ALIF

Academy Lab Incubator Facilitator

Digital Transformation

Academy Lab Incubator Facilitator

ALIF

Alif (or alef or aleph, transliterated) is the first letter of the Semitic abjads (alphabets), including Phoenician *ālep* , Hebrew *ālef* , Aramaic *ālap* , Syriac *ālap*, and Arabic *alif*.

It is something that is first, a beginning.

See also: baseline, birth, **commencement**, **dawn**, day one, genesis, get-go, inception, kickoff, launch, morning, start, **threshold**

INDUSTRY 4.0 CONVERGENCE

An alignment of technologies creating a paradigm

shift in the way every thing will be done,
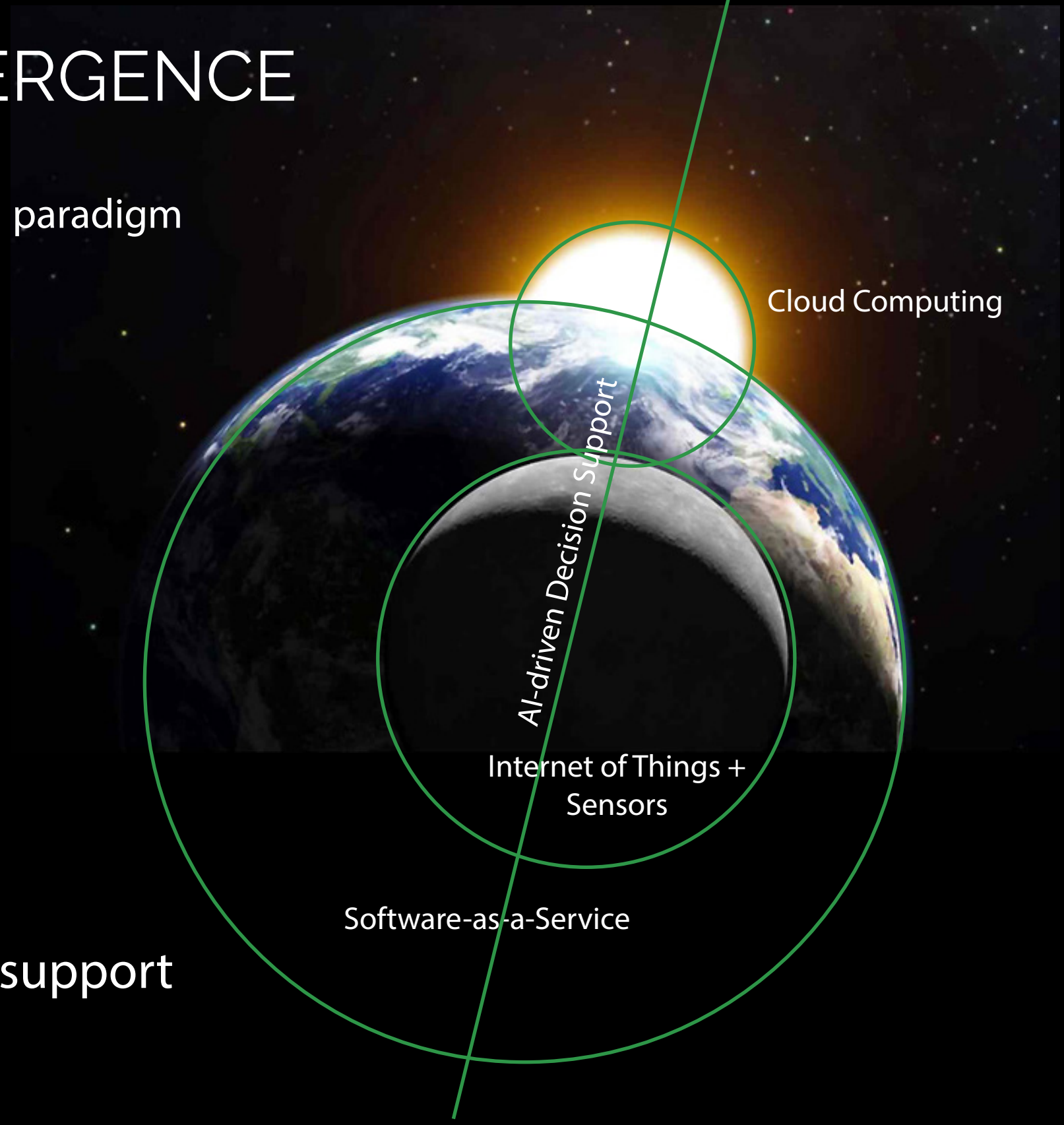
characterized by:

