

Inspire the World to Fitness®

January 17, 2007

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# ADVANCE PROGRAM DESIGN

389

presented by

Carla Botelho Sottovia, PhD



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# What is Program Design??



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- **Systematic approach** to meet client's specific needs and goals.
- **\*\*Ability to apply** different program design models.
- **Training variables to consider**: endurance, strength, power, stability, balance, flexibility, load, joint angles, plane of movement, energy systems.
- **Training tools**: traditional resistance training equipment; fun toys ( i.e., FitBall, Bosu, Balance Boards, Bands, Gel Disks, Foam Rollers.....); body weight.
- **Progression.**

# Training Challenges.....



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- **Safe Progressions x Compliance/Fun?**
- **Beginner Client:** traditional ( machines/db); functional/ corrective exercises; total body.
- **Intermediate/Advance client (no-athletic):** traditional periodization or Variety ( # training tools; hypertrophy; power, plyometrics).
- **Athletic Client:** Sport Specific (i.e,Golf).
- **Long-term client:** Wellness / Feel Good/ Fun/ # workout every session.
- **Injured Client:** Post Rehab.....
- **Client:** Frequency&Compliance x Results?

# Which Training Model to Select?



- ACSM; NASM; NSCA; CI; ACE.....
- **William Kraemer, Tom Purvis, Douglas Brooks; Annette Lang, Carlos Santana, Michael Boyle, Donald Chu, Gray Cook, Paul Check.....**
- **Traditional Strength/ Hypertrophy?**
- **Traditional Power?**
- **Non-Traditional: Functional, Corrective, Core, Balance?**
- **General Fitness & Wellness?**

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# Program Design as an IDEA: “Integrated Development of an Exercise Approach”



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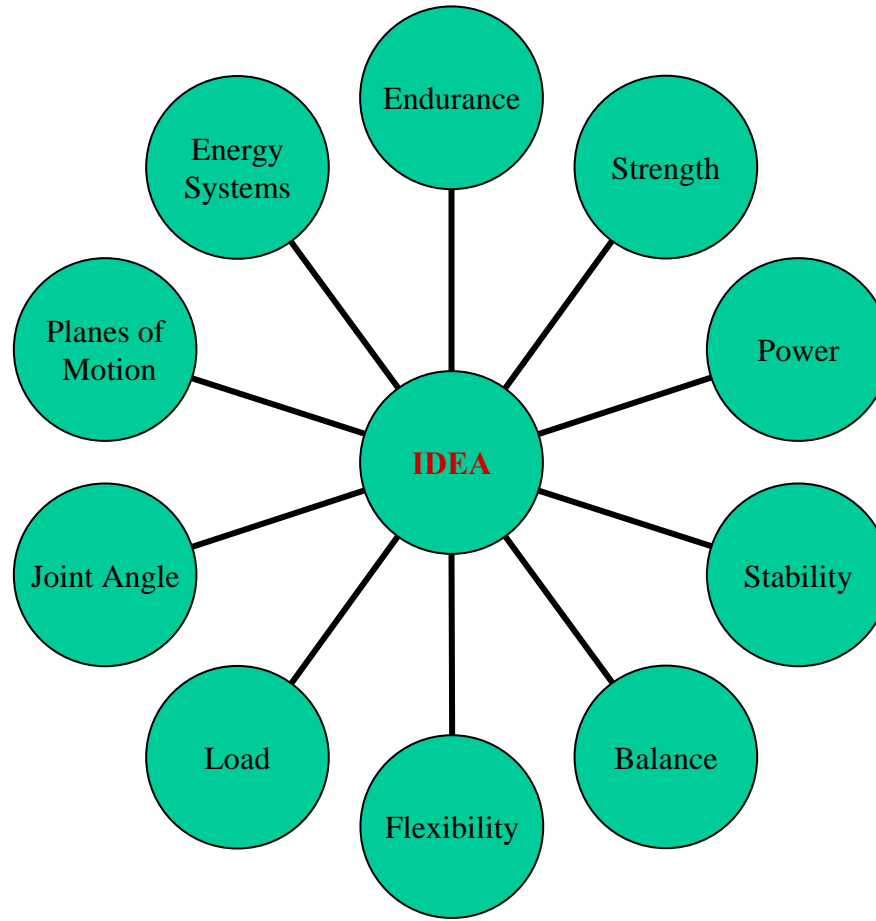
- Scientific.
- Why is it appropriate for the client?
- Progressions.
- Variations.
- Versatility.
- Training tools.
- Compliance/Fun.



