



Innovation and creativity

Dr Ashraf Sheta, B.Sc. Eng., MBA, DBA
President of middle east council for
small business and entrepreneurship
MAKSABY

AWTAD 19th July



Think different.



Five minds for the future

- ▶ Disciplined mind

Mastered at least one way of thinking ,how to work steadily over time to improve skill and understanding

- ▶ Synthesizing

Takes information from disparate sources, understands and evaluates that information objectively and puts it together in ways that make sense

- ▶ Creating

Puts forth new ideas ,poses unfamiliar questions, conjures up fresh ways of thinking ,arrives at unexpected answers

- ▶ Respectful

Welcomes differences between human individuals and between groups, tries to understand these “others” and seeks to work effectively with them

- ▶ Ethical

Ponders the nature of one's work and the needs and desires of the society in which one lives

Why five minds

- ▶ Individuals without one or more disciplines will not be able to succeed at any demanding workplace and will be restricted to menial tasks

- ▶ Individuals without synthesizing capabilities will be overwhelmed by information and unable to make judicious decisions about personal or professional matters

- ▶ Individuals without creating capacities will be replaced by computers and will drive away those who do have the creative spark

- ▶ Individuals without respect will not be worthy of respect by others and will poison the workplace and the commons

- ▶ Individuals without ethics will yield a world devoid of decent workers and responsible citizens: none of us will want to live on the desolate planet