Cloud computing

Software-as-a-Service

Sensors and Internet of Things

5G Networks

Blockchain

AI and analytics-driven decision support

Cloud Computing

AI-driven Decision Support

Internet of Things + Sensors

Software-as-a-Service
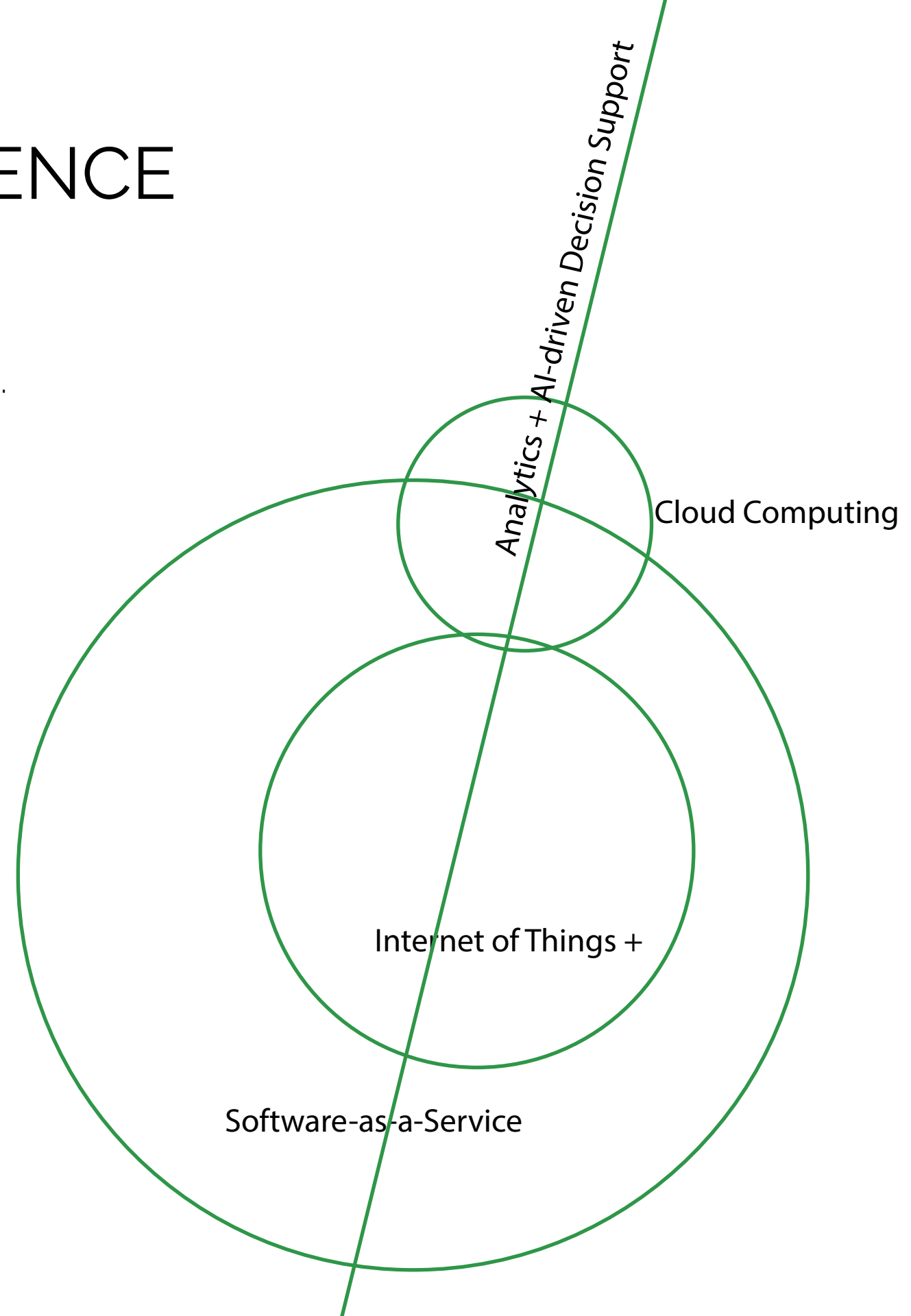
INDUSTRY 4.0 CONVERGENCE

Industry 4.0 has the potential to skew the balance of economic power in favor of emerging economies. United States' industry at 44% readiness lags behind China (92%) and Europe (65%) in implementing strategic preparedness.

