

Асистент - преподавател: д-р Христиан Даскалов

**Лекции № 11: Бизнес предимства и
предизвикателства пред продуктите с отворения код**

Курсов ръководител: проф. д-р инж. Огнян Андреев

Ключови процеси		Критични фактори за успех	Съставни компоненти, свързани с проектите с отворен код
Група: Иницииране и планиране	Идентифициране на заинтересованите страни	Контекстуално управление	Преглед и анализ на съществуващите проекти Изграждане на устойчива коалиция Разбиране на маркетинговите аспекти Оценка на финансовите нужди и източници
		Обследване на заинтересованите	Обследване на заинтересованите
	Планиране на управлението на заинтересованите страни	Стратегия за ангажиране на заинтересованите	Проблемно-ориентирано проектно начало Изчистена и резонираща проектна мисия Възлагане на отговорности Стабилност чрез привличане към общността
		Отчитане на цялостния продуктов жизнен цикъл	Поглед върху всички области на системната разработка Планиране и дизайн преди иницииране Отчитане на социо-техническата еволюция на проекта Потребителско опосредстване и подкрепа, клиентска поддръжка
		Технологична съгласуваност	Отчитане на технологичните ограничения Равновесие между техническото ниво на проекта и участниците Развитие на обкръжаващата екосистема Развитие чрез модулна организация на работата
	Управление на участието на заинтересованите	Изграждане на общност	Подхранване на общностната идентичност Менторство и подкрепа в общността Провеждане на общностни събития Възможности за развитие
		Стратегически управленски подход	Посвещаване на проектната стратегия Модел за управление и вземане на решения Прилагане на доказани проектни практики Проактивна мрежова стратегия
		Техническо управление, насърчаващо участието	Динамично развитие на нови версии Управление на комплексността Формализирано управление на изискванията и приносите Систематичност на заявките за отстраняване на проблеми
	Контрол по управлението на заинтересованите	Превенция на конфликти от тех. характер	Прилагане на лицензионни споразумения Качествено-ориентиран развоен процес Отворени срещи по техническото управление
		Оценка и оптимизация на представянето	Оценка и оптимизация на представянето



The Linux Foundation

Hereby certifies that

Hristian Daskalov

has successfully completed

For Completing LFC210 - Fundamentals of Professional Open Source Management

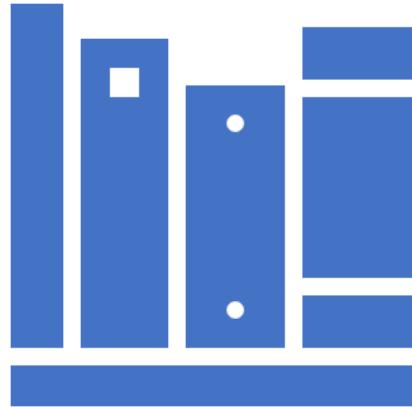
Completion Date: 05/31/2018



Jerry Cooperstein
Training Program Director



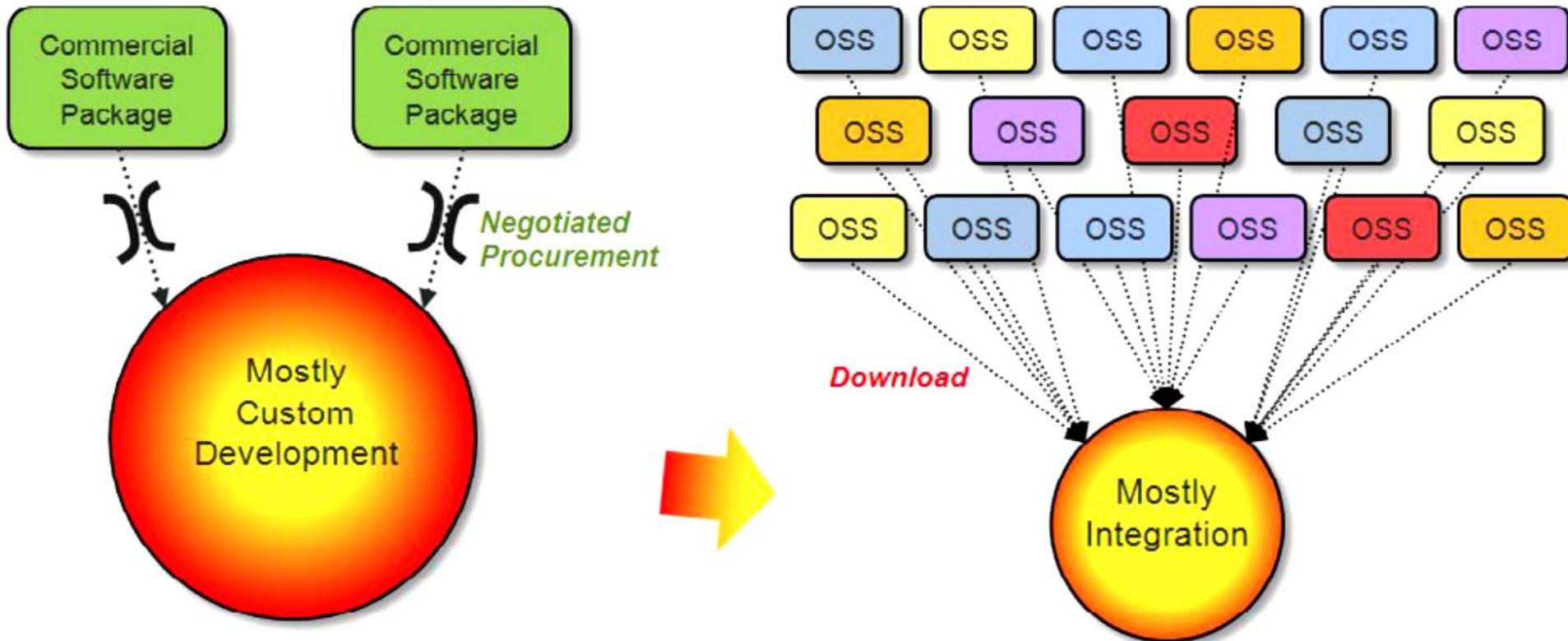
<https://training.linuxfoundation.org/training/fundamentals-of-professional-open-source-management/>



Бизнес основи на професионалния Open Source Management

ТЕМА I, МОДУЛ III «БИЗНЕС ПРЕДИМСТВА НА ПРОДУКТИТЕ С ОТВОРЕНИЯ КОД»

The Open Source Development Revolution



Open Source Software for Business Advantage

“ Open source is ubiquitous, it's unavoidable....having a policy against open source is impractical and places you at a competitive disadvantage ”

Gartner.

In today's rapidly evolving markets, companies that consistently innovate, most quickly, at the lowest cost, will win. NOT USING open source software may place your organization at a disadvantage.

An overwhelming 70% of all companies that use open source software plan to increase its use in the future.

Why Do Companies Use Open Source Software?



Faster



Innovation



Business Advantage



Lower Cost



Flexibility



Бързина

Why Is Open Source Software
Faster?

Why Is Open Source Software Faster?

How does open source software speed up development?

- Faster, easier acquisition processes;
- Quicker deployments;
- Rapid evolution and innovation;
- Higher quality;
- Ease of customization;
- Evolutionary delivery.





Цена

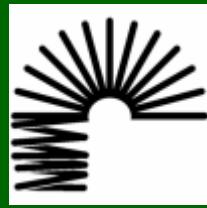
Why Is Open Source Software
Lower Cost?

Why Is Open Source Software Lower Cost?

How does open source software reduce development costs?

- Saves 20-55% over commercial solutions;
- Avoids functionality overkill and bundling;
- Avoids unwieldy closed system deployments;
- Helps prevent vendor lock-in;
- Avoids proprietary solutions consulting traps;
- Benefits from ongoing community support.





Гъвкавост

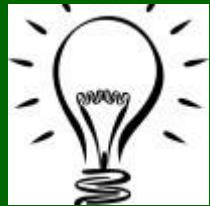
Why Is Open Source Software
More Flexible?

Why Is Open Source Software More Flexible?

How does open source software offer more flexibility?

- Vendor independence;
- No contractual limits on deployment;
- Source code allows customization;
- Open source communities encourage and facilitate customization;
- Ongoing collaborative community support and maintenance.





Иновации

How Does Open Source Software
Support Innovation?

What is innovation to you?

Innovation is the translation of an idea or invention into a marketable product, application, business model or a process, to bring value to the users.

Can you share which is the most innovative product or service that you have seen or purchased recently?

Innovation is the process by which future invades our life. Those who embrace the invasion live, others die.



Innovation typology

Four types:

- Technology innovation
- Product and service innovation
- Process innovation
- Business model innovation



Types of innovation

Disruptive	Incremental
Game changers	Growth sustainers
<i>Creates new market</i>	<i>Enhances market size</i>
<i>Convenient</i>	<i>Small steps</i>
<i>Simple</i>	<i>Increased utility</i>
<i>Affordable</i>	<i>Enhanced competence</i>
<i>Accessible</i>	<i>Builds on existing knowledge and resources</i>

How Does Open Source Software Support Innovation?

- Many leading edge software technologies are being developed primarily by OSS communities;
- Many open source communities exhibit rapid evolution;
- Communities often address problems that cannot currently be solved by a commercial solution;
- Open source ecosystems direct ownership and accountability back to the development teams;
- Communities provide a low-cost medium for incubation and test of new capabilities;
- The lack of contractual constraints allows new uses, markets, platforms, etc.



Innovation traps

Examples:

- “*This is not how we have always done it.*”
- “*We don’t know what might happen.*”
- “*We don’t have time for this theoretical stuff!*”
- “*Too risky investment.*”



The 'classic' innovation process

Generate

- Gather unarticulated needs
- Brainstorm
- Involve customers and suppliers

Examine

- Shortlist ideas
- Check marketability
- Check benefits to customer
- Check need fit

Modify

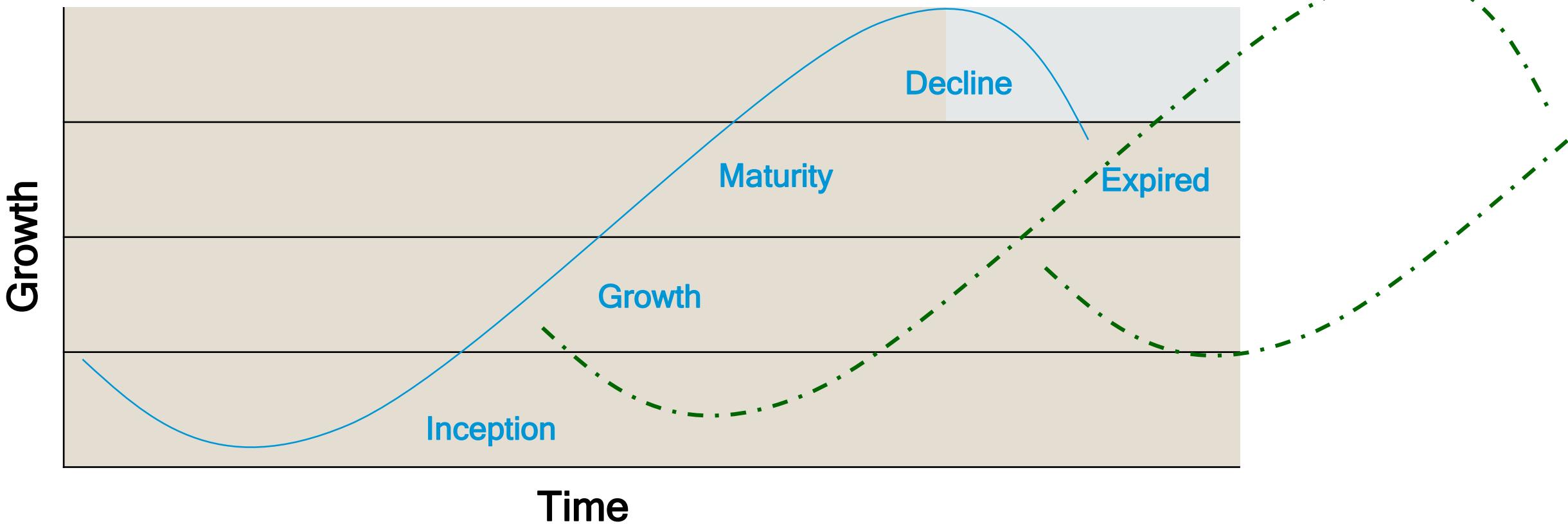
- Create design
- Fine tune
- Check patents / law
- Collect feedback

Implement

- Create prototype
- Gather customer feedback
- Plan protection
- Measure Return on Innovation (ROI)

Innovation lifecycle

Innovation follows a Sigmoid curve



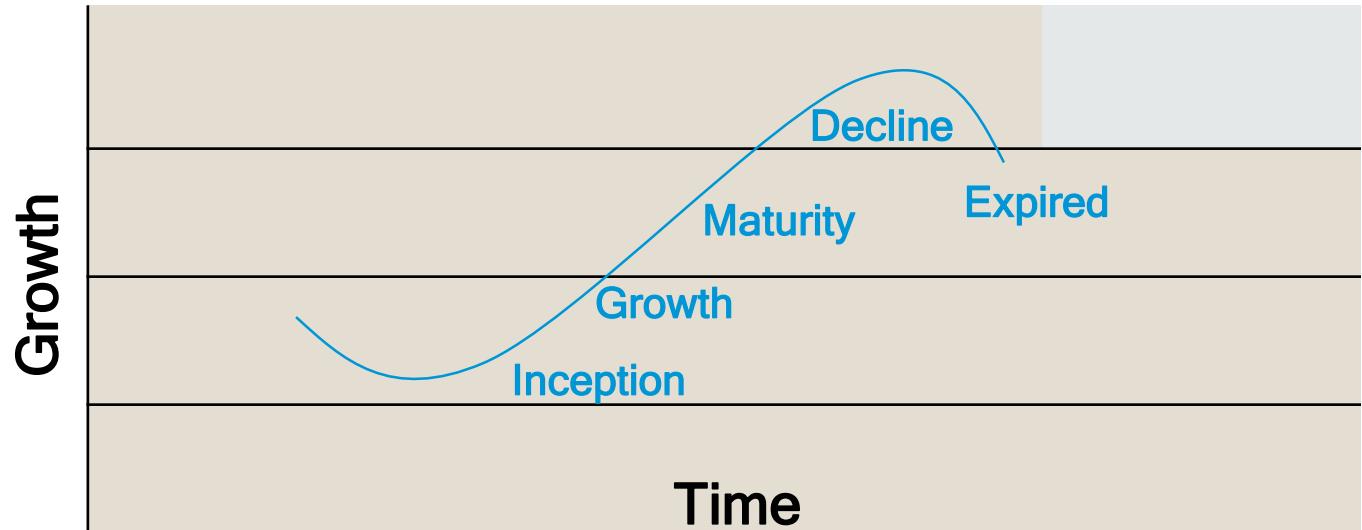
How do we know what is next?

