

Best Practices for Health and Safety Technology Transfer in Construction

Technology Transfer *is making scientific and technological developments accessible to a wider range of users who can then further **develop and exploit** the technology into new products, processes, applications, materials or services.*

Plagiarism – *purloining or theft of others' ideas and work, represented as one's own, either in whole or in part, for profit or gain*

Bright Tunes, the owners of the song 'He's So Fine' by the Chiffons, sued 'Beatle' George Harrison successfully claiming My Sweet Lord was practically identical. A judge agreed and awarded them \$1.6 million.

TECHNOLOGY TRANSFER ENCOURAGES PLAGIARISM

PLAGIARISM CAN BE ACCEPTABLE DEPENDING ON MOTIVE

(Saving lives is acceptable plagiarism, outright profit motive is unacceptable)

So, technology transfer and innovation diffusion are plagiarism with a conscience !

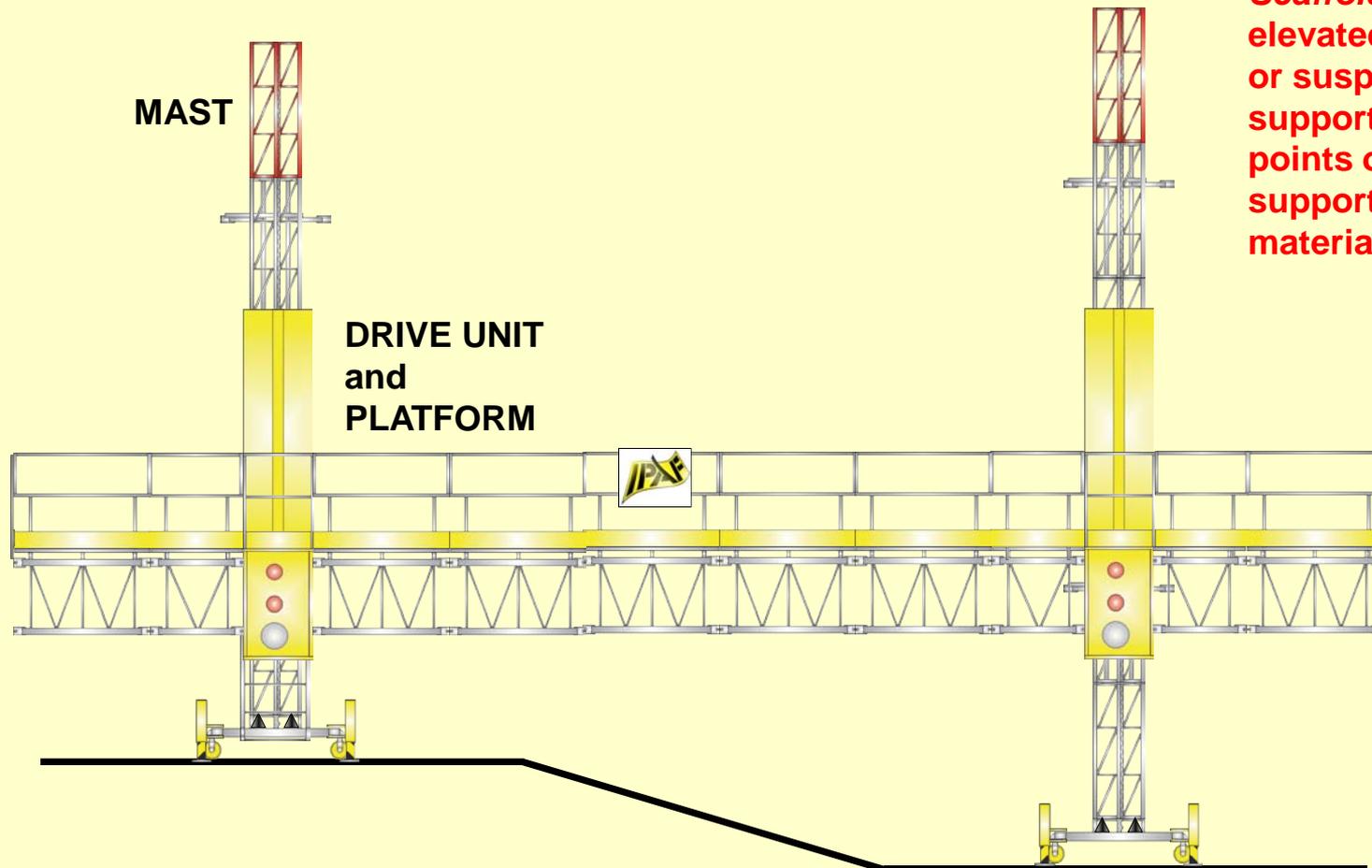
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MAST CLIMBING WORK PLATFORM (MCWP) WHAT IS IT ?