Manufacturing will add jobs, but the workers will need different skills, shifting employment modes and models.
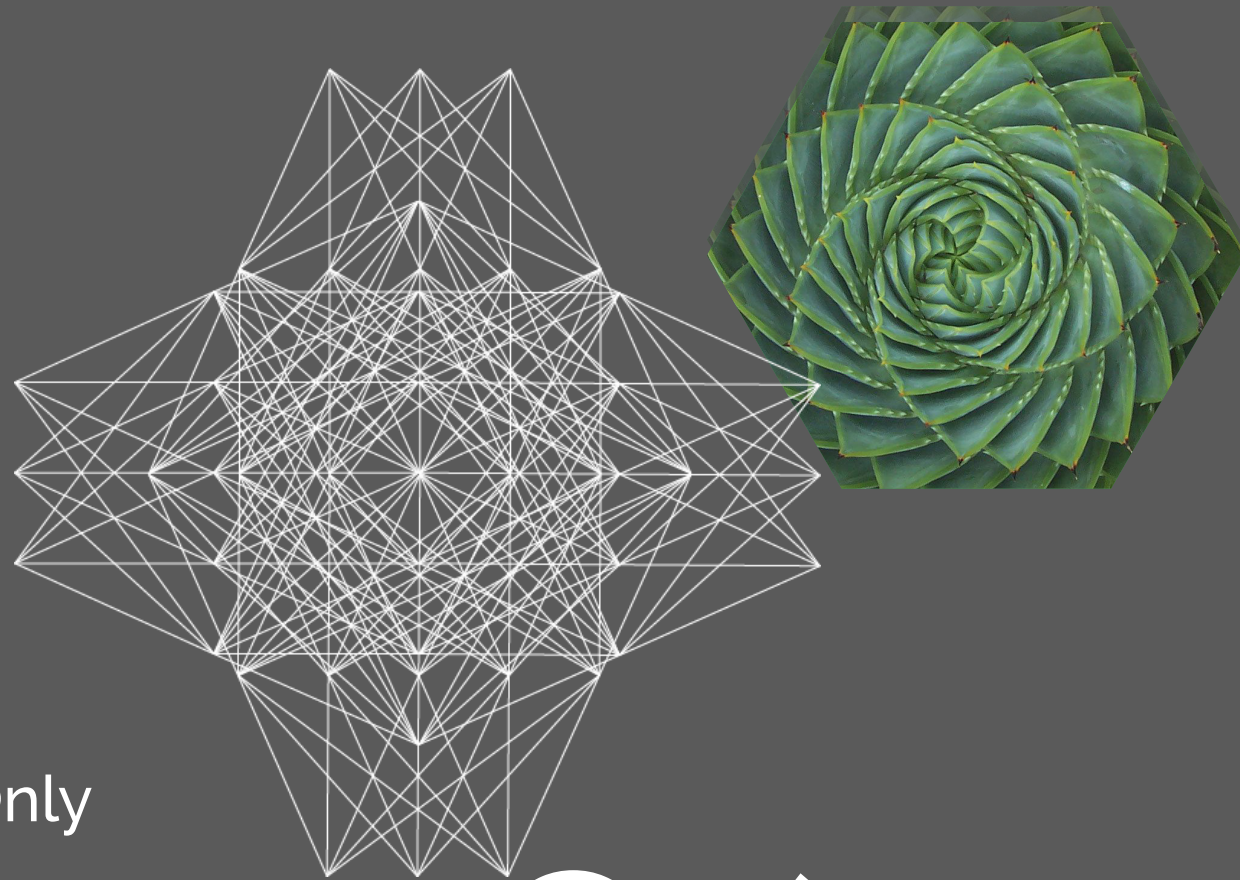
Blockchain will integrate supply chains. Manufacturers can track goods from the factory floor to cargo ships, secondary production facilities and beyond. By incorporating predictive analytics, manufacturers can use the data collected from machinery to create a global view of their operational performance, proactively identify repairs or upgrades and discover which of their methods are most efficient and should be replicated.

IoT is THE big thing. Manufacturers are set to invest $267 billion in smart devices in 2020 alone.

Automated predictive modeling in decision support is predicted to achieve double-digit efficiencies, saving billions annually. Those efficiencies will mean job losses if workeers are not retrained.

Analytics + AI-driven Decision Support

Cloud Computing

Internet of Things +

Software-as-a-Service

INDUSTRY 4.0

"Industry 4.0" or "the Fourth Industrial Revolution" is a catchall phrase used to encapsulate the technology-driven shift in the way products and services are designed, created and delivered. It is also used to describe the phenomenon of advanced techologies' ability to create unprecedented operational efficiencies through analytics-driven decision support.

The Fourth Industrial Revolution is being propelled by the convergence of

Cloud Computing

Software-As-A-Service

Sensors and smart products
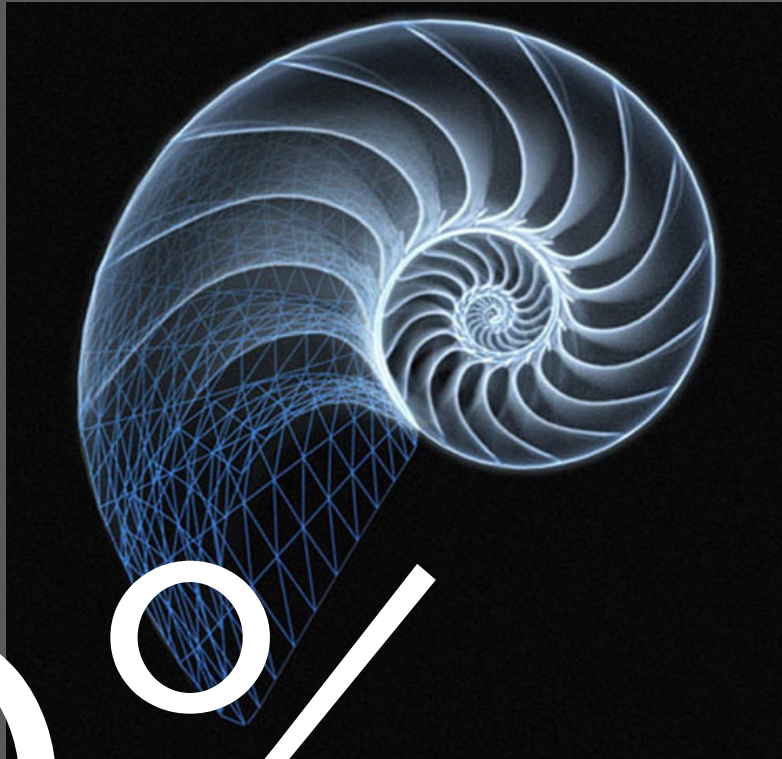
AI and advanced data analytics

Blockchain

5G

Within a generation, the world is undergoing a digital revolution which is changing irreversibly the way we will live our lives. Just as the previous digital revolution of the 1990s created wonderous success stories, it is also quickly eliminated those sectors and firms that did not embrace digitization. The Fourth Industrial Revolution promises to bring about greater transformations in every aspect of life.

The Revolution is here. There is no going back. Evolve or become extinct.

Only

13%

of firms realize the potential of their digital investments to achieve efficiencies and customer value.

THE FUTURE IS NOT LIKE THE PAST

70%

of transformation projects fail to meet their objectives. 75% of Enterprise Resource Programs (ERP) transformations fail to meet their return on investment. Customer Relationship Managemment (CRM) systems have a 50% failure rate.