# Training Variables.....



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# Training Variables: Scientific



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	<b>Energy System</b>	<b>Reps</b>	<b>Sets</b>	<b>Rest</b>
<b>Endurance</b>	<i>Anaerobic/Aerobic</i>	<i>12- 20</i>	<i>1-3</i>	<i>Minimal</i>
<b>Strength</b>	<i>Anaerobic</i>	<i>8-12</i>	<i>1-6</i>	<i>30 – 120s</i>
<b>Power</b>	<i>ATP-PC</i>	<i>1-6</i>	<i>2-6</i>	<i>2 -5 min.</i>
<b>Stability</b>	<i>Aerobic</i>	<i>10-20</i>	<i>1-3</i>	<i>Minimal</i>

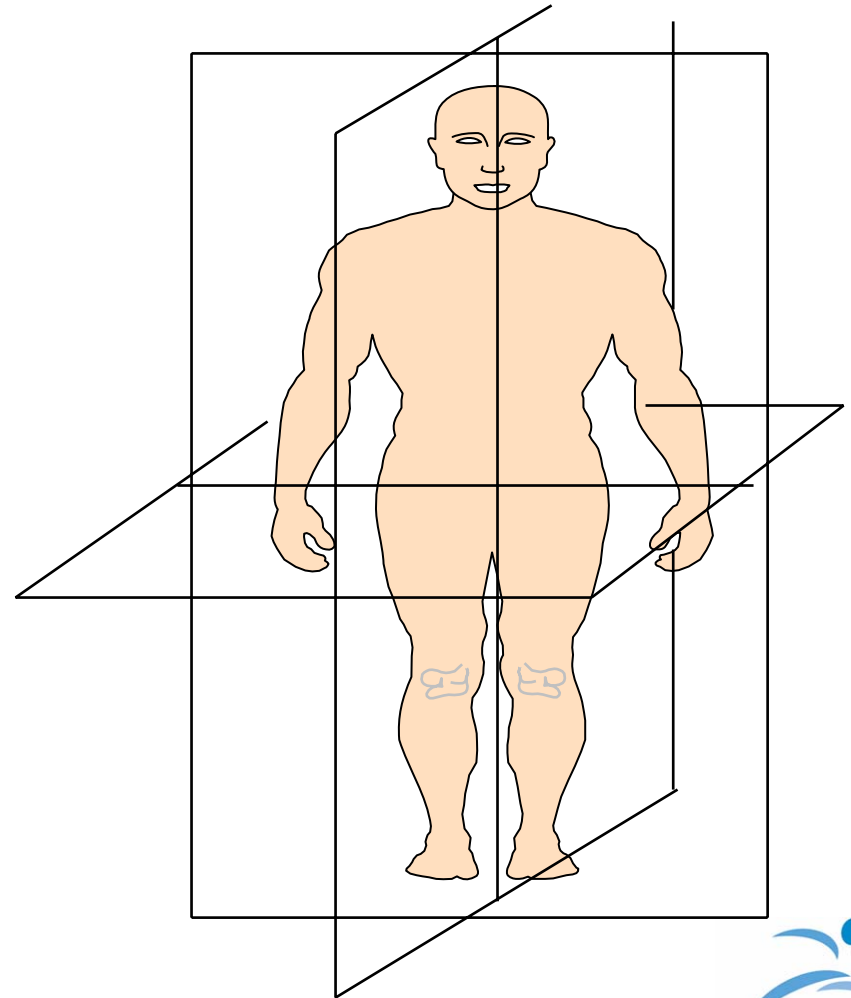
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# Training Variables: Scientific



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- **Planes of Motion:**
  - Sagittal or Median Plane
  - Frontal Plane
  - Transverse or Horizontal plane.



