OK
171	1419	139	111	Not OK
172	1428	141	111	Not OK
173	1436	149	111	Not OK
174	1444	154	111	Not OK
175	1453	159	111	Not OK
176	1461	168	111	Not OK
Over Elastic Deformation				
167	1386	116	111	Not OK
168	1394	121	111	Not OK
169	1403	126	111	Not OK
Permanent Deformation				
479	3976	21	60	OK

Capture Data

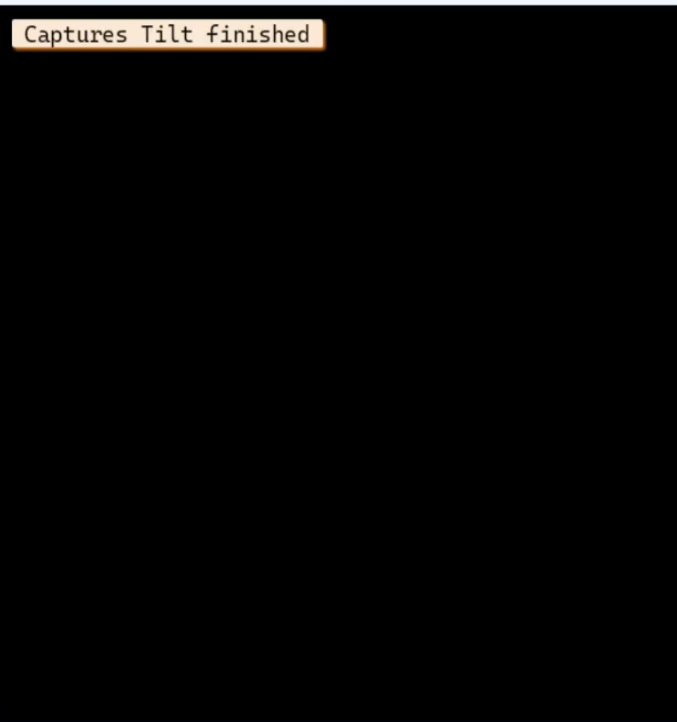
Analyse data

Export PDF

# PRO: Application Video

Tilt Test

Captures Tilt finished



Frame	Time (ms)	Def (mm)	Def limit	OK / Not OK
Max/Over Elastic Deformation				
Permanent Deformation				