Regardless of current size or current technological level, **organizations which understand and are prepared to harness the capabilities of emerging technologies will be able to leapfrog ahead to the top of the game,**

Certain "left behind" economies and firms may actually be at an advantage, because **they are not burdened by legacy system infrastructures**.

Transformation projects tend to fail to stay on schedule or within budget. Many have a negative return on investment.

In many instances, conflicting objectives of individuals or departments may be at the root, calcified through knowledge silos. Organizations moving through the Fourth Industrial Revolution are no different: Organizations without a transformation strategy are pockmarked with ad hoc solutions which fail to capitalize on the advantages inherent in the technology.

Organizations no longer have the luxury of accepting a few inefficiencies to keep the peace. The second paradigm alignment of technologies within a generation is changing everything again.

Transformation failure is highly probable: Nonetheless, the greatest risk is in doing nothing.

The good news is that this transformation no longer requires organizations to manage major IT projects and multi-vendor programs. The playing field is being leveled yet again: Technologies and capabilities once only available to such organizations with the necessary level of in-house IT management are now available to organizations of any size and experience. Furthermore, organizations are becoming less and less tied to software companies. Migration is easier and more flexible.

PEOPLE >> PROCESSES >> PRODUCTS
People First

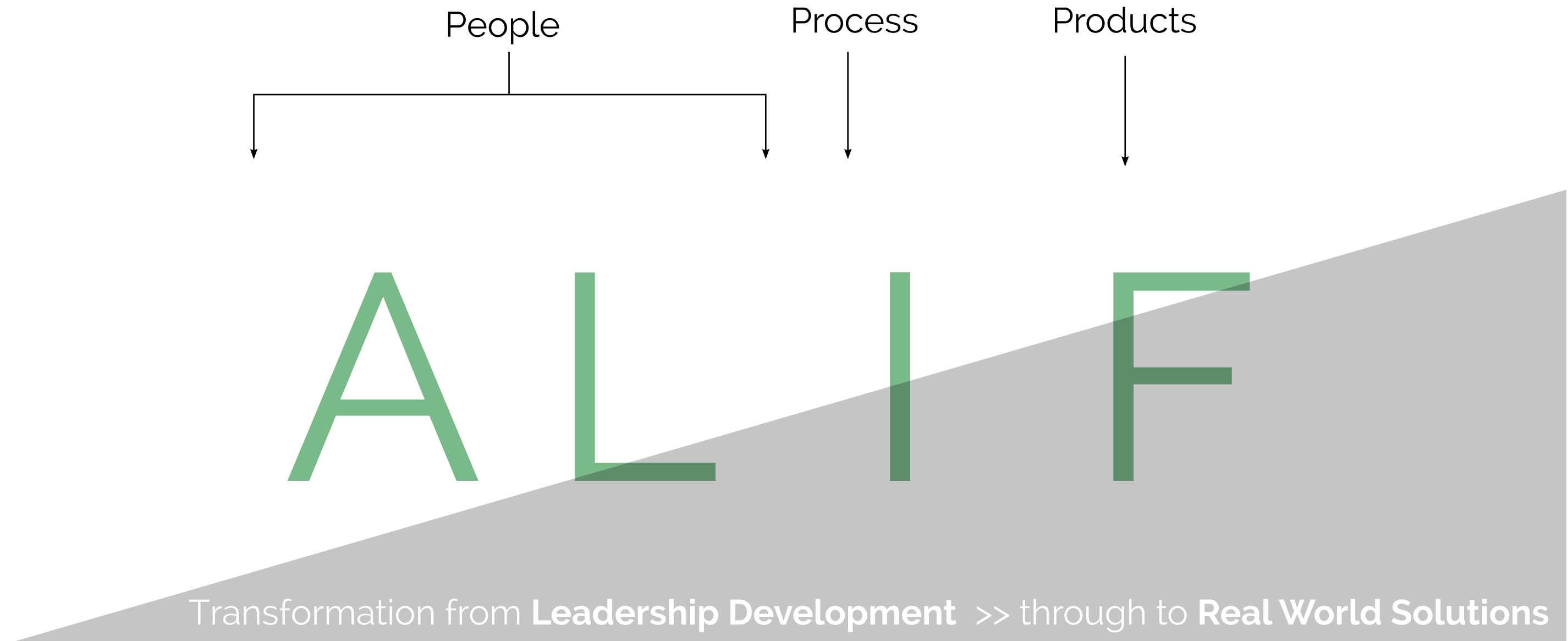First wave adoption can help increase productivity by up to

30%

and could add savings up to 12%, while predictive maintenance costs could bring those costs down by another 30%.

Digital transformation, on the one hand, promises double-digit improvements in productivity, efficiencies and customer satisfaction. On the other hand, the vast majority of organizations are only marginally successful at implementing transformations effectively. Our experience has shown that the shortcomings starts at the top. Many times, the C-suite doesn't set sufficiently high aspirations at the onset. During the early stages of the transformation, the CEO often doesn't garner conviction within the departments about the importance of the coming changes. Digital transformations are a three-legged stool comprised of people, processes and products. The first and most critical leg is people. ALIF starts with people first. It guides senior management to craft a change narrative that convinces people they need to make the transformation happen. With the right buy-in, teams throughout the organization will invest extra energy to make change happen.

When an initiative delivers half its targeted goal, how do you replenish the lost impact?