'Primarily used to position personnel with their necessary tools and materials to perform their work' ANSI A92.9

NOT an Aerial Work Platform (A92.2, A92.3, A92.5, A92.6, A92.7, A92.8) **NOT A HOIST** (ANSI A10.4 and A10.5)

CFR 1926 Sub Part L
Scaffold means any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage), used for supporting employees or materials or both.



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WHAT'S IT USED FOR?

MASONRY

STUCCO

GLASS

REFURB

METAL PANEL

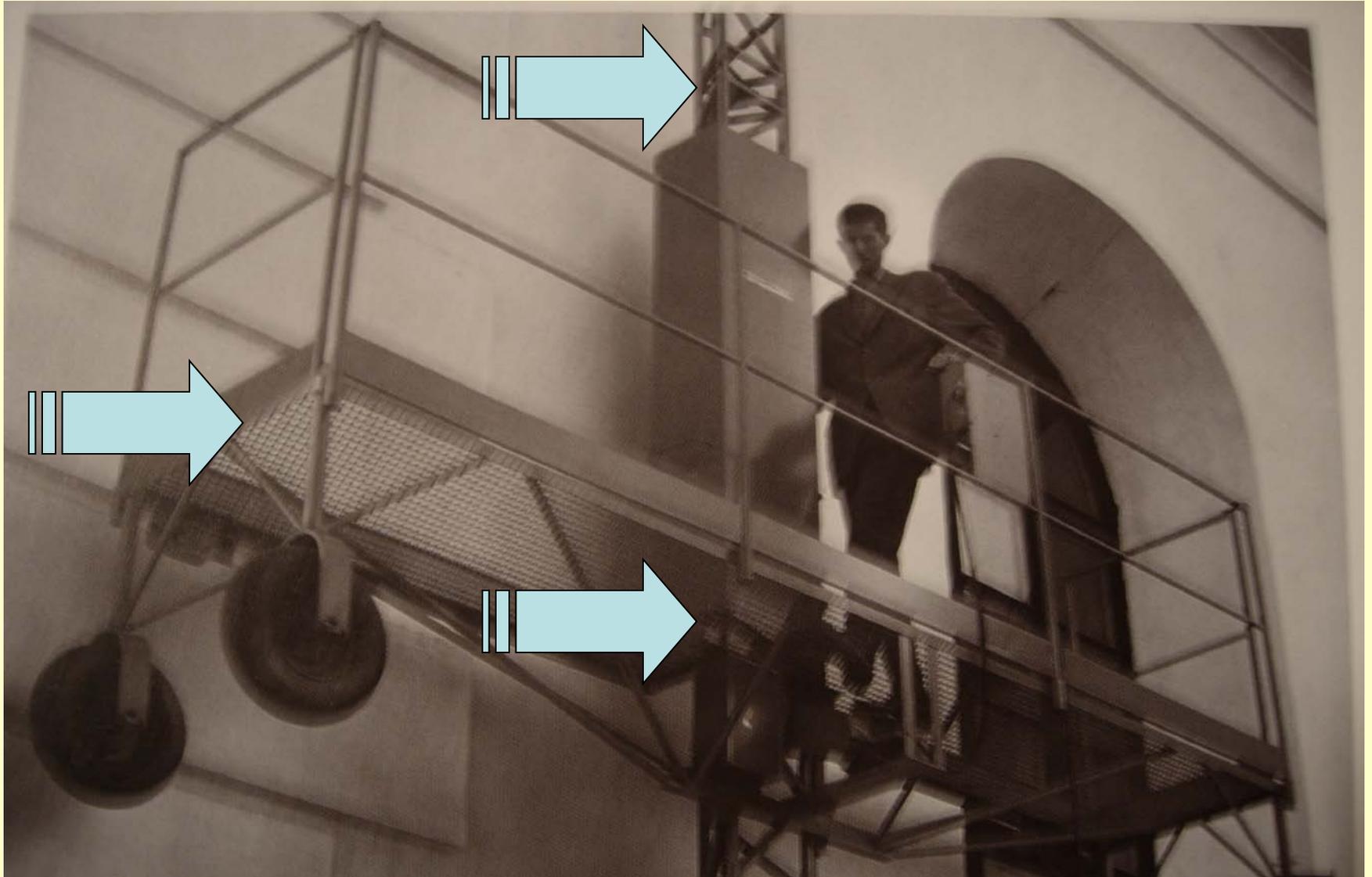
A WORKSHOP IN THE SKY

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MCWP – WHERE DID IT COME FROM ?



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3 MAIN TECHNOLOGIES:

SWINGSTAGE SCAFFOLD



MAST



RACK AND PINION
DEVICE



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ANALYSIS OF **FEATURES** AGAINST OTHER SIMILAR PRODUCTS

SCAFFOLDING	BOOMS/SCISSORS	MAST CLIMBERS
<u>FOR: AGAINST</u>	<u>FOR: AGAINST</u>	<u>FOR:</u>
Flexibility	Less Flexible	
Long Erection Time	Rental Ready	
Profiling Ability	Can't Profile	
Fixed Levels	Variable Height	
High Capacity	Low Capacity	
Large Footprint	Minimal Footprint	

SOME ASSEMBLY IS REQUIRED. INDUSTRY TRAINING COURSES AVAILABLE

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ANALYSIS OF SAFETY BENEFITS

Apply the 'SO WHAT' factor.....

FLEXIBILITY

SO WHAT !

PROFILING ABILITY

SO WHAT !

HIGH CAPACITY

SO WHAT !

MINIMAL FOOTPRINT

SO WHAT !

**VARIABLE HEIGHT ABILITY IN
CONJUNCTION WITH ALL THE ABOVE**

HOLD ON.....