Capture Data

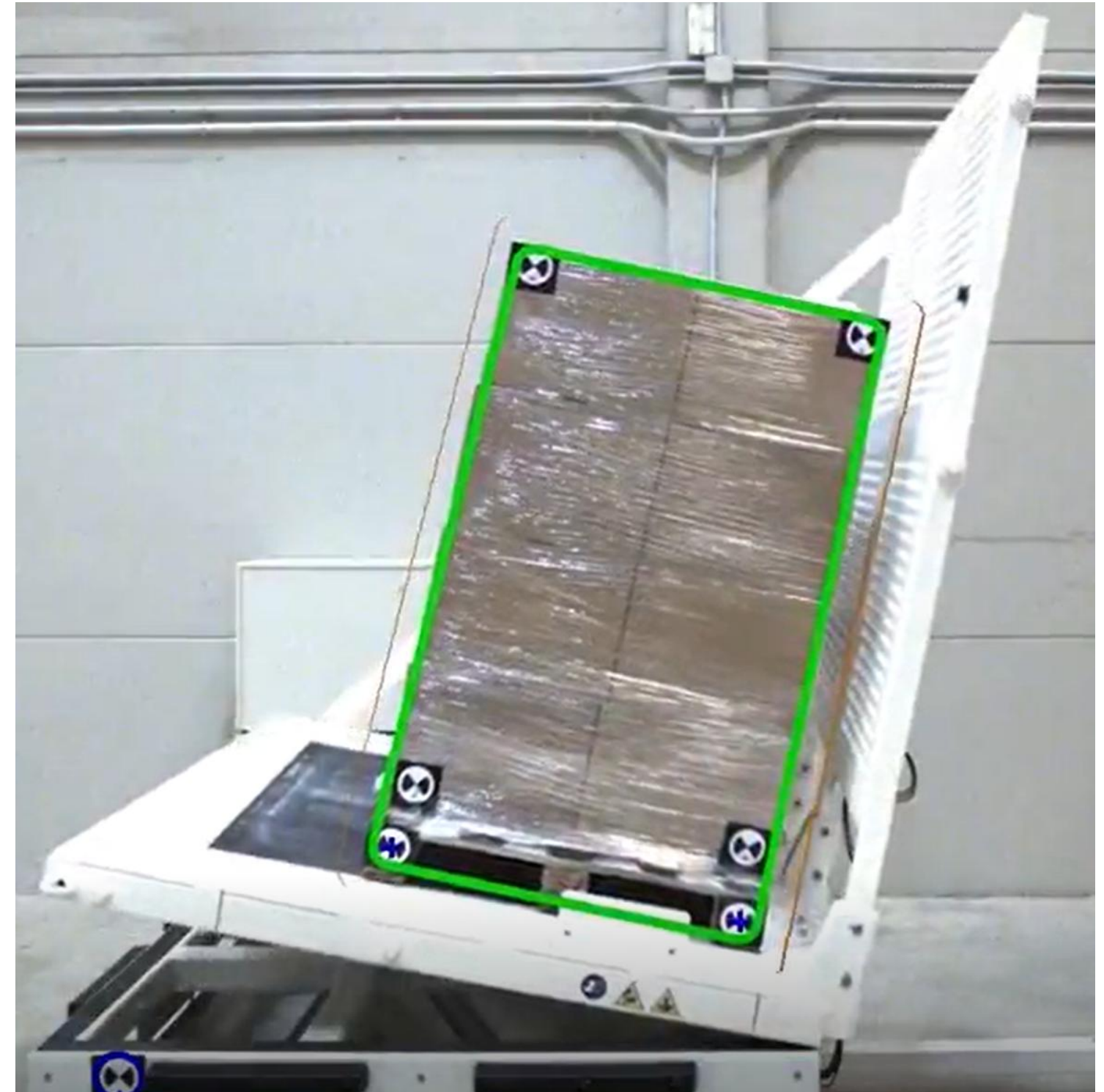