A•L•I•F Stages

People   Process   Products

ALIF

Transformation from **Leadership Development** >> through to **Real World Solutions**

ALIF   The ALIF Accelerator is a four-stage launch protocol, starting with engaging leadership and solidifying the senior management mindset, moving through a hands-on lab to empower department-level management and teams, which leads directly into the final stages of organizational-wide implementation. ALIF is laser focused on improving client metrics and bottom-line results. Leading disruptive technology experts from industry and academia will lead discussions and real-world experiments in this next generation technology landscape.

ALIF Transformation

Move from >>   Move toward >>
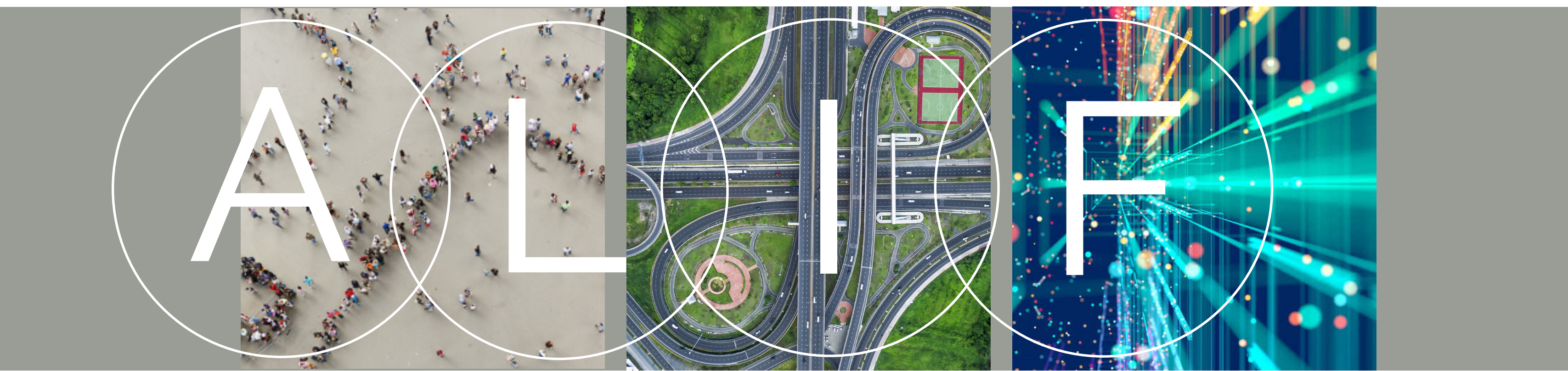
Move from >>		Move toward >>
Information	- - - - ->	Communication
Reaction	- - - - ->	Action
Avoiding Risk	- - - - ->	Taking Chances
Alienation	- - - - ->	Identity
Copying the Past	- - - - ->	Innovating
Perfection	- - - - ->	Excellence

Academy

Executive Education

ALIF

STEP ONE:

ENABLE LEADERS

TALENT & CAPBILITY (organizational capability)

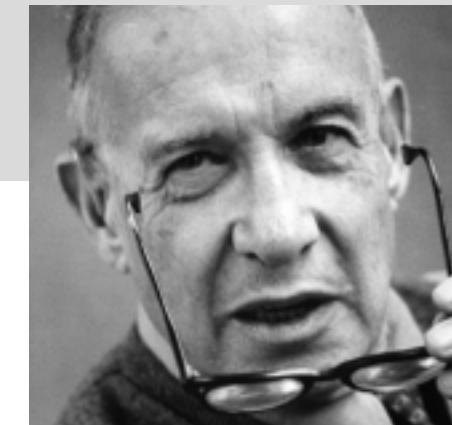Convince decision makers to go all-in on digital and analytics.

Digital transformations require a re-thinking at every level and can lead to very different ways of working. Transformation of this magnitude can be incremental. However, a little here and a little there will be at cross-purposes with the necessary transformation required in this emerging age. In other words, **there is no such thing as just a little transformation**. The ALIF Academy step empowers decision makers to lead with new skills and new confidence.

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The greatest risk lies in doing nothing.

Digitization creates efficiencies and efficiencies at scale. The flip side is that revenues, for example in services, will decrease as automation fills efficiency gaps. Across sectors, **digitization is expected to reduce revenues by 12 %**. Businesses operating within these gaps can only recover these inevitable losses by developing and exploiting analytics capabilities wall to wall. **Big picture, actionable information, no matter the field, sector or product, is the ultimate deliverable.**

Academy: Executive Education

BENEFITS	PEOPLE	PROCESSES	PRODUCTS
Move from Information to **Communication**	Understand the "talk" and then "walk the talk".	Outline vision for system-supported cross-functional collaboration and trust.	Outline a strategy for capturing intelligent business intelligence and its uses B2B, B2C, B2B2C.
Move from Reaction to **Action**	Understand the moving parts, address technical, organizational, and cultural obstacles to change.	The technology landscape is evolving so quickly, "fast second" is not an option. Develop skills to recognize technology-enabled opportunites and how to exploit them profitably.	Commit to the design and implementation of digital and digitalized products and services.
Move from Avoiding Risk to **Taking Chances**	Understand emerging technology's role in changing processes, management, and mind-sets. Craft a clear destination.	Draft a blueprint for the immediate and mid-term future. Commit to the new and evolving roles your organization will occupy in the new economy.	Understand the technology-enabled products and services which add value and how the changes affect your strategic position. Decide on a direction.
Move from Alientation to **Identity**	Predict your future by creating it. Gain knowledge needed to not fear change, but embrace it.	Understand forces and use them. Create a transformation office.	Develop the mind-set to be the tought leader in your organization and sector.
Move from Copying the Past to **Innovation**	Determine the right path for your business, your sector and your role in it.	Hard skills–such as causal modeling, hypothesis testing and machine learning, Soft skills–design thinking and problem solving in teams.	
Move from Perfection to **Excellence**	Learn Agile management techniques to best manage technology-induced changes and need to innovate.	Establish a cadence of leadership-oversight meetings. Set regular performance-management discussions to track progress.	Accept Agile management to quickly and effectively adapt to rapidly evolving business models.