How do you know what's next in
the innovation playing field?

How do we find the next
inflection point?

There are three types of
diagnostics:

- *Customer*
- *Portfolio*
- *Competitor*





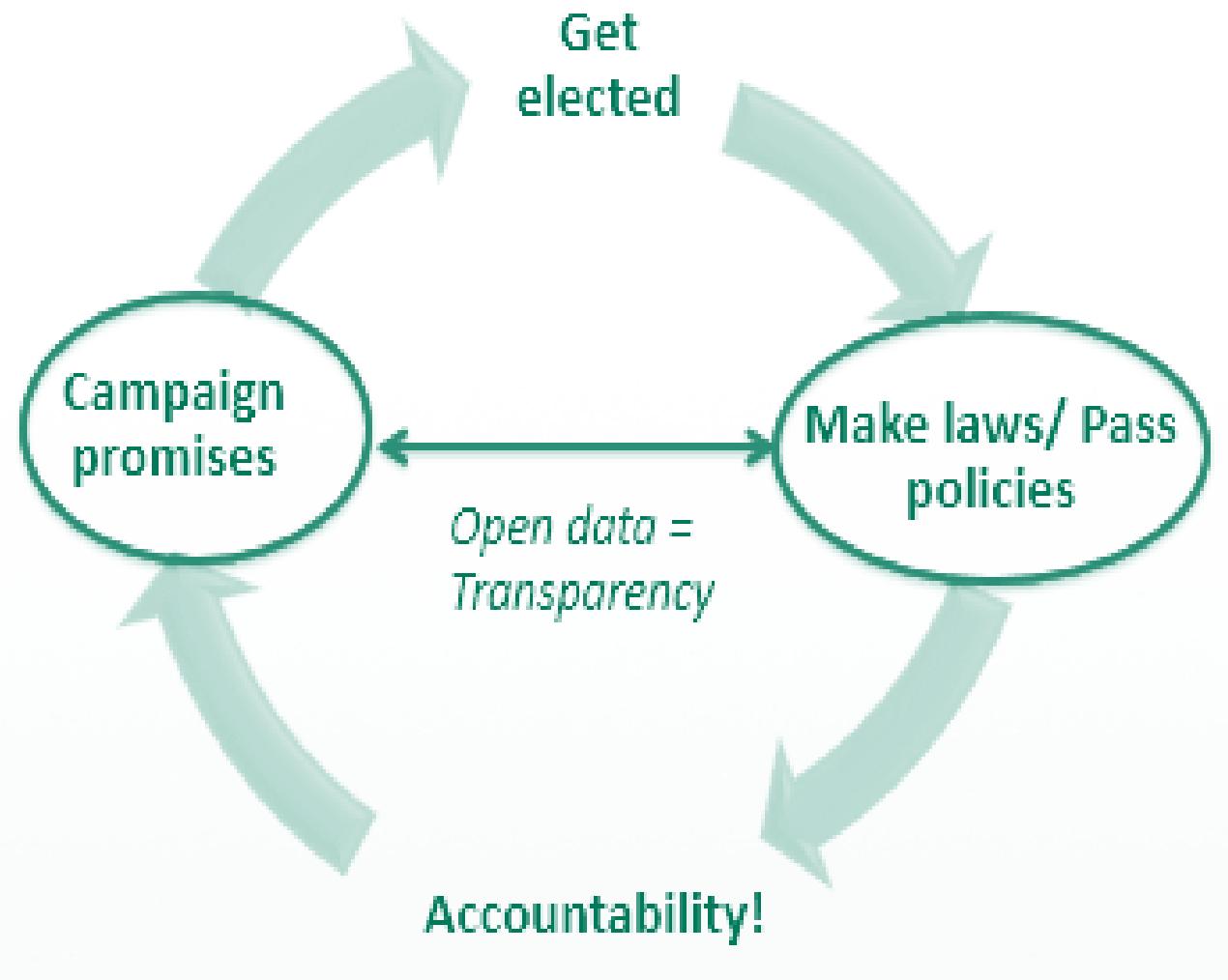
Use Case Study

„Open Law“

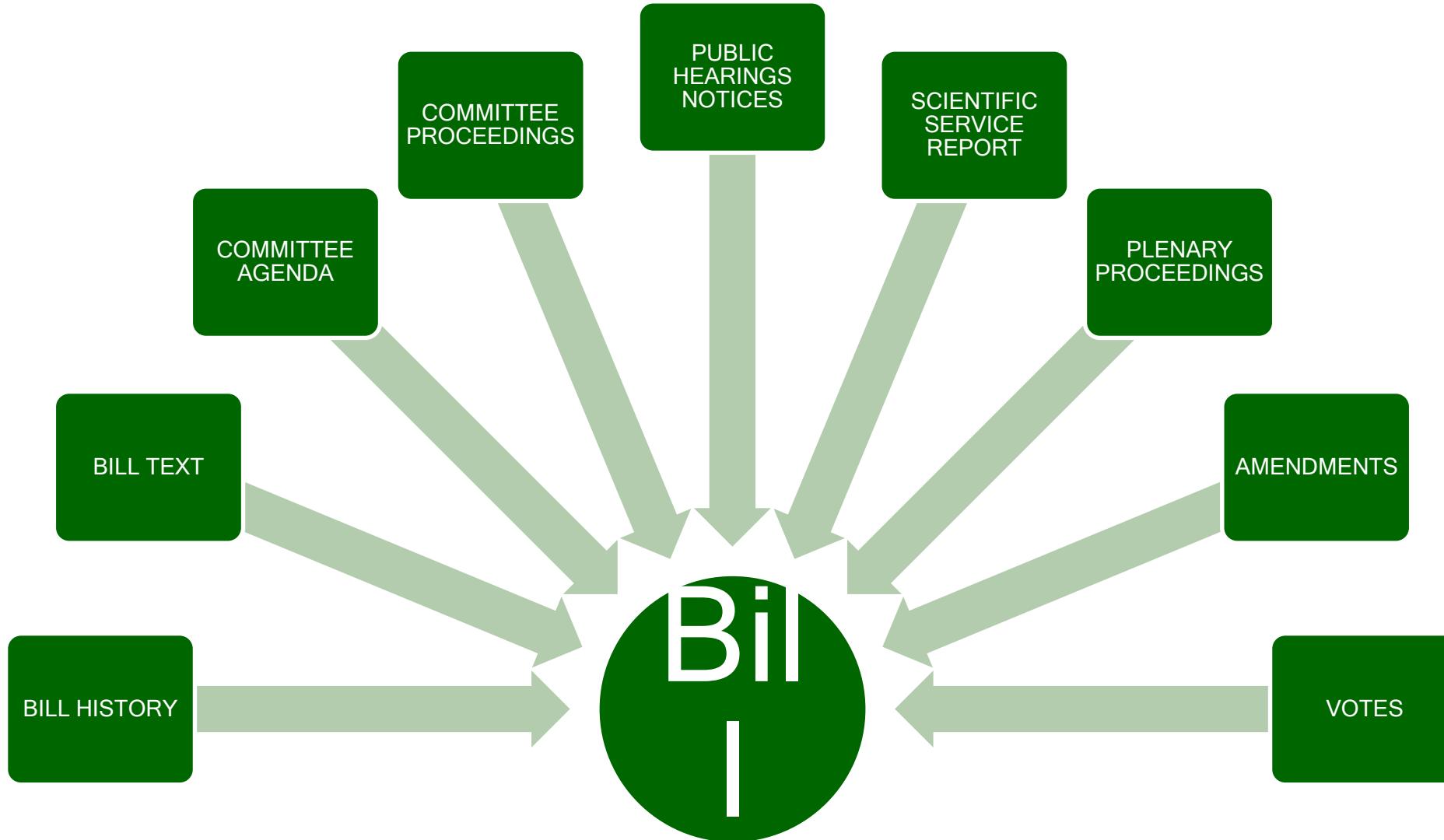
Progress is being achieved in demystifying the work of elected officials through open innovation



How does democracy work?



Tracking bills mechanism



The problem

Accuracy

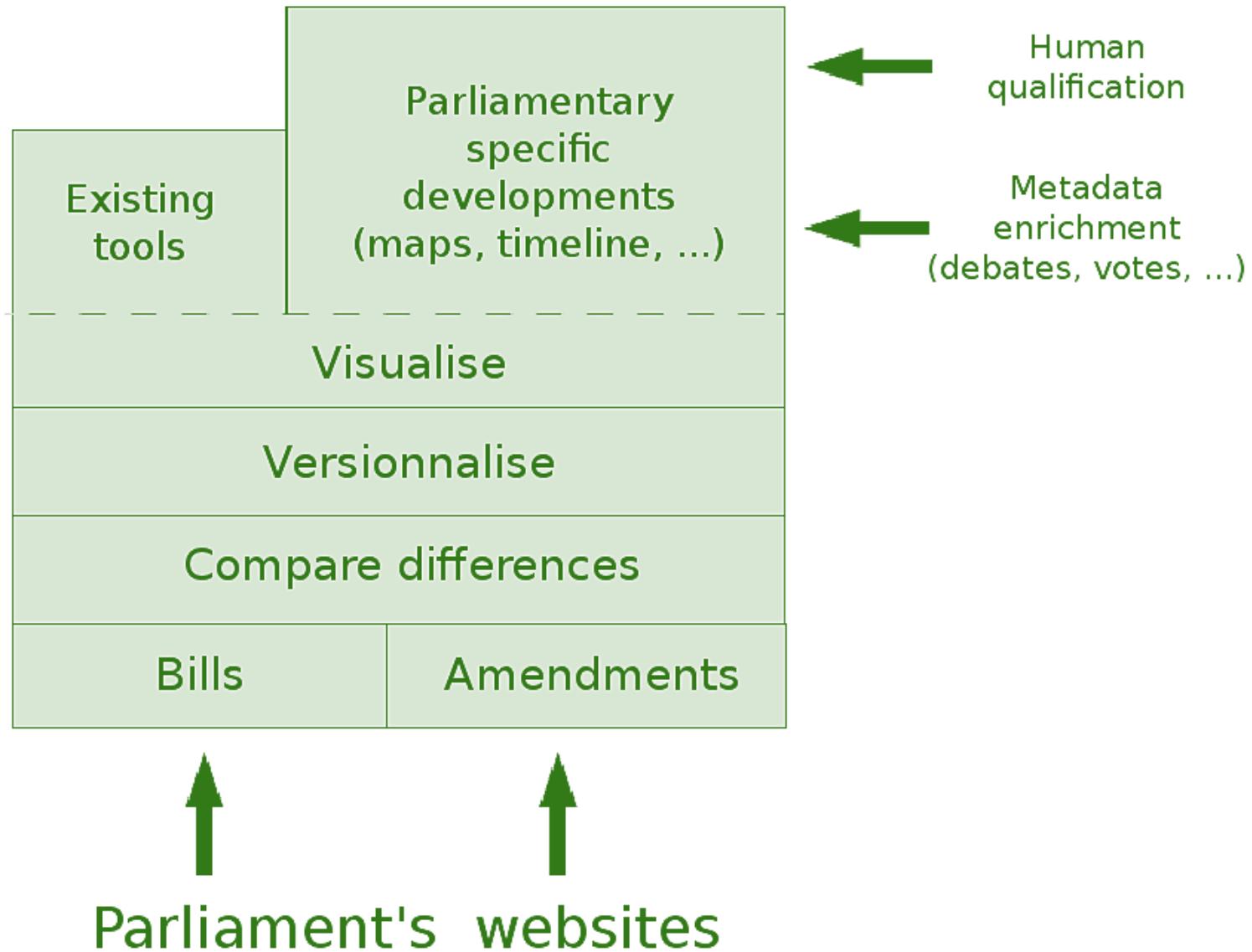
- *Data needs to be accurate and correct*
- *Verifiable and methodologically sound*

Accessibility

- *Present data in a way that people can relate to*
- *Make political processes easier to understand*

Our mechanism needs to be both **accurate and accessible**.

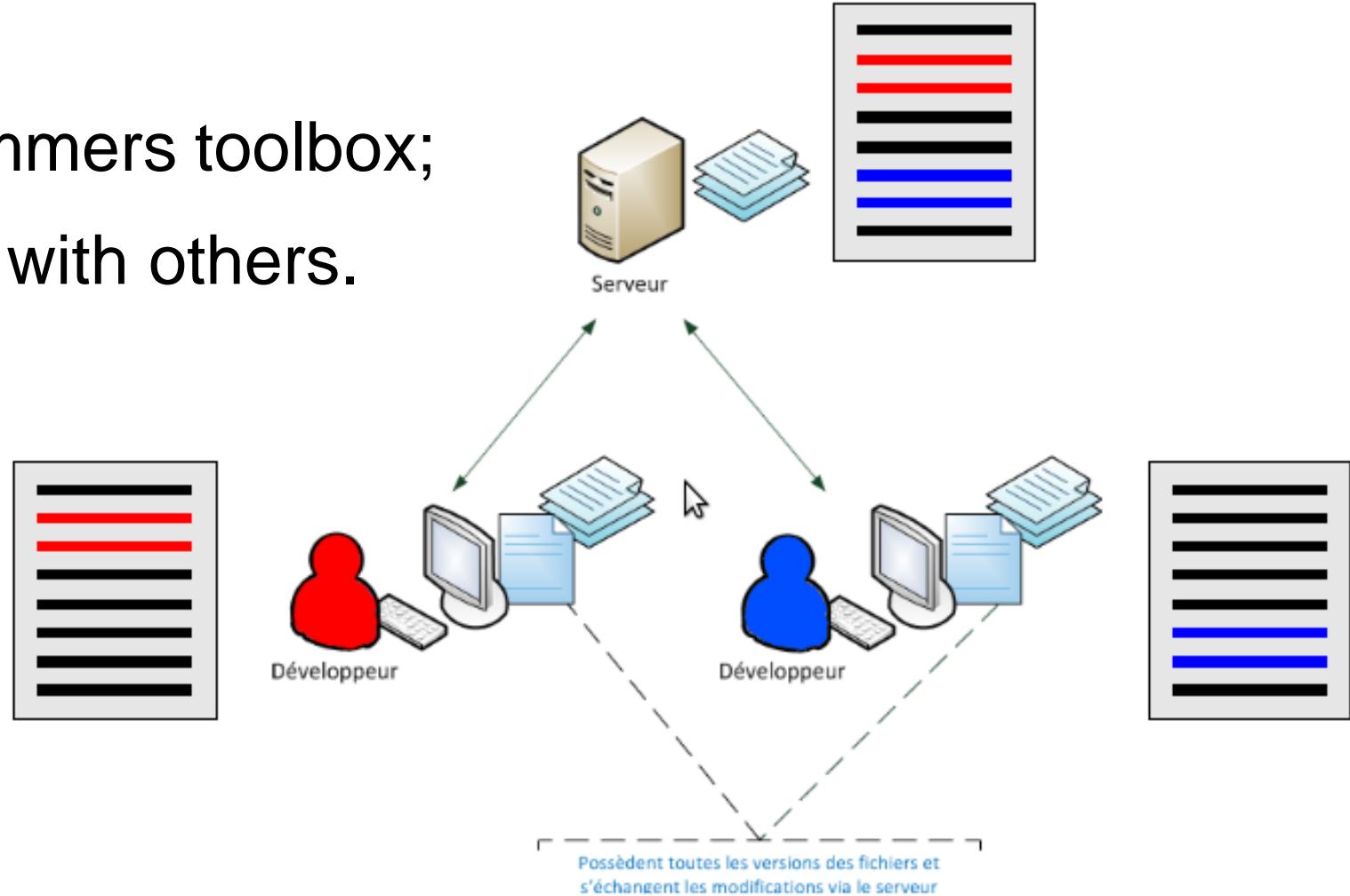
OS development project



Handle multiple versions

Versioning and revision control system (CSV, SVN, GIT, HG...):

- Essential part of programmers toolbox;
- Working in collaboration with others.