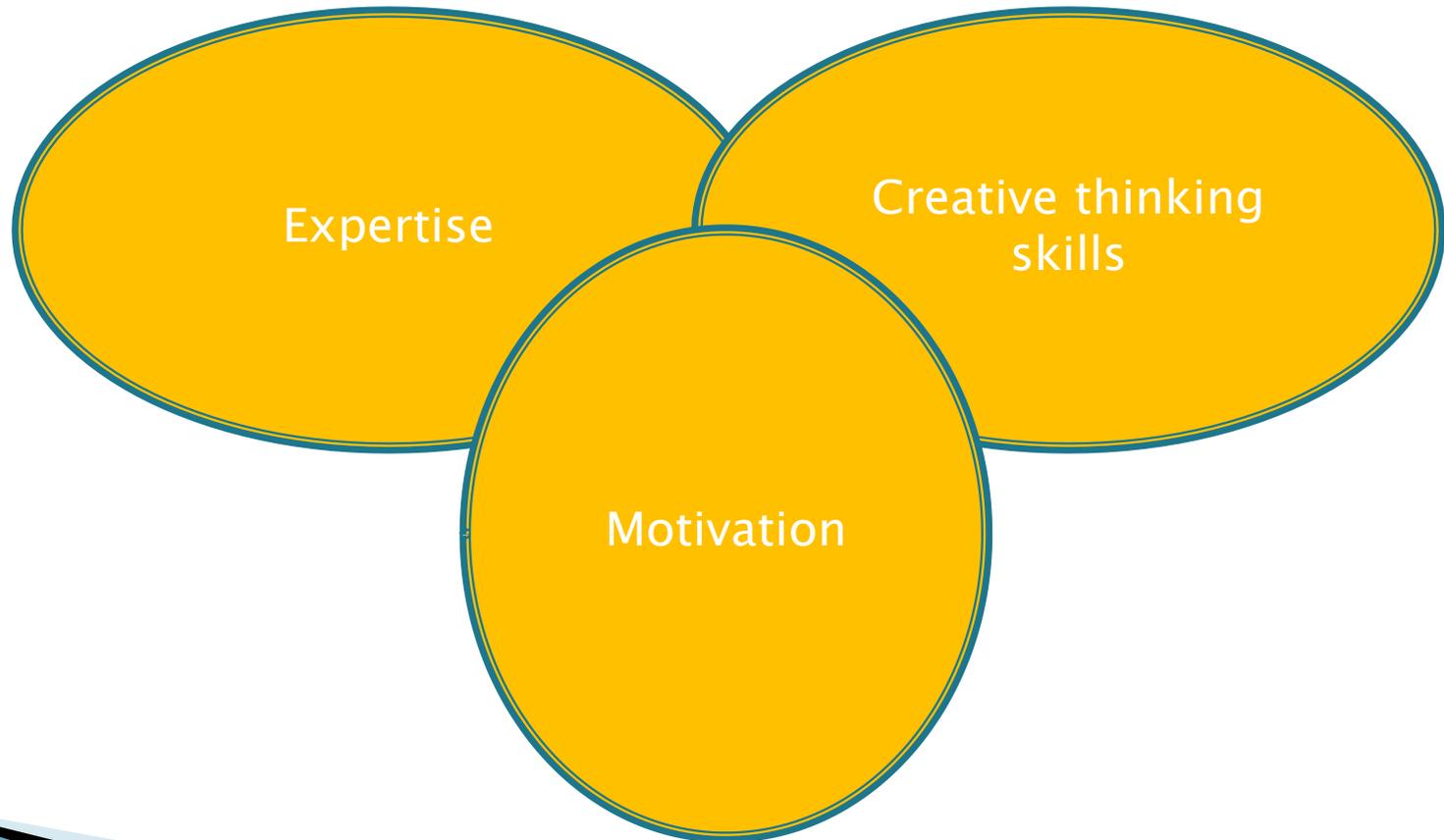
Creativity

- ▶ A process of developing and expressing novel ideas for solving problems or satisfying needs
- ▶ There is as yet no profile or test that reliably predicts who will be highly creative in the future

Creative idea

- ▶ Gruber & Wallace (1999) say that a *creative idea* 'must be new and must be given value by some external criteria

Components of creativity



Creativity dynamics

- ▶ Motivation (extrensic,intrensic)
 - ▶ Curiosity and fear
 - ▶ Breaking and making connections: forming new ideas
 - ▶ Evaluation
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Becoming creatively fit

- ▶ You can practice creativity just like an athlete ,improve the ability, confidence and strength
 - ▶ Put the dynamics to their fullest and best use
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Know your enemy



- ▶ Imitation
 - ▶ Conformity
 - ▶ Need to be right immediately
 - ▶ Acceptance of fixed roles
 - ▶ Paralysis from analysis
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Know yourself



Motivation and personal vision

- ▶ Do you know what you want in life?
 - ▶ What would you like to be remembered for by those you love?
 - ▶ Are you able to align your daily life, work and career goals with these wants?
 - ▶ Are your intrinsic goals stronger than your extrinsic goals?
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Exercise 1

- ▶ Look for three things that might represent you
 - When you were ten years old
 - Who you are today
 - Who you are at your best

Exercise 2

- ▶ Write an article about yourself five years from now “future memory”
 - One page
 - Note key decisions that was made five years ago (today)
 - Write details about future

Curiosity

- Do you allow yourself time to follow up on what piques your interest?
 - Do you learn daily that interest you?
 - Do you have fun every day?
 - Does that fun satisfy you?
 - Do you do things just because others do or because you want to be liked?
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Exercise 3

- ▶ Look over the last month ,what was the most enjoyable moments, what captured your curiosity
 - ▶ What was the major finding you had last month, what was your feeling
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Management of fear and stress

- ▶ Are you able to keep fear and stress from running your life?
- ▶ When you're overtaken by anxiety ,does abate enough so that you can have fun again?
- ▶ Are you able to see the causes of your fears in a humorous light?
- ▶ Are you able to share new ideas with others, even half baked ones?
- ▶ Can you express your thoughts when they are different from thoughts of everyone around you?

Exercise 4

- ▶ What are the things you fear in a new idea
 - ▶ What is the very worst thing that could happen
 - ▶ Am I objective
 - ▶ Am I looking at the whole picture
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Connection breaking

- ▶ Can you accept it when things don,t work out the way you thought they might?
 - ▶ Can you stand being wrong?
 - ▶ Is fantasy acceptable?
 - ▶ Can you tolerate ambiguity?
 - ▶ Can you hold conflicting points of view at the same time?
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Exercise 5

- ▶ List your most certain assumptions
- ▶ Talk in depth with whom you disagree deeply on a matter of importance, try to listen and assesses how the world change for you

Exercise 6

- ▶ Practice purposeful confusion through an absurd story that contains discontinuity using a group of participants

Connection making

- ▶ Do you enjoy new ideas ,yours and others?
 - ▶ Can a funny new idea delight you?
 - ▶ Can you create five absurd idea for every problem that faces you now?
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Exercise 7

- ▶ Think of two related fields and list few connections between them
 - ▶ Think of different uses of an object
 - ▶ Think of things that the object can never be used for
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Connection evaluation capability

- ▶ Can you see how most ideas have merit?
 - ▶ Can you see that every idea can be changed?
 - ▶ Can you like new idea even when you see it might not work?
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Exercise 8

- ▶ Identify a problem or opportunity for which you have several ideas
 - ▶ List four benefits of using the idea
 - ▶ Do this for another idea that you are less confident about
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Self confidence

- ▶ Do you think you can find an answer to the problems and opportunities ,even if it might take time?
 - ▶ Do you think you are creative?
 - ▶ Can you listen to ideas from others and use them and adjust them when you like part of them?
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Ability to innovate

- ▶ Do you feel you can get others to accept your ideas ?
 - ▶ Do you feel confident enough to accept a compromised idea, if acceptance will persuade others to help you make it happen?
 - ▶ Do you feel that you can eventually make what's important to you work out?
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What is innovation

- ▶ Innovation is revealed by its Latin root “nova”, or new
 - ▶ It is the embodiment ,combination, or synthesis of knowledge in original,relevant,valued new products,processes,or services.
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Why innovation ?