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STEP TWO:

DEVELOP TEAMS

Software engineering, customer-experience design, digital marketing, and data analytics are the skills required to move into this present Industry 4.0 digital age. Individuals with these skills are needed to create a fast-moving, risk-taking, innovation-orientated organization. However, such individuals are few and far between. Even as the workforce catches up, managers will still not have the option to hire their way out of the problem, because new hires will need to work within the existing organization to be effective.
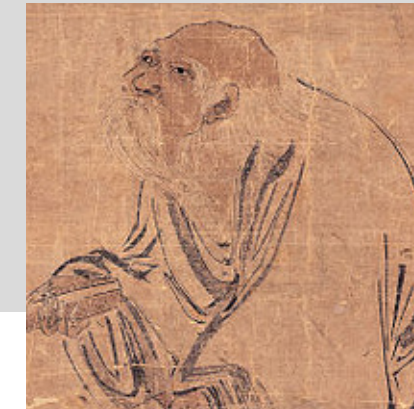
Furthermore, replacing loyal and competent workers can do irreparable damage to a firm's reputation and employee morale. Plus, the company knowledge, ideas and right mindset very likely already exists within your organization. The potential just needs to be realized.

TEAM SELECTION
The Living Lab identifies change leaders by profiling the innovators in your organization. Using two rounds and a 28-point analysis system, ALIF profiles innovators. We determine, for example, how the people in your organization would like to contribute and how they envision the company. In this second ALIF step. The Lab addresses the skills within the organization hands-on. Using real-world problems, ALIF empowers teams to drive transformation, or the key capabilities sit with people who have other day jobs, and they don't get freed up to be able to work on the transformation. **Give your staff job security and the opportunity to develop.**

Lab: Empowering Teams

BENEFITS	PEOPLE	PROCESSES	PRODUCTS
Move from Information to **Communication**	Delineate analytics impact on customer experience, business processes, and business model.	Prepare a C-level Business Analytics Proposal complete with statement of objectives, a causal model draft as a first step toward the algorithm, a data collection strategy, and an implementation schedule.	Use business intelligence and suggest products and services B2B, B2C, B2B2C.
Move from Reaction to **Action**	Appreciate the moving parts, address technical, organizational, and cultural obstacles to change.	Accept technology-enabled opportunites and stretegize how to exploit them profitably.	Commit to the design and implementation of digital and digitalized products and services.
Move from Avoiding Risk to **Taking Chances**	Accept and sign on to destination set by senior management.	Commit to the new and evolving roles you and your team will occupy in the new organization.	Design technology-enabled products and services which add value and accept how the changes affect your strategic position.
Move from Alientation to **Identity**	(Re)define department or individual's role in new technology landscape. Develop skills for job security.	ard skills–such as causal modeling, hypothesis testing and machine learning, Soft skills–design thinking and problem solving in teams.	Develop the mind-set to be the tought leader in your organization and sector.
Move from Copying the Past to **Innovation**	Accept the new path for the business, the sector and your and your firm's role in it.	Accept cadence of oversight meetings. Commit to regular performance-management discussions to track progress.	Accept the direction and use analytics to achieve results.
Move from Perfection to **Excellence**	Learn and accept Agile management techniques to best manage technology-induced changes and need to innovate.	Set regular performance-management discussions to track progress.	Employ Agile management to quickly and effectively adapt to rapidly evolving business models.

A L I F

Doing real world projects is, I think, the best way to learn and also to engage the world and find out what the world is all about.

– Ray Kuzweil, Futurist

PROTOTYPING

Find the best partnerships to overcome skills gaps, achieve automation and add customer value.

By starting with results and immediately prototyping, ALIF offers tangible results in just days. In a structured way, using analytics correctly, the organization can sidestep the "paralysis of analysis"–the byproduct of an abundance of information.

VENDOR SELECTION

In the Incubator stage, not only will a product, service or operational objective be prototyped into a minimum viable product, but this work will build a framework upon which strategic partnerships can form. This makes the often time-consuming vendor contracting process easier and vendor relations more effective. The objective sought, for example, through a device or connected thing, can be seamlessly integrated through the software application and the cloud choice.