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**REPETITIVE
STRAIN**



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NO LADDER CLIMBING

LAYING BRICK AT EXACTLY THE RIGHT
HEIGHT, NO BENDING DOWN ANYMORE

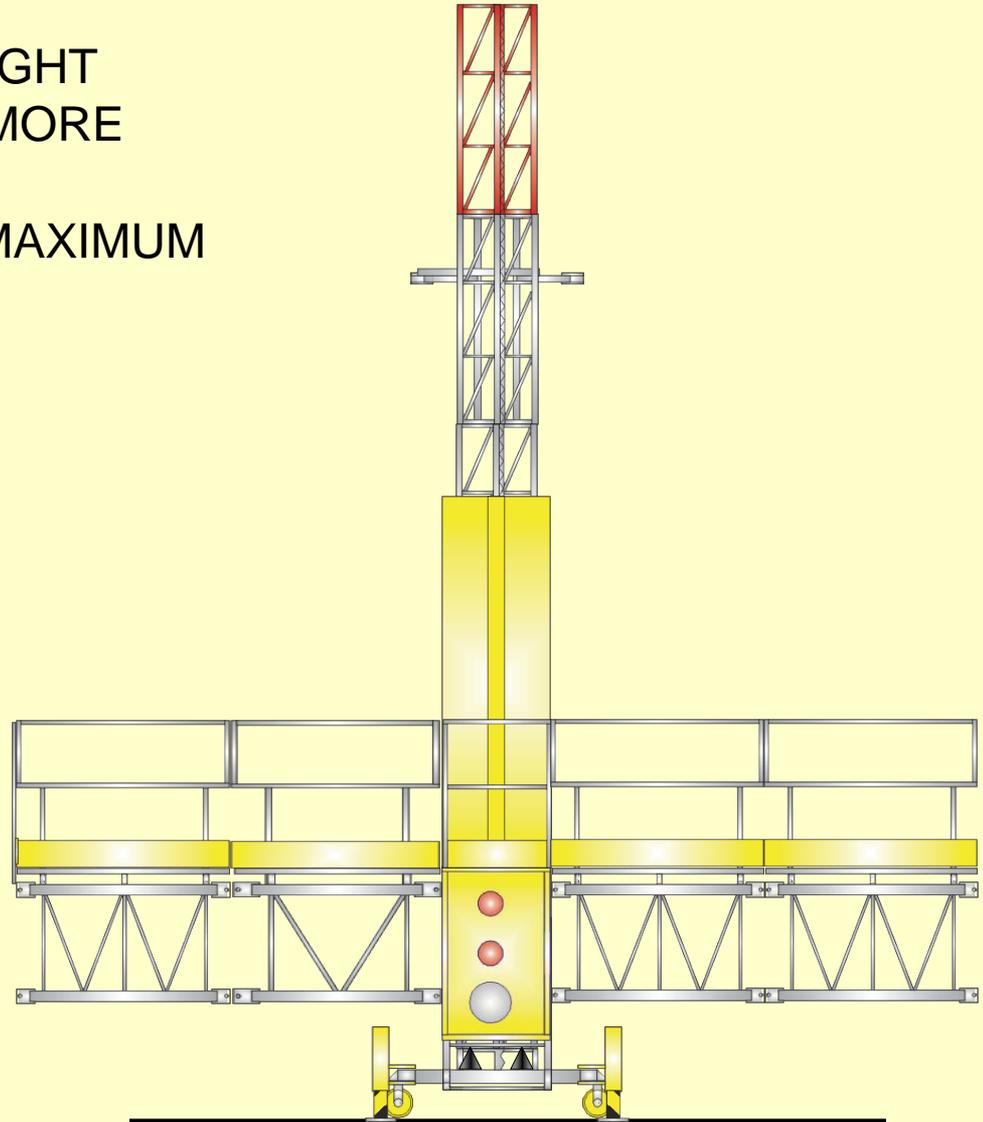
EYE LEVEL EXACTLY RIGHT FOR MAXIMUM
QUALITY

INCREASED SPEED

INCREASED PRODUCTIVITY

INCREASED QUALITY

DECREASE IN REPTITIVE STRAIN
INJURY



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EARLY SUCCESS OF THE PRODUCT:

SWEDEN

BY 1995 25% OF NATIONAL ANNUAL SCAFFOLD BUDGET WAS TAKEN UP BY MAST CLIMBING WORK PLATFORMS

A MAST CLIMBER DIDN'T LOOK LIKE A SCAFFOLD, OR A SWINGSTAGE, OR A BOOM LIFT, BUT ALL THREE WERE LOSING MARKET SHARE TO A PRODUCT THAT WAS A DERIVATIVE OF ALL THREE.

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MANUFACTURERS BEGAN TO DISCOVER THAT PRODUCTIVITY WAS NOT ABOUT NUMBERS:

- IT WAS ABOUT SAFETY
- IT WAS ABOUT STABILITY
- IT WAS ABOUT PLANNING
- IT WAS ABOUT QUALITY
- IT WAS ABOUT ERGONOMICS



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SAFE AND PRODUCTIVE – A WINNING COMBINATION

Manufacturers began to market safety and productivity together, and looked for further refinements to combine safe and productive.