Force Reference

Analyze data

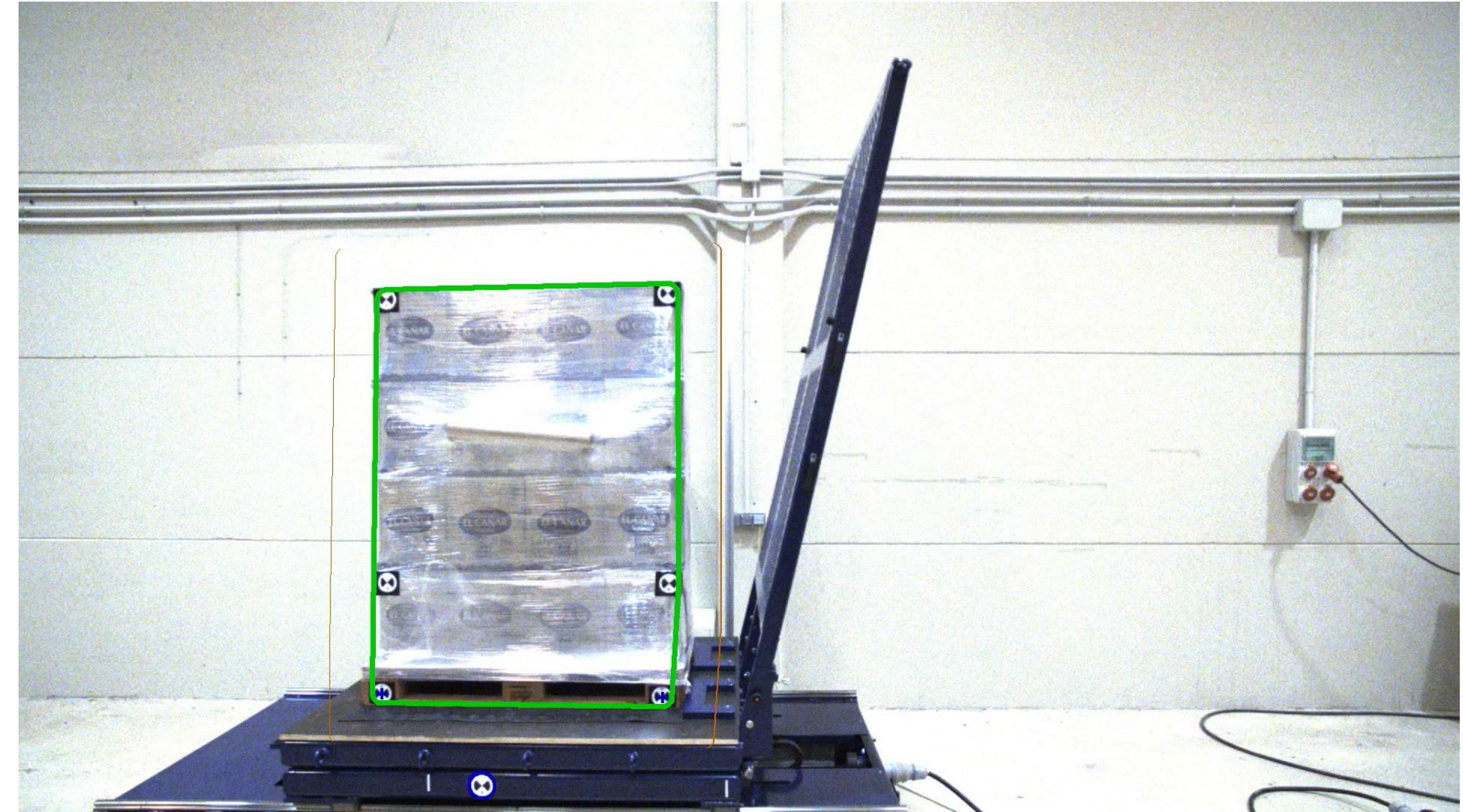