Incubator:
Minimum Viable Product

I

BENEFITS	PEOPLE	PROCESSES	PRODUCTS
Move from Information to **Communication**	Develop outline for delivering actionable information.	Finalize data collection strategy and implementation schedule.	Establish key building blocks and relationships for a successful analytics. Analytics as one link in a 3-link chain of sensors-analytics-actuators.
Move from Reaction to **Action**	Convey skills needed to recognize, assess and target.	Design an exploratory Pre-test, create a convenience Sample. and conduct a Hypothesis Test using different data types (Big Data).	Add sensors and "learning" to your product to make it "smart".
Move from Avoiding Risk to **Taking Chances**		Prepare an executive-level Smart Product Business Proposal with a Value Curve Analysis, Customer Journey Map/Behavioral Profile, System Interaction Diagram, and a first Prototype sketch	Test prototypes and your assumptions about customer behavior and business models.
Move from Alientation to **Identity**	Team members find themselves represented in the objectives.		
Move from Copying the Past to **Innovation**	Empower team members to speak up, take risks, lean and progress.	Use new digital and cloud-based tools, such as biometric sensors, Microsoft's Azure Machine Learning Studio, and app-based rapid prototyping toolkits	
Move from Perfection to **Excellence**	Through agile management, team members embrace setbacks as learning opportunities and sign posts for next steps.	Implement procedural elements that make a transformation thrive. Create change-management infrastructure.	

A L I F

SCALING

Predict your future by actively creating it.

The fourth and never final stage is rolling out the technologies in a framework of continually improving organizational transformation. Analytics-based decision support serves as the ideal undergirding to move your organization from a static, conventionally structured firm to an agile organism. Because targets move, visions are created instead of hard and fast targets. Incrementally, changes in direction are made to meet client requirements and market demands.

The Third Industrial Revolution saw the advent of millions of markets of one realized through automation and global supply chains. The Fourth Industrial Revolution takes this the innovations of the past two decades to an entirely new level. It links any and all market participants. Formerly unrelated sectors or perhaps only peripherally related fields will become intrinsically immeshed.

AGILE ACCELERATION

By applying agile management, your company will be in a position to naturally adapt to technology and market progress and the challenges and rewards these bring. ALIF is not an end: It is a beginning.

Facilitator: Scaling

F

BENEFITS	PEOPLE	PROCESSES	PRODUCTS
Move from Information to **Communication**			From data triangulation and transformation ("garbage in, garbage out"), and causal modeling ("correlation does not imply causation") toward a first algorithm.
Move from Reaction to **Action**			
Move from Avoiding Risk to **Taking Chances**			
Move from Alientation to **Identity**			
Move from Copying the Past to **Innovation**		From descriptive analytics (Google Analytics) and predictive analytics (conducting A/B testing) to prescriptive analytics (building product recommendation engines).	
Move from Perfection to **Excellence**			Integrate iterative Agile management structure throughout organization to embrace developments in technology and act on analytics derived business intelligence.

Today's digital transformations are not linear. They require an iterative, agile approach.

- Commerce is still a fundamentally human endeavor. While algorithms may be able to generate faster, more accurate demand forecasts, inventory reductions, maximized load planning, and so much more, executing requires the **combined effort of hundreds of individuals across organizations**, each with their own agendas, motivations, preconceptions, loyalties, incentives, biases, and limitations.

- Digital transformation requires access to information, streamlining decision-making, and facilitating **cross-functional collaboration and trust**.

- Transformation in any part of a business requires organizations to align multiple moving parts, including people, processes, and management infrastructure, as well as all the usual technical, organizational, and cultural obstacles to change. Digitally-enabled transformations add **extra challenges**.

- First, there is the **technology component**, which must be handled alongside changes to processes, management, and mind-sets. The second challenge for companies introducing digital technologies is the **lack of a single, clear destination.**

- Digital technologies are evolving so rapidly that there hasn't been time for many of them to prove themselves at scale. **No template has emerged to copy.** Firms cannot point to a dominant innovator and emulate their transformation.

- Therefore, digital transformations are not linear. **They require an iterative approach.**

- New digital technologies must integrate with people, processes, and products as they emerge **in a repeated cycle.**

- Some traditional processes, such as S&OP and inventory management might fall away in favor of a new, more flexible collaboration structure, designed to **manage exceptions and issues on the fly.**

1. Plan – Iteration Planning

The iterations are repeated for optimizations and improvisations. Lessons learned from previous cycles are applied in the next cycle until a fully functional product is ready.

3. Check – Iteration Review

Iteration Review is carried out with the Product Owner. The team shows the tested deliverable to the Product Owner, who reviews the completed work and ascertains whether all criteria have been met.

Start Here:

1. Plan – Iteration Planning

The team collaborates to discuss the objectives for the next iteration. It summarizes the work done and determines the team backlog required for the next iteration.
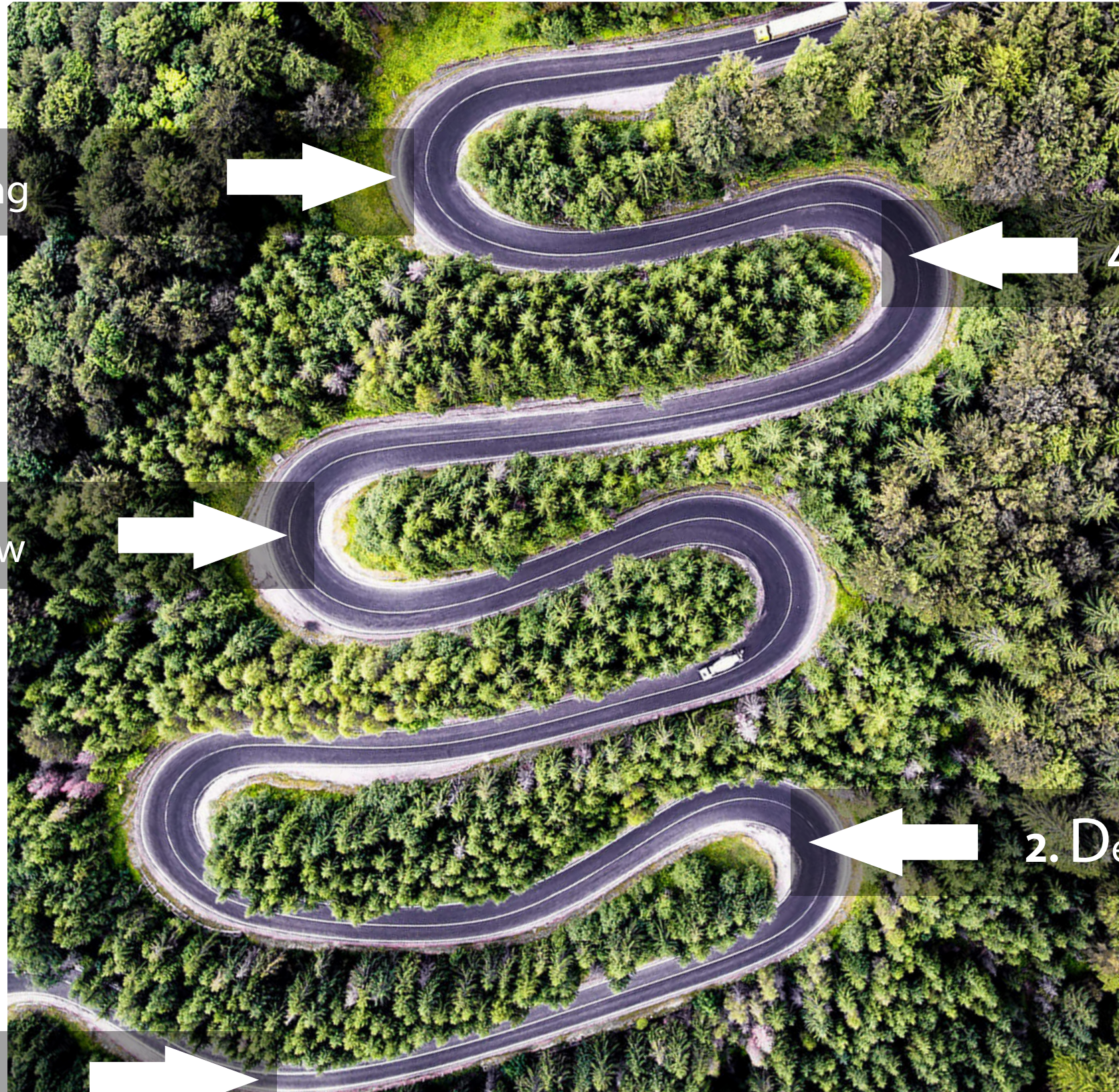
4. Adjust – Iteration Retrospect

The team evaluates the entire process of the iteration from the first step. It works on improvements that are gathered in previous iterations. New problems and their causes are identified. Team backlog is reviewed.

2. Design – Iteration Execution

The 'do' step where the development of the solution takes place (for software, its design and coding). If it's subsequent iteration, then functionality testing is conducted. The team collects user stories and prepares for the next step.

PROF. DR. CHRISTOPH SCHLUETER LANGDON

Established track record helping companies succeed with shift to data analytics and AI-based competition. 25+ years of experience driving innovation in data analytics–from science to application–with leading, global brands in automotive, retail and media communications. Strong science foundation, 40+ peer-reviewed and scholarly publications, research grants from Intel, Microsoft and National Science Foundation.

PROFESSIONAL EXPERIENCE

- **Artifical Intellifence native**–Doctorate in AI awarded 25 years ago.
- Recipient of **industry innovation awards**.
- Expertise in **AI, data analytics, predictive modelling**.
- Founder of **The Peter Drucker Customer Lab** at the The Claremont Graduate University Drucker School of Management.
- **First "Data Analytics" course** taught at U.S. university.
- **First "Smart Products" course** taught at a U.S. university.
- Published in **A-level academic journals**.
- **Featured presenter** at international conferences.

Skills evolved from:
- Data analytics advice, DAX apps, DAX cloud-based platform services.
- Consulting, management
- Multicultural work experience in US, Germany, China

Success stories with Fortune 100 firms:
Mercedes Benz | Deutsche Telekom | T-Systems | Sony | Renault-Nissan | Metro AG | Southern California Edison

DRUCKER CUSTOMER LAB >>

DRUCKER
SCHOOL OF MANAGEMENT
Claremont Graduate University

Quantifiable Results
Automobile Sector

100% - 250% RoI
on Marketing
- Better selection of marketing instruments
- Better dosage
- Precise application

5 Star Ratings

★★★★★

Best in Class Telematics (Connect)
Industry Benchmarks (JD Powers)
"Most User Friendly" (Edmonds)

25% More Hits
20% Faster
Development

150% - 400% RoI
on Features

$25 Million p.a.
2400%-4900% RoI
Flex Lease Sales (PAYD/UB Insurance)

1 minute saved =$14 Million p.a.
Customer Satisfaction and Savings

25-100%
Faster
Throughput Time

5-10% Higher Retention
Brand Loyalty After Sale

95% local market fit
China • USA • Europe

CLIENT LIST

1. Mercedes Benz (USA, Germany, China)
2. Nissan USA
3. Southern California Edison
4. SONY (USA, Germany)
5. Deutsche Telekom
6. Volkswagen (USA)
7. METRO AG (Germany)

Decades of Success Stories with *Fortune 100* firms