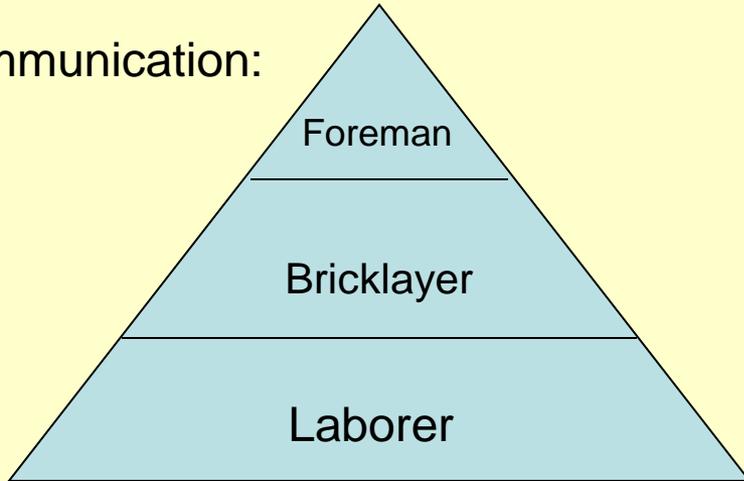
- an average payload of 158 lbs per linear foot
- the set-up allows an even distribution of material on the platform

Masons can now take up all the material they need for half a shift, increasing productivity, and can load the material safely on the ground within an 'enclosed' platform