Visualise the differences of a change

Sénat (France)

(Différences entre les versions)

Aller à : [Navigation](#), [rechercher](#)

Version du 3 décembre 2003 à 22:40 (modifier)

Alain Caraco ([discuter](#) | [contributions](#))
(Création article)

(18 révisions intermédiaires par 11 utilisateurs sont masquées)

Ligne 1 :

- Le ""Sénat"" est, avec l'[[Assemblée nationale]], une des deux chambres du [[parlement]] [[France|français]]. Il est chargé de voter les [[loi|lois]], de contrôler l'action du [[gouvernement]] et de représenter les collectivités territoriales.
- Appelé également la "Haute assemblée", le Sénat se compose de 321 sénateurs :

- * 304 sont élus dans les départements de métropole et d'outre-mer
- * 3 dans les territoires d'outre-mer

Ligne 8 :

- * 12 représentants des Français de l'étranger
- Les sénateurs sont élus pour 9 ans au [[suffrage indirect]], par les grands électeurs, eux-mêmes élus au [[suffrage direct]]. Ils sont renouvelés par tiers tous les trois ans.

Version du 31 mai 2004 à 13:04 (modifier) (détails)

Cornelis ([discuter](#) | [contributions](#))
m (→[Histoire du bicamérisme en France](#))
[Modification suivante](#) →

Ligne 1 :

- + [[en:French Senate]]

- + Le ""Sénat"" constitue avec l'[[Assemblée nationale]] le [[parlement]] [[France|français]] dans un régime [[bicamérisme]], il est à ce titre co-détenteur du [[pouvoir législatif]]. Il est chargé de voter les [[loi|lois]] en tant que représentant des collectivités territoriales.

+

+ ==Composition et mode d'élection==

+

+ Appelé qualifié, dans le langage courant, de "Haute assemblée", le Sénat se compose de 321 sénateurs :

- * 304 sont élus dans les départements de métropole et d'outre-mer
- * 3 dans les territoires d'outre-mer

Ligne 8 :

- * 12 représentants des Français de l'étranger
- + Les sénateurs sont élus pour 9 ans au [[suffrage indirect]], par les grands électeurs, eux-mêmes élus au [[suffrage direct]]. Ils sont renouvelés par tiers tous les trois ans.

+

+ Du fait de la longueur du mandat et de l'élection au suffrage indirect, le Sénat est parfois utilisé comme refuge par des hommes politiques pour se maintenir en fonction.

+

+ Le Sénat siège à [[Paris]], au Palais du Luxembourg.

+

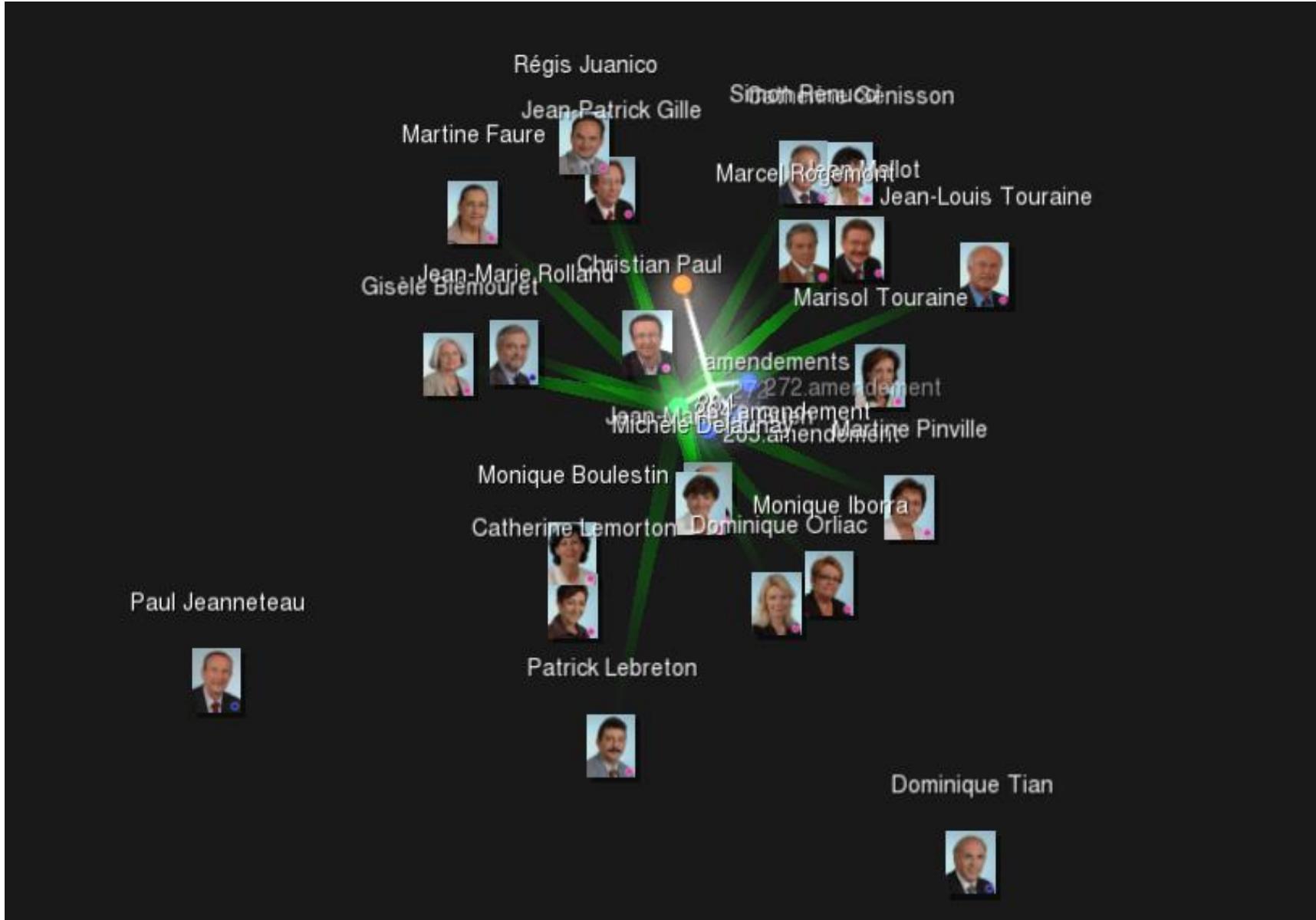
Historical information: The Making of a Law

Source: <http://visualisiert.net/parteiengesetz/index.en.html>

<http://visualisiert.net/parteiengesetz/index.en.html>

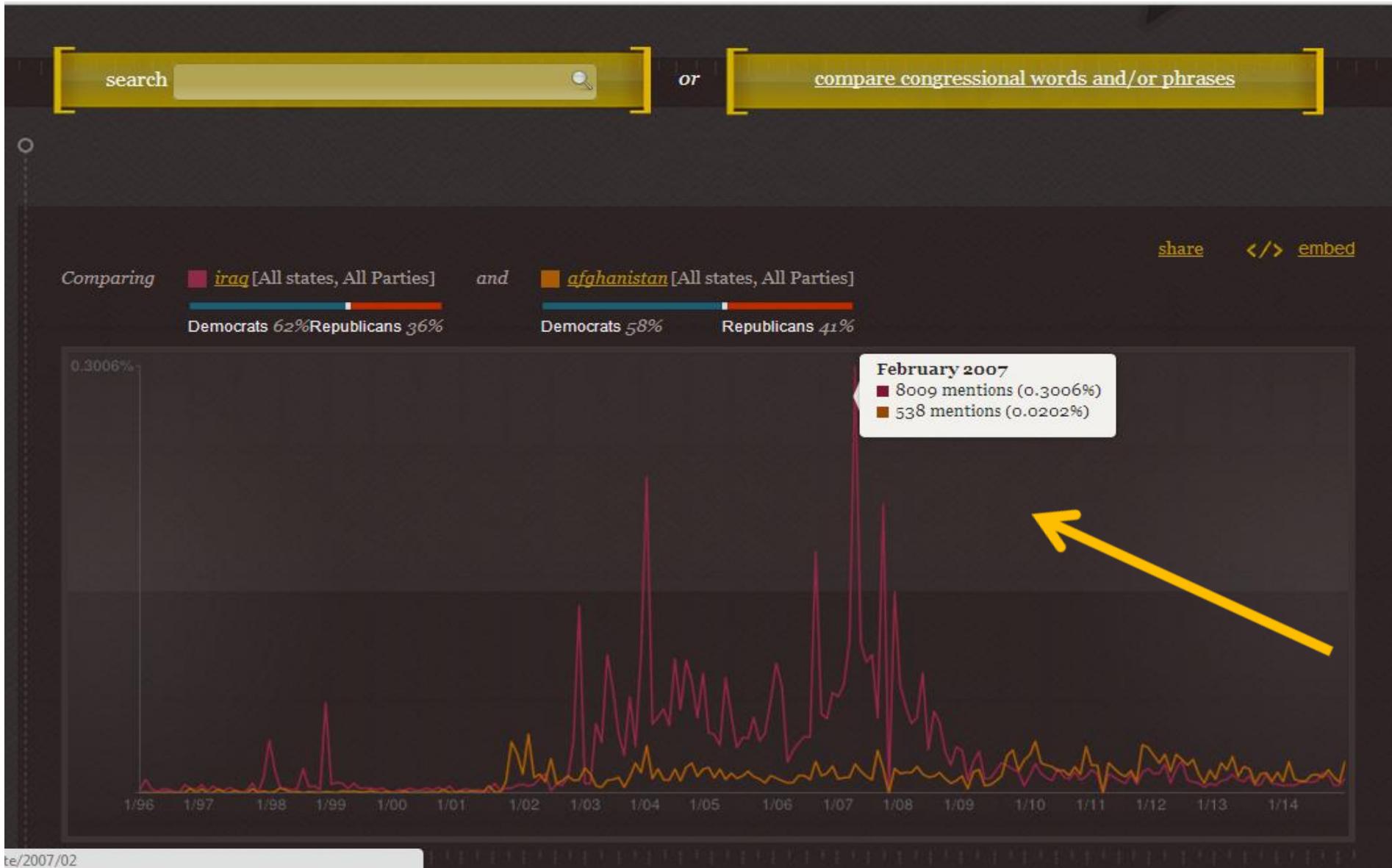


Open Law Intelligence



Historical information: „Capitolwords“

Source: <http://capitolwords.org/?terma=iraq&termb=afghanistan>



Journal of Open Innovation

Technology, Market & Complexity

Editor-in-Chief: JinHyo Joseph Yun

Оперативни трудности



OSS & Operational Challenges

Open source software adds complexity:

- Multiple sources
- More acquisition decisions to review
- Compatibility requirements among elements
- Varying quality and maturity
- Self-service maintenance and support
- OSS project directions not necessarily tied with your needs.

Open source software can involve risks:

- Mistakes can seriously delay release schedules
- Difficulty keeping up with bug fixes
- Security issues
- Chronic integration headaches
- Difficulties in resolving customer support issues
- Heavyweight management processes slow development.





Правни трудности

Legal Issues

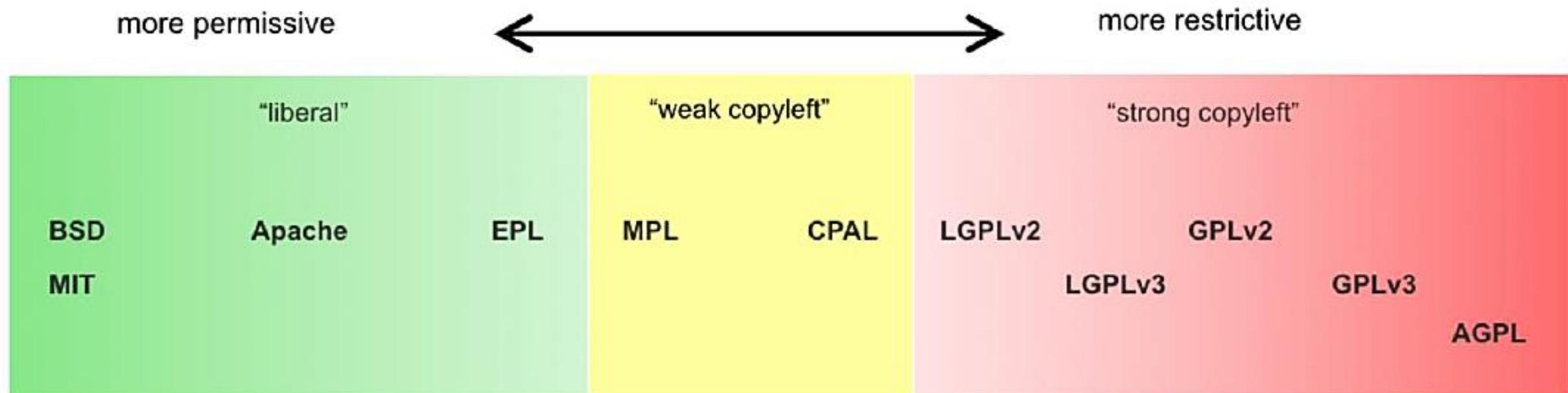
Incorporating open source software into software projects adds legal complexity:

- There are more than 2,500 different OSS licenses being used. Some of these licenses are incompatible with commercial strategies, while others are incompatible with other licenses;
- OSS licenses are implicit and cannot be negotiated;
- It is difficult to monitor license obligations when everyone can download the code;
- Ensuring compliance with many elements and license conditions can be very complex.