# Training Variables: Scientific



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## FLEXIBILITY CONTINUUM

CORRECTIVE

ACTIVE

FUNCTIONAL



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# Program Design Based on....



## Medical History:

- Is the client “healthy” to start and exercise program?
- Cardiovascular, Orthopedic, Muscular issues?
- Other issues?

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# Program Design Based on....



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## Client Goals:

- Wellness
- Appearance
- Body Composition
- Cardiovascular
- Flexibility
- Strength
- Others.....

# Program Designed based on...



## Assessment:

- Functional: (Muscular Imbalances, ROM)
- Specific: (1 RM, Sport Specific)
- Cardiovascular Fitness ( maximal/sub maximal tests).
- Initial Training Phase....

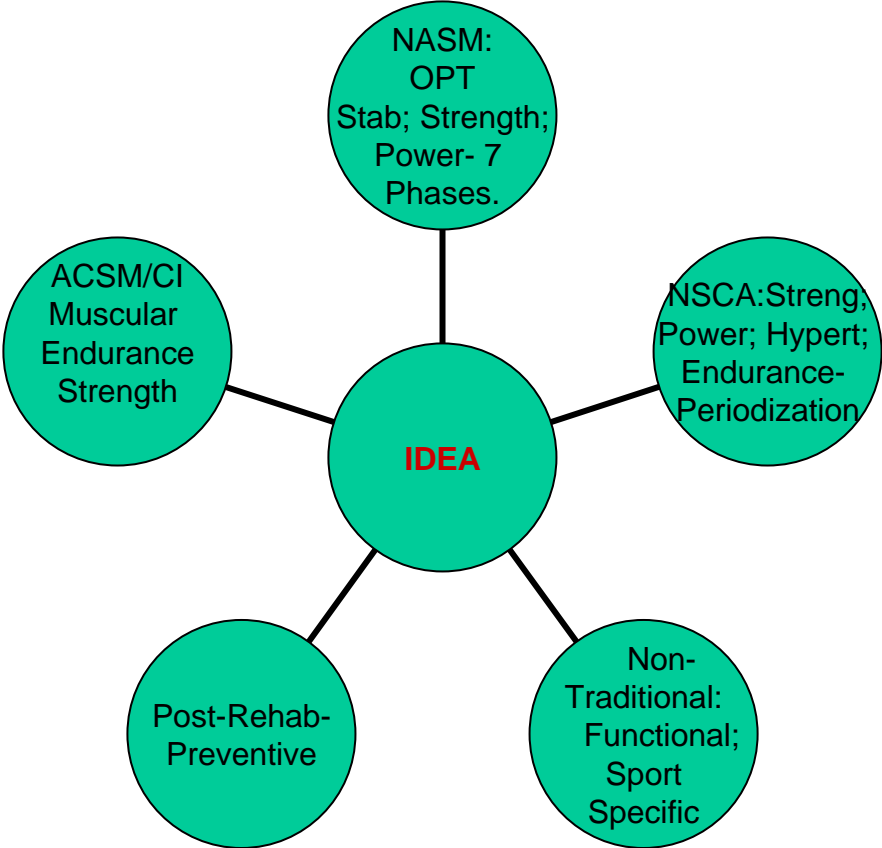
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# Program Design: Training Models