- ▶ Proportion of economic value attributable to innovative capacity of intangible capital shifted to 80% of market values as reflected in the Dow Jones industrial average
 - ▶ The shift to innovation economy or the more used term knowledge economy.
 - ▶ Innovate or die
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Innovation and invention

- ▶ Invention

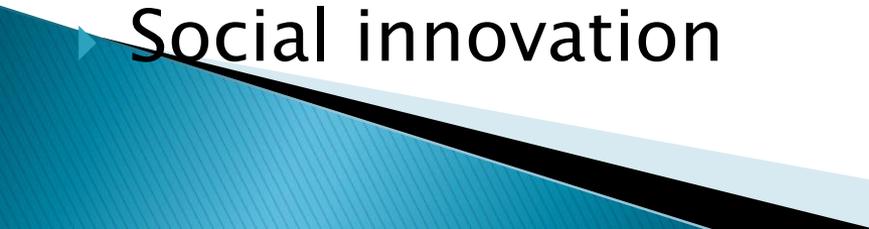
The process of converting intellectual thoughts into a tangible artifact

- ▶ Innovation

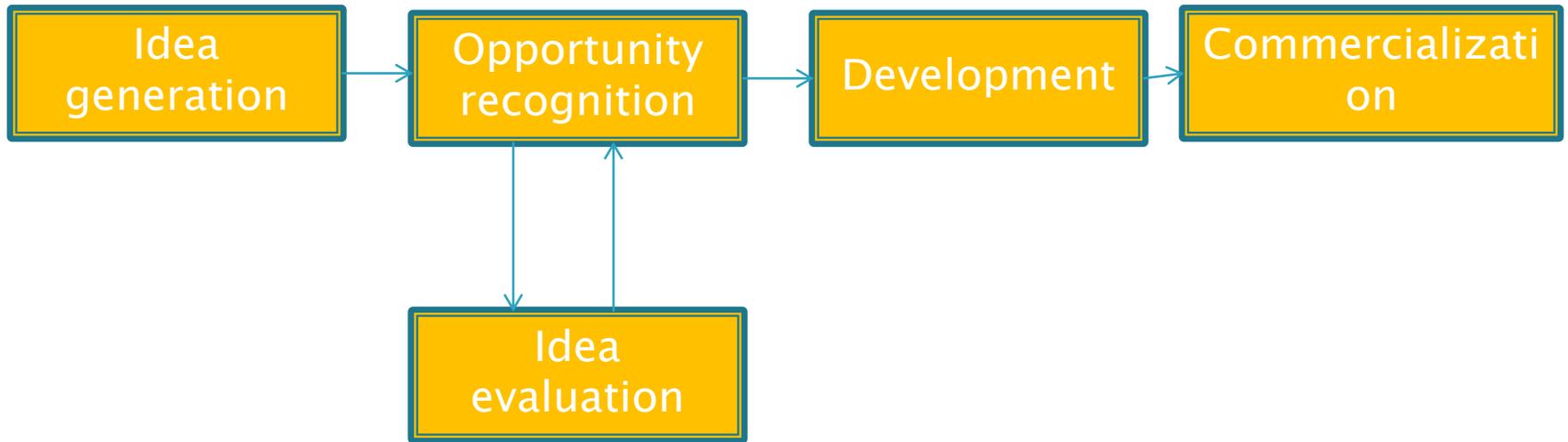
Involves the commercialization process



Innovation typology

- ▶ Product
 - ▶ Process
 - ▶ Organizational (new division, system)
 - ▶ Management (TQM, BPR, ERP)
 - ▶ Production (quality circles, JIT, CAD)
 - ▶ Commercial / marketing (new agreements, methodologies)
 - ▶ Service innovation
 - ▶ Business models
 - ▶ Social innovation
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The innovation process



Idea generation

- ▶ You are required to come up with a new product/service idea
 - Put criteria for evaluation
 - Who are the target beneficiaries
 - What is the estimate cost

Thank you