The legal risks involved with poorly managed open source software are widely publicized:

- Lawsuits;
- Injunctions preventing product delivery;
- Damages from infringement;
- Enforcement actions requiring publication of proprietary code;
- Derailment of Merger & Acquisition (M&A) transactions, reduction of valuation, increased holdbacks.

A Spectrum of OSS Licenses

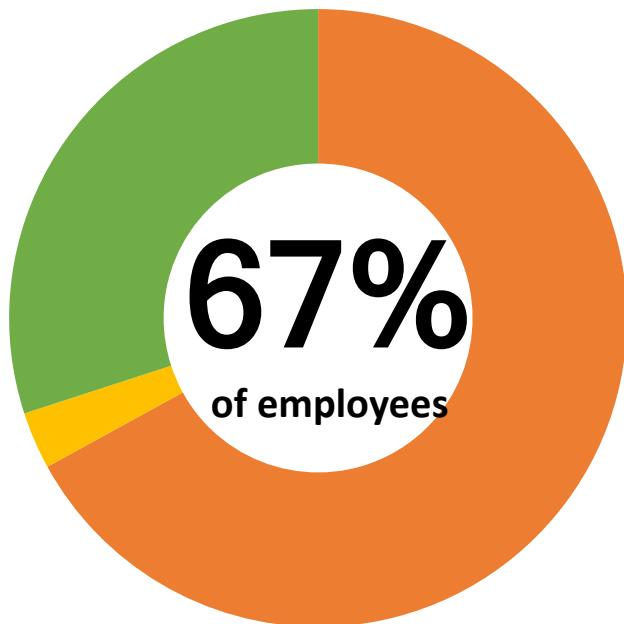


**Формиране и упр. на
общности и мрежи**

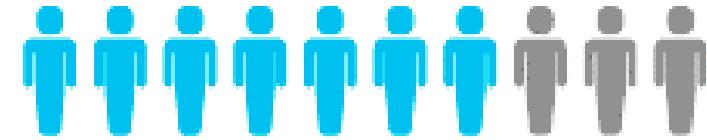
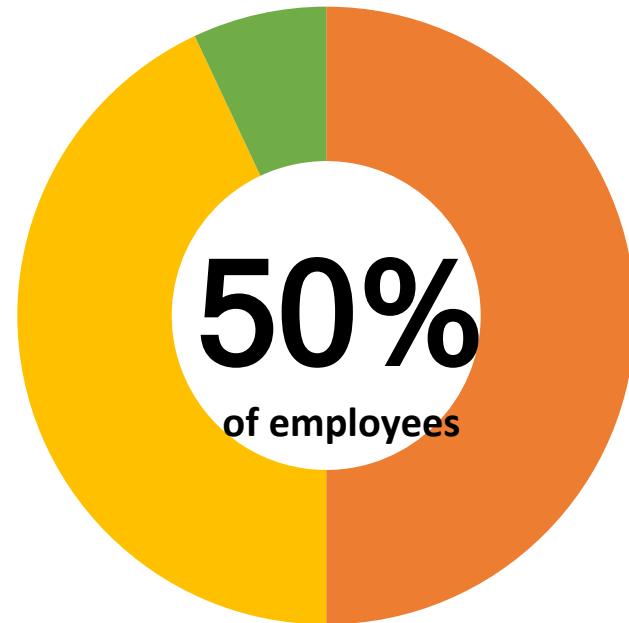
The organizational environment has changed

The work environment is now more complex and interdependent

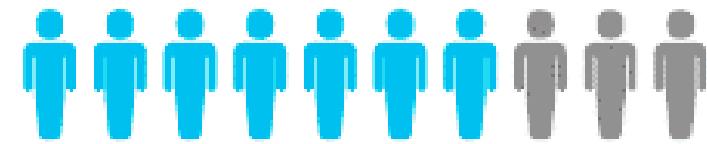
- In only three years...
The amount of work that needs collaboration has increased for



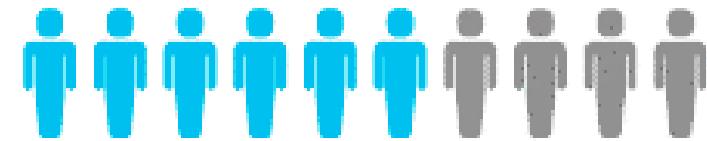
- Reliance on others has increased for



Almost 7 in 10 employees coordinate with people from different teams



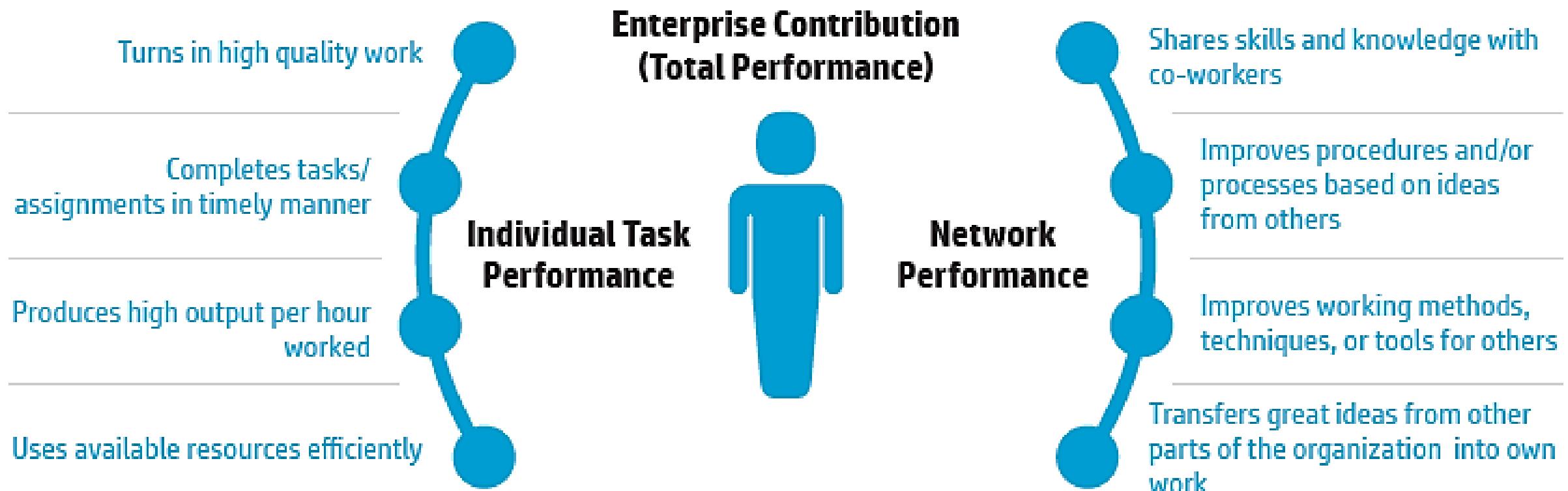
Almost 7 in 10 employees coordinate with people on different job levels



More than 6 in 10 employees coordinate with people in different locations

Network Performance

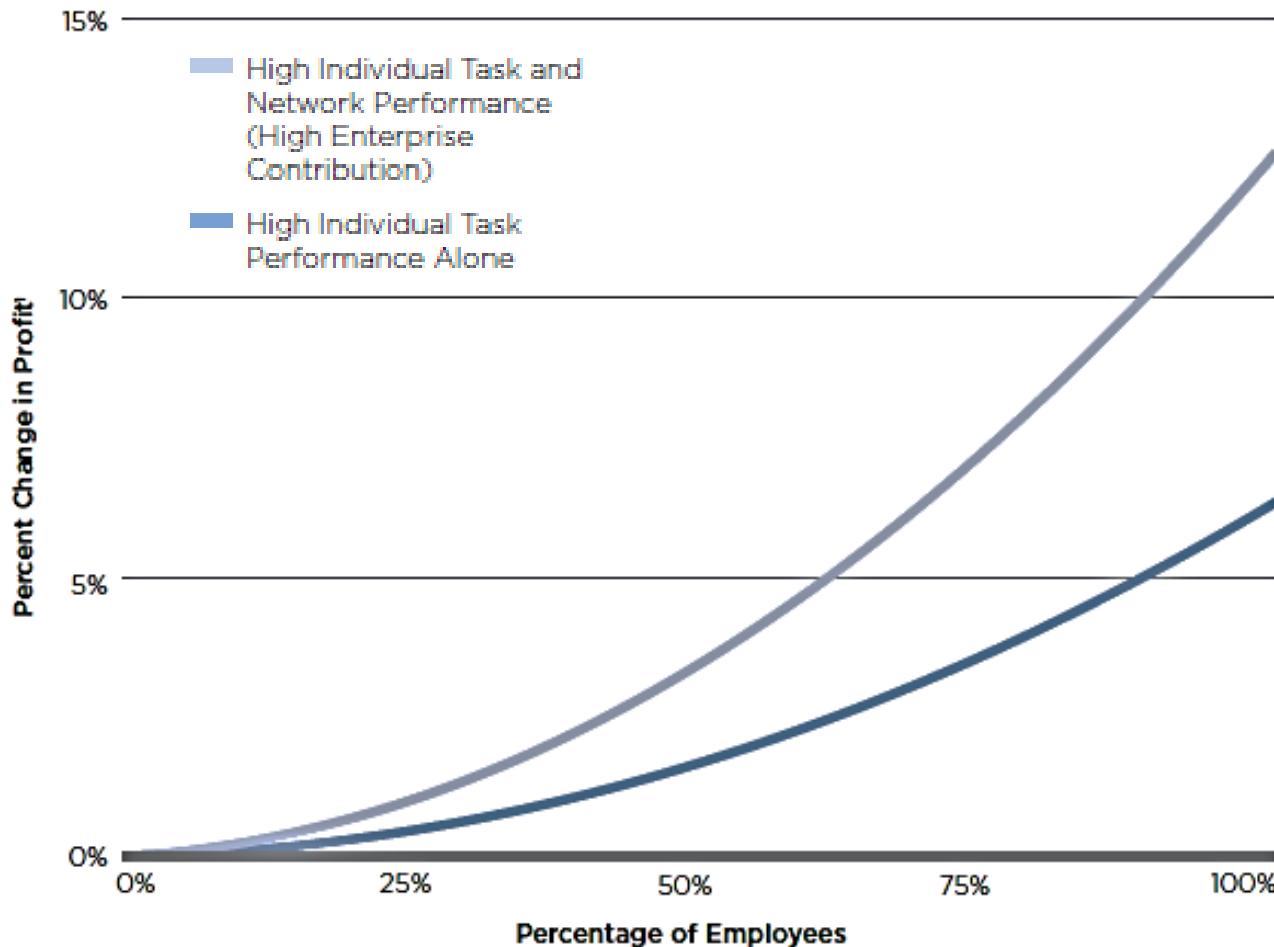
A new component in employee performance has emerged



Enterprise Contribution

To achieve goals, the entire workforce must display enterprise contribution

Percent Change in Profit by Percentage of Enterprise Contributors in Business Unit



As more employees achieve enterprise contribution, business unit performance increases. Thus, all employees should display these performance traits, not just a small handful of “A players.”

7 Principles for Cultivating Communities of Practice

No 1



Design for evolution



Open a dialogue between inside and outside perspectives



Invite different levels of participation



Develop both public and private community spaces



Focus on Value



Combine familiarity and excitement



Create a rhythm for the community



- Communities are alive and dynamic and will evolve.
- The primary role of design is to catalyze their evolution.
- Community design is much more like life-long learning than traditional organization design.
- Design elements should be catalysts for a community's natural evolution.
- Community design often involves fewer elements at the beginning than does a traditional organization design.



No 2



Design for evolution



Open a dialogue between inside and outside perspectives



Invite different levels of participation



Develop both public and private community spaces



Focus on Value



Combine familiarity and excitement



Create a rhythm for the community

Good community design



- Requires an understanding of the community's **potential** to develop and steward knowledge—often from an **outside perspective** to help members see the possibilities
- Brings information from **outside the community** into the dialogue about what the community could achieve.