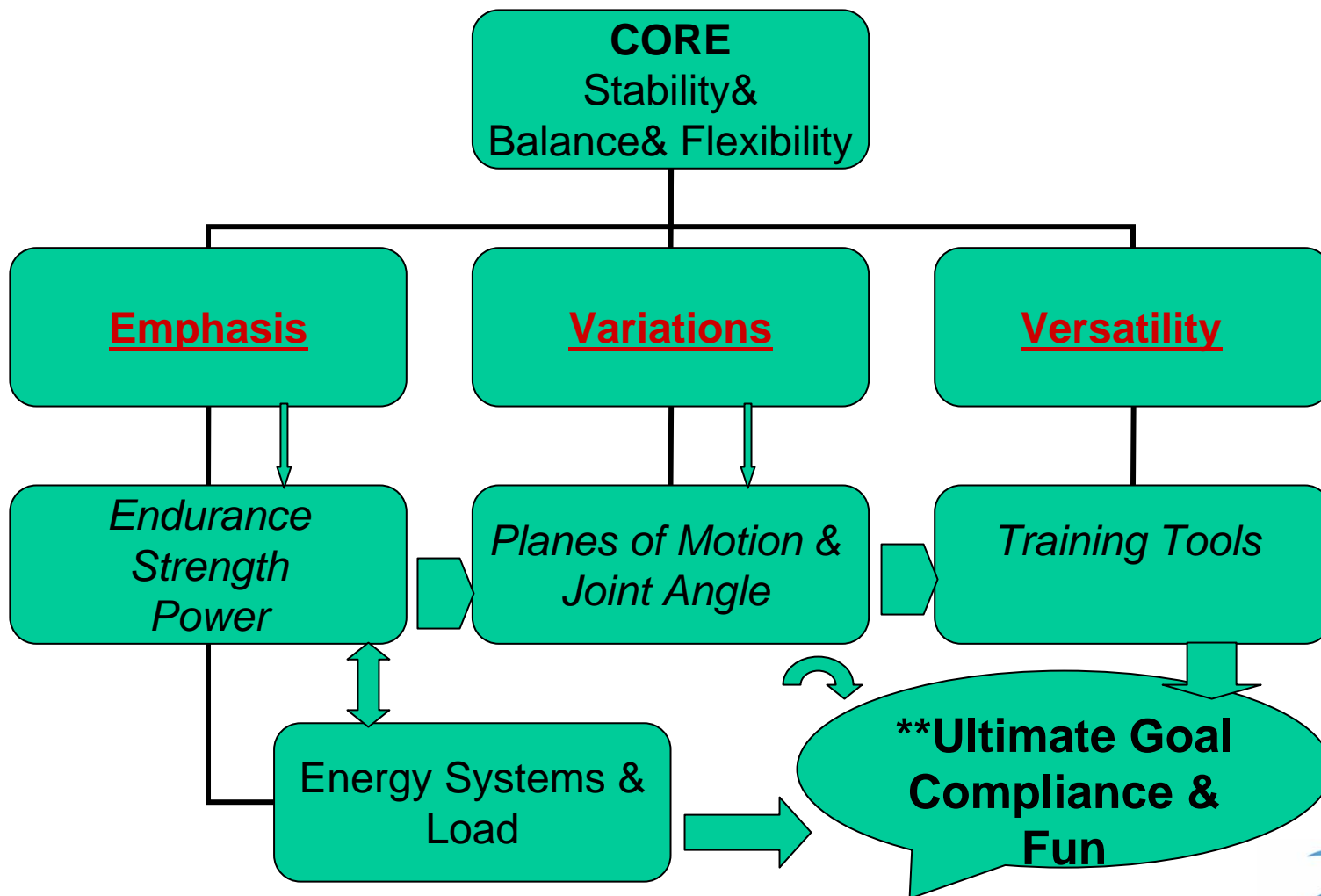
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# Putting all Together: "The IDEA"