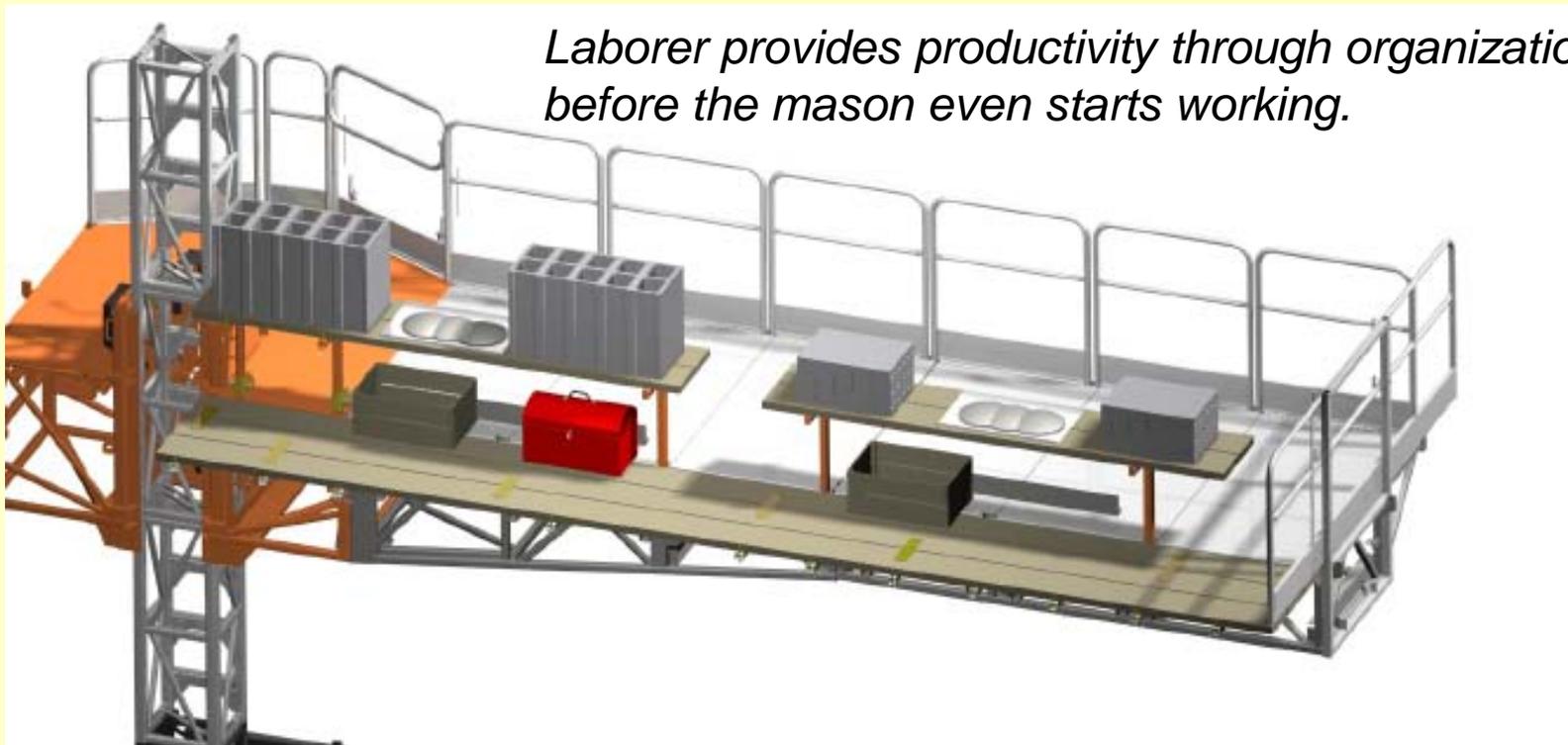
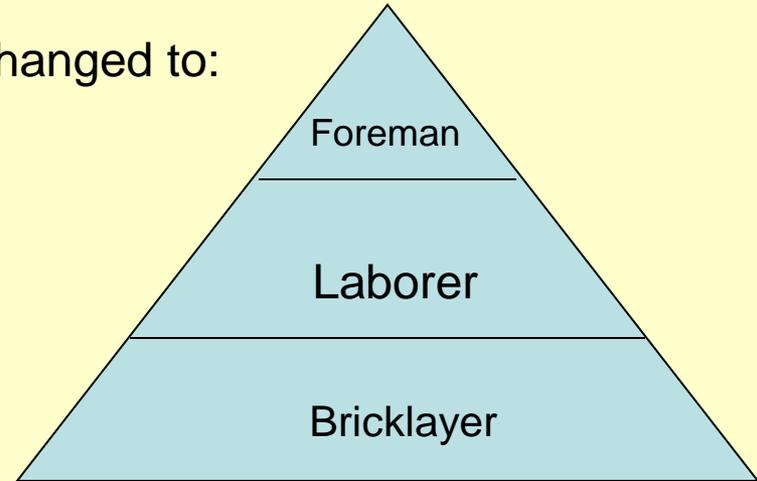


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Communication:



Changed to:



Laborer provides productivity through organization, before the mason even starts working.

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THE
STEP-DOWN
PLATFORM

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1962 Everett Rogers – Diffusion of Innovations

4 Main Elements That Influence the Spread of a New Idea:

The Innovation

Communication

Time

A Social System

A cynical 5th addition: PROFIT

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Manufacturers have the perfect solution to increased use of the product when an innovation can:

INCREASE SAFETY

INCREASE PRODUCTIVITY

INCREASE QUALITY

INCREASE PROFITABILITY

MOST CLIMBERS ARE NOT A NEW IDEA, THEY'RE THREE OLD ONES

CONTINUAL IMPROVEMENTS IN SAFETY AND ECONOMICS HAVE FACILITATED INCREASES IN QUALITY, PRODUCTIVITY AND PROFIT.

SO, UPTAKE OF THE PRODUCT FUELLED BY 'PLAGIARISM WITH A CONSCIENCE'

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