No 3



Design for evolution



Open a dialogue between inside and outside perspectives



Invite different levels of participation



Develop both public and private community spaces



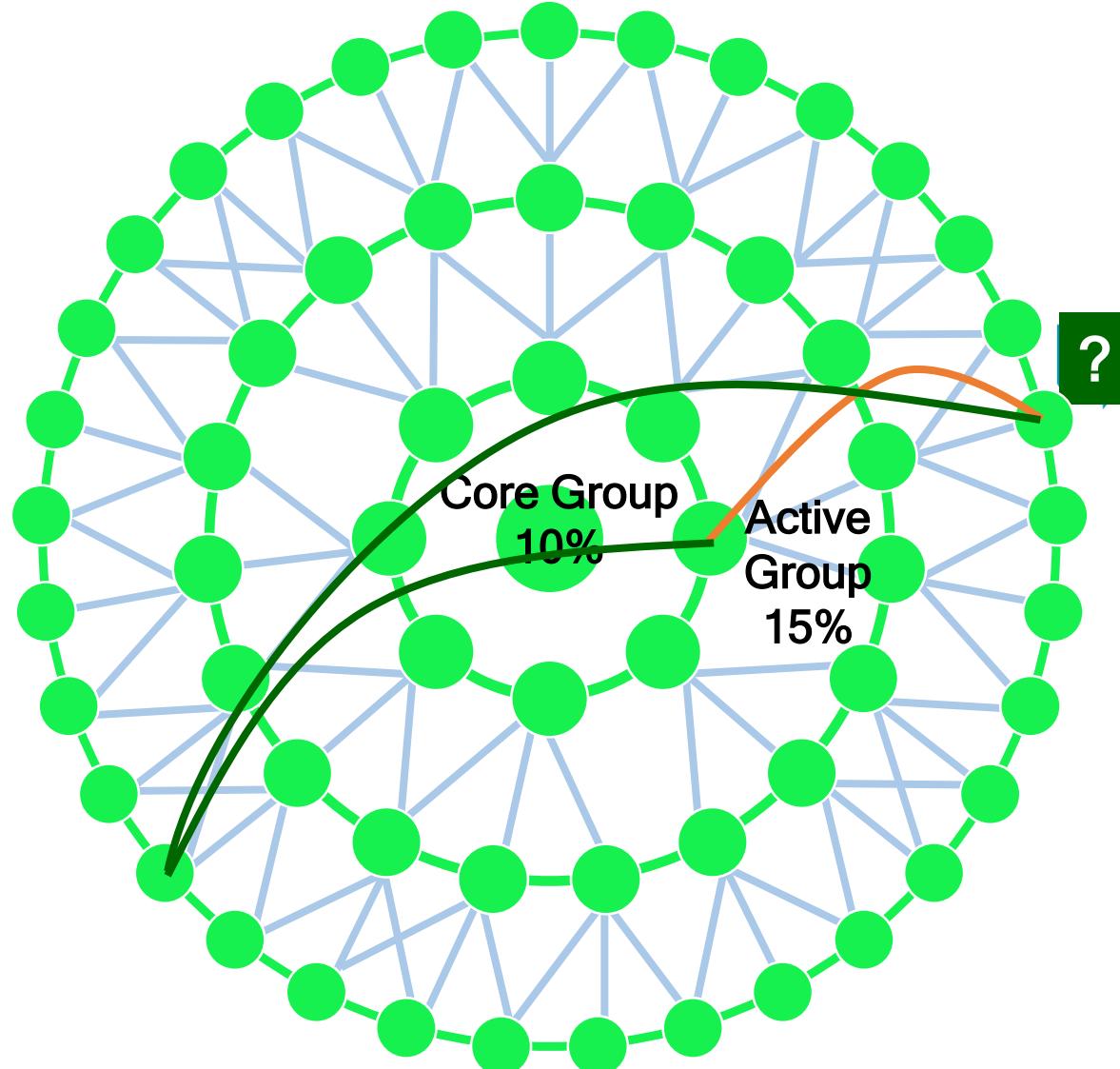
Focus on Value



Combine familiarity and excitement



Create a rhythm for the community



No 4



Design for evolution



Open a dialogue between inside and outside perspectives



Invite different levels of participation



Develop both public and private community spaces



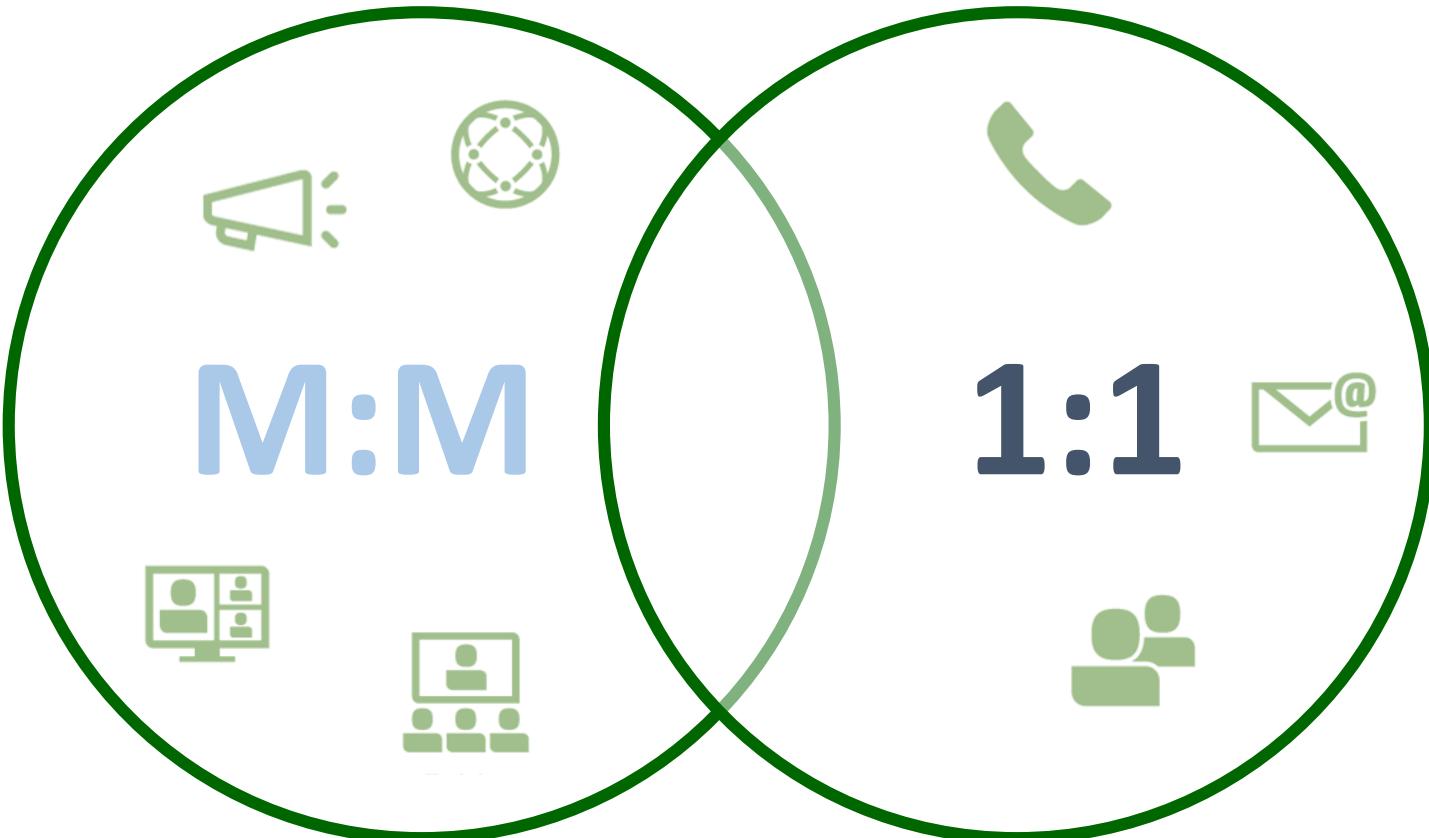
Focus on Value



Combine familiarity and excitement



Create a rhythm for the community



No 5



Design for evolution



Open a dialogue between inside and outside perspectives



Invite different levels of participation



Develop both public and private community spaces



Focus on Value



Combine familiarity and excitement



Create a rhythm for the community

Communities thrive because they deliver value to



The Organization



The Members' Teams



Community Members



The full value of a community is often not apparent when it is first formed and the source of value often changes over the life of the community.

Rather than attempting to determine their expected value in advance, communities need to create events, activities, and relationships that help their potential value emerge and enable them to discover new ways to harvest it.



 Tracing the impact of a shared idea takes time and attention. We need to encourage community members to be explicit about the value of the community throughout its lifetime

No 6



Design for evolution



Open a dialogue between inside and outside perspectives



Invite different levels of participation



Develop both public and private community spaces



Focus on Value



Combine familiarity and excitement



Create a rhythm for the community

Lively communities combine both familiar and exciting events

Routine activities provide the stability for relationship-building connections



As communities mature, they often settle into a pattern of:

- Regular meetings
- Teleconferences
- Projects
- Web site use
- Other ongoing activities.

Exciting events provide a sense of common adventure, novelty and excitement.

To facilitate spontaneous contact between people, communities can hold:

- Conferences
- Fairs
- Workshops
- Other events

to bring the community together in a special way

No 7



Design for evolution



Open a dialogue between inside and outside perspectives



Invite different levels of participation



Develop both public and private community spaces



Focus on Value



Combine familiarity and excitement



Create a rhythm for the community

The tempo of members' interactions is greatly influenced by the rhythm of community events.



When the beat is too slow, the community feels sluggish.

When that beat is strong and rhythmic, the community has a sense of movement and liveliness.

If the beat is too fast, the community feels breathless; people stop participating because they are overwhelmed.

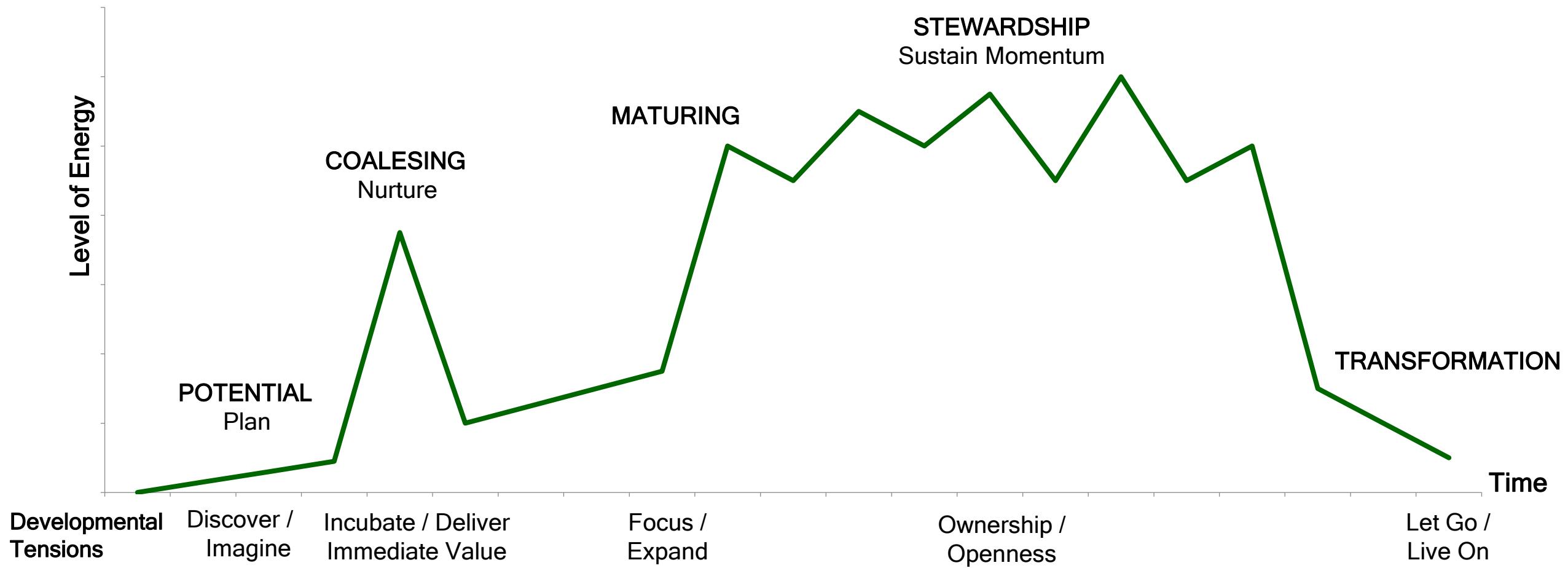
The rhythm of the community is the strongest indicator of its aliveness. Finding the right rhythm at each stage is key to a community's development.



ЗАДАЧА ЗА САМОСТОЯТЕЛНА РАБОТА

Анализирайте различните фази на развитие и узряване на отворените проектни общиности и обмислете в коя фаза коя препоръка за развитие на тези общиности е приложима и следва да бъде фокус на внимание.

Stages of Community Development



Механизми за подкрепа

„Black Duck“ Software Stack

Helping Developers Build Better Software Faster with the Power of Open Source

- Modern software development relies on effective and informed use of open source technologies and methods

For Customers

- Award-winning software and consulting
- Automation / tooling for OSS governance and compliance

For Community

- Black Duck connects developers to OSS resources with [Ohloh.net](#),
- Highlights commentary from industry experts on the Open Source Delivers blog.
- Hosts the Open Source Think Tank, an international event where thought leaders collaborate on the future of open source

„Black Duck“ Customers

Electronics



Software



Financial and Services



Media



VIACOM

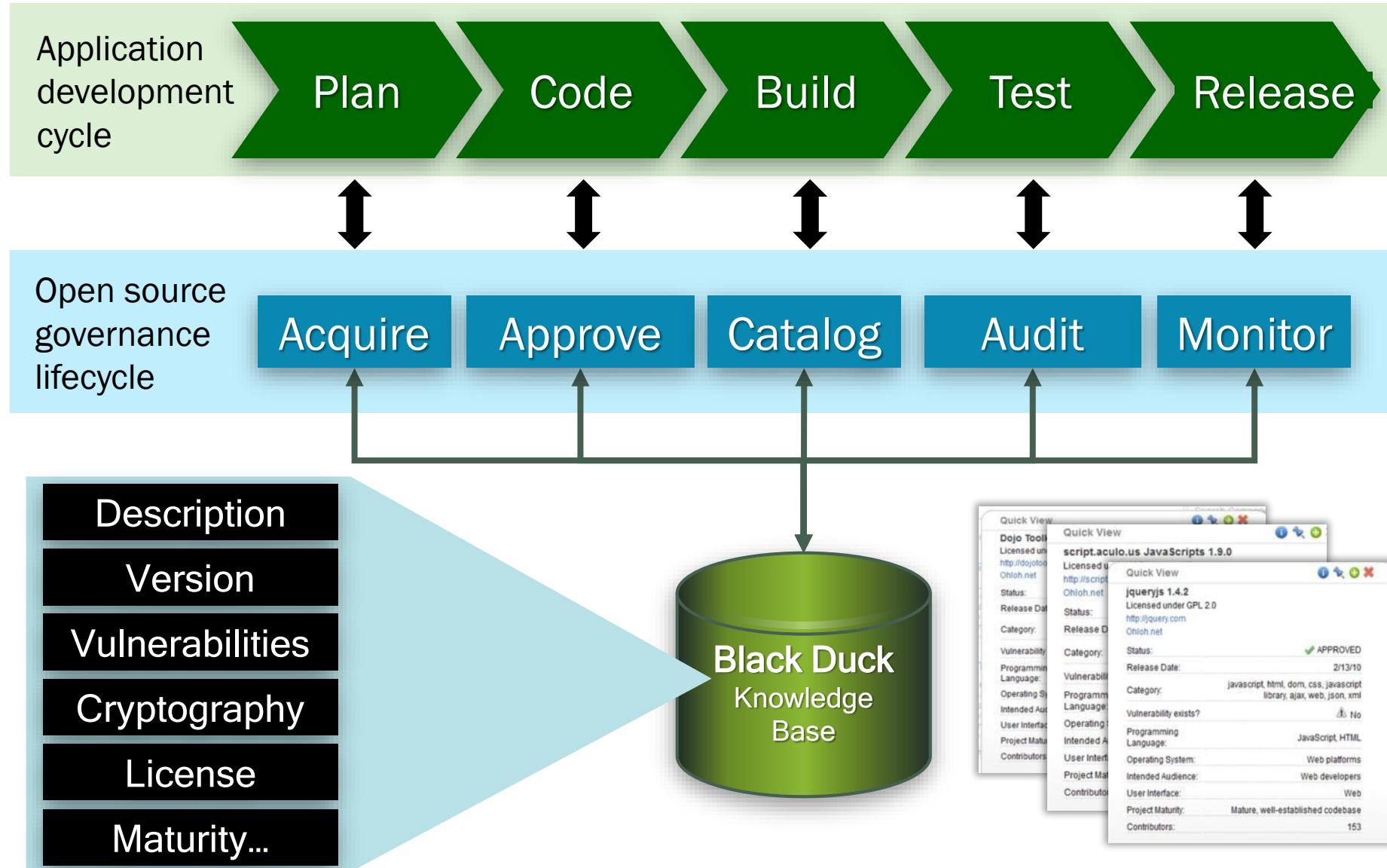
Manufacturing



Government



„Black Duck“ & Application Development



What Do They Do?