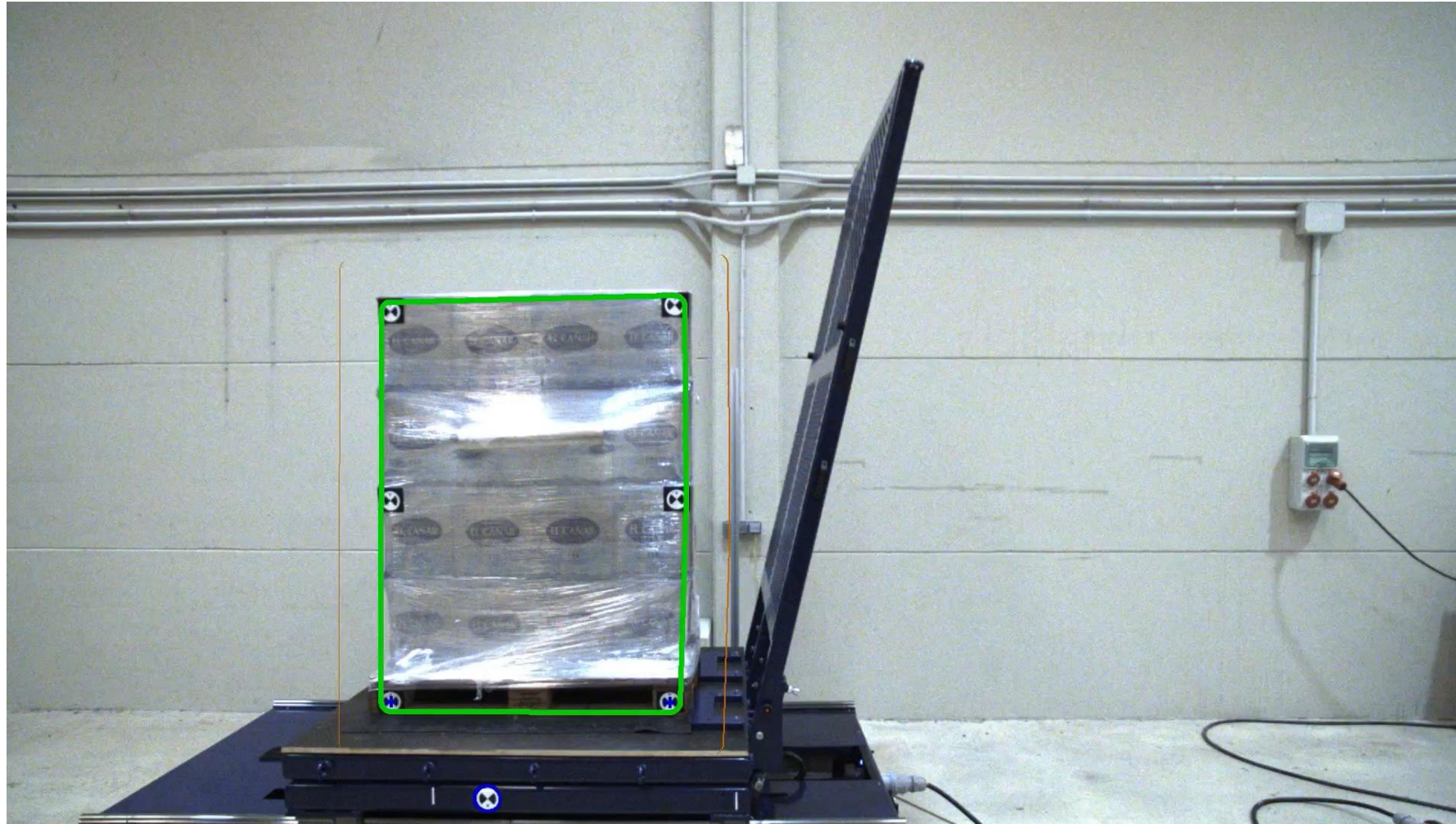
Export PDF