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# "IDEA" FLOW CHART



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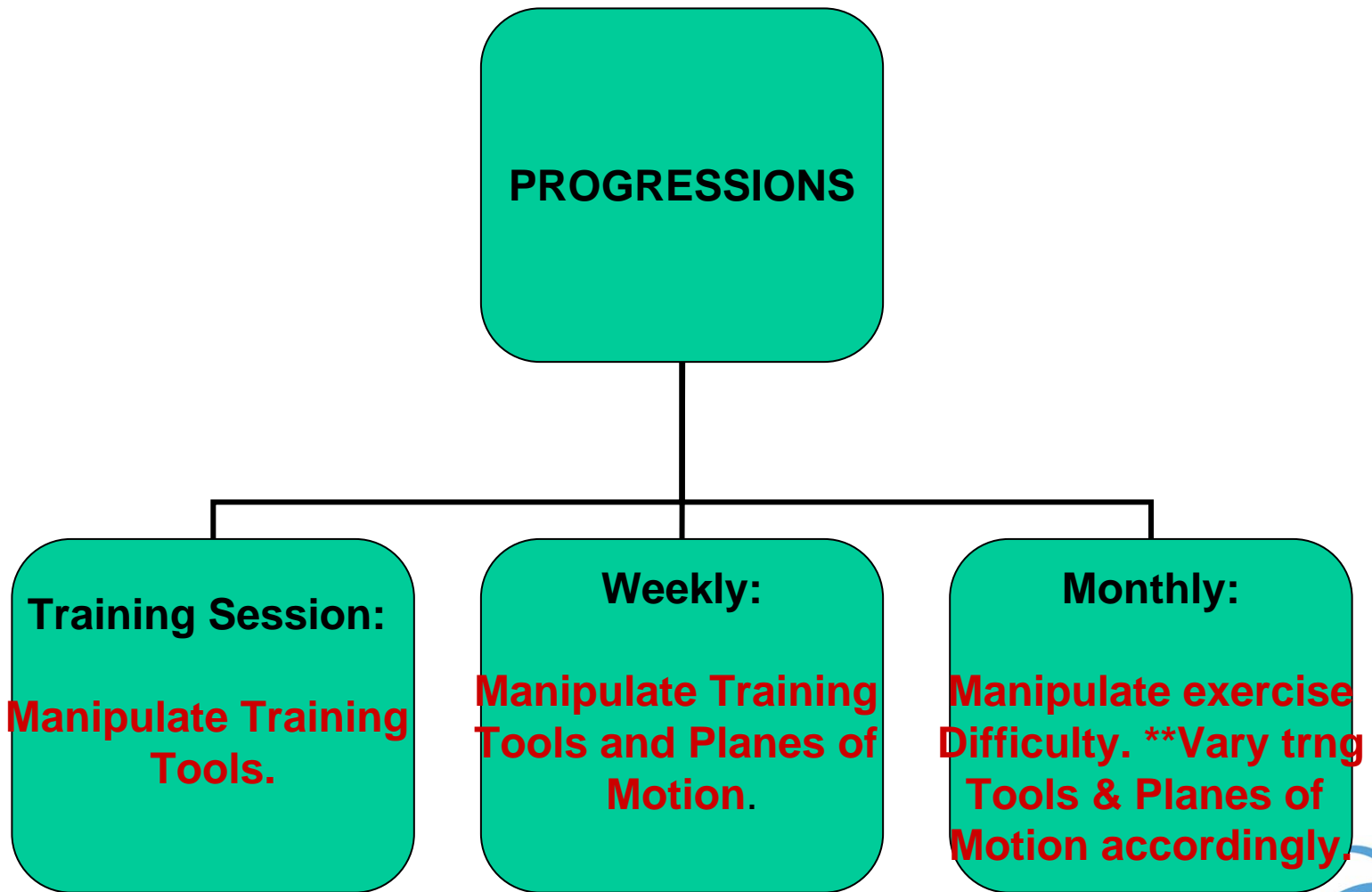
CORE	VARIATIONS	VERSATILITY
<input type="checkbox"/> Stability <input type="checkbox"/> Balance <input type="checkbox"/> Flexibility	<input type="checkbox"/> Saggital <input type="checkbox"/> Frontal <input type="checkbox"/> Transverse	<input type="checkbox"/> Machines <input type="checkbox"/> Dbs/Bands <input type="checkbox"/> Fitball/Bosu <input type="checkbox"/> Other
	<b>** List Exercises</b>	
EMPHASIS	VARIATIONS	VERSATILITY
<input type="checkbox"/> Endurance <input type="checkbox"/> Strength <input type="checkbox"/> Power	<input type="checkbox"/> Saggital <input type="checkbox"/> Frontal <input type="checkbox"/> Transverse	<input type="checkbox"/> Machines <input type="checkbox"/> Dbs/Bands <input type="checkbox"/> Fitball/Bosu <input type="checkbox"/> Other
	<b>** List Exercises</b>	

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## Example

- **Client:** Joe Fitness
- **Age:** 50yrs
- **Previous Exercise:** weights; walk.
- **Goal:** improve fitness; lose BW; Feel Better.
- **Availability:** 2x/week with PT.
- **Limitations:** occasional back pain/tightness.
- **Assessment:** Lack of ROM ( hams; hip flexors; low back);weak abdominal muscles; overhead squat ( internal rotation of knees; lateral shift to the right on descend; Anterior tilt; kyphotic).

# Joe Fitness Program



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Core	Variations	Versatility	Exercise
Stability / Flexibility	Sagital Plane	Mat/ Fitball	*Bridges *Ball Bridges *Supine Quadruplex.
Emphasis			
Endurance  **OBS: manipulate training tools/planes motion weekly.	Sagital & Frontal Plane	Machines/DBS/ Cable.	<ul style="list-style-type: none"> <li>•Body Squats</li> <li>•Standing Row</li> <li>•Stand.Hip Abd.</li> <li>•Standing Press</li> <li>•Arms (option.)</li> <li>•**Static Flexibility.</li> </ul>

Ultimately.....



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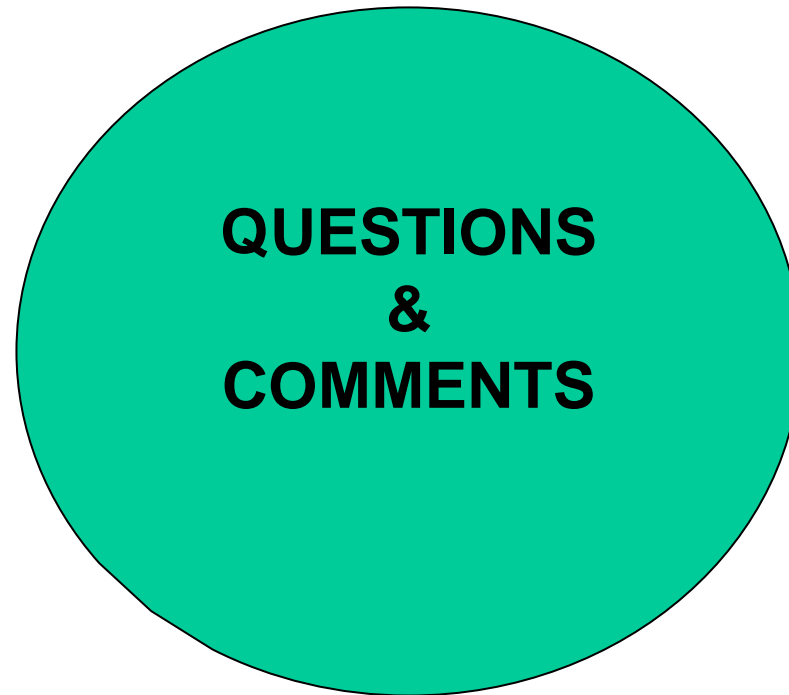
**COMPLIANCE**  
**&**  
**FUN**

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# FINAL WORD.....



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# CONTACT



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