BLACK DUCK | SUITE

Acquire

Approve

Catalog

Audit

Monitor

Policy & Process

Strategy

Advocacy



Ohloh.net – Tracking the World of FOSS

The screenshot shows the homepage of Ohloh.net. At the top, there's a navigation bar with links for Projects, People, Organizations (Beta), Tools, and Code. Social media links for Twitter and Facebook, along with 'Sign In' and 'Join Now' buttons, are also present. A large blue banner in the center says 'Discover, Track and Compare Open Source' and includes a search bar, a count of 19,619,589,717 lines of code, and a link to 'Click to see an example project'. On the left, there's a 'Join Now' section with icons for claiming contributions, managing project data, and highlighting FOSS use. Below that are sections for 'What's New' (Project Activity Icons) and 'Most Popular Projects' (Mozilla Firefox, Apache HTTP Server, Subversion). The right side features 'Most Active Projects' (KDE, Arch Linux Packages, GNOME) and 'Most Active Contributors' (nick black, ALCARAZ Marc, ciceron).

Discover, Track and Compare Open Source

Search Projects...

Counting 19,619,589,717 lines of code

Click to see an example project

Join Now

Claim your contributions

Manage your project's data

Highlight your use of FOSS

Join Now

What's New

Project Activity Icons

Compare projects
At-A-Glance health
Recent activity metric
New projects flagged

Most Popular Projects

Project	Users
Mozilla Firefox	11837 users
Apache HTTP Server	8423 users
Subversion	8353 users

Most Active Projects

Project	Commits
KDE	3848 commits
Arch Linux Packages	3450 commits
GNOME	3375 commits

Most Active Contributors

Contributor	Commits
nick black	1763 commits
ALCARAZ Marc (aka eKameleon)	875 commits
ciceron	691 commits

Ohloh is a free, public directory

of Free and Open Source Software and the contributors who create and maintain it

Ohloh is editable by everyone like a wiki. All are welcome to join and add new projects. Public review helps make Ohloh one of the largest, most accurate and up-to-date FOSS software directories available.

Ohloh is a community

It is not a forge and does not host projects and code. Ohloh connects to project source code repositories, analyzes code history and updates, and highlights contributors.

Ohloh tracks FOSS demographics, reporting on the composition and activity of code bases, and aggregates this data to produce a dynamic picture of the FOSS world.

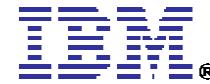
Olliance Consulting

Open Source Strategy: Our Experience, Your Success

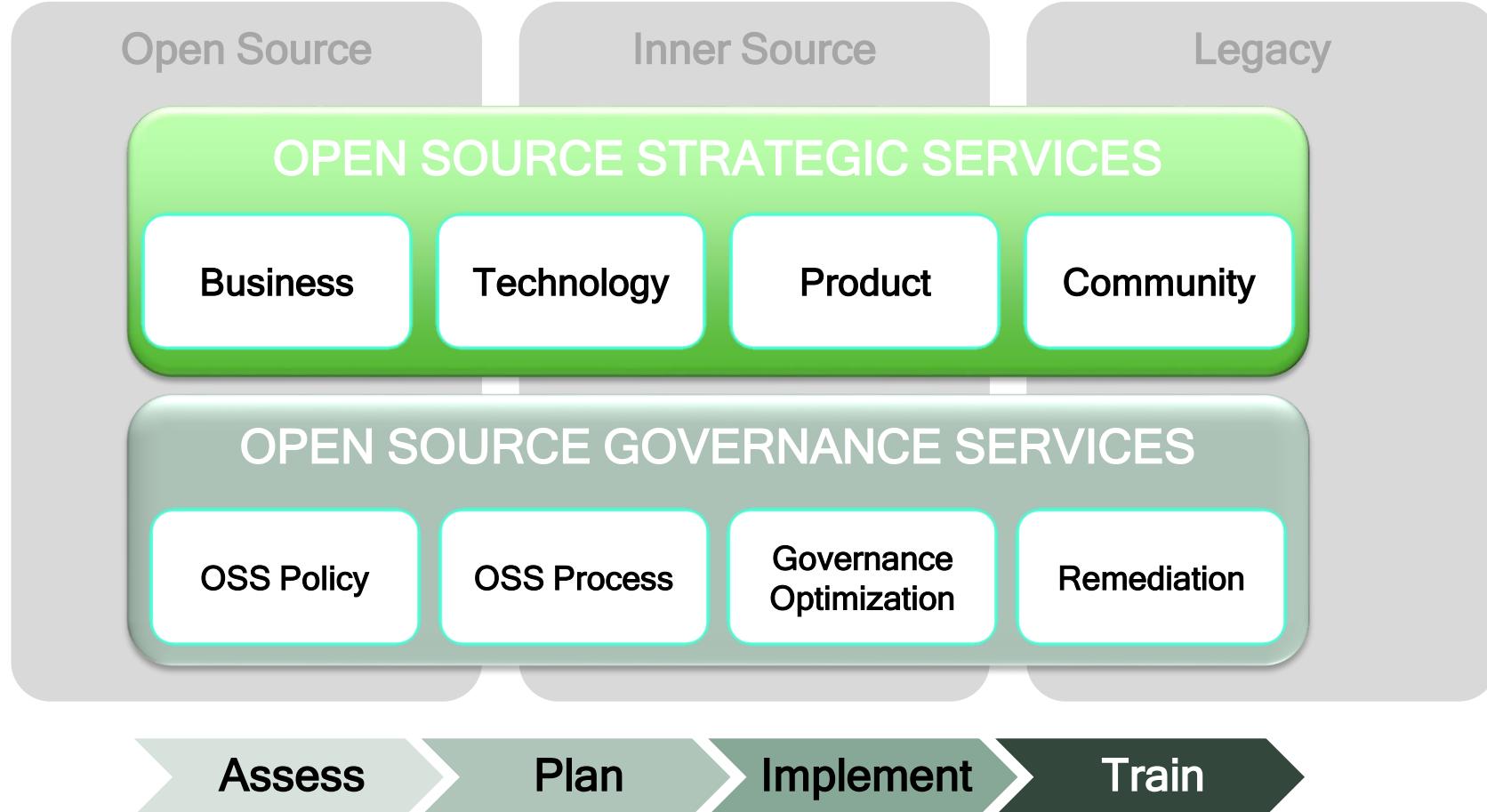
The world's leading companies turn to Olliance to create and implement open source strategies to achieve business results. With more than a decade of experience and hundreds of engagements assisting companies ranging from start-ups to the world's largest corporations, Olliance creates innovative open source strategies for business success.

Profile

- Open Source Software Industry's leading business consultancy
- Over **600** engagements to date
- Trusted Advisor** to leading Fortune 2000 companies



Olliance Consulting Offerings



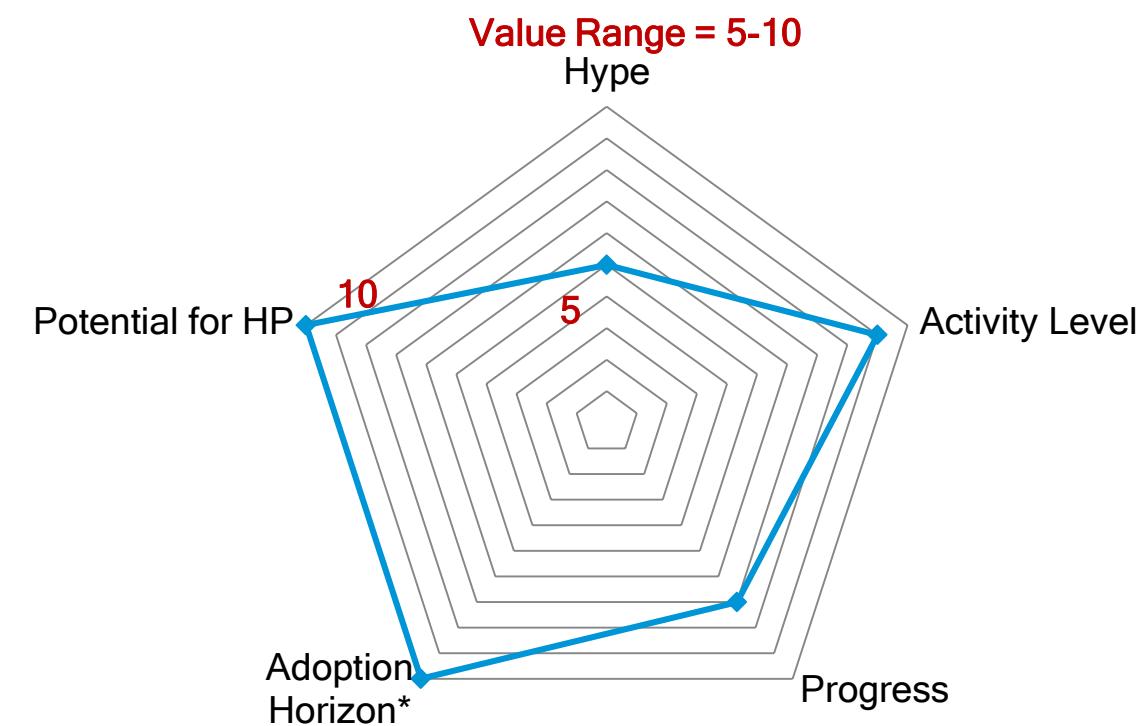
Olliance also offers custom open source industry research services



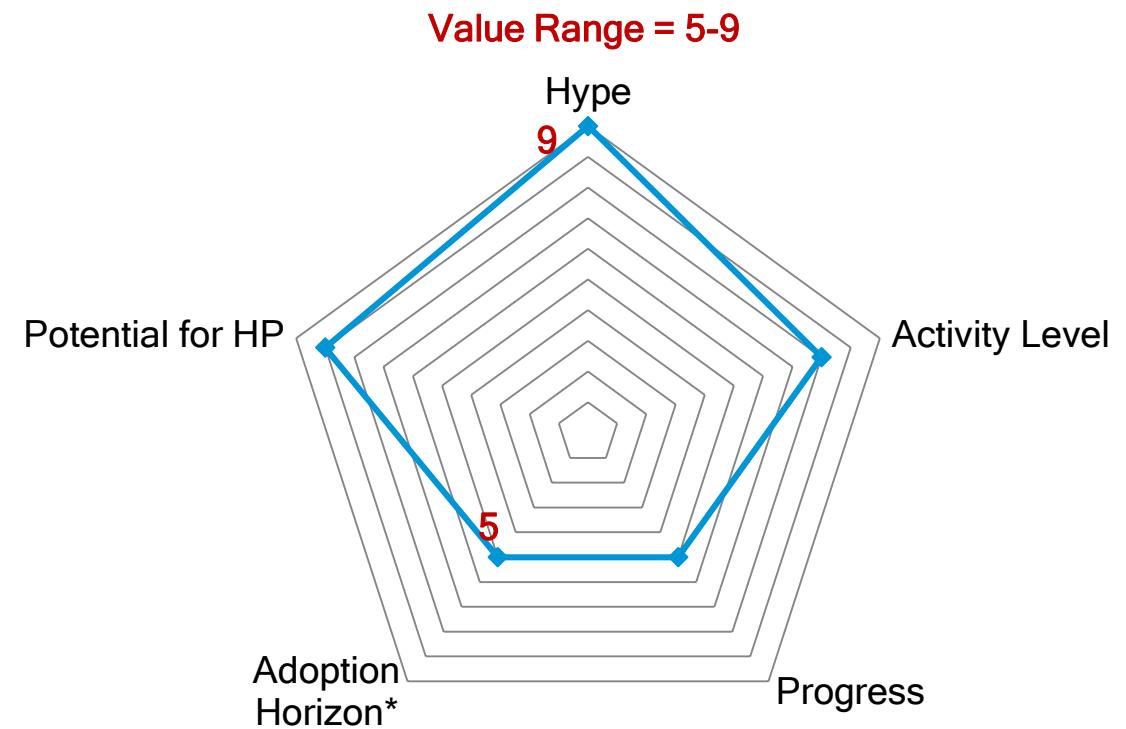
ЗАДАЧА ЗА САМОСТОЯТЕЛНА РАБОТА

Анализирайте бизнес предизвикателствата и възможностите, свързани с внедряването на отворения код в най-актуалните области на информационните технологии.

Cybersecurity & privacy



The new software fabric

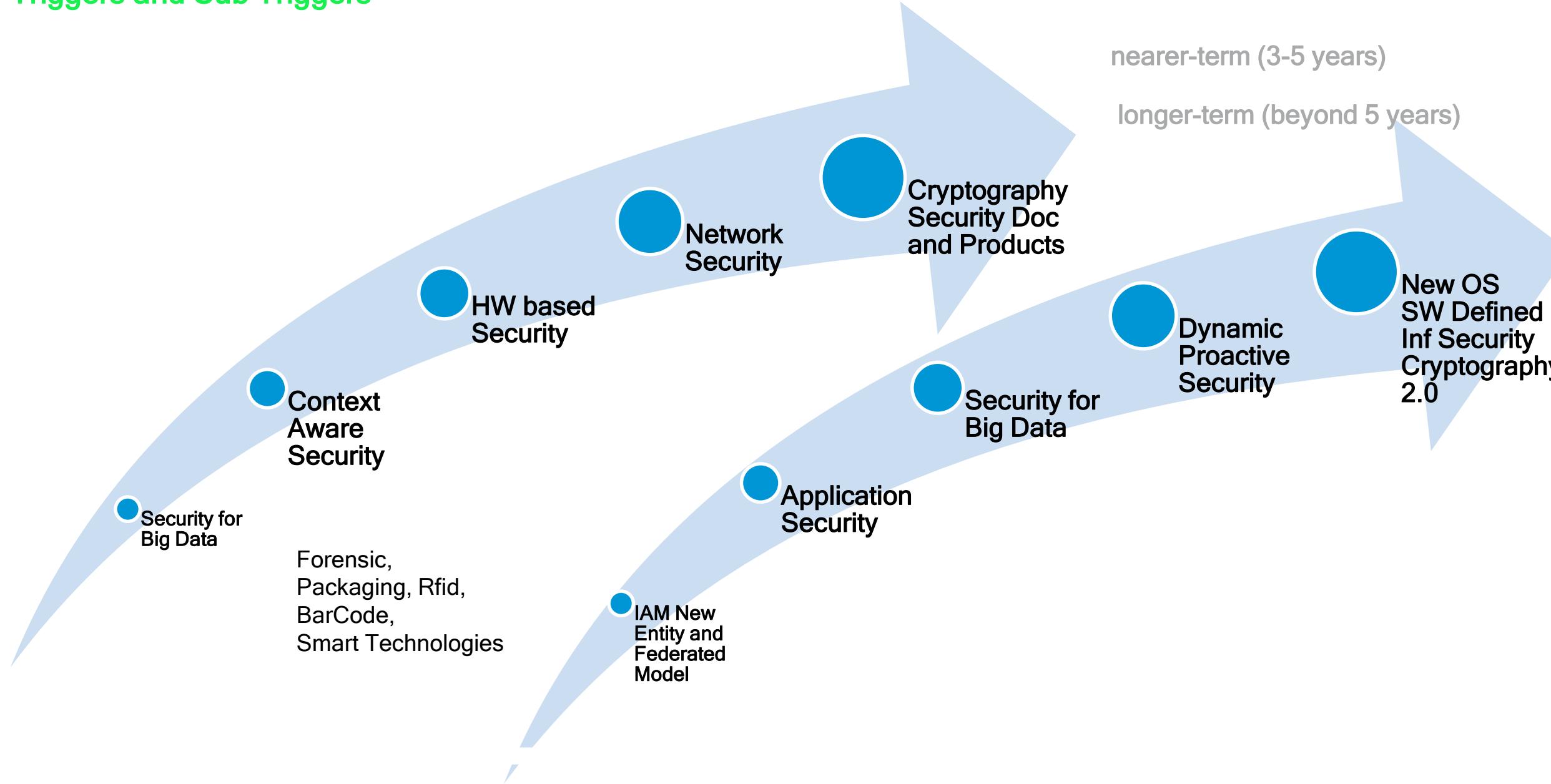


*Adoption Horizon: Closer to outer edge value of 10 = shorter time to mainstream adoption