**Tilt testing**



# PRO: Application Videos



**innSlide Hybrid testing**

# PRO: Application Video



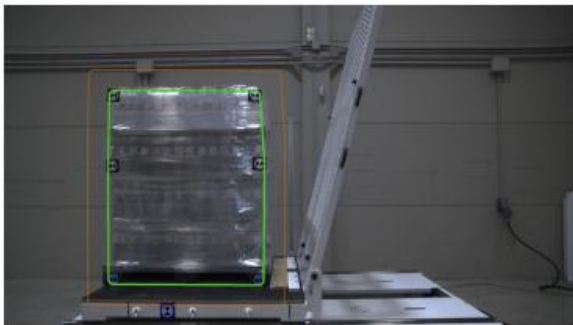
EUMOS Report Generator

## B. TEST RELATED DATA

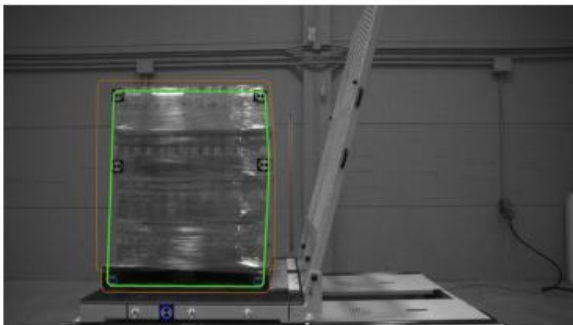
### LENGHT DIRECTION TEST

	CONCEPT	DESCRIPTION
11.	Date	14/2/2024
12.	Place	SAFE LOAD (VLC-SP)
13.	Rigidity	0,40g

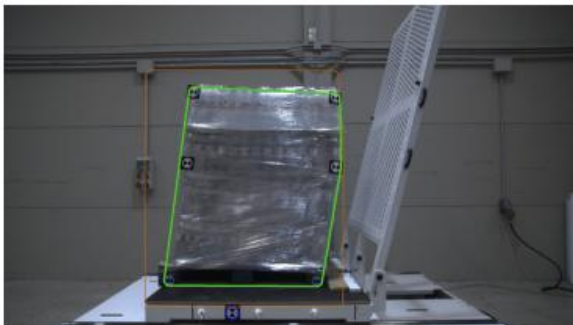
Before testing



Permanent deformation



Maximum Elastic Deformation



# Recording modes

## Automatic

Activated after launching test on the machine.  
Only available for the innSlide stability tester family.