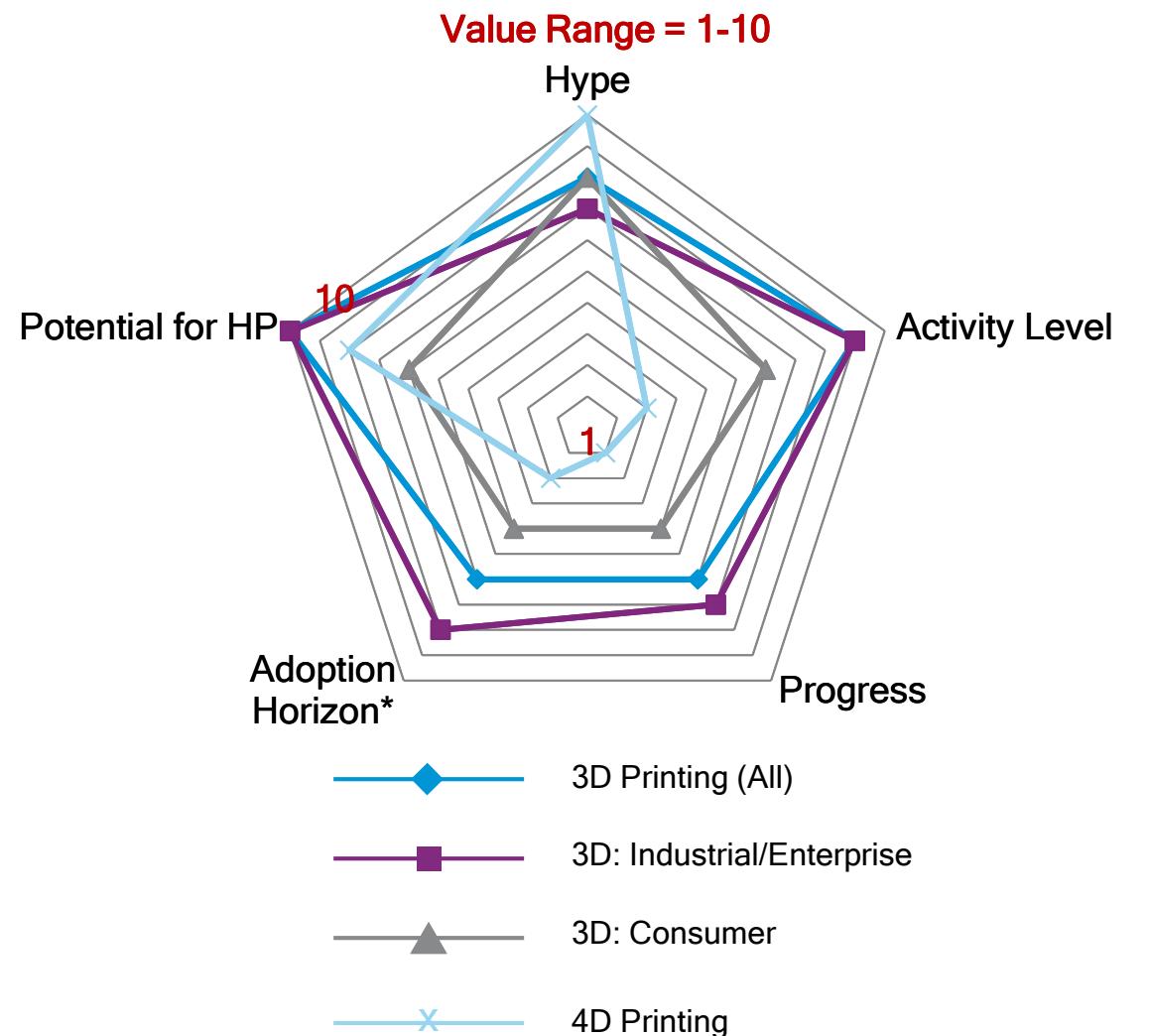
Disruptive Tech Radar Update 2015

Security

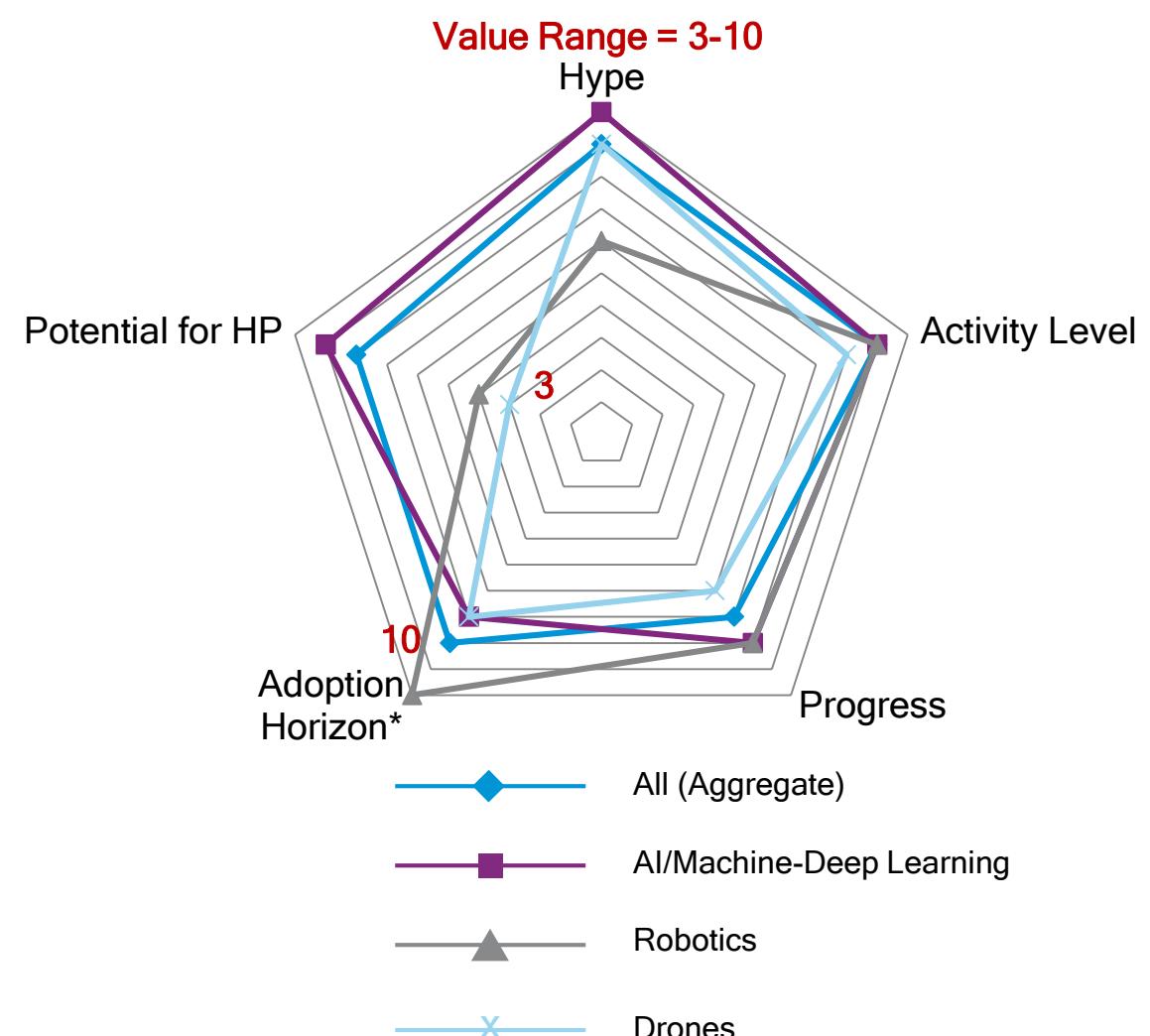
Triggers and Sub Triggers



Materialization on demand: 3D printing & beyond



Cognitive systems: AI, machine learning, robotics & more

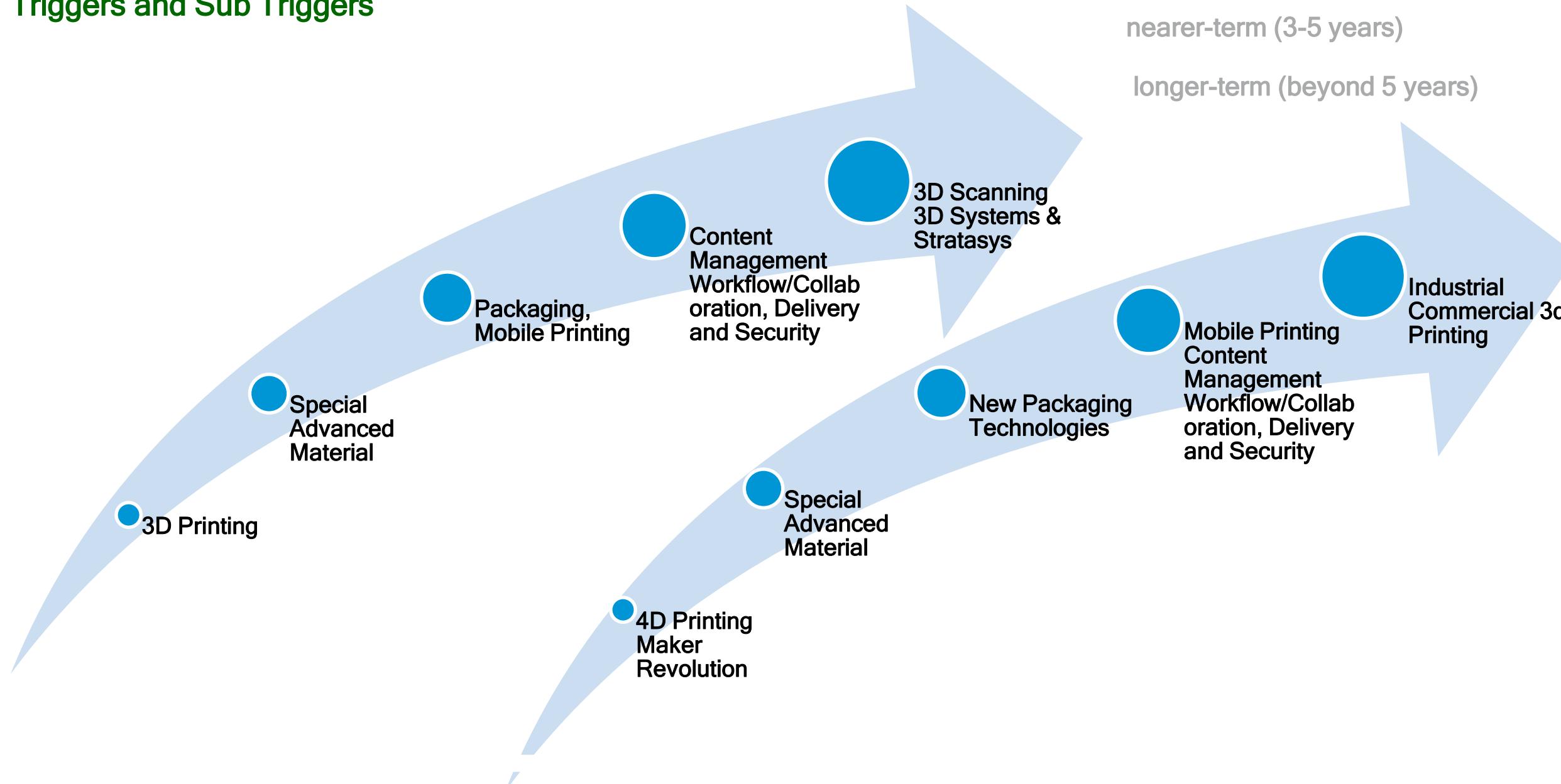


*Adoption Horizon: Closer to outer edge value of 10 = shorter time to mainstream adoption

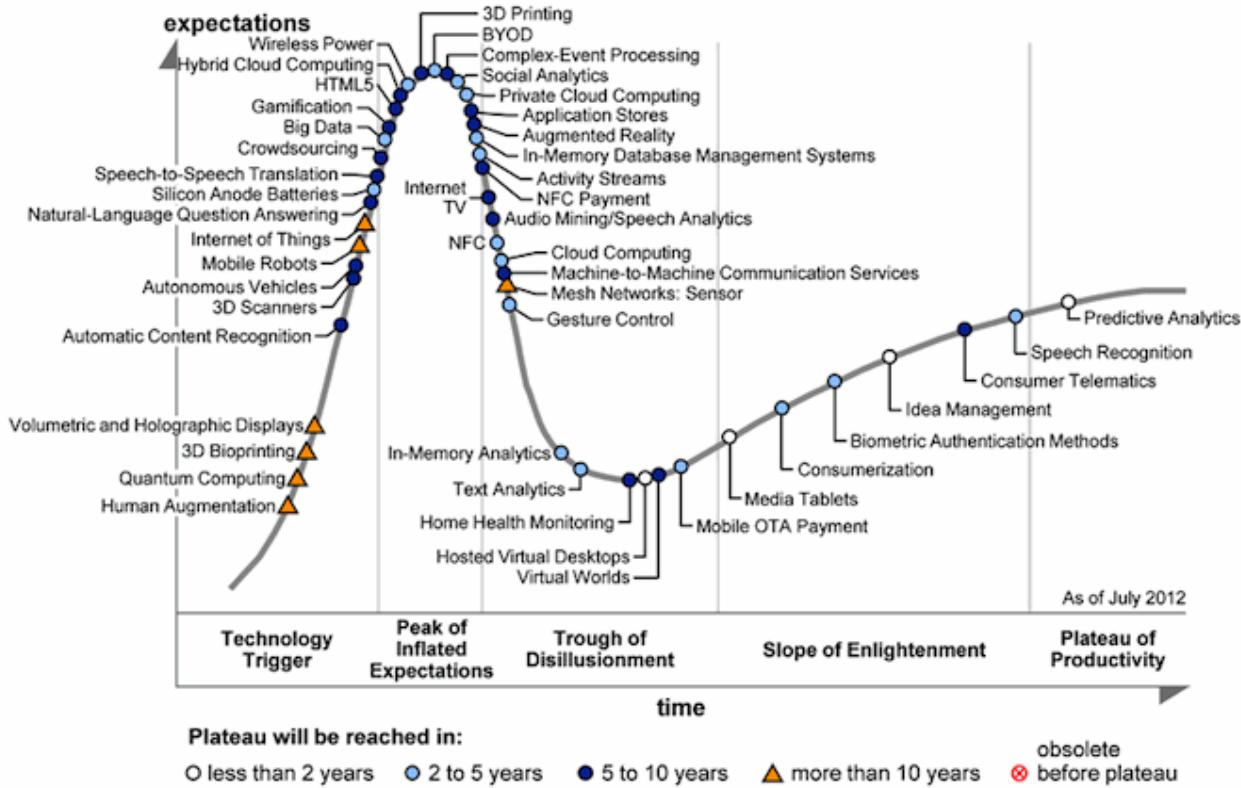
Disruptive Tech Radar Update 2015

3D Printing

Triggers and Sub Triggers



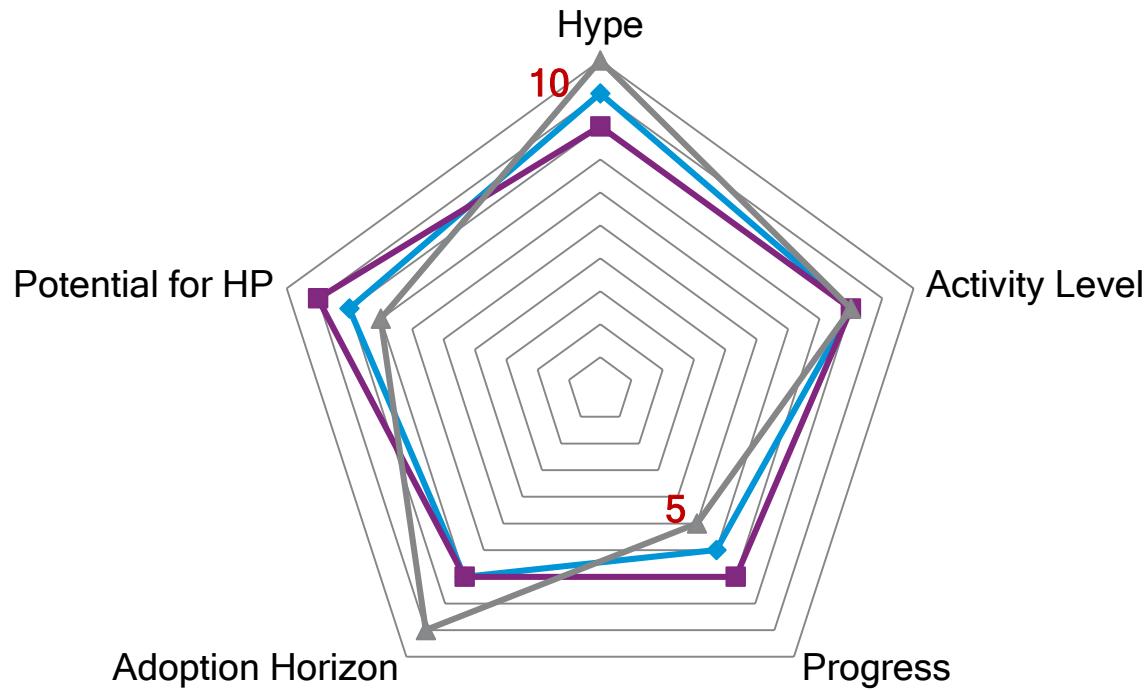
3D Printing



- Consumer 3D printing is around five to 10 years away from mainstream adoption," said Pete Basiliere, research vice president at Gartner.
- "Today, approximately 40 manufacturers sell the 3D printers most commonly used in businesses, and over 200 startups worldwide are developing and selling consumer-oriented 3D printers, priced from just a few hundred dollars.
- However, even this price is too high for mainstream consumers at this time, despite broad awareness of the technology and considerable media interest."
- First, the enterprise 3D printing market is very different from the consumer market.
- Second, 3D printing is not one technology but seven different ones. "Hype around home use obfuscates the reality that 3D printing involves a complex ecosystem of software, hardware and materials whose use is not as simple to use as 'hitting print' on a paper printer,"

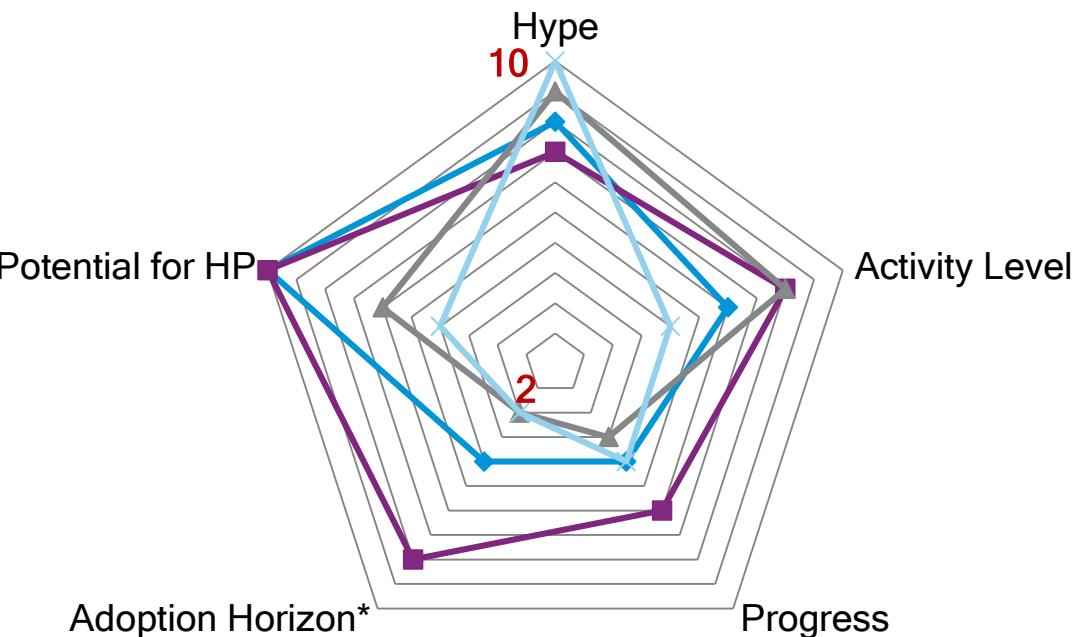
Internet of Things (IoT)

Value Range = 5-10



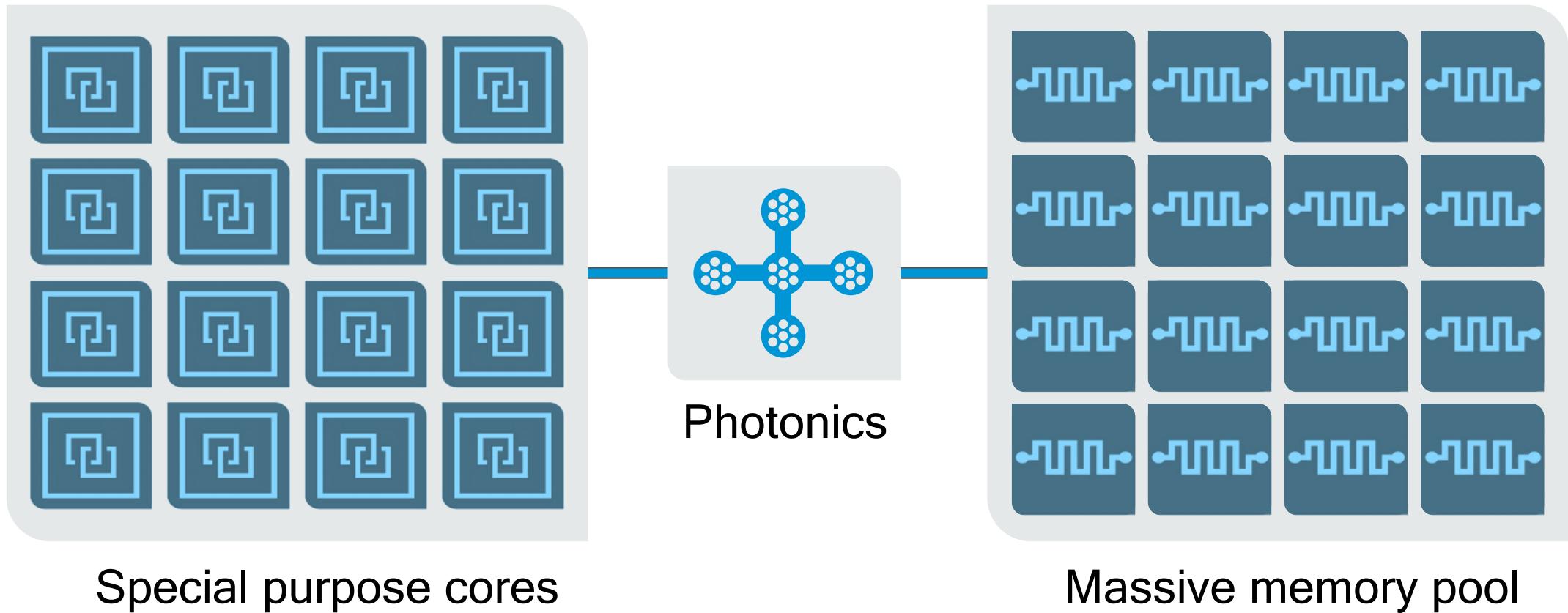
New computing paradigms

Value Range = 2-10



*Adoption Horizon: Closer to outer edge value of 10 = shorter time to mainstream adoption

Disruptive Tech Radar Update 2015

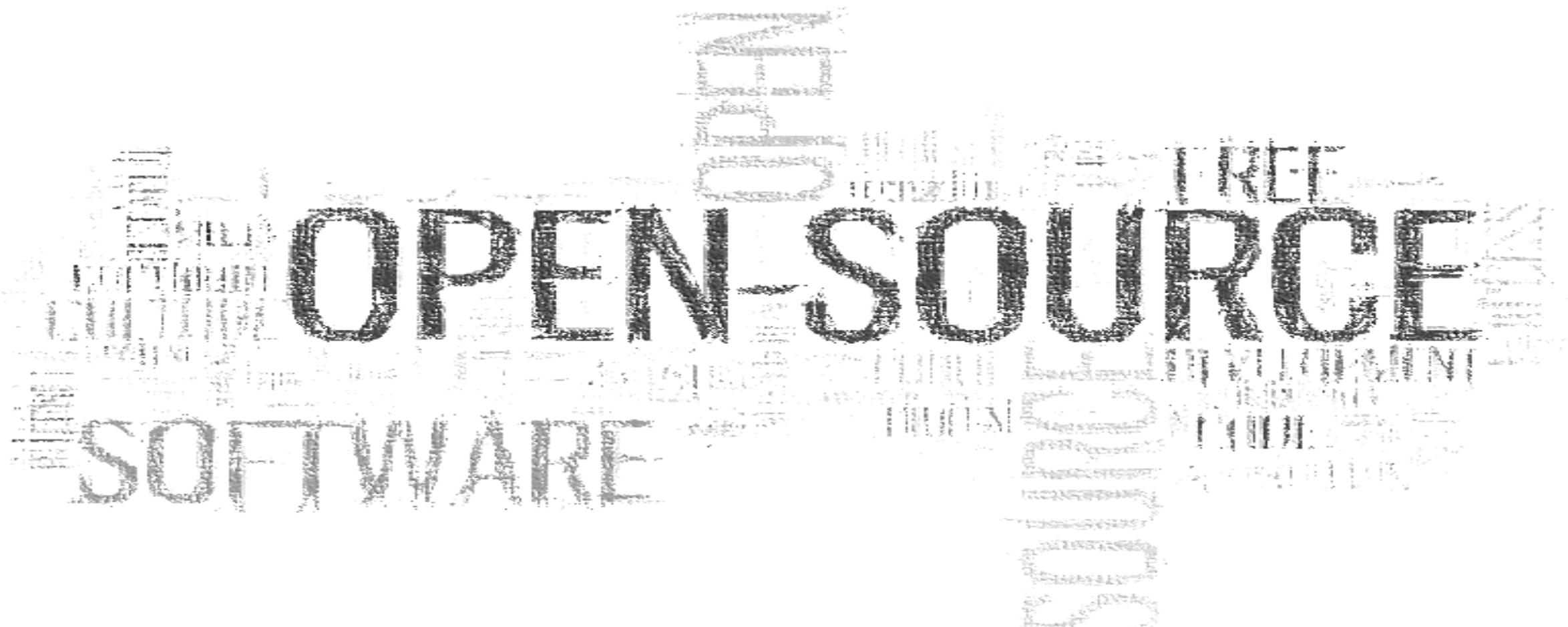


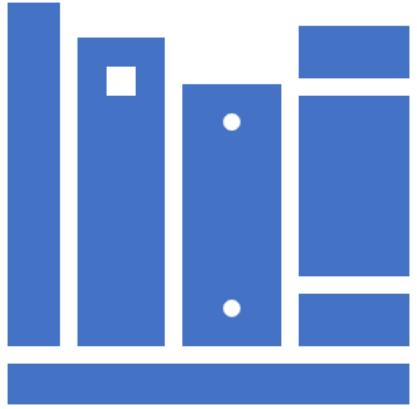
“The Machine” *by HP*

Следващи теми:

Теми № 12: Отворени бизнес модели

Модул 3: „Бизнес развитие по отворен модел“





БЛАГОДАРЯ ЗА ВНИМАНИЕТО!

DASKALOV.HR@GMAIL.COM | WWW.DASKALOV.INFO