## Horizontal stability test

Horizontal Dynamic acceleration applied to unit load.  
Analysis of the elastic deformation during test,  
permanent deformation after test.

## Combination test

Horizontal dynamic acceleration followed by  
static acceleration test.  
Analysis of elastic and permanent deformation.

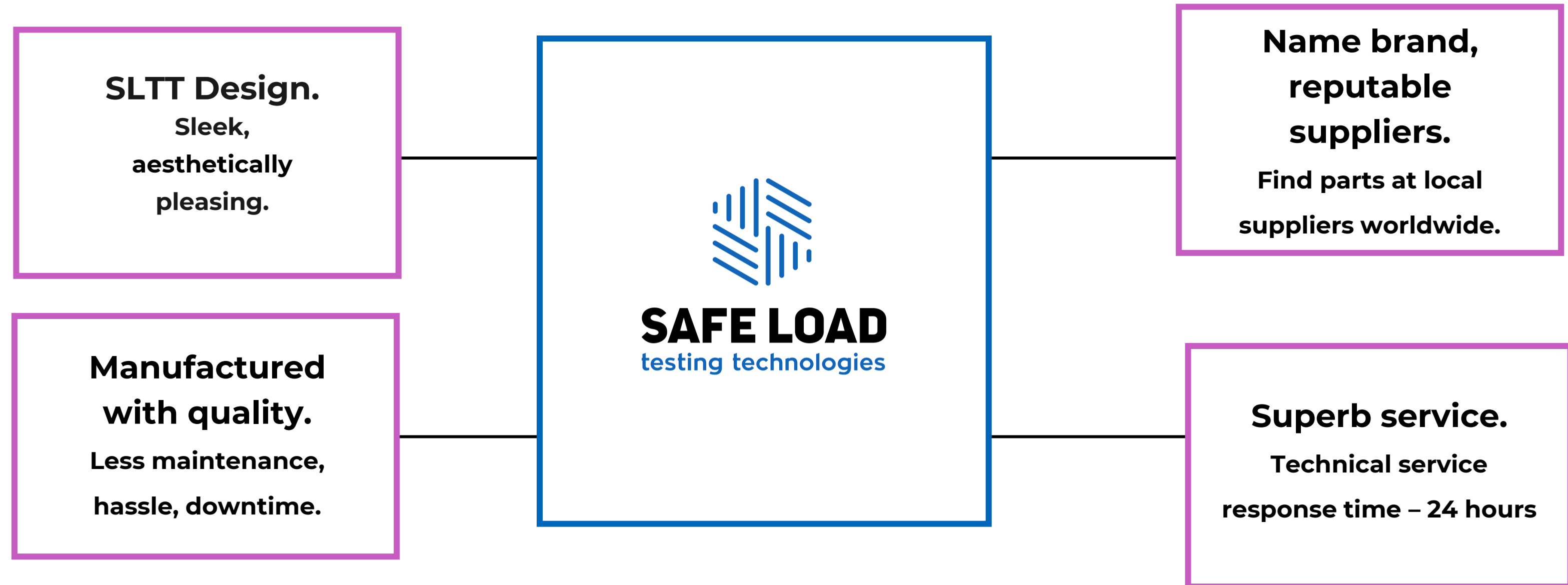
## Manual

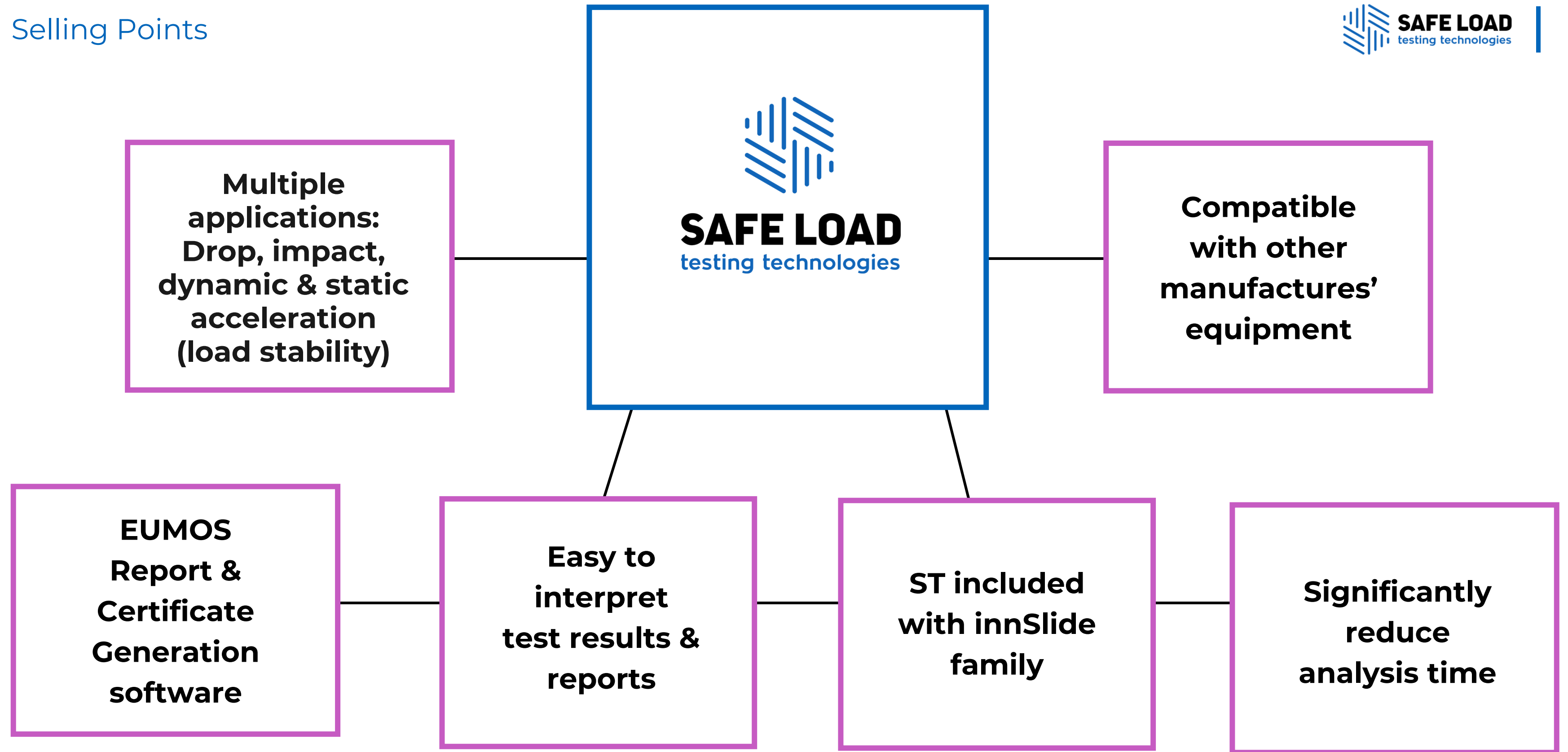
Activated in innVision software.  
Press capture data button & system will record test.

## Tilt test

Static acceleration applied to unit load through  
inclination & holding at target angle during target time.  
Analysis of permanent deformation after test.

# The SLTT Advantage







# Technical Manual

- Product description
- Setup
- Settings
- Operation
- Applications

innVision  
Users manual

Users manual